

## NEHRU COLLEGE OF EDUCATIONAL AND CHARITABLE TRUST

#### **CORPORATE OFFICE:**

Nehru College Campus, Kuniamuthur, Coimbatore - 641 008, Tamil Nadu, India Ph: 0422 - 2206148 E-mail : ngioffice@nehrucolleges.com Website : www.nehrucoollege.com

# **Detailed Project Report**

Submitted to UGC

For the Grant of Deemed to be University Status
under the Distinct Category (New Institution)

Sponsored by the Nehru Group of Institution Trust, Coimbatore (Tamil Nadu)

# P. K. Das Institute of Social Sciences, Health Sciences and Technology

Proposal for Deemed to be University under the Distinct Category
(New Institution)
2024



S. No.	Description		
1.	Introduction	03	
2.	About the Trust -Nehru College of Educational and Charitable Trust		
3.	The Constitution of Governing Body & its objectives	Body & its objectives 10	
4.	Concept of the Institution proposed to be Deemed to be University under Distinct Category	er Distinct 20	
5.	Vision, Mission and Core Values	39	
6.	Strength, Weaknesses, Opportunities, and challenges SWOC	46	
7.	Goals, Scope and Objectives of the Institution proposed to be Deemed to be University		
8.	Strategic Planning and Monitoring		
9.	Proposed Schools, Departments, Programs, annual Intake and Year of Starting		
10.	Guidelines of the NEP 2020, Strategic needs of the Country and SDGs of UN	ic needs of the Country and SDGs of UN 59	
11.	Distinctiveness of the proposed Deemed to be University	of the proposed Deemed to be University 72	
12.	Justification of the proposed Programs under Distinct Category		
13.	Identifiable Output and Outcomes of the Programs		
14.	University Authorities		
15.	Officers of the Deemed to be University	103	
16.	Fifteen years strategic Vision Plan and Five Year Rolling Implementation Plan	111	
16.1.	Academic Plan	111	
16.2.	Faculty Recruitment Plan	119	
16.3.	Student Admission Plan	125	
16.4.	Research Plan	127	
16.5	Campus Information and Communication Technology Plan	139	
16.6.	Infrastructure Development Plan	147	
16.7	Finance Plan 150		

S. No.	Description	
16.8	Human Resources & Other Requirement	
17.	Sample Scheme	
18.	National and International Collaboration	
19.	Existing Academic and Physical Infrastructure	
20.	Conclusion	
21.	Infrastructure details: Annexure - I	
22.	Scheme of curriculum for the proposed courses: Annexure - II	
23.	Audit report of NGI for previous 2 years: Annexure - III	
24.	Publications: Research Papers, Patents, Project grants: Annexure - IV	
25.	Institutions Achievements: Annexure - V	196
26.	NEP and its Implementation: Annexure - VI	

## 1. Introduction

Nehru Educational and Charitable Trust, established at an auspicious moment in the year 1968, with the primary objective of rendering selfless, dedicated, and yeomen service to the cause of Higher Education in the fields comprising of Aeronautical Engineering, Engineering Science & Technology, Management, Architecture, Law, Arts and Science, Nursing, Pharmacy, Paramedical and Medical sciences. The quantum of its educational service rendered to the poor underprivileged and downtrodden in the society is freely accessed and widely appreciated by the people, especially from Tamil Nadu and Kerala. Over the period of nearly five decades, it has established and patronized a number of prestigious Educational Institutions, all of which have grown to the stature of being accredited by NBA and NAAC, Certified by International Certification ISO 9001:2000. The Trust headquartered at Coimbatore has spread its wings to the neighboring Kerala State too by establishing Educational Institutions of high reputation.

Nehru Group of Institutions (NGI), has been actively involved in education for over five decades. NGI has 24 institutions offering different programs. Most of our institutions are accredited with A and A+ Grade by NAAC, Ranked within 150 band-width by NIRF. Excellent Band in ARIIA Ranking of AICTE-IIC of MOE Government of India.

#### **Institutions in Tamil Nadu: 12**

S. No.	Name of the Institution	Year of Establishment
1	Nehru College of Aeronautics and Applied Sciences	1968
2	Nehru College of Management	1996
3	Nehru Arts and Science College	1998
4	Nehru Institute of Engineering and Technology	2006
5	Nehru Institute of Information Technology and Management	2006
6	Nehru Institute of Technology	2008
7	Nehru School of Architecture	2015
8	Nehru Kids Academy	2016
9	Nehru International School	2018
10	Nehru Institute of Health Sciences	2021
11	Nehru College of Physiotherapy	2022
12	Nehru College of Nursing and Research Institute	2022

#### Institutions in Kerala – 12

S. No.	Name of the Institution	Year of Establishment
1	Nehru College of Engineering and Research Centre, Thrissur	2002
2	Nehru College of Pharmacy, Thrissur	2003
3	Nehru School of Management, Thrissur	2004
4	Jawaharlal College of Engineering & Technology, Palakkad	2012
5	Jawaharlal Business School, Palakkad 2009	
6	Jawaharlal Aviation Institute, Palakkad 2010	
7	P K Das Institute of Medical Sciences, Palakkad 2014	
8	P K Das College of Nursing, Palakkad	2006
9	Nehru College of Architecture, Palakkad	2015
10	Nehru Academy of Law, Palakkad	2015
11	Nehru College of Arts & Science, Palakkad 2022	
12	Nehru Knowledge Academy, Palakkad 2022	

## Nehru College of Aeronautics & Applied Sciences (NCA&AS)

- ➤ Nehru College of Aeronautics and Applied Sciences is a collaborative institution of Alagappa University, Karaikudi and Lincoln University College, Malaysia
- > It is offering Undergraduate and Postgraduate programs to aspirants for the Aviation Industry
- ➤ This college also takes up pride of being recognized by the Directorate General of Civil Aviation (DGCA) for the Aircraft Maintenance Engineering program.



## **Nehru Arts and Science College (NASC)**

Nehru Arts and Science College (NASC), Autonomous is one of the renowned Colleges in Tamil Nadu. The College is Affiliated to Bharathiar University, recognized by UGC with 2(f) & 12-B Status and Accredited with "A+" Grade (CGPA 3.50) by NAAC. ISO 9001:2015 & 14001:2004 Certified Institution is considered under STAR College Scheme by DBT, Government of India



- ➤ The College has done a remarkable contribution in higher education catering to the needs of the people in all walks of society by offering quality education for 3500 students. It offers 10 Research, 07 Post Graduate and 25 Under Graduate Programmes in Arts, Life Science, Computational, Creative Sciences, Commerce and Management streams.
- ➤ The College is considered as a Nodal Centre for Spoken Tutorial of IIT Bombay, recognized as a Study Centre of TNOU, recognized as a Mentoring Institution by the Mahatma Gandhi National Council of Rural Education (MGNCRE) Ministry of India, in implementing SWATCHTHA action plan
- ➤ Secured "Band Performer" in ARIIA Ranking in 2021. Seven Departments of the College has been Ranked by India Today and Week in the Top 100 Colleges in India. During 2022 we were placed in the Top 200 Colleges in NIRF and have achieved a 3.5 Star Rating by Institution Innovation Council.

## **Nehru Institute of Engineering and Technology (NIET)**

Nehru Institute of Engineering and Technology (NIET), Autonomous, is one of the renowned Engineering Institute in Tamil Nadu. The College is Affiliated to Anna University, recognized by UGC with 2(f) & 12-B status and accredited with "A+" Grade (CGPA 3.33) by NAAC.



## **Nehru Institute of Technology (NIT)**

➤ Nehru Institute of Technology (**Autonomous**) accredited by **NAAC** with an **A**+ **grade**, Recognized by UGC Under Section 2(f).



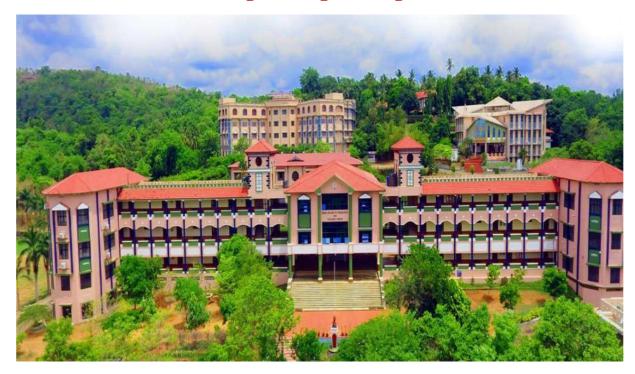
➤ It has well-equipped labs, workshops and libraries to help students in conquer the highest standards in Academic, Research and Leadership Skills

## **Nehru Institute of Health Sciences (NIHS)**

- Nehru Institute of Health Sciences (NIHS), a distinguished institution of higher learning, epitomizes excellence in healthcare education through its multifaceted approach to nurturing aspiring professionals in the medical domain.
- > NIHS reflects its visionary commitment to advancing healthcare education.



**Nehru College of Engineering & Research Centre** 



## Jawaharlal College of Engineering and Technology



## 2. Nehru Educational and Charitable Trust

The Trust was headed by Late Shri. P. K. Das, F.I.E., F.I. Mech. E., M.S. Engg., A.F.R.Ae.S. (London), C.Eng., Managing Trustee & Founder Chairman, who was a well-known educationist with rich experience in meticulously planning in establishing and administering educational institutions. He was a great industrialist with an overwhelming spirit of entrepreneurship and excellent business acumen who was a philanthropist with utmost care and concern for the fellow human beings.

Nehru Educational and Charitable Trust stands as a testament to the power of education and the impact it can have on individuals and society. With a legacy of Excellence in Education and a commitment to charitable endeavors, the Institutions under this trust continue to be a dynamic force in shaping the future of India.

## 3. The Constitution of Governing Body & its Objectives

The Sponsoring Body of Nehru Group of Institutions (NGI) is created to define various functions and powers to provide better liability and flexibility in the daily operations of NGI.

#### **The List of Governing Body Members:**

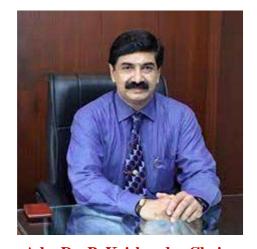
S. No.	Name of the members	Position
1.	Late. Sri. P. K. Das	Founder Chairman
2.	Adv. Dr. P. Krishnadas	Chairman & Managing Trustee
3.	Dr. P. Krishnakumar	CEO & Secretary
4.	Dr. P. Thulasi	Trustee
5.	Mrs. Sumitha Krishnadas	Member
6.	Dr. Chaithanya Krishnakumar	Member
7.	Dr. Krishnakumar	Member
8.	Dr. H. N. Nagaraja	Member
9.	Dr. V. Ramachandra	Member (External Member Educationist)
10.	Dr. T. Shekhar	Member (External Member University Representative)
11.	Dr. Mohammed Sohail	Member (Industrialist)
12.	Dr. Radhakrishnan	Member
13.	Mr. Chandran	Member
14.	Dr. Anirudhan	Member Secretary



Founder Chairman, NGI



Late P. K. Das



and Managing Trustee, NGI

- ❖ Late P. K. Das established the Nehru Educational and Charitable Trust in the year 1968 at Coimbatore
- ❖ Being a person of strong vision, foresight, indomitable spirit, dedication and perseverance, he pioneered the concept of technical and professional education in private sector.
- ❖ He was committed to the cause of the poor and the downtrodden and was instrumental in imparting technical and professional education to the underprivileged.
- ❖ He offered free education, scholarships and awards to the backward class and medical treatment to the poor and needy.
- ❖ His lofty ideas on education, charity and his meticulous work culture are still keenly observed and practiced in all Nehru Group Institutions.
- ❖ Dr. P. Krishnadas as the Chairman and Managing Trustee involves in strategic planning which includes setting longterm goals for the institution, formulating policies, and ensuring that NGI stays abreast of the latest trends and developments in the education sector
- ❖ His role in governance extends to collaborating with the Board of Governors to provide oversight and guidance.
- He has been involved in initiatives aimed at academic excellence, faculty development, and research promotion within NGI.
- Adv. Dr. P. Krishnadas Chairman As a leader in the field of education, he has also focused on building strong industry linkages. Collaboration with industries helps in aligning academic programs with realworld needs, facilitating internships and placements for students, and fostering research partnerships.



Dr. P. Krishnakumar CEO and Secretary, NGI



Dr. P. Thulasi
(Obstetrician & Gynecologist)
Trustee, NGI

- Dr. P. Krishnakumar has assumed pivotal leadership roles, reflecting his capacity to navigate the complex landscape of educational administration
- Whether as an administrator, CEO, or in other capacities, his leadership has been instrumental in shaping the vision and mission of the institutions under his purview.
- ❖ As the Chief Executive Officer (CEO) and Secretary at Nehru Group of Institutions (NGI), Dr. P. Krishnakumar plays a crucial role in steering the institution towards academic excellence and innovation.
- His leadership is marked by his strategic approach, focusing on long-term goals and fostering an environment conducive to learning and growth.
- With a deep commitment to academic excellence, he has championed initiatives that enhance the quality of education at NGI.
- ❖ Dr. P. Thulasi has made notable contributions to the realm of research. Between 2000 and 2003, she engaged in significant collaborative research on Vaginal Birth after Caesarian Section, co-authoring with Prof. B.C. Naik.
- She has served as an Assistant Professor in the Obstetrics and Gynecology department at St. Joseph's Hospital, Chondral. Her tenure at Amala Institute of Medical Sciences, Thrissur, further solidified her reputation as a dedicated educator.
- ❖ Presently, she holds the esteemed position of Honorary Trustee of the Nehru Group of Institutions and Concurrently, she serves as a Professor in the Department of Obstetrics and Gynecology at P.K. Das Institute of Medical Sciences (PKDIMS). This dual role exemplifies her multifaceted commitment and her passion for education and healthcare.

## **Objectives:**

The aims and objectives of an educational trust typically reflect its mission and vision for contributing to the field of education. Our trust aims to promote education by providing accessible and quality education to individuals, irrespective of Socio-Economic backgrounds. The trust implements policies and practices that promote equal opportunities for all.

- ❖ It aims to instill ethical and moral values in students, focusing on character development and the holistic growth of individuals
- The main objective of the Trust is to encourage and support research initiatives in various academic disciplines by promoting a culture of innovation and creativity among students and faculty
- The trust is also keen in establishing strong ties with local communities and addressing their educational needs by engaging in Community Development Projects and Outreach Programs.
- The trust implements and maintains high academic standards by seeking and maintaining accreditations from relevant educational authorities. Integrating principles of sustainability into educational practices by promoting awareness of Environmental issues and Citizenship responsibilities is the aim of all the Institutions under the trust.
- ❖ It is the core objective of the trust to preserve and promote our Culture, Traditions, and Heritage. The trust promotes Digital Literacy and prepares students for the technology-driven future.

These aims and objectives collectively contribute to the overarching goal of **Trust** in fostering a positive and impactful educational experience for students and facilitating positive societal change.

## **Key Responsibilities of Management:**

The key responsibilities of management encompass a broad spectrum of activities aimed at achieving organizational goals, fostering a positive work environment, and ensuring overall operational efficiency. Here are some fundamental responsibilities that are typically associated with management roles:

#### **Strategic Management**

- > Strategic management is a comprehensive and dynamic process that involves the formulation, implementation, and evaluation of long-term objectives and initiatives to achieve Organisational goals
- ➤ It is a crucial aspect of Organisational leadership, providing a roadmap for decision-making, resource allocation, and adaptability in a rapidly changing business environment
- ➤ The core of Strategic Management is the Development of a clear and compelling Vision and Mission for the Organisation. The Vision outlines the desired future state, providing direction and purpose, while the Mission defines the organisation's reason for existence, its values, and its primary objectives.
- ➤ Strategies may focus on Market Positioning, Innovation, Cost Leadership, Diversification, Partnerships, and other avenues that align with Organisational goals
- ➤ Effective strategy implementation is a critical step in strategic management. It involves translating strategic plans into action, allocating resources, and aligning the Organisation's Structure, Processes, and Culture with the chosen strategies.

#### **Organisational Management**

- Organisational Management is a multifaceted discipline that encompasses the coordination, direction, and optimization of resources to achieve predetermined objectives within an entity
- ➤ Effective organisational management involves a strategic integration of people, processes, and technologies to navigate the complexities of today's dynamic Business Environment
- ➤ Efficient resource allocation is critical, encompassing financial, human, and technological assets, with an emphasis on optimising performance and achieving operational excellence.
- ➤ Human resource management within the organisational context involves recruitment, training, and development, ensuring that a skilled and motivated workforce is equipped to meet the challenges of the ever-evolving marketplace.

#### **Governance of Nehru Group of Institution:**

- Group of Institutions (NGI) under the dynamic leadership of our Honorable Chairman and Managing Trustee, Adv. Dr. P. Krishnadas and CEO & Secretary Dr. P. Krishnakumar represents a harmonious blend of vision, strategic acumen, and a steadfast commitment to the success of the Institutions under the umbrella of NGI
- ➤ Their governance spans diverse dimensions, from financial oversight to academic leadership and stakeholder engagement. In the realm of financial governance, they ensure the Institution's fiscal health and sustainability, meticulously overseeing budgetary allocations, resource management, and strategic financial decision-making.
- ➤ Their leadership extends to setting organisational goals that align with emerging trends in education and positioning NGI as an innovative and forward-thinking educational hub.
- Our dynamic leader's governance in Academic Affairs involves overseeing Academic Programs, Faculty Development, and Curriculum Enhancement. They ensure that NGI maintains a cutting-edge Educational environment, nurturing a culture of Research and Innovation.
- Our Management's commitment to technological integration is reflected in a robust tech-enabled environment that prepares students for the demands of the digital age. Their administrative powers include overseeing high-speed Internet connectivity, Smart Classrooms, and e-learning resources, creating a seamless integration of technology into the teaching and learning process.
- The inclusion of a 1250-bed super-specialty hospital aligns with NGI's commitment to healthcare and well-being, providing practical training opportunities for medical and healthcare-related disciplines. This strategic leadership extends to transportation and residential facilities, ensuring smooth commutation and comfortable hostel accommodations for students.
- ➤ To conclude, our Management's governance forms a comprehensive framework that guides NGI through the intricate landscape of education.

#### **Infrastructure Development Plan:**

- ➤ The Infrastructure Development Plan of Nehru Group of Institutions (NGI) is a comprehensive and forward-thinking blueprint designed for steering the success of the Institutions. Spanning a multitude of campuses and educational entities under the NGI umbrella, the plan encompasses physical, technological, and research infrastructure, reflecting a commitment to providing students and faculty with cutting-edge facilities that facilitate a world-class learning experience.
- ➤ The construction and expansion of Classrooms, Laboratories, and Lecture halls are prioritised, ensuring that students have access to modern and well-equipped spaces that enhance their learning journey.
- Specialised facilities, such as Science and Engineering Laboratories, Art Studios, and Research Centers, are integrated into the plan to support discipline- specific needs and raise a culture of inquiry and exploration.
- ➤ NGI recognises the transformative role of technology in education and has included a robust technological infrastructure development component in its plan. High-speed internet connectivity, smart classrooms, and e-learning resources are integral aspects of the plan, facilitating a seamless integration of technology into the teaching and learning process. Emphasis is placed on creating a tech-enabled environment that prepares students for the demands of the digital age and nurtures a culture of innovation and adaptability.
- ➤ The addition of cutting-edge equipment and facilities, including aircraft and aeronautical laboratories, is designed to enhance the practical training of students pursuing aeronautical engineering.
- ➤ The inclusion of a variety of aircraft such as King Air C90, Beach Aircraft, Learjet 25B, Cessna 150 & 152, Hawker 125, Ercoupe, Bell, and Enstrom F28 helicopters demonstrates NGI's commitment
- to providing students with hands-on experience in aeronautical engineering. NGI's infrastructure development plan also addresses transportation and residential facilities. With a fleet of more than 150 buses, NGI ensures the smooth commutation of students across parts of Kerala and Tamil Nadu.
- Comfortable and affordable hostel facilities, designed to accommodate over 5000 students, are integral to the plan, providing a home away from home and fostering a supportive living and learning environment.

- As a testament to NGI's commitment to research and innovation, the plan includes the establishment of a **New Gen IEDC** (**Innovation and Entrepreneurship Development Center**) supported by **DST** (Department of Science and Technology), Government of India.
- ➤ With funds received amounting to 15 Crores for NGI TBI (Technology Business Incubation) and 5 Crores for NGI New Gen IEDC, the institution is well-positioned to implement and sustain its infrastructure development endeavors.

#### **Quest for Excellence:**

- The Quest for Excellence embarked upon by the Nehru Group of Institutions (NGI) is deeply rooted in the visionary dream of its founder, a dream that encompasses the promotion of Higher Education and the recognition of outstanding contributions by Indian teachers.
- ➤ This vision has materialised into a commendable reality through the annual organisation of the **P K Das Best Faculty and Life-Time Achievement Awards**, a tradition that has endured for the past 15 years. The significance of these awards is amplified by the choice of date **15th December**, a poignant commemoration of the Birth Anniversary of the esteemed Founder, Late P K Das.
- ➤ In tandem with the celebration of excellence in Higher Education, NGI has instituted the **Best Teacher Award & Life Time Achievement Award**, a distinct recognition for School Teachers in both Kerala and Tamil Nadu states. This extension of recognition to school teachers is an acknowledgment of the interconnectedness of the educational ecosystem.
- ➤ NGI organises the **Women Excellence Award**, an initiative that transcends geographical boundaries to salute, motivate, and respect women not only within the institution but from across the entire world. This global perspective reflects NGI's commitment to diversity, inclusivity, and the recognition of the invaluable contributions of women in various fields.

#### **Society Connect:**

- Community engagement by educational Institutions refers to the collaborative and mutually beneficial partnerships between the institution and the local community.
- ➤ It involves actively involving the institution, its students, faculty, and staff in various activities and initiatives that address community needs, contribute to societal development, and promote positive social change.

- ➤ At NGI we take utmost care for this by Integrating service-learning into the curriculum allowing students to apply academic knowledge and skills to address community issues.
- Centre for Skill Development and Centre for Rural Development are working on a phase to bridge the gap between Society and the Institution. Students and Faculties engage in initiatives that promote environmental sustainability, such as tree planting, waste reduction, or environmental education programs, which contribute to the overall well-being of the community.
- ➤ We offer health and wellness programs, such as free health clinics, fitness classes, or awareness campaigns, to address community health needs and promote a healthier lifestyle.
- ➤ We have trained Women in making homemade products for sale. NGI's **Amutha Surabhi** project was initiated on 15.12.2013 as part of our **Founders' Day** Birth anniversary of our Founder Chairman **Late P. K. Das.**
- ➤ The Project "Amutha Surabhi" provides three meals Breakfast, Lunch, and Dinner for selected 29 needy people who are Aged, Physically and mentally challenged, and economically backward in the Thirumalayampalayam Village for their lifetime.
- ➤ Nehru **Dream Home** project was initiated during 2012 to support destitute Senior Citizens with a home, to mark the birth anniversary celebration of Jawaharlal Nehru. One home per year aims to provide shelter for needy people.

#### **Growth of NGI**

- ➤ In the realm of Education, the past five decades have witnessed a remarkable journey marked by continuous growth and innovation.
- ➤ With a sprawling total built-up area exceeding 35 lakhs sq.ft., this educational hub is home to over **24 reputable Institutions** and boasts a Super Specialty Hospital.
- ➤ The Institution holds several accolades, including ISO certification and recognition by esteemed regulatory bodies such as UGC, AICTE, MCI, BCI, DGCA, COA, PCI, INC, DME, and DET. Moreover, it has garnered accreditation from NAAC and NBA.
- ➤ The Institution acknowledges and rewards excellence through the **Best Faculty Award** for college teachers and the **Best Teacher Award** for school teachers across the Nation. This is being practiced since 15 glorious years.

➤ Nehru Corporate Placement & Industrial Relations (NCPIR) plays a crucial role in extending the resources of the institution by providing professional development and personal enrichment opportunities.

#### **Scholarships offered by NGI:**

- Nurturing and recognizing academic talent, the **NGI Scholarships** is a testament to its commitment to providing opportunities for meritorious students.
- The Nehru Vigyan Scholarship, a flagship initiative, is awarded to deserving students through the NGI Entrance Exam. And there are various schemes like
  - **Ex-Servicemen Scholarship**
  - **Single Parent Scholarship**
  - **Single Girl Child Scholarship**
  - **\*** The Sibling Scholarship

## 4. Concept of the proposed DTBU under Distinct Category

Nehru Educational and Charitable Trust, established in the year 1968, by Late P.K. Das, a well-known philanthropist & an educationist, with its initial campus in Kuniyamuthur, currently has 24 esteemed educational institutions under its umbrella. The Institutions of the trust provide state-of- the- art facilities for undertaking research and education in various disciplines and are widely accepted and appreciated by various Statutory Bodies. The Institutions managed by the trust have A+ grades in NAAC, ISO Certifications, Green Campuses and are affiliated with top universities. The campuses of the Trust are spread over 150 acres of Land with 35 lakh square feet of buildings across the state of Kerala and Tamil Nādu. The trust has more than 1500+ teaching faculty members and 800+ non-teaching staff with wide experience in research, teaching, and administration. The institution has many patents registered by its teaching faculties and students. The Government of India's recent policy decisions have led to considerable progress in the area of multidisciplinary education and research, prompting us to present a proposal for a multidisciplinary educational and research institute named as P. K. DAS Institute of Social Sciences, Health Sciences and Technology (Deemed-to-be University) Under Distinct Category which is an integrative, cross-disciplinary approach in designing and implementing the NEP 2020

The proposed university embrace a multidisciplinary approach, strategically designed to bridge gaps between distinct areas of study and by analyzing the demands of industries and society. This approach aims to cultivate well-rounded professionals with a unique blend of academic expertise, Indian ethical values, and a global outlook. The introduction of a diverse array of programs is strategically aligned to create a multidisciplinary academic environment. This strategic academy diversity goes beyond traditional disciplinary boundaries, offering students a holistic educational experience. This approach ensures that students gain exposure to a wide spectrum of knowledge, fostering a comprehensive understanding of their chosen fields.

The proposed programs are strategically introduced to align with the National Educational Policy with Current and future demands of various industries. This alignment ensures that graduates are equipped with the skills and knowledge, necessary for success in dynamic professional landscapes. By directly addressing industry expectations, the programs enhance the employability and competitiveness of graduates. Aim to foster creativity and artistic expression within a dynamic learning environment, preparing students for diverse career paths. This comprehensive approach extends to exploring interdisciplinary perspectives in Environmental Health, Integrated Medicine, and Ethical Animal care, Technology and Social Science

contributing to comprehensive public well-being.

The Proposed University promotes flexibility in choosing Courses and Programs, allowing students to pursue multidisciplinary approaches, international collaboration and partnerships, fostering global exposure for students and faculty. Students can seamlessly pursue Programs across various disciplines. Proposed University will also implement Indian knowledge system into the curriculum providing wide scope for the critical and creative thinking curriculum to the students. The proposed Programs integrates Distinct education with mainstream education, aligning with global trends that recognize the importance of practical skills alongside theoretical knowledge.

This application to establish **P. K. DAS Institute of Social Sciences, Health Sciences and Technology (Deemed-to-be University) Under Distinct Category)** emerges from a profound recognition of the evolving landscape of education, as exemplified in NEP 2020 and the imperative to address the unique challenges and opportunities that India faces. Our rationale is built upon the following pillars:

#### 1. Academic Expansion

The Proposed academic expansion of Institutions into P. K. DAS Institute of Social Sciences, Health Sciences and Technology (Deemed-to-be University) Under Distinct Category, reflects a strategic vision for comprehensive growth. This transformative step aims to offer a diverse range of academic programs, spanning undergraduate, postgraduate, and potential doctoral levels, thereby attracting a broader and more diverse student base.

#### Undergraduate Programme Portfolio Enhancement:

- The addition of innovative undergraduate programs, significantly broadens the institution's academic portfolio. These additions not only foster creativity but also encourage cultural exploration among students
- ❖ Complementing these undergraduate offerings, the introduction of the postgraduate level provides avenues for advanced study and research in the Arts, contributing to the institution's commitment to excellence in creative disciplines

#### Cutting- Edge Research and Innovation

The academic expansion includes a substantial augmentation of Ph.D. programs, encompassing diverse disciplines. This deliberate inclusion demonstrates the institution's unwavering commitment to cutting-edge research and innovation. A few domains which focusses are









Artificial Intelligence

Augmented Reality & Virtual Reality

Health care and Health Sciences

Internet of Things (IoT)







Robotics

Semiconductors

Sustainable Technology

#### **Addressing Contemporary Challenges**

- Humanity faces numerous environmental, social, and economic challenges in diverse contexts related to climate change, deforestation, water and food security, poverty, gender inequality in education, terrorism, human trafficking, fostering ethical market economies, global health, and fighting new as well as re-emerging diseases.
- Furthermore, these challenges are impacted by the rapid pace at which digitalization and technological developments have been taking place over the last 20 years.
- ♦ Doctoral programs in Commerce & Management specifically address contemporary challenges in business and organizational management, aligning with the evolving landscape of industry demands.
- This strategic move positions the institution as a hub for research and expertise in crucial areas of commerce and management.

#### Industry relevant offerings

- ♦ In response to industry demands, the academic expansion introduces new offerings such as
  - ✓ B. Sc. Artificial Intelligence and Machine Learning
  - ✓ B. Sc. Cardiovascular Technology
  - ✓ B. Sc. Medical Laboratory Technology
  - ✓ B. Sc. Physician Assistant
  - ✓ B. Sc. Radiology and Imaging Technology
  - ✓ B. Sc. Renal Dialysis Technology

- ✓ B. Tech. Agricultural and Biological Engineering
- ✓ B. Tech. Artificial Intelligence and Medical Imaging
- ✓ B. Tech. Avionics and Drone Engineering
- ✓ B. Tech. Food Science and Technology
- ✓ B. Tech. Forensic Science and Digital Criminology
- ✓ B. Tech. Forensic Science
- ✓ BBA Logistics
- ✓ BCA Business Analytics
- These programs not only cater to the current needs of industries but also prepare students for emerging trends, enhancing the institution's global competitiveness.

#### Diversity Promotion and Global Standards

- Overall, this strategic academic expansion is poised to promote diversity within the student body and elevate the institution's global competitiveness.
- ❖ By incorporating a comprehensive spectrum of academic disciplines, the university is strategically positioning itself as a Distinct University with strengths not only in social sciences but also in technology and the arts.
- This transformative journey underscores a commitment to excellence, research, and innovation, fostering an academic environment that is dynamic, inclusive, and globally recognized.

#### 2. Research Expansion: Nurture a Robust culture of enquiry

The elevation to Deemed-to-be University status is a catalyst for the institution's dynamic research expansion. This transformative journey is marked by the establishment of dedicated Research Centers, strategically designed to attract Research Scholars and faculty, fostering an atmosphere conducive to interdisciplinary research collaboration.

#### Access to Enhanced Funding Opportunities

The newly acquired university status opens doors to increased funding opportunities, including government grants and industry partnerships. This financial empowerment propels faculty members to embark on ambitious research projects, pushing the boundaries of knowledge and innovation.

❖ Faculty Members of NGI received Research funds from the various Funding Agencies and planned to submit more Research Proposals for seeking fund to develop various Products which are very useful to Society to make People Life very comfortable. A few funding agencies for getting funds are:



#### Commitment to Advanced Research

- Researcher Life evolved from our deep study of the needs of Research Experiences to develop useful Products and contributions to Society. Our Institute creates platform to build on the experience, and expertise.
- The introduction of Ph. D. programs underscores the institution's steadfast commitment to advancing research endeavors.
- These programs provide a structured platform for mentoring doctoral students, nurturing the next generation of researchers and scholars.

#### Faculty Incentive Programs

- Incentive programs, such as research grants, sabbaticals, and recognition for outstanding contributions, actively encourage faculty engagement in research activities.
- These initiatives recognize and reward the dedication and excellence displayed by faculty members in their research pursuits.
- Faculty Members are eligible for the following Incentives/ Financial Benefits:
  - Funded R&D Projects from the Government/ Industry
  - Consultancy/ Testing Projects from the Government/ Industry/ NGO
  - Organizing funded Seminars/ Conferences/ Workshops/ STTP/ others
  - Research Publications, Book Publications and Patents
  - Attending Seminars/ Conferences / Workshops

#### **Promoting Collaboration**

- The purpose of this is to propose a framework to improve the effectiveness of Institute University–Industry collaboration (IUIC). This work enhances the existing research work of literature, knowledge and skill and offers concrete steps to be taken for effective research between universities and industries.
- University status facilitates collaboration both within and beyond the institution, creating a rich tapestry of cross-disciplinary research environments.
- These collaborations extend globally, with the institution engaging in partnerships with research institutions worldwide. This global perspective enriches research initiatives and enables participation in cutting-edge projects.
- Research Collaboration is planned as follows
  - ✓ First, it underlines key barriers facing academics in undertaking research
  - ✓ Second, it demonstrates why research collaboration helps to drive research output and enrich research cultures
  - ✓ Third, it offers valuable insights into technological and social initiatives supporting research collaborations

#### Investments in Research Infrastructure

- Strategic investments in research infrastructure, including state-of-the-art laboratories and cutting-edge technology, significantly enhance the institution's research capabilities.
- These resources empower researchers to conduct experiments and investigations at the forefront of their respective fields.
- The institution actively supports faculty in publishing and presenting their research findings, contributing to increased academic visibility.
- This emphasis on disseminating research outcomes ensures that the institution's contributions are recognized and acknowledged within the academic community.
- Nosting research symposia and conferences becomes a cornerstone of knowledge exchange. These platforms bring together experts, researchers, and scholars to share insights, discuss findings, and pave the way for collaborative endeavors.

#### Clear Research Policies

- Clear institutional research policies underpin the entire research ecosystem, ensuring ethical practices and recognizing research achievements. These policies provide a framework that upholds the integrity of research activities and aligns with the highest standards of ethical conduct.
- ❖ Collectively, these strategic initiatives create an environment conducive to research excellence, positioning the institution as a dynamic hub for advancements across various academic fields.

#### 3. Innovation and Interdisciplinary Synergy: Unlocking Boundless Potential

The conferred University status brings with it the agility to embrace interdisciplinary programs and collaborative research, fostering innovation and confronting contemporary challenges through a multi-disciplinary approach. This flexibility equips students, scholars, and teachers to confront intricate challenges that demand insights from diverse disciplines. University status prepares the academic community to tackle complex challenges by instilling a mindset that values insights from multiple disciplines. This readiness enables a holistic approach to problem-solving and equips individuals with a comprehensive skill set.

#### Synergy between Innovation and IPR and Entrepreneurial Atmosphere

- Recognizing the interplay between innovation and intellectual property rights (IPR), the institution actively encourages research in interdisciplinary and multi-disciplinary domains.
- This strategic focus not only contributes to increased publications but also paves the way for patent grants. The symbiotic relationship between innovation and IPR enhances the academic atmosphere, fostering a culture of entrepreneurship.
- Innovative research outcomes lead to the development of novel processes and products, creating an entrepreneurial atmosphere within the academic realm.
- This atmosphere is further enriched by the presence of a DBT-supported Technology Business Incubation facility on campus. This incubator serves as a catalyst, propelling the momentum of start-ups initiated by students, researchers, and faculty.

#### Momentum in Start-Up Initiatives

Under the prominence of University status, start-ups initiated by students, researchers, and faculty members gain significant momentum.

- The academic community benefits from the resources and support provided by the Technology Business Incubation facility, fostering a conducive environment for the growth of entrepreneurial ventures.
- Collectively, these strategic initiatives underpin the institution's commitment to innovation and interdisciplinary collaboration, leveraging the opportunities presented by University status to unlock boundless potential and contribute meaningfully to the academic and entrepreneurial landscape.

#### 4. Global Competitiveness: A Legacy of Excellence and Innovation

For over 55 years, the Nehru Group of Institutions has carved a legacy of excellence in education, marked by a rich tapestry of social connectivity, inclusive student engagement, remarkable placement records, and abundant entrepreneurial opportunities. This profound legacy forms the foundation of the institution's commitment to global competitiveness.

#### Global Alumni Network and International Collaborations

- With a widespread alumni network spanning the globe, including Alumni Chapters in various parts of the country and the world, the institution boasts a powerful and extensive alumni backup.
- This network serves as a testament to the institution's enduring impact on individuals who have gone on to make significant contributions in diverse fields.
- Strategic Memoranda of Understanding (MoUs) with different universities abroad underscore the institution's dedication to global engagement. These agreements encompass student exchange programs, faculty collaborations, and joint research initiatives.
- Insights gained from alumni, experiences in countries visited, and academic collaborations contribute to the institution's global competency. These interactions not only enrich the academic environment but also provide a valuable perspective that aligns with the innovative academic initiatives of the National Education Policy (NEP) in India and current international standards of education, ranking, and accreditation.
- The envisioned upgrade will enable the institution to expand its facilities comprehensively, attracting a global community of students, researchers, and faculty members. This expansion aligns with the institution's commitment to offering a diverse array of programs that appeal to international students.

#### **Enhancing Global Competitiveness**

- The institution's elevation to university status positions it to enhance global competitiveness by fostering collaborative research projects, establishing joint degree programs, and forging partnerships with international universities. This strategic approach not only enriches the academic landscape but also strengthens the institution's global standing.
- In essence, the institution's journey toward global competitiveness is rooted in its legacy of excellence, dynamic international collaborations, and a forward-looking vision that aligns with global academic standards.

#### 5. Alignment with Industry Needs: Bridging Academia and Industry Dynamics

In response to the dynamic landscape of Industry 4.0 and the emerging challenges of Industry 5.0, the university embraces a multidisciplinary and trans-disciplinary approach to ensure its programs align seamlessly with the evolving needs of industries. Recognizing the paramount importance of multi-skilling students, the academic tenure becomes a fertile ground for cultivating versatile skills.

#### Strategic Industry Collaborations and Esteemed Industry Partnerships

- The university has strategically partnered with over 50 industries, fostering a symbiotic relationship through Memoranda of Understanding (MoUs).
- These collaborations extend beyond the conventional academic spectrum, encompassing the provision of Add-on Courses, acting as an Academic Partner, and jointly organizing conferences and seminars.
- The institution has solidified partnerships with industry giants such as Infosys, IBM, L&T, RED-HAT, and numerous others.
- These associations contribute to the development of professional and applied programs tailored to equip graduates with the exacting skills demanded by the contemporary workforce.
- The ongoing industrial revolution poses challenges that necessitate proactive responses from the academic community. The university, through its multidisciplinary and trans-disciplinary initiatives, addresses these challenges by preparing students to navigate the complexities of Industry 4.0 and anticipate the demands of Industry 5.0.

#### Dynamic Skill Development

- The emphasis on multi-skilling within the academic tenure signifies a commitment to producing graduates with a diverse skill set. This approach goes beyond traditional education, ensuring that students are not only well-versed in their respective disciplines but also possess practical, industry-relevant skills that make them valuable contributors to the workforce.
- In essence, the university's alignment with industry needs is not just a theoretical endeavor; it is a dynamic collaboration with the industrial ecosystem.
- Through strategic partnerships, a commitment to skill development, and an understanding of the challenges posed by evolving industries, the university positions itself as a hub for producing graduates ready to meet the demands of the ever-evolving professional landscape.

#### 6. Alumni Engagement and Financial Support: Cultivating Bonds Beyond Graduation

Alumni involvement stands as a cornerstone in the continual growth and prosperity of the institution, reaching far beyond the boundaries of graduation. The establishment of the Alumni Association, named Samagamam in 2005 and registered under the Registration of Societies Act 1860, reflects a commitment to enriching the lives of alumni and fostering a sense of community. The vision of the Alumni Association is rooted in 'emanating the Nehru spirit' and collaboratively working to create an ecosystem of light and prosperity.

#### Alumni Contributions across Verticals

- The alumni contribute substantially to the qualitative and quantitative development of the college. This commitment manifests through financial support in various forms, including donations, endowments, and fundraising efforts.
- These financial contributions play a pivotal role in funding scholarships, infrastructure development, research initiatives, and other critical projects that elevate the overall quality of the institution.
- The engagement with current students is multifaceted. Alumni regularly offer mentorship, share invaluable industry insights, and provide networking opportunities, facilitating a smoother academic and professional journey for the students.

- This connection with alumni as guest speakers, chief guests, or workshop facilitators injects real-world experiences and practical insights, enriching the academic environment and offering students valuable perspectives.
- Alumni serve as vital links between the institution and potential employers, actively participating in job placements, internships, and recruitment drives. Their ambassadorial role promotes the institution's achievements, values, and contributions, enhancing its profile and attracting prospective students.
- The alumni's sense of pride in their alma mater is evident in their active participation in events, celebrations, and activities that showcase the institution's successes.

#### Financial Endowment

The Alumni Association manages a substantial corpus of ₹ 20,00,000 in its account, further supporting the institution's initiatives and endeavors.

#### Facilities and Infrastructure Enhancement

- The transformation from a college or institute to a university involves a comprehensive strategy for facilities and infrastructure enhancement. This evolution signifies a commitment to expanding academic programs, research activities, and student populations.
- The institution boasts well-furnished classrooms equipped with modern teaching aids, LCD projectors, smart boards, and interactive panels to facilitate ICT-enabled teaching. Laboratories in various disciplines, including Computer Labs, Communication Lab, and Biotechnology Labs, are established with advanced tools to support research initiatives.

#### Library and Knowledge Fort

The P. K. Das Learning Resource Centre covers an extensive area with a rich collection of books, CDs, and e-contents, providing a conducive environment for learning. The P. K. Das Knowledge Fort, spanning 22,000 square feet, caters to the knowledge needs of students across three floors.

#### Technological Infrastructure

❖ A robust technological infrastructure supports ICT-enabled teaching and learning, including computers, smart boards, interactive panels, Wi-Fi routers, scanners, printers, firewalls, servers, and more. The institution's commitment to safety is

- evident through the installation of 103 CCTV cameras in various places.
- The campus features a multi-purpose auditorium, conference hall, seminar halls, board rooms, creative corner, and dedicated spaces for training and placement. Facilities like the Nehru Technology Business Incubation Centre and New-Gen IEDC support students' startup ideas, providing funds and mentoring.
- The institution prioritizes holistic development with indoor and outdoor sports facilities, hostel accommodations, guest houses, cafeterias, canteens, parking areas, communal eating spaces, general stores, and banking facilities.
- Strategically addressing these facets of facilities and infrastructure enhancement positions the institution for a seamless transition to university status, fostering an environment conducive to academic excellence, research innovation, and holistic development.

## 7. Strategic Augmentation of Facilities and Infrastructure: Paving the Path to University Status

The elevation of an institution to university status necessitates a comprehensive strategy for enhancing facilities and infrastructure. This transformative journey from a college or institute to a university not only signifies an expansion in academic programs, research initiatives, and student populations but also demands a meticulous approach to bolstering the learning environment.

#### Modernized Classrooms and Advanced Teaching Aids:

- The institution boasts well-furnished classrooms designed to offer an optimal learning environment. Adequate light sources, fans, and ventilation ensure a comfortable atmosphere.
- ❖ Each classroom is equipped with cutting-edge teaching aids, including LCD projectors, smart boards, and interactive panels. LAN connectivity facilitates ICT-enabled teaching methodologies, fostering interactive and effective learning experiences. Wi-Fi access points strategically placed on every floor enhance connectivity and support seamless learning interactions.

#### State-of-the-Art Laboratories across Disciplines

❖ A spectrum of state-of-the-art laboratories caters to various disciplines, providing advanced tools and instruments to support research initiatives. These

#### laboratories include

❖ Computer Labs, Communication Lab, Multimedia Laboratory, Photography Lab, Autography Lab, 4K Multiplex Theatre with a seating capacity of 150, Sewing Lab, Dyeing Lab, Restaurant, Kitchen, Front Office, Animal Tissue Culture Lab, Plant Tissue Culture Lab, Life Science Central Instrumentation Lab, Biotechnology Preparation Room, Fermentation Unit, DBT Star Central Instrumentation Lab, UG & PG Lab for Biotechnology and Microbiology, Biochemistry Lab, Food Science Lab, Food Processing and Quality Analysis Lab, and VISCOM Production Lab.

#### Digitalized Learning Resources: P K Das Learning Resource Centre

- The Central Library, known as P K Das Learning Resource Centre, spans 50,000 square feet and is equipped with Wi-Fi facilities. With a vast collection of over 92,904 Books, 6,526 CDs, and 500 e-contents, the library caters to diverse academic interests.
- The collection covers a wide range of topics, including Arts, History, Languages, Management, Engineering Sciences and Technology, Social Sciences. Facilities like a 300- user reading room, a reference wing, and a Civil Service Corner enhance the learning experience.
- The library is digitally connected with 15 computers facilitating access to online libraries and e-journals. Additionally, the P. K. Das Knowledge Fort, spread across 22,000 square feet and three floors, is dedicated to enriching the knowledge of NGI students.

#### Technological Infrastructure and ICT-Enabled Learning

The institution's technological infrastructure comprises 2,000 computers with configurations of I3 and I5 processors, supporting both faculty and student needs. Internet access with a speed of 1GBPS is provided to all computers. ICT-enabled teaching and learning are supported by 115 Smart Boards, 62 Interactive Panels, 20 Wi-Fi Routers, 12 Scanners, 62 Printers, 03 Firewalls, and 02 Servers. A RISO CV3230 Duplicator is installed in the COE Section. To ensure safety and security, 193 CCTV cameras are strategically fixed in various locations across the campus.

#### Versatile Campus Facilities

The institution is equipped with a Multi-Purpose Auditorium with a seating capacity of 2,500, a Conference Hall, 5 Seminar Halls, and 02 Board Rooms. The

- Creative Corner in the main building showcases the creative skills of students. The Nehru Corporate Placement and Industry Relations (NCP&IR), a Centre for Training and Placement, contains 05 Discussion Rooms, 06 Interview
- ❖ Cabins, Panel Rooms, and a Board Room for comprehensive student training. The NGI Technology Business Incubation Centre and New-Gen IEDC actively support students' startup ideas by providing funds and mentoring. The campus further features Indoor and Outdoor Sports Facilities, Hostel Facilities for Men and Women, Guest Houses, Cafeteria, Canteen, Parking Areas, Communal Eating Spaces, General Stores, and Banking Facilities.
- Strategically addressing these facets of facilities and infrastructure enhancement positions our institution for a seamless transition to university status, fostering a conducive environment for academic excellence, research innovation, and holistic development.

#### 8. Empowerment through Autonomy: Catalyst for University Progress

The conviction that autonomy and decision-making freedom are pivotal catalysts for the university's progression underscores our commitment to self-governance and independent choices in diverse operational aspects. Autonomy stands as a cornerstone, providing the institution with the agility to adapt to unique contexts, foster innovation, and cater to the diverse needs of students, faculty, and the community.

#### **Upholding Academic Freedom:**

- As an autonomous institution, we ardently uphold academic freedom, empowering faculty members to engage in research, teaching, and expression of ideas without undue external interference. This freedom extends to the flexibility to develop and modify the curriculum in response to evolving global educational needs, industry demands, and advancements in knowledge.
- Our autonomy is reflected in the ability to set admission criteria and policies that consider the local context and institutional objectives. This strategic autonomy ensures that the institution can align its academic offerings with the needs and aspirations of the community it serves.
- The establishment of a student Code of Conduct and Disciplinary Procedures exemplifies our commitment to responsible autonomy. This allows the institution to create an environment that fosters academic integrity, ethical behavior, and a sense of responsibility among its student body.

#### Strategic Human Resource Management

- Autonomy encompasses the authority to hire, promote, and manage faculty and staff. This ensures that the institution can attract and retain talented individuals who resonate with its mission and values. This strategic autonomy in human resource management is crucial for sustaining a vibrant academic community.
- Our autonomy serves as a catalyst for research and innovation, fostering a culture of intellectual inquiry and contributing to advancements in various fields. The freedom to engage in research initiatives allows the institution to make meaningful contributions to the academic and research landscape.
- Autonomy is indispensable for developing and implementing strategic plans that align seamlessly with the institution's mission and vision. This strategic planning capability enables the institution to respond effectively to changing educational landscapes, ensuring its continued relevance and impact.
- In essence, our journey towards university status is intricately linked with the empowerment derived from autonomy. It positions the institution to navigate dynamic challenges, innovate in education, and chart a course towards sustained excellence.

#### 9. Enriching Student Experience: A Spectrum of Opportunities

#### Expanding Horizons through International Experiences

As a university, the institution gains the capacity to offer a diverse array of co and extra-curricular activities, international exchange programs, and interdisciplinary initiatives. This ensures that students are exposed to a comprehensive educational experience, including projects and internships within the country and abroad.

#### Academic Exploration and Specialization

Universities provide students with a broader range of academic programs and courses, allowing them to explore diverse interests, specialize in specific fields, and build a robust educational foundation. The curriculum is designed to foster intellectual curiosity and critical thinking.

#### Immersive Research Opportunities

Abundant research opportunities are extended to students, enabling them to engage in research projects, collaborate closely with faculty members, and participate in innovation and research initiatives.

- These experiences contribute significantly to the advancement of knowledge.
- Internships and cooperative education programs connect students with real-world work experiences, aligning with their academic studies and providing valuable insights into their future careers. This practical exposure enhances their understanding of industry dynamics.

#### Extracurricular Diversity for Personal Growth

- Diverse extracurricular activities, including clubs, sports, cultural events, and leadership development programs, offer students opportunities for personal growth and social connections.
- Study abroad options enable students to experience different cultures, gain International perspectives, and broaden their horizons academically and personally. Exposure to global perspectives enriches their understanding of the world.
- Encouraging and supporting students in community engagement through volunteer work and service projects nurtures a sense of social responsibility and civic engagement. It instills values that extend beyond the classroom.

#### Career Development Resources

Universities provide comprehensive career development resources, including career counseling, resume workshops, entrepreneurial opportunities, and job fairs. Access to alumni networks and industry connections aids students in preparing for their future careers.

#### Entrepreneurship and Innovation Support

Programs designed to foster entrepreneurship and innovation provide students with resources and mentorship to explore and develop their business ideas. This encourages a proactive approach to innovation and enterprise.

#### Networking and Professional Development

Events, conferences, and networking sessions organized by universities connect students with professionals, alumni, and industry leaders. These opportunities facilitate valuable networking, setting the stage for future professional endeavors.

### Financial Support for Academic Pursuits

Opportunities for financial support, including scholarships, grants, and workstudy programs, ease the financial burden on students, allowing them to focus on their academic pursuits.

### Governance and Leadership Opportunities

- Students have the chance to learn about governance and leadership by taking active roles in various clubs, committees, associations, and statutory bodies. This involvement enhances their leadership skills.
- In essence, these diverse opportunities collectively contribute to a holistic educational experience, preparing students not just academically but also socially and professionally for the challenges and opportunities that lie ahead.
- In the spirit of nation-building and with a steadfast commitment to excellence, we embark on this journey to establish P.K. Das Institute of Social Sciences, Health Sciences and Technology (Deemed to be University). It will be as a transformative force that will contribute to shaping the future of science, technology education and research, and societal progress of India and its status of 'Vishwaguru' to the World.

The Following are the list of Programme for the Proposed Deemed-to-be University Under Distinct Category.

# **School of Social Sciences**

#### **UG Programmes (Honors)**

- 1. BBA Aviation Management
- 2. BCA Business Analytics
- 3. B. Sc. Biotechnology with Gene Therapy
- 4. B. Sc. Visual Communication Electronic Media
- 5. B. A. Performing Arts
- 6. B. Sc. Indology
- 7. B. Sc. Environmental Health

#### **PG Programmes**

1. M. A. Performing Arts

- 2. M. Sc. Environment Science & Technology
- 3. M. Sc. Indology
- 4. MBA Airline Management

## Ph. D. Programmes

- 1. Computer Science & Technology
- 2. Biotechnology & Bioinformatics
- 3. Management
- 4. English & Indian Languages
- 5. Mass Communication and Visual Media
- 6. Environment Science & Technology

# **School of Health Sciences**

## **UG Programmes**

- 1. B. Sc. Renal Dialysis Technology
- 2. B. Sc. Radiology and Imaging Technology
- 3. B. Sc. Cardiovascular Technology
- 4. B. Sc. Physician Assistant
- 5. B. Sc. Medical Laboratory Technology

#### **PG Programmes**

- 1. M. Sc. Clinical Microbiology
- 2. M. Sc. Medical Laboratory Technology

# **School of Technology**

### **UG Programmes**

- 1. B. Tech. Food Science and Technology
- 1. B. Tech. Forensic Science and Digital Criminology
- 2. B. Tech. Avionics and Drone Engineering
- 3. B. Tech. Artificial Intelligence and Medical Imaging
- 4. B. Tech Agricultural and Biological Engineering

#### **PG Programmes**

- 1. M. Tech Forensic Science and Digital Criminology
- 2. M. Tech Avionics and Drone Engineering

3. M. Tech. Artificial Intelligence and Medical Imaging

# Ph. D. Programmes

- 1. Aeronautical Engineering
- 2. Computer Science and Engineering
- 3. Forensic Science and Artificial Intelligence

# 5. Vision, Mission & Core Values

## Vision:

To be a Multi-Disciplinary Social Sciences, Health Sciences and Technology Educational and Research Institution of Excellence with a national outlook and Global Impact.

### **Mission:**

- > Import Education and training in Social Streams
- Import Education in Science & Technology
- Encourage Research & Innovative activities.
- Encourage Paper Publication/ Writing Books/ Articles etc.,
- Encourage participation of Faculty & Students in Sports/ Cultural etc.,
- Incorporate Indian knowledge system in the curriculum
- Contribute to the Government of Indian National Missions & Schemes.
- Form long term association with National & International Organization.

#### **Methodology:**

- Offer Technical and social science Education at various levels.
- Offer Quality Training Programmes as per the needs of market.
- Introduce Technology driven social science curriculum.
- Incorporate Indian knowledge system in the practice & procedure
- Undertake research & innovative activities through rigorous training/ TBI/
  Internship

#### **Core Values:**

The highlighted core values of the institution's educational philosophy, emphasizing a commitment to global standards, diversity, and technological innovation. Students from diversified social, economic and cultural setting shall join at one place with common focus of designing a personalized career path. Focused on holistic student development, the core values include the integration of intellectual, aesthetic, social, physical, emotional, moral, and spiritual dimensions with the following points.

### 1. Inclusivity and Equity

Ensuring access to quality education for all, the University will actively promote inclusivity and strives to provide equitable opportunities to students irrespective of

- socio-economic backgrounds, gender, religion, or territory.
- The institution believes in nurturing a diverse and inclusive learning environment that enriches the educational experience for everyone.
- Right kind of directions will be ensured by the proposed University to all students during the Induction Program at the beginning of each academic year.

#### 2. Multi-Disciplinarily

- Embracing a multidisciplinary approach, the proposed University encourages the integration of various disciplines to develop holistic learning and innovation. By breaking down traditional academic divisions, students are exposed to a broader spectrum of knowledge, skill and behaviour, in the novel academic set-up.
- This will augment the student preparations to tackle complex real-world challenges that require a multifaceted understanding. Most of the futuristic jobs would be transdisciplinary and might attract students with multiple skill sets and adaptability to multi-cultural scenarios.

#### 3. Research and Innovation

- The institution places a high priority on research, innovation, and development to address national and global challenges. By fostering a culture of innovation and problem-solving, the university not only will contribute to advancements in various fields but also instils a mind-set of continuous learning and adaptability among its students.
- Research outcomes will be considered as an integral part in all kinds of Ranking, Assessments and Accreditations across the world. The very existence of Higher Education Institutions will be based on the Research Profile, at international academic's settings.

#### 4. Quality Enhancement in Education

The University will adhere to providing high-quality education of international standards, employing learner-centric methods and outcome-based education. The focus will further be on enhancing employability, skill development, behavioral modifications and entrepreneurship avenues to ensure that the graduates are well- prepared to match the demands of the contemporary job market, career path and self-employment tracks.

### 5. Digital Mastery

- Recognizing the increasing importance of digital tools in modern learning and career progression, the university shall promote digital literacy and technology integration in education. This emphasis prepares students to navigate the digital landscape effectively, aligning with the evolving demands of the global workforce.
- Digital tools to will supplement teaching-learning process and employability rates. This capability will kept as priority all through the education within and outside the curriculum.

## 6. Global Perspective

- Encouraging internationalization, the university aims to provide students with a global perspective, promoting an appreciation for diverse cultures and perspectives.
- This global outlook prepares students to engage with the interconnected world, promoting a well-rounded and culturally sensitive worldview. Attracting international students to our University is another prime objective of our University.

#### 7. Local Relevance

- Ensuring that education and research activities are contextually relevant, our university addresses the specific needs of the local community.
- > By actively engaging with local challenges, the institution seeks to make a positive impact on its immediate surroundings through targeted educational initiatives.

#### 8. Teacher Empowerment

- Supporting and empowering educators with professional development opportunities, imparting periodic training and skilling, recognizing the crucial role of teachers in the education system and felicitating them for their outstanding contributions and achievements.
- Programmes will enable all teachers to upgrade themselves to make the education more student centric. Teachers will be encouraged to publish Research Papers, acquire Funded Projects and file Patens to stay on top always.

#### 9. Community Engagement

Actively engaging with the community, the university addresses social issues and challenges in its surroundings. By creating awareness and collaborating on educational initiatives, the institution strives to be a socially responsible entity that contributes positively to the broader community.

#### 10. Assessment Reforms

- Embracing assessment reforms that move away from rote learning and standardized testing, focusing on Formative and Summative evaluations and competency-based assessment leading to Mapping of Attainments of all Courses after each End Semester Examination.
- The regular assessment and evaluation patters, largely based on written tests, have been understood as not adequate to test the Knowledge, Skill, Behavior and Futuristic Aspirations of the students. Hence a more objective form of Outcome Based Evaluation is envisaged by our University.

#### 11. Environmental Sustainability

- The University prioritizes environmental sustainability by implementing energyefficient technologies, conducting regular green audits, and promoting waste reduction initiatives. Environmental education is seamlessly integrated into the curriculum, fostering a comprehensive understanding of ecological challenges.
- Ongoing efforts include tree-planting campaigns and biodiversity preservation projects, reinforcing the institution's commitment to a sustainable future.

#### 12. Vocational Education

- The University prioritizes vocational education, offering skill development courses that extend beyond conventional academic routes.
- > By integrating practical, industry-relevant skills into the curriculum, the institution aims to enhance graduates' employability and cultivate an entrepreneurial mind set.

### 13. Transparency and Accountability

- A commitment to transparency is central theme of the governance, decision-making, and financial processes of the University. This dedication ensures that stakeholders have access to clear and comprehensive information, fostering accountability that is vital for the institution's credibility.
- > On time meetings of all stake holders, conduct of each statutory meeting and action

taken on all suggestions forwarded by each committee will ensure Transparency and Accountability of our University.

#### 14. Flexible Learning Pathways

- Acknowledging diverse learner needs, the institution supports flexible learning pathways with multiple entry and exit points.
- This approach empowers students to navigate their educational journey based on individual circumstances, providing opportunities for personal growth and skill development, especially during challenging times.

#### 15. Preservation of Cultural Heritage

- The University not only respects and practices India's rich cultural and intellectual heritage but also actively promotes traditional and linguistic diversity. This initiative plays a critical role in nurturing a sense of cultural identity among the youth, preparing them to be proud global citizens.
- The vivid and value-based cultural legacy of Indian would enable the multi-national students to enrich their outlook for living in the complex international society.

#### 16. Health and Wellness

- Prioritizing holistic well-being, the University integrates the practice and promotion of Yoga and Sports into its ethos. This approach recognizes the profound impact of physical and mental health on academic success, creating an environment that encourages a balanced and healthy lifestyle among students and faculty.
- ➤ Different courses on Health and Wellness will be offered, across all programmes to ensure the practices to ensure personal health, hygiene and wellness among the student and staff communities.

#### 17. Holistic Approach

- Embracing a comprehensive strategy addressing physical fitness, mental health, and spiritual well-being, the university recognizes that education extends beyond academic pursuits.
- By cultivating a supportive environment that prioritizes overall well-being, it aims to produce graduates who are academically proficient, emotionally resilient, and spiritually aware.

#### 18. Sustainability

- Beyond environmental considerations, the institution acknowledges the broader impact of its decisions by considering environmental and social implications.
- By utilizing data to inform practices, the university strives to create a sustainable and responsible framework contributing positively to both local and global communities.

#### 19. Diversity and Inclusivity

The institution actively embraces and celebrates diversity in all its forms, including race, gender, culture, and background. By creating an inclusive space where every student feels valued and included, the university fosters a vibrant and enriching learning environment reflecting the richness of human experiences.

#### **20. Self-Discovery**

The University facilitates self-discovery and self-awareness by encouraging students to explore their potential. Through the study of yoga and sports, students are provided with opportunities for personal growth, helping them develop a deeper understanding of themselves and their unique strengths.

#### 21. Ethics

Prioritizing honesty and ethical behaviour is fundamental to the university's values. By nurturing a culture of mutual respect that values diversity and fairness, the institution aims to instill ethical principles in its students, preparing them to be responsible and principled professionals in their respective fields.

#### 22. Sustainable Development Goals

Aligned with the Sustainable Development Goals, the institution goes beyond academic excellence to actively engage in research, education, and community initiatives. This holistic approach ensures a positive social and environmental impact, contributing to broader global efforts toward sustainable development.

#### 23. Flexible and Innovative Curricula

The institution's dedication to flexible and innovative curricula underscores a student-centric approach, enabling individuals to customize their education based on personal interests and career goals.

>	This adaptability creates a dynamic learning environment. The innovative curriculum integrates cutting-edge teaching methods and emerging technologies, aligning with the institution's vision of preparing students for future challenges.
	Page   45

## 6. Strength, Weaknesses, Opportunities, and Challenges (SWOC)



Nehru Group of Institutions (NGI) was established with the aim of providing quality education in various fields. With a great legacy of 55 years in the field of education, NGI has multiple campuses across Coimbatore and Kerala. The campuses are equipped with state-of-the-art infrastructure, modern classrooms, well-equipped laboratories, libraries, hostels, and other amenities. The focus on infrastructure is aligned with the group's commitment to creating an environment conducive to learning and research.

## **Strengths**

- Recognized on various fronts
  - ✓ National Assessment and Accreditation Council (NAAC) with A+ Grade (CGPA 3.50)
  - ✓ National Institutional Ranking Framework (NIRF) 100 150 Band
  - ✓ Atal Ranking of Institutions on Innovation Achievements (ATAL), and
  - ✓ Institution's Innovation Council (IIC)
- India Today has further rated us as the Best College, affirming our commitment to providing top-notch education
- ➤ Nodal Centre of IIT (Bombay) Spoken Tutorial
- International Collaboration is a key strength, with Memoranda of Understanding (MoUs) facilitating student exchanges and research conferences with foreign universities
- **DBT Star College** recognition for skill development in Science and Technology

- NGI has a robust Placement cell that facilitates campus placements for its students
- Recognized as a Mentoring Institution by Mahatma Gandhi National Council of Rural Education (MGNCRE), HR Ministry, Government of India, for implementing SWATCHTHA action plan
- The Institution is awarded with A+ in Green Cover on Campus, Surface Water Harvesting, Rooftop Water Harvesting, in National Rural Institutions Sustainability Grading (NRISG) by Mahatma Gandhi National Council of Rural Education, Ministry of Education.

## Weaknesses

- Reduction in enrollment due to the shift in demand for Traditional Programmes
- ➤ The Communication abilities of first-generation learners
- Shortage of Teachers with Ph. D.
- > Recruiting and retaining qualified faculty

## **Opportunities**

- Nehru Group of Institutions (NGI) is recognized for providing diverse educational opportunities across multiple disciplines
- NGI offers a wide array of academic programs, spanning undergraduate, postgraduate, and Doctoral levels
- The academic opportunities are diverse, covering fields such as engineering, technology, management, arts, science, healthcare, and more. This diversity allows students to choose programs that align with their interests, career goals, and academic strengths
- > NGI encourages a culture of research and innovation across its institutions
- The Institutions under NGI often collaborate with Industries and Research organizations, providing students with exposure to real-world challenges and fostering a spirit of innovation
- NGI places a strong emphasis on skill development and offers various training programs to enhance students' employability. These programs cover a range of skills, including communication, problem-solving, leadership, and technical skills relevant to specific industries
- NGI recognize the importance of fostering an entrepreneurial spirit among its students. Entrepreneurship Development Programs, Start-up Incubators, and

- Mentorship Initiatives are often part of the educational landscape
- NGI provides opportunities for global exposure through collaborations with International Universities and Exchange Programs
- NGI often engage in social initiatives and community service programs. These opportunities allow students to contribute to society, develop a sense of social responsibility, and apply their skills and knowledge to address real-world challenges
- Nehru Group of Institutions offers a diverse array of opportunities that go beyond traditional academics

## **Challenges**

- The narrative focuses on an educational institution situated in a remote area, delving into the nuanced challenges it faces and proposing strategic initiatives for overcoming these obstacles
- The institution's overarching goals, including securing a position in the National Institutional Ranking Framework (NIRF), obtaining more Government Grants, promoting Technological Education, Globalizing Online Higher Education, Fostering Entrepreneurship, Achieving Academic Excellence, and developing innovative products, paint a compelling
- The demographic composition of a predominantly rural student body presents a unique set of challenges
- ➤ Globalizing online education requires strategic investment in Digital Infrastructure and initiatives to address challenges such as internet connectivity
- Nurturing entrepreneurial skills among students demands a holistic approach. Rapid advancement in academia requires a focus on research output, faculty development, and international collaborations. Recruiting qualified academics, investing in state-of-the-art research facilities

## 7. Goals of the Institution proposed to be DTBU

The key objectives distinct university is to focus on its multi-disciplinary and transdisciplinary programs as listed and elaborated below:

- Nurturing Holistic Development
- Addressing the Demands of Industry 5.0
- Multiple and Futuristic Skill Development
- Creating Well-rounded Performing Artists
- Encouraging Research and Innovation
- Promoting Environmental Health
- Interdisciplinary Collaboration
- Ethical and Sustainable Practices
- Instill Life-Long Learning Ability

### **A.** Nurturing Holistic Development:

#### 1. Infuse wellness practices:

- ➤ Integrate mindfulness, stress management, and physical well-being practices into the curriculum.
- ➤ Provide resources and workshops that focus on mental health and emotional resilience.
- > Promote creativity and artistic expression among students across programs.
- ➤ Cultivate a deep understanding of Indian culture, history, philosophy and value systems.

### 2. Development of Academic, Creative and Physical Capabilities:

- ➤ Design a curriculum based on NEP that balances academic rigor with opportunities for creative expression and physical activities.
- ➤ Encourage a well-rounded approach to education that nurtures intellectual, creative, and physical capabilities.
- ➤ Encourage mastery in Folklore, Folk-art, and Traditional Performing Art forms of India

#### 3. Exploring Therapeutic Dimensions:

Incorporate elements in each discipline that allow students to explore therapeutic applications.

- Encourage students to understand how their chosen field can contribute to holistic well-being and societal health.
- > Train students in an integrated approach to healthcare within the B. Sc. Integrated Medicine program

#### B. Addressing the Demands of Industry 5.0:

#### 1. Preparation for Skilled Professionals:

- Offer specialized courses in Indology, Environmental Health, Integrated Medicine, Animal Health, Performing Arts, and Environment Science & Technology.
- ➤ Prepare students to address the demands of Industry 5.0 by offering various groups of courses in department specific electives.
- ➤ Provide hands-on experiences and industry-relevant projects to enhance practical skills.

#### 2. Promoting Higher Education and Research:

- ➤ Develop a culture that motivates students to pursue higher education and engage in research initiatives to meet up the industry demand.
- ➤ Develop partnerships with industries to create avenues for internships and collaborative research projects.

#### C. Creating Well-rounded Performing Artists:

#### 1. Excellence in Multiple Domains:

- > Provide comprehensive training in dance, music, and theatre.
- ➤ Emphasize proficiency in Folklore, Folk-art, and Traditional Performing Art forms of India.

#### 2. Nurturing Artistic Expression:

- ➤ Create a supportive environment that encourages creativity, experimentation, and artistic expression.
- ➤ Facilitate platforms for performances, exhibitions, and collaborations with other art forms.

#### D. Encouraging Research and Innovation:

#### 1. Platforms for Research and Innovation:

- Establish research centers and innovation hubs within the university.
- ➤ Encourage faculty and students to actively participate in conferences, publish research papers, and contribute to advancements in their respective fields.

## 2. Promoting Entrepreneurship:

- Provide resources and mentorship for students interested in starting their own ventures.
- Establish a Technology Business Incubator to support entrepreneurial initiatives in technology and related fields.

#### 3. Interdisciplinary Collaboration:

- ➤ Facilitate collaborations between scholars and students from various disciplines.
- ➤ Encourage the exchange of ideas and expertise to address complex challenges through interdisciplinary research groups.

#### E. Promoting Environmental Health:

#### 1. Highlighting Public Health in Environmental Conservation:

- Develop a curriculum that emphasizes the interconnectedness of public health and environmental conservation.
- ➤ Engage students in projects that address environmental challenges from a public health perspective.

## 2. Implementing Interdisciplinary Projects:

- ➤ Encourage interdisciplinary projects that explore the relationship between environmental factors and public health outcomes.
- ➤ Showcase the importance of sustainable practices for preserving both cultural heritage and environmental health.

#### F. Interdisciplinary Collaboration:

#### 1. Encouraging Holistic Understanding:

➤ Promote collaborative projects that require students to work across disciplines.

➤ Emphasize the practical applications of multi-disciplinary and transdisciplinary knowledge for addressing global challenges.

#### G. Ethical and Sustainable Practices:

#### 1. Inculcating Ethical Values:

- ➤ Integrate ethical considerations into each program, emphasizing the impact of professional decisions on society.
- ➤ Showcase case studies and examples that highlight the importance of ethical business practices.

## 2. Highlighting Sustainability:

- Emphasize the role of sustainability in all aspects of the programs.
- ➤ Illustrate how businesses and individuals can grow and thrive while contributing positively to both society and the environment.

### H. Life-Long Learning:

### 1. Cultivating a Learning Culture:

- Emphasize the importance of continuous professional development.
- Encourage adaptability and a commitment to staying updated with advancements in their respective fields.

## 8. Strategic Planning and Monitoring

# **Strategic Overview**

University aims to lead the society in education, research and innovation at a national and global scale. Transitioning to a more holistic and multidisciplinary education towards various levels of skill developments of the pupil will be the prime focus. Adding up of schools/departments that could offer Programs/ courses of study relating to Languages, Literature, Translation and Interpretation, Philosophy, Indology, Art, Music, Dance, Theatre, Education, Sociology, Economics, Technology, Health care, Sports etc. and other such subjects needed for a multidisciplinary and trans-disciplinary academic setting. Stimulating education environment to be established and strengthened to make the campus as the most happening place. Focus will be on academic freedom in collaborating with other institutions and organizations, where such partnership can lead to outstanding research, teaching, placement and entrepreneurship.

#### **Strategic Goals**

- Excellence in Education
- Excellence in Research
- Excellence in Innovation
- Excellence in Placement/ Entrepreneurship
- Excellence in Character Building

#### **Strategic Themes**

- Accreditation and Ranking
- Global Scaling
- Social Responsibility
- International Partnerships
- Student Empowerment

### **Short Term Goals** (1- 5 Yrs.)

- National Level Entrance Examination for Admissions.
- Incorporating the National Education Policy (NEP) into the curriculum.
- Strengthening Interdisciplinary and Multidisciplinary Programs.
- Establishing a Data Centre & E-Learning Centre.
- Industry Institute Linkage for Internship, Training, Placement and Research Innovations.

- Acquire DBT STAR Status.
- NIRF Ranking in Top 100.
- Preparations for NAAC Accreditation.
- Establishing Teacher Training Centre and HR Clinic.
- Fully Functional Digital Campus.
- All Teachers with Ph. D. Degree.
- Strengthen E-Content Development Centre.
- Establishing Centre's for Excellence.
- ❖ P K Das Center for Distance Education and E-Learning.
- Executive Mentoring System through Corporate Connect events.
- Establishing Open Research Innovation and Collaborative Network.
- Establishing HRD and Assessment Center for effective Emotional Management.
- Develop a Speaker's Network connecting all streams of Higher Education.
- Develop a Review Process for major curriculum reforms.
- Social Audit to assess the Institutional Image and current needs.
- Establish a Centre for Educational Innovation for Institution Building and Networking.
- ♦ Launch "Idea Corners" to encourage the students for Group Discussions.
- Strengthening the activities of Corporate Placement Centre.

### Mid Term Goals (5 - 10 Yrs.)

Strengthen and augment institutional structures that promote pedagogical innovations by teachers, recognizing the different pedagogical practices that are appropriate for different disciplines, programs and courses. Enhance technology use and integration for improving learning experience, including for online/ remote learning, hybrid approaches for improving teaching-learning-assessment processes. Focusing and establishing world class facilities to enhance Innovative and Product based Research.

- ♦ Acquiring A++ Grade in NAAC
- ❖ All Colleges of Nehru Group of Institutions will be affiliated to the New University.
- Research Collaboration of various disciplines can be done under one roof.
- Tie-up with various Industries in India and Abroad for multi-level collaborations.
- Starting University Campuses in different states.
- ♦ All Teachers with Ph. D. Degree and Guide-ship.

- Establishing Research Centre in all Departments.
- International Collaborations for Research, Academic Programmes and Twinning Programme.
- ❖ Establish more Student and Faculty Start-Ups in Technology Business Incubation Centre.
- Starting Finishing Schools in association with Industries.
- Strengthening Centres for Excellence.
- Establishing Chairs for various endeavors.
- Start an exclusive center for Cognitive Science and Mental Health.
- ❖ A Survey Research Center for Research, Innovation and Product Design.
- Create a Central Publication Division to print Journals and all necessary documents.
- Construction and Campus beautification.
- Retention and augmentation of all existing facilities.
- Create Quality as Standard Culture of the University campus.

## **Long Term Goals** (10 -15 Yrs.)

Transforming the education Programs in order to support sustainable development and respond to the requirements of the fast-changing, ever-globalizing, knowledge-based economy and society. Equipping the youth and adults with the skills and knowledge required for being part of an advanced workforce capable of responding to the needs of the fast-transforming economy and changing labor markets. Strengthen and support the Innovative Research Initiatives to encourage futuristic entrepreneurs.

- ❖ Unique and hi-tech Knowledge Transfer Infrastructure will be established to facilitate:
  - ✓ Collaborative Research
  - ✓ Contract Research
  - ✓ Consultancies
  - ✓ Executive Education
  - ✓ Training Centre to create Global Professionals
- Launch Off-shore campuses.
- All Department with Sponsored Research Centers.
- Obtaining Global Ranking.

- Creating cultural diversity setting to enhance Internationalism.
- Twining Programmes: Create International and Inter-University collaborations to foster two-way flows of students.
- Promoting 'Internationalisation at Home' by renewing curricula, enhancing international faculty mobility and exchanges.

# 9. Proposed Schools, Annual Intake and Year of Starting

S. No.	Program	Year of Establishment	Intake Sanctioned			
School of Social Sciences						
<u>UG Programmes</u>						
1.	BBA Aviation Management	2024-2025	30			
2.	BCA Business Analytics	2024-2025	30			
3.	B. Sc. Biotechnology with Gene Therapy	2024-2025	30			
4.	B. Sc. Visual Communication Electronic Media	2024-2025	30			
5.	B. A. Performing Arts	2024-2025	30			
6.	B. Sc. Indology	2024-2025	30			
7.	B. Sc. Environmental Health	2024-2025	30			
PG Programmes						
8.	M. A. Performing Arts	2024-2025	30			
9.	M. Sc. Environment Science & Technology	2024-2025	30			
10.	M. Sc. Indology	2024-2025	30			
11.	MBA Airline Management	2024-2025	30			
Research Programmes						
12.	Computer Science & Technology	2024-2025				
13.	Biotechnology & Bioinformatics	2024-2025				
14.	Management	2024-2025				
15.	English & Indian Languages	2024-2025				
16.	Mass Communication and Visual Media	2024-2025				
17.	Environment Science & Technology	2024-2025				

S. No.	Program	Year of Establishment	Intake Sanctioned			
School of Health Sciences						
<u>UG Programmes</u>						
1.	B. Sc. Renal Dialysis Technology	2024-2025	30			
2.	B. Sc. Radiology and Imaging Technology	2024-2025	30			
3.	B. Sc. Cardiovascular Technology	2024-2025	30			
4.	B. Sc. Physician Assistant	2024-2025	30			
5.	B. Sc. Medical Laboratory Technology	2024-2025	30			
PG Programmes						
6.	M. Sc. Clinical Microbiology	2024-2025	30			
7.	M. Sc. Medical Laboratory Technology	2024-2025	30			

S. No.	Programme	Year of Establishment	Intake Sanctioned		
School of Technology					
<u>UG Programmes</u>					
1.	B. Tech. Food Science and Technology	2024-2025	30		
2.	B. Tech. Forensic Science and Digital Criminology	2024-2025	30		
3.	B. Tech. Avionics and Drone Engineering	2024-2025	30		
4.	B. Tech. Artificial Intelligence and Medical Imaging	2024-2025	30		
5.	B. Tech Agricultural and Biological Engineering	2024-2025	30		
PG Programmes					
6.	M. Tech Forensic Science and Digital Criminology	2024-2025	30		
7.	M. Tech Avionics and Drone Engineering	2024-2025	30		
8	M. Tech. Artificial Intelligence and Medical Imaging	2024-2025	30		

# 10.Guidelines of the NEP 2020, SDGs of UN

The market study involves a comprehensive analysis of demand, feasibility, and potential impact, aiming to align educational initiatives with current market dynamics and meet evolving industry and student needs. It is found that there is an increasing demand for multi- disciplinary subjects where skill acquisition and knowledge creation are found to be better, especially in the context of upcoming job market, worldwide. Research, Innovation and Start- up enterprises are gaining momentum, with support of Govt. and Private players. The market is very potential at present to support and grab skilled candidates to handle challenging jobs. We understand that the career building, henceforth will be based on continuous learning and skilling, as the shelf-life of many job profiles will be short in duration. MOOCs are finding a prominent place in the Curriculum designing, as it allows everyone to learn at their leisure and acquire Credits on most of the updated and relevant subjects from SWAYAM and such platforms.

## **B. A. Performing Arts**

- ✓ Growing global demand for performing arts, encompassing dance, music, and theatre.
- ✓ Diverse career opportunities and entrepreneurship avenues within the evergreen performing arts industry.
- ✓ Integrated approach in the B.A. Performing Arts program prepares students as versatile performers and educators.
- ✓ Graduates can pursue careers as performers, choreographers, musicians, theatre directors, educators, and arts administrators.
- ✓ Entrepreneurship opportunities for graduates include starting dance studios, music schools, and theatre companies.
- ✓ Uniqueness of the program highlighted through innovative curriculum elements and interdisciplinary features.
- ✓ Faculty expertise emphasized, showcasing industry experience and academic achievements.
- ✓ Market trends reflect digital integration with online performances and virtual reality experiences.
- ✓ Cultural fusion in performing arts aligns with the globalized and interconnected world.
- ✓ Target audience includes individuals passionate about the arts seeking a combination of artistic expression and career opportunities.

- ✓ Competitive analysis compares program strengths, weaknesses, opportunities, and threats with similar offerings.
- ✓ Industry collaboration explored through partnerships with theatres, dance companies, and music festivals for enhanced practical exposure.

## **B. Sc. Indology**

- ✓ The introduction of B. Sc. Indology offers a unique academic niche, responding to the growing global interest in Indian culture and heritage, providing students with specialized skills for cross-cultural communication and understanding. Indian Knowledge System is being accepted across the best Universities in the world. Hence this programme will have good demand.
- ✓ With an expanding demand for professionals with expertise in Indian languages, philosophy, and history, the program has the potential to bridge educational gaps, contribute to cultural diplomacy, and cultivate a new generation of individuals equipped to preserve and promote India's rich cultural legacy.

#### B. Sc. Environmental Health

- ✓ B. Sc. Environmental Health addresses the pressing need for professionals equipped to tackle complex environmental challenges, offering a specialized program that combines scientific knowledge with practical solutions to safeguard public health and the environment.
- ✓ In response to the escalating concerns related to environmental pollution and climate change, this distinct program not only provides students with a solid foundation in environmental science but also prepares them for diverse roles in environmental monitoring, risk assessment, and sustainable practices, contributing to a healthier and more resilient future.

## **BBA Aviation Management**

- ✓ Provide a detailed overview of the aviation industry, including its current status, trends, and growth prospects.
- ✓ Analyze the demographics of individuals interested in pursuing BBA Aviation Management.
- ✓ Examine current and projected employment trends in the aviation industry.
- ✓ Evaluate the demand for aviation management professionals, including the types of roles and skills in demand.
- ✓ Analyze their program structures, curriculum, faculty qualifications, and facilities.
- ✓ Understand the regulatory requirements for aviation management education.

✓ Develop recommendations for effective marketing and recruitment strategies for BBA Aviation Management programs.

## **BCA Business Analytics**

- ✓ Provide an overview of the business analytics industry, including its current status, trends, and growth prospects.
- ✓ Identify key sectors and industries where business analytics is widely applied.
- ✓ Analyze the demographics of individuals interested in pursuing BCA in Business Analytics.
- ✓ Identify target audience segments, such as students aspiring for careers in business analytics and professionals seeking further education.
- ✓ Examine current and projected employment trends in the business analytics field.
- ✓ Identify the demand for professionals with a BCA in Business Analytics, including specific roles and skills in demand.

## B. Sc. Biotechnology with Gene Therapy

- ✓ Provide an overview of the biotechnology industry, focusing on trends, recent developments, and growth prospects.
- ✓ Identify key sectors within biotechnology, including gene therapy.
- ✓ Analyze the current state of gene therapy, including advancements, clinical trials, and successful applications.
- ✓ Identify the therapeutic areas where gene therapy is most promising.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Biotechnology with a focus on Gene Therapy.
- ✓ Examine current and projected employment trends in the biotechnology field, with a specific focus on gene therapy.
- ✓ Identify the demand for professionals with a B.Sc. in Biotechnology with expertise in gene therapy, including specific roles and skills in demand.

#### B. Sc. Visual Communication Electronic Media

- ✓ Provide an overview of the media and communication industry, including trends, technological advancements, and growth prospects.
- ✓ Identify key sectors within visual communication and electronic media.
- ✓ Analyze the current state of electronic media, including trends, emerging technologies, and consumer preferences.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Visual Communication with a focus on Electronic Media.

- ✓ Identify target audience segments, such as students aspiring for careers in electronic media and professionals seeking further education.
- ✓ Identify the demand for professionals with a B.Sc. in Visual Communication with expertise in electronic media, including specific roles and skills in demand.

## M. A. Performing Arts:

- ✓ Advanced program addressing the need for research and innovation in Performing Arts.
- ✓ Designed for individuals aspiring to excel in the field of Traditional Arts, Folklore, Literature, and Music.
- ✓ Focus on fostering a deep understanding of the cultural significance and historical context of performing arts.
- ✓ Encouragement of creativity and innovation in traditional and contemporary artistic expressions.
- ✓ Integration of theoretical knowledge with practical skills for a well-rounded education.
- ✓ Emphasis on individual artistic growth and contribution to the evolution of the arts.
- ✓ Opportunities for interdisciplinary exploration and collaboration within the performing arts domain.
- ✓ Development of critical thinking and analytical skills to engage with diverse cultural and artistic practices.
- ✓ Contribution to the preservation, rejuvenation, and advancement of traditional and folk art forms.

# M. Sc. Environment Science & Technology

- ✓ Capitalizes on the global emphasis on environmental sustainability with the launch of M. Sc. Environment Science & Technology.
- ✓ Distinct program designed to produce experts with advanced knowledge and skills in addressing complex environmental challenges.
- ✓ Focus on interdisciplinary approaches to meet the demand for professionals capable of implementing sustainable practices and technologies.
- ✓ Emphasis on providing a comprehensive understanding of environmental science and technology.
- ✓ Integration of theoretical knowledge with practical applications for hands-on experience.
- ✓ Preparation of graduates for roles in various industries and sectors requiring environmental expertise.
- ✓ Exploration of cutting-edge technologies and innovations in the field of environmental

science.

- ✓ Alignment with the evolving global landscape to address contemporary environmental issues.
- ✓ Contribution to the development and implementation of sustainable practices on a local and global scale.
- ✓ Recognition of the need for skilled professionals to tackle environmental challenges and promote a greener future.

## M. Sc. Indology

- ✓ Provide an overview of Indology as a field of study, including its historical significance, themes, and academic disciplines it encompasses.
- ✓ Identify key areas within Indology, such as languages, literature, history, philosophy, and cultural studies.
- ✓ Analyze existing M.Sc. Indology programs globally and regionally.
- ✓ Identify universities or educational institutions offering M.Sc. Indology programs and assess their reputation, faculty, and curriculum.
- ✓ Analyze the curriculum of M.Sc. Indology programs, including core courses and elective options.
- ✓ Identify any specializations or concentrations within the program and their relevance to industry needs.
- ✓ Explore potential career paths for individuals with an M.Sc. in Indology.
- ✓ Identify industries or sectors that value expertise in Indology, such as academia, research institutions, cultural organizations, museums, or heritage management.

# **MBA Airport and Airline Management**

- ✓ Provide an overview of the aviation industry, including trends, challenges, and growth prospects.
- ✓ Identify key players in the airline industry, including airlines, airports, and aviation service providers.
- ✓ Analyze the demographics of individuals interested in pursuing MBA in Airline Management.
- ✓ Identify target audience segments, such as students aspiring for careers in airline management and professionals seeking further education.
- ✓ Examine current and projected employment trends in the airline industry.
- ✓ Identify the demand for professionals with an MBA in Airline Management, including specific roles and skills in demand.

## **B. Sc. Physician Assistant**

- ✓ Ability to provide comprehensive patient care, including assessing, diagnosing, and developing treatment plans under the supervision of a licensed physician.
- ✓ Proficiency in performing various clinical procedures such as suturing, casting, wound care, and assisting in minor surgeries or medical interventions.
- ✓ Effective communication with patients, families, and healthcare team members, conveying medical information clearly and compassionately.
- ✓ Adherence to ethical standards in patient care, confidentiality, and professionalism in all interactions with patients and colleagues

# B. Sc. Renal Dialysis Technology

- ✓ Provide an overview of the healthcare industry, emphasizing trends, challenges, and growth prospects.
- ✓ Identify the role of renal dialysis technology within the broader healthcare landscape.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Renal Dialysis Technology.
- ✓ Identify target audience segments, such as students aspiring for careers in renal care and healthcare professionals seeking specialized education.
- ✓ Examine current and projected employment trends in the healthcare sector, specifically in renal care.
- ✓ Identify the demand for professionals with a B.Sc. in Renal Dialysis Technology, including specific roles and skills in demand.

# B. Sc. Radiology and Imaging Technology

- ✓ Provide an overview of the healthcare industry, emphasizing trends, challenges, and growth prospects.
- ✓ Identify the role of radiology and imaging technology within the broader healthcare landscape.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Radiology and Imaging Technology.
- ✓ Identify target audience segments, such as students aspiring for careers in medical imaging and healthcare professionals seeking specialized education.
- ✓ Examine current and projected employment trends in the healthcare sector, specifically in medical imaging.
- ✓ Identify the demand for professionals with a B.Sc. in Radiology and Imaging

Technology, including specific roles and skills in demand.

## B. Sc. Cardiovascular Technology

- ✓ Provide an overview of the healthcare industry, emphasizing trends, challenges, and growth prospects.
- ✓ Identify the role of cardiovascular technology within the broader healthcare landscape.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Cardiovascular Technology.
- ✓ Identify target audience segments, such as students aspiring for careers in cardiovascular care and healthcare professionals seeking specialized education.
- ✓ Examine current and projected employment trends in the healthcare sector, specifically in cardiovascular care.
- ✓ Identify the demand for professionals with a B.Sc. in Cardiovascular Technology, including specific roles and skills in demand.

## **B. Sc. Medical Laboratory Technology**

- ✓ Provide an overview of the healthcare industry, emphasizing trends, challenges, and growth prospects.
- ✓ Identify the role of medical laboratory technology within the broader healthcare landscape.
- ✓ Analyze the demographics of individuals interested in pursuing B.Sc. in Medical Laboratory Technology.
- ✓ Identify target audience segments, such as students aspiring for careers in laboratory diagnostics and healthcare professionals seeking specialized education.
- ✓ Examine current and projected employment trends in the healthcare sector, specifically in medical laboratory technology.
- ✓ Identify the demand for professionals with a B.Sc. in Medical Laboratory Technology, including specific roles and skills in demand.

# M. Sc. Medical Laboratory Technology

- ✓ Mastery of advanced laboratory procedures and techniques used in clinical settings, including specialized testing methods in areas like molecular diagnostics, genetics, microbiology, hematology, and immunology.
- ✓ Understanding research methodologies and statistical analysis relevant to laboratory science for conducting independent research or contributing to scientific investigations.

- ✓ Ability to lead and adapt to changes, fostering innovation, implementing new methodologies, and improving laboratory practices based on evidence-based approaches.
- ✓ Understanding the role of laboratory services in the broader healthcare system, including public health, epidemiology, and disease prevention strategies.

# M. Sc. Clinical Microbiology

- ✓ Advanced understanding of microbiology, including bacterial, viral, fungal, and parasitic pathogens, their structures, functions, and interactions with human hosts.
- ✓ Ability to design and conduct research in clinical microbiology, critically analyze scientific literature, and contribute to advancements in the field.
- ✓ Understanding the role of clinical microbiology in disease surveillance, outbreak investigation, and public health measures related to infectious diseases.
- ✓ Mastery of advanced laboratory techniques for isolating, identifying, and
  characterizing microorganisms, including molecular and genetic methods used in
  clinical microbiology.

## B. Tech. Forensic Science and Digital Criminology

- ✓ Program and it is considered as one of the innovative programs designed for Learners and Students passionate about front-line technology namely Laser Ablation, Alternate Light Photography, High-Speed Ballistic Photography, 3D Forensic Facial Reconstruction, DNA Amplification, and Superglue Fuming.
- ✓ Throughout the curriculum, Students study and practice into specialized Core and Professional topics, including Forensic Chemistry, Fundamentals of Math & Statistics, Fundamentals of Computer Science, Introduction to Forensic Science & Criminalities, Law to Combat Crime, Forensic Science and Criminology, Crime and Society, Forensic Psychology, Forensic Biology, Criminalistics, Criminal Law, Law for Forensic Scientists, Digital Forensics, Forensic Dermatoglyphics, Technological Methods in Forensic Science, Forensic Ballistics, Forensic Anthropology, Forensic Toxicology, and Handwriting Identification and Recognition.
- ✓ This course was prepared carefully with the Industry Practitioners input and a few Profession Courses were introduced for better practice. A few are Crime Scene Investigation, Forensic Odontology, Psychology of criminal behavior, Forensic Importance of Insects, Forensic Ornithology, Adult offender treatment, Advances in Forensic Entomology, Forensic Botany, Juvenile Criminal Justice, Forensic Pathology,

Criminal Risk Assessment, and Forensic Microbiology

## B. Tech. Artificial Intelligence and Medical Imaging

- ✓ The Students will study Anatomy and physiology and General/Systemic pathology, Patient Registration, care and Dark Room Practice, Data Exploration and Visualization, Radiological science for technologist & Dark room technique, Patient care in Radiography, Radiographic techniques including special procedures technique Mammography, Chest Radiography Including RIBS, Equipment for Radio diagnosis including Newer Development and Quality Assurance, Physics for medical imaging and radiation physics including radiation protection Planning an Quality control in Radio Diagnosis Image and Video Precision Analysis.
- ✓ This course was prepared carefully with the Industry Practitioners input and a few Profession Courses were introduced for better practice.
- ✓ This course provides students with a thorough understanding of how Artificial Intelligence and Machine Learning helps for better Digital Medical Images patterns Prediction and this can solve and prevent Diseases and will support for health sector. This is a hands-on course using world-class facilities that are modelled on operational laboratories.

# **B. Tech. Avionics and Drone Engineering**

- ✓ Students who complete this program will have the skills and knowledge needed to lead in the field of Avionics and Drones, which has many uses in industries like space exploration, transportation, defense, and agriculture.
- ✓ This program is designed to provide students with training on the latest tools and methodologies and help them acquire skills that are highly sought after by the fast-evolving industry.
- ✓ The curriculum would consist of courses related to Aeromechanical Design and Autonomy.
- ✓ The students would be trained to design and develop technological solutions to ensure greater societal and industrial impact.

# B. Tech. Agricultural and Biological Engineering

- ✓ Agricultural and biological sciences play a crucial role in addressing global challenges such as food security, environmental sustainability, and public health. Graduates with expertise in these fields are well-positioned to contribute to solutions on a global scale.
- ✓ The agriculture and biotechnology industries are growing, and there is a high demand for professionals with knowledge in areas such as crop science, animal science, genetics,

- biotechnology, and environmental science. Graduates are sought after by agribusinesses, research institutions, pharmaceutical companies, and governmental agencies.
- ✓ Advances in technology, including biotechnology, precision agriculture, and genetic engineering, have transformed the agricultural and biological sciences. Courses that incorporate these cutting-edge technologies prepare students for careers at the forefront of innovation

## B. Tech. Food science and Technology

- ✓ Provide an overview of the food industry, including its current status, trends, and growth prospects.
- ✓ Identify key sectors within the food industry, such as processing, quality control, product development, and research and development.
- ✓ Analyze the demographics of individuals interested in pursuing B. Tech. in Food Science and Technology.
- ✓ Identify target audience segments, such as students aspiring for careers in food technology and professionals seeking further education.
- ✓ Examine current and projected employment trends in the food industry.
- ✓ Identify the demand for professionals with a B. Tech. in Food Science and Technology, including specific roles and skills in demand.

# M. Tech. Forensic Science and Digital Criminology

- ✓ The program in Forensic Science and Criminology is intended to prepare students for careers in Public Security, Criminal Justice Administration, Law and Paralegal Professions, Public Administration, Policy Analysis.
- ✓ The M. Tech. program will assist students to develop and apply research expertise towards the resolution of contemporary justice practice and policy issues.
- ✓ The program would give exposure to emphasize the importance of scientific methods in crime detection with the latest tools and technologies.
- ✓ The program would enable the students to analyze problems and use appropriate scientific and professional AI and ML based Tools
- ✓ The courses are designed to meet the huge demand of security professionals in near future while facilitating the learning through recent technologies and hands-on projects.

# M. Tech. Artificial Intelligence and Medical Imaging

✓ The primary objective of this programme is to raise students who can deploy AI and Medical Imaging applications in clinical environments, which shall help to improve detection of disease and diagnosis from imaging data with the aim to enhance patient

care

✓ The graduates can able to emerge as AI professionals, data scientists, researchers and entrepreneurs possessing collaborative and leadership skills, for developing innovative solutions in multidisciplinary domains.

## M. Tech. Avionics and Drone Engineering

- ✓ Provide an overview of the aviation and drone industries, including trends, challenges, and growth prospects.
- ✓ Identify key sectors within aviation, such as avionics, and the drone industry, including applications and emerging technologies.
- ✓ Analyze the demographics of individuals interested in pursuing M. Tech. in Avionics and Drone Engineering.
- ✓ Identify target audience segments, such as students aspiring for careers in avionics and drone technology, and professionals seeking further education.
- ✓ Examine current and projected employment trends in the aviation and drone industries.
- ✓ Identify the demand for professionals with an M. Tech. in Avionics and Drone Engineering, including specific roles and skills in demand.

## **Research Programs:**

The market study for the research programs in, Mass Communication and Visual Media, Environment Science & Technology, and reveals promising trends and opportunities. The dynamic field of Mass Communication and Visual Media is experiencing a surge in demand for adept communicators and media professionals. This trend is driven by the exponential growth of digital media platforms, the increasing importance of content creation, and the prevalence of virtual communication channels. As technology continues to reshape how information is disseminated, individuals with skills in media and communication are essential for navigating this evolving landscape. The intersection of traditional and new media necessitates a versatile workforce capable of adapting to the ever-changing demands of the industry. The prominence of this field underscores its crucial role in shaping narratives, fostering engagement, and influencing public discourse.

The field of Environment Science & Technology is witnessing a robust demand driven by escalating global environmental concerns. Key market trends underscore a heightened emphasis on renewable energy sources, advancements in efficient waste management practices, and the growing importance of comprehensive environmental monitoring solutions.

This surge in demand reflects a collective commitment to sustainable practices and ecological preservation. As industries and governments prioritize eco-friendly initiatives, professionals in Environment Science & Technology play a pivotal role in addressing pressing environmental challenges, contributing to a greener future.

The Ph.D. in Engineering and Technology Stream is a research degree which culminates in a unique dissertation that demonstrates original and creative research. The program programme focusses Course Work, Research Activities for possible publication with great Contributions and writing Thesis for better preparation. The path to a successful Ph. D. is necessarily a hard but rewarding process of conscientiously developing and mastering the skills for independent research and leadership.

As the School of Technology has the Senior Professors with High Research Experiences, the School consists of the following Research Domains. They are

- Forensic Science and Digital Criminology
- Avionics and Drone Engineering
- Artificial Intelligence and Medical Imaging

The Major Demands and need of the above-mentioned Programs are:

- One of the main goals of research in forensic sciences is to improve current methods for sensitivity, speed, or cost for better prediction. This Research Work will facilitate the Researchers for developing innovative Models and Products for better crime prediction
- ❖ Aerial Robots especially small UAVs and drones have witnessed tremendous improvements in terms of their structure, working methodology, flying features and navigation control. UAVs are highly utilized in a wide range of services such as photography, path planning, search and rescue. Thus, Research needed to address design better models and Techniques in the field of Avionics and Drone Technology
- ❖ Better Prediction of Diseases Patterns are very much important which will help Medical Practitioner for better Treatment to Patients to cure Diseases. Thus, AI in Medical Imaging is important for the best prediction with highest accuracy. This Research will encourage more Researchers who are working in the field of healthcare for developing better Predictive Models and Wearable Devices in Healthcare Domain.

Lastly, the market for Food & Nutrition Science is thriving, propelled by a growing

awareness of health and wellness. Emerging trends, such as plant-based nutrition, personalized diets, and functional foods, are reshaping consumer preferences and driving innovation in the industry. This robust market reflects a societal shift towards healthier lifestyles, prompting increased demand for professionals in the science of food and nutrition. Food & Nutrition Science stands as a key player in shaping the future of nutrition and contributing to a healthier and more informed society.

Graduates from these programs can expect diverse and lucrative career opportunities in fashion technology, media, environmental science, and the health and wellness industry, aligning with the dynamic demands of these respective fields.

The introduction of these new programs aligns with the university's vision to offer diverse, interdisciplinary, multi-disciplinary and industry-relevant education while preserving cultural heritage and promoting holistic well-being and creativity. The outcome envisaged is the creation of world class professionals, in all walks of life.

# 11. Distinctiveness of the proposed DTBU

The distinct programs proposed for introduction are driven by several key reasons, each contributing to the overarching goal of creating a dynamic and holistic educational environment. Below are the detailed explanations with relevant subheadings for the listed programs:

## A. Multidisciplinary Approach: Bridging Academic and Industrial Realms.

- The proposed programs embrace a multidisciplinary approach, strategically designed to bridge gaps between diverse areas of study and the evolving demands of industries and society.
- This approach aims to cultivate well-rounded professionals with a unique blend of academic expertise, Indian ethical values, and a global outlook.

## B. Strategic Academy Diversity: Holistic Educational Experience.

- The introduction of a diverse array of programs is strategically aligned to create a multidisciplinary academic environment. This strategic academy diversity goes beyond traditional disciplinary boundaries, offering students a holistic educational experience.
- This approach ensures that students gain exposure to a wide spectrum of knowledge, fostering a comprehensive understanding of their chosen fields.

#### C. Aligning with Professional Demands: Meeting Industry Expectations.

- The proposed programs are strategically introduced to align with the current and future demands of various industries.
- This alignment ensures that graduates are equipped with the skills and knowledge necessary for success in dynamic professional landscapes. By directly addressing industry expectations, the programs enhance the employability and competitiveness of graduates.

#### D. Nurturing Creativity and Artistic Excellence: Enriching Cultural Landscapes.

- A key focus is on fostering creative and artistic expression, particularly evident in the B.A. Performing Arts and M.A. Performing Arts programs.
- These programs provide students with platforms to explore, expose, and excel in the

- performing arts.
- The emphasis is on promoting creativity, artistic expressions, and the fusion of traditional art forms with contemporary styles, paving the way for futuristic performances.

## E. Holistic Learning and Professional Preparedness: Comprehensive Development.

- The proposed programs aim to foster creativity and artistic expression within a dynamic learning environment, preparing students for diverse career paths.
- This comprehensive approach extends to exploring interdisciplinary perspectives in environmental health, contributing to comprehensive public well-being.

# 12. Justification of the Proposed Programmes

The need and the demand of the Proposed Programs were analyzed which involves:

- A comprehensive analysis of demand, feasibility, and potential impact, aiming to align educational initiatives with current market dynamics and meet evolving industry and student needs
- ➤ It is found that there is an increasing demand for multi-disciplinary subjects where skill acquisition and knowledge creation are found to be better, especially in the context of upcoming job market, worldwide.
- Research, Innovation and Start-up enterprises are gaining momentum, with support of Govt. and Private players
- > The market is very potential at present to support and grab skilled candidates to handle challenging jobs
- ➤ We understand that the career building, henceforth will be based on continuous learning and skilling, as the shelf-life of many job profiles will be short in duration. MOOCs are finding a prominent place in the Curriculum designing, as it allows everyone to learn at their leisure and acquire Credits on most of the updated and relevant subjects from SWAYAM and such platforms.

# 13. Identifiable Output and Outcomes of the Programmes

# **School of Social Sciences**

# **B. A. Performing Arts**

## **Objectives**

- ✓ Acquire proficiency in a chosen performing art discipline, such as theater, dance, music, or a combination of these.
- ✓ Develop technical skills related to the chosen performing art form, including vocal techniques, movement, stage presence, and musical proficiency.
- ✓ Gain a strong understanding of the theoretical foundations of performing arts, including the history, theories, and critical analysis of the chosen discipline.
- ✓ Engage in collaborative projects that allow for experimentation and the development of original work.
- ✓ Learn about the production aspects of performing arts, including stagecraft, lighting, sound, and costume design.
- ✓ Gain hands-on experience in the planning and execution of live performances.
- ✓ Develop critical thinking skills through the analysis and interpretation of performances, texts, and cultural contexts.
- ✓ Learn to articulate and defend artistic choices through written and oral communication.
- ✓ Explore connections between performing arts and other disciplines, such as literature, history, psychology, or technology.
- ✓ Develop a well-rounded education that integrates various aspects of the arts and humanities.

- ✓ Demonstrate advanced proficiency in a primary performing arts discipline through successful participation in live performances and projects.
- ✓ Exhibit a deep understanding of the historical, cultural, and theoretical foundations of performing arts through written assignments, presentations, and discussions.
- ✓ Produce original work that showcases creativity and artistic expression, integrating various elements of the chosen discipline.
- ✓ Apply production skills in a practical setting, contributing to the successful execution of live performances and projects.
- ✓ Analyze and critique performances, texts, and cultural contexts, demonstrating the ability to think critically and articulate informed opinions.

## **B.Sc. Indology**

## **Objectives**

- ✓ Develop a comprehensive interdisciplinary understanding of Indology, encompassing areas such as history, philosophy, linguistics, art, and religion.
- ✓ Attain proficiency in one or more classical or modern Indian languages to access primary texts and cultural sources.
- ✓ Gain a deep understanding of the cultural and historical evolution of India, exploring key periods, events, and social developments.
- ✓ Study major philosophical traditions of India, including but not limited to Hinduism, Buddhism, Jainism, and Sikhism.
- ✓ Explore and appreciate the art, architecture, and material culture of India, understanding the cultural significance of various artifacts.
- ✓ Develop research skills, including the ability to critically analyze texts, artifacts, and historical records related to Indian culture and civilization.
- ✓ Explore the interactions between Indian civilization and other cultures, fostering an appreciation for cross-cultural influences.
- ✓ Understand the contemporary relevance of Indology, linking historical knowledge to modern cultural, social, and political contexts.

- ✓ Demonstrate proficiency in integrating knowledge from various disciplines within Indology to analyze complex historical and cultural phenomena.
- ✓ Attain fluency in one or more classical or modern Indian languages, enabling the interpretation and analysis of primary sources.
- ✓ Exhibit a deep understanding of the historical and cultural evolution of India, as evidenced through research papers, presentations, and examinations.
- ✓ Analyze and critically discuss key philosophical concepts and ideas from major traditions in Indian thought.
- ✓ Conduct independent research projects, demonstrating the ability to analyze and synthesize information from diverse sources.
- ✓ Apply historical and cultural knowledge to contemporary issues, demonstrating an awareness of the ongoing relevance of Indology in various fields.

# **B. Sc. Environmental Health**

## **Objectives**

- ✓ Develop a comprehensive understanding of the environmental factors that impact human health, including air and water quality, waste management, and occupational hazards.
- ✓ Familiarize students with the fundamental principles of public health and epidemiology, emphasizing their application to environmental health challenges.
- ✓ Equip students with the skills to assess environmental risks and develop strategies for managing and mitigating these risks to protect public health.
- ✓ Understand and navigate environmental health regulations and policies at the local, national, and international levels, and ensure compliance with relevant standards.
- ✓ Foster the ability to engage with communities to identify environmental health concerns, communicate risks, and develop collaborative solutions.
- ✓ Develop research skills and proficiency in data analysis to investigate environmental health issues and contribute to evidence-based decision-making.

- ✓ Demonstrate a deep understanding of environmental health principles and their application to real-world scenarios.
- ✓ Apply public health concepts and epidemiological methods to assess and address environmental health challenges.
- ✓ Conduct risk assessments, identify potential environmental hazards, and develop risk management strategies to protect public health.
- ✓ Interpret and apply environmental health regulations, ensuring compliance with legal standards and ethical considerations.
- ✓ Engage effectively with communities to identify environmental health concerns, communicate risk information, and collaborate on solutions.
- ✓ Conduct independent research projects, demonstrating proficiency in research design, data collection, and analysis related to environmental health.
- ✓ Evaluate and address occupational health and safety issues, promoting a safe and healthy workplace environment.
- ✓ Utilize environmental monitoring tools and techniques to assess environmental conditions and contribute to the development of effective interventions.

# **BBA Aviation Management (3 Years)**

## **Objectives**

- ✓ Tailored Curriculum covering aviation operations, airport management, and airline business strategies
- ✓ Real-world Application with emphasis on practical scenarios for hands-on experience
- ✓ Safety and Compliance focus on industry standards for safety protocols and regulatory compliance
- ✓ Technological Integration incorporating cutting-edge advancements in aviation technology.
- ✓ Career Readiness equipping graduates for diverse roles in aviation management, ground operations, and airline administration
- ✓ Internship opportunities at Airports

#### Outcome

- ✓ To cultivate a culture of excellence and professionalism, emphasizing the delivery of exceptional service while maintaining the highest industry standard.
- ✓ To embrace innovation and integrate cutting-edge technologies, enhancing operational efficiency and staying at the forefront of advancements in aviation management.
- ✓ To champion environmental sustainability by implementing eco-friendly initiatives and contributing to the reduction of the aviation industry's environmental impact.
- ✓ To prioritize a customer-centric approach, ensuring the highest level of satisfaction for passengers and addressing their unique needs, thereby enhancing the overall aviation experience.

# BCA in Business Analytics (3 years):

## **Objectives**

- ✓ Integration of Computer Science and Analytics, merging expertise for a holistic approach.
- ✓ Comprehensive Curriculum covering data analysis, statistical modeling, and programming.
- ✓ Practical Emphasis with a strong focus on real-world applications.
- ✓ Strategic Decision-Making preparation for driving innovation through analytics.
- ✓ Industry Relevance with an emphasis on skills applicable to dynamic business analytics roles.

#### Outcome

- ✓ To prioritize data accuracy and integrity, ensuring that business analytics processes are built on reliable and trustworthy information.
- ✓ To champion ethical practices in data collection, analysis, and interpretation, fostering a culture of integrity and responsibility.
- ✓ To emphasize continual learning and adaptation to evolving technologies, staying abreast of advancements in business analytics.
- ✓ To promote collaborative teamwork, recognizing the significance of diverse perspectives in extracting meaningful insights from data.
- ✓ To prioritize the application of analytics for strategic decision-making, aligning business goals with data-driven insights

# B. Sc. in Biotechnology with Gene Therapy (3 years):

# **Objectives**

- ✓ Opportunities for students to engage in research projects related to gene therapy under the guidance of faculty.
- ✓ Application-focused projects simulating real-world gene therapy scenarios.
- ✓ Exploration of global perspectives in gene therapy, considering its implications in various healthcare systems.
- ✓ Opportunities for internships in biotech companies specializing in gene therapy.

### **Outcome**

- ✓ To prioritize ethical considerations in all aspects of biotechnological research and gene therapy applications.
- ✓ To promote collaborative teamwork and interdisciplinary approaches in solving complex challenges in biotechnology and gene therapy.
- ✓ To encourage a sense of responsibility in the application of biotechnological knowledge, considering its impact on individuals and society.
- ✓ To value diversity and inclusivity, recognizing the importance of varied perspectives in driving innovation in biotechnology and gene therapy.

# B. Sc. Visual Communication Electronic Media (3 Years)

### **Objectives**

✓ State-of-the-art studios, a Multiplex and laboratories for visual arts and media production

- ✓ A world-class faculty of renowned artists, designers, and media professionals
- ✓ A strong focus on creativity, innovation, and technology in visual communication.
- ✓ Opportunities for hands-on 'and experiential learning through internships, industry partnerships, and real time projects
- ✓ A holistic approach to visual communication that encompasses various mediums, from traditional to digital
- ✓ Industry runs Add-on courses.
- ✓ Production Units and Student Start-ups in the Technology Business Incubation Centre.

#### **Outcome**

- ✓ To develop a comprehensive understanding of the principles and theories of visual communication in electronic media.
- ✓ To impart practical skills in the use of digital tools and software for visual design, video production, and multimedia storytelling.
- ✓ To prepare students for the dynamic field of electronic media by incorporating contemporary trends and industry practices.
- ✓ To provide hands-on experience with industry-standard equipment and technology used in electronic media production.

# M. A. Performing Arts

## **Objectives**

- ✓ Cultivate advanced skills and techniques in the chosen performing arts discipline, demonstrating a high level of artistic proficiency.
- ✓ Develop a sophisticated understanding of the theoretical foundations and critical discourses within the chosen performing arts field.
- ✓ Encourage interdisciplinary exploration by integrating knowledge from related fields, such as literature, philosophy, or cultural studies, into the study of performing arts.
- ✓ Enable students to engage in creative research and production, leading to the development of original and innovative works within their chosen discipline.
- ✓ Equip students with pedagogical skills to teach and mentor others in the performing arts, fostering the next generation of artists and scholars.
- ✓ Provide opportunities for professional development, including networking, collaboration with industry professionals, and exposure to real-world performance contexts.

✓ Foster an awareness of cultural diversity and global perspectives within the performing arts, encouraging students to explore and appreciate a broad range of artistic traditions.

#### **Outcomes**

- ✓ Demonstrate a high level of artistic excellence in performances, productions, or artistic projects, reflecting advanced skills and creative expression.
- ✓ Exhibit a deep understanding of theoretical concepts and critical frameworks, applying them to analyze and interpret performances within the chosen discipline.
- ✓ Integrate knowledge from multiple disciplines into the study of performing arts, producing work that reflects a rich and nuanced understanding of the art form.
- ✓ Generate and present original works that contribute to the innovation and advancement of the performing arts, showcasing creativity and artistic vision.
- ✓ Demonstrate effective teaching and mentoring skills, fostering the intellectual and artistic development of students in performing arts education settings.
- ✓ Engage actively with the professional performing arts community, participating in industry events, collaborations, and networking opportunities.
- ✓ Exhibit cultural sensitivity and awareness, appreciating and incorporating diverse perspectives in artistic expression and scholarly inquiry.

# M. Sc. Environment Science & Technology

## **Objectives**

- ✓ Develop an advanced understanding of key principles, theories, and concepts in environmental science, including ecology, climatology, and environmental chemistry.
- ✓ Acquire advanced skills in the use of technology and analytical tools for environmental monitoring, data analysis, and modeling.
- ✓ Foster an interdisciplinary approach by integrating knowledge from various scientific and technological disciplines to address complex environmental issues.
- ✓ Train students in advanced research methods and encourage the development of innovative solutions to environmental challenges through technology.
- ✓ Provide an in-depth understanding of environmental policy and management, preparing students to navigate regulatory frameworks and contribute to sustainable practices.
- ✓ Develop effective communication skills to convey scientific findings, technological solutions, and environmental recommendations to diverse audiences, including policymakers and the public.
- ✓ Instill a strong sense of professional ethics and responsibility in environmental science

- and technology practices, emphasizing environmental sustainability and social responsibility.
- ✓ Cultivate collaboration and teamwork skills to work effectively with professionals from various backgrounds in interdisciplinary environmental projects.

#### **Outcomes**

- ✓ Demonstrate advanced knowledge and expertise in environmental science, applying scientific principles to analyze and solve complex environmental issues.
- ✓ Utilize advanced technologies and tools for environmental monitoring, data analysis, and modeling, demonstrating proficiency in technological applications.
- ✓ Integrate knowledge from diverse scientific and technological disciplines to develop comprehensive solutions to environmental challenges.
- ✓ Conduct independent and rigorous research in environmental science and technology, contributing to the advancement of knowledge in the field.
- ✓ Apply knowledge of environmental policy and management to address real-world environmental issues, considering regulatory compliance and sustainability.
- ✓ Communicate scientific findings and technological solutions effectively to diverse stakeholders, demonstrating the ability to translate complex concepts for different audiences.
- ✓ Make ethically informed decisions in environmental science and technology practices, considering the environmental and social implications of actions.
- ✓ Lead and participate in interdisciplinary teams, demonstrating collaborative leadership skills in the development and implementation of environmental projects.

# **MBA Airport and Airline Management**

### **Objective**

- ✓ The experienced and dedicated faculty members involves in empowering the administrators and managers through structured academic module, outcome-based internships and learning through experience.
- ✓ All the students of the department is rightly directed towards attaining excellence in academics, placement, and entrepreneurship.
- ✓ Budding Managers are trained with value added courses in the area of Insurance Management and Wealth Management.
- ✓ Periodical Guest lectures, Workshops, Conferences, Management Meets, Company visits

- and Management Games add values to the department through Maestros Management Association.
- ✓ Airport Infrastructure Management: Studies the planning, development, and management of airport infrastructure, including terminals and runways.
- ✓ Technology in Aviation: Examines the role of technology, such as aviation management software and communication systems, in enhancing efficiency.

## **School of Health Sciences**

# **B.Sc. Renal Dialysis Technology**

## **Objectives**

- ✓ The goal of the programme is to provide students with the information and abilities necessary to work as successful healthcare professionals.
- ✓ Recognise and put into practice the dialysis principles and abilities required to provide the patient receiving hemodialysis with safe, efficient care.
- ✓ Show off your proficiency with hemodialyser equipment by demonstrating how to utilise it and your knowledge of alternative dialysis procedures.
- ✓ Using knowledge of the issue, assess the patient for any issues and identify which ones need to be reported to the doctor or nephrologist.
- ✓ The program's overarching objective is to give students a solid foundation in the subjects they will be studying as well as supplementary skills and abilities that will help them become competent healthcare providers.
- ✓ The program's objectives are to produce competent healthcare workers in the field of renal dialysis who will be able to provide high-quality clinical care, work well in interdisciplinary teams, and uphold social responsibility and professional excellence at all levels.

- ✓ Graduates must to be able to operate dialysis machines with ease, comprehend dialysis protocols, and oversee patient care during sessions.
- ✓ A deep understanding of renal physiology, anatomy, pathology, and the principles of hemodialysis and peritoneal dialysis.
- ✓ Ability to provide compassionate care to patients undergoing dialysis, including monitoring vital signs, recognizing complications, and responding appropriately to

- emergencies.
- ✓ Ability to cooperate well with nephrologists, nurses and other medical professionals who provide renal care as a member of a healthcare team.
- ✓ Manage dialysis procedures both Hemo and peritoneal and deal with complications.
- ✓ Students who complete these programs will be able to work in both an individual and team environment.

# B. Sc. Radiology and Imaging Technology

## **Objectives:**

- ✓ Disciplinary knowledge and its appropriate application: Through lectures, hands-on training with imaging machines, workshops, and presentations, this course will help students acquire pertinent disciplinary understanding of the nature, practice, and application of Medical Imaging Technology. The test and examination will evaluate the content.
- ✓ Expert abilities and how to use them Give Through the presentation projects, participants' time management, organisational and teamwork skills, and communication abilities will all improve.
- ✓ Taking on the demands of society the course will improve the students' ability to address the demands and ethical dilemmas that arise from the practice of medical imaging (e.g., striking a balance between radiation exposure to the patient, staff, and general public and diagnostic accuracy).
- ✓ Medical Care Each student will organise and carry out the recommended preventive, investigative, and management strategies and provide the necessary follow-up services while adhering to a patient/family-centered approach and making use of the best available evidence.
- ✓ Lifelong education the student should be dedicated to using current resources and technology to continuously develop their knowledge and skills. The following will be the students' abilities to become capable of conducting unbiased evaluations of their own knowledge and abilities.
- ✓ Social Responsibility and Accountability Students will understand that healthcare and related professionals must take on social responsibility, manage resources wisely, and act as advocates within the healthcare system. The goal is to solve the health challenges of the neighborhood, region, and country, which is why they will focus all of their research and service efforts in that direction.

#### **Outcomes**

- ✓ Mastery of various imaging techniques including CT, MRI, Fluoroscopy, and X-rays.
- ✓ Ability to deliver high-quality patient care, including making sure patients are comfortable during imaging procedures and putting safety precautions in place to reduce radiation exposure.
- ✓ Knowledge of quality control measures to maintain imaging equipment functionality and ensure the production of high-quality diagnostic images.
- ✓ Along with their in-depth expertise, students will be able to integrate their understanding of numerous types of radiological and imaging treatments.
- ✓ Students will acquire an understanding of the ways in which radiation impacts society.
- ✓ Students will be able to understand their ethical and legal responsibilities as radiographers.

# B. Sc. Operation Theatre and Anesthesia Technology

## **Objectives**

- ✓ Gain expertise in anesthesia and operating room protocols to ensure graduates can function well in healthcare teams.
- ✓ Assure the safe and effective provision of anesthesia services by providing students with the technical know-how needed to operate and maintain anesthesia equipment.
- ✓ Encourage a dedication to the safety and well-being of patients, stressing the value of moral and sympathetic behaviour in the perioperative and anesthetic environments.
- ✓ To engage with patients, medical staff, and other team members in a cooperative and interdisciplinary healthcare setting, develop good communication skills.
- ✓ Develop critical thinking skills to evaluate, examine, and react to changing circumstances in anaesthesia and operating room settings, guaranteeing prompt and suitable decisionmaking.
- ✓ Instill in all contacts within the healthcare setting a feeling of professionalism, ethical conduct, and respect for confidentiality.
- √ To stay current with developments in patient care, healthcare procedures, and technology, promote a dedication to continuous learning and professional development.

#### **Outcomes**

✓ Understanding the organization and management of operation theaters, including sterilization techniques, equipment handling, and maintaining aseptic conditions.

- ✓ Ability to assist surgeons during procedures, including knowledge of surgical instruments, handling of specimens, and maintaining a sterile environment.
- ✓ Efficiency and proficiency in operating various kinds of equipment.
- ✓ Ability to teach students how to support anesthesiologists with anesthesia administration and monitoring, including CPR.
- ✓ Following infection control procedures and keeping the operating room tidy and secure will help avoid infections linked to healthcare.
- ✓ To make students aware of the basic surgical and ethical principles, infection control protocol followed in operating room complex.

# B. Sc. Cardiovascular Technology

## **Objectives**

- ✓ The goal of the allied health sciences program is to give people who want to work in healthcare support positions thorough training and education.
- ✓ The objective is to give students the information and abilities they need to support medical professionals, improve patient care, and improve healthcare delivery as a whole.
- ✓ The B.Sc. Cardiac Technology program's aim is to prepare students for careers in the specialized field of heart care. This entails becoming proficient in the evaluation and tracking of cardiac problems, making use of diagnostic instruments, and comprehending cardiovascular therapies.
- ✓ The curriculum is designed to educate students for careers as cardiac technologists, where they will be able to interact with medical professionals, diagnose and treat cardiovascular disorders, and critically assess the health of individuals with heart problems.
- ✓ Acquire and use both basic and advanced life support techniques Collaborate as a group with Cardiologists and Cardiac Surgeons in a demanding hospital setting. Perform needs-based research studies in different contexts and apply the study results to enhance.

- ✓ A deep understanding of the structure and function of the heart and circulatory system, including knowledge of cardiac diseases and conditions.
- ✓ Expertise in conducting and supporting a range of cardiac diagnostic procedures, including electrocardiograms (ECGs), echocardiograms, stress tests, and Holter monitoring.

- ✓ Mastery of the use, calibration, and maintenance of cardiac monitoring and imaging equipment, ensuring accurate readings and efficient functionality.
- ✓ Assisting patients in their recovery and educating them about lifestyle adjustments are all aspects of offering cardiac rehabilitation programs.
- ✓ Assist and support to utilize modern tools and techniques in the arena of cardiovascular technology for patient compliance.

# **B. Sc. Physician Assistant**

## **Objectives**

- ✓ Gain expertise in evaluating patients, making medical diagnoses, and administering suitable care while working under a doctor's supervision.
- ✓ To guarantee clear understanding and cooperation in the provision of healthcare, improve your ability to communicate effectively with patients, families, and healthcare professionals.
- ✓ Maintain the highest standards of integrity and professionalism in the practice of healthcare while promoting moral behavior, empathy, and cultural competency.
- ✓ Develop the capacity to sift through and evaluate complicated medical data, come to wise conclusions, and adjust to changing healthcare conditions.
- ✓ Encourage a dedication to lifelong learning and professional growth, staying up to date with developments in medical science and technology.
- ✓ Recognize the value of a multidisciplinary approach to patient treatment and encourage efficient teamwork and collaboration with other healthcare professionals.
- ✓ To enhance general population health, raise health awareness and take preventative measures.
- ✓ Speak up for patients' rights, participate actively in campaigns to enhance the healthcare system, and contribute to conversations about healthcare policy.

- ✓ Ability to provide comprehensive patient care, including assessing, diagnosing, and developing treatment plans under the supervision of a licensed physician.
- ✓ Ability to carry out a variety of clinical tasks with proficiency, including wound care, suturing, casting, and supporting small surgeries or medical treatments.
- ✓ Effective communication with patients, families, and healthcare team members, conveying medical information clearly and compassionately.

✓ Adherence to ethical standards in patient care, confidentiality, and professionalism in all interactions with patients and colleagues.

# B. Sc. Medical Laboratory Technology

## **Objectives**

- ✓ Complete training in the departments of biochemistry, microbiology, pathology, and blood banking in all areas of laboratory medicine. Perform grossing, cutting, and staining procedures in histopathology;
- ✓ Accurately analyse biological material by being proficient in a variety of laboratory tests and processes.
- ✓ Gain a solid foundation in the use and upkeep of diagnostic laboratory instruments and equipment.
- ✓ By following defined standards and procedures, comprehend and put into practice quality control methods to guarantee the correctness and dependability of laboratory results.
- ✓ Gain the capacity to evaluate and decipher laboratory data and make insightful inferences that will support medical condition diagnosis and therapy.
- ✓ In the practice of medical laboratory technology, cultivate a dedication to ethical conduct, patient confidentiality, and professional integrity.

- ✓ Learn the fundamentals of scientific inquiry, how to think critically, analytically, and clearly when making judgements and addressing problems in day-to-day practice, and how to check the accuracy of results from laboratory work.
- ✓ Under the overall direction of a Clinical Laboratory Scientist or Pathologist, perform normal clinical laboratory operations in the areas of haematology, chemistry, immunohematology, and microbiology within acceptable quality control parameters. Exhibit the technical proficiency, social conduct, and professional awareness expected of a laboratory technician.
- ✓ Verify the accuracy of obtained laboratory results, detect and fix procedural problems, and seek appropriate supervisory support as necessary by using systematised problem resolution procedures.
- ✓ Maintain and operate laboratory equipment by following the proper safety and quality control protocols.

# M. Sc. Clinical Microbiology

## **Objectives**

- ✓ Proficiency in Microbiological Concepts: Acquire a profound comprehension of sophisticated medical microbiology concepts, such as immunology, molecular biology, and microbial pathogenesis.
- ✓ Research Proficiency: Acquire the abilities necessary to carry out autonomous, significant research in the field of medical microbiology, advancing our understanding of the subject and its applications.
- ✓ Diagnostic and Clinical Competence: Show mastery of laboratory methods and clinical applications while gaining the capacity to use microbiological knowledge to diagnose and treat infectious diseases.
- ✓ Critical Thinking and Problem-Solving: Develop your critical thinking abilities to examine difficult microbiological problems and come up with workable answers while taking the moral, social, and financial ramifications into account.
- ✓ Communication Skills: Showcase strong communication abilities to collaborate with other scientists by presenting microbiological knowledge in an understandable and succinct manner, both orally and in writing.
- ✓ Lifetime Learning: Encourage a dedication to professional growth and lifetime learning by keeping up with the latest developments in medical microbiology research, trends, and technology.
- ✓ Ethical and Social Responsibility: Maintain the highest ethical standards in both research and practice, be aware of how advances in microbiology affect society, and make a responsible contribution to public health.
- ✓ Leadership and Collaboration: Gain the capacity to lead and work with interdisciplinary teams in order to further medical microbiology in contexts that are academic, clinical, or industrial.

- ✓ Explain the mechanisms of pathogenic microorganisms' transmission;
- ✓ Show advanced knowledge and comprehension of the nature of pathogenic microorganisms (mostly viruses and bacteria) and the fundamental standards used in their classification and taxonomy;
- ✓ Demonstrate knowledge and understanding of the mechanisms of microbial pathogenesis and the consequences of infections, including chronic microbial infections;

- ✓ Demonstrate knowledge of the laboratory diagnosis of microbial diseases and practical skills, such as the isolation and characterization of specific microbes in clinical specimens;
- ✓ Perform a range of advanced skills and laboratory techniques, such as the purification of isolated microbial pathogens and analyses of their proteins and nucleic acids for downstream applications such as gene cloning and sequencing studies; and
- ✓ Demonstrate research skills, including designing experiments, analyzing results, troubleshooting, and critically evaluating the scientific literature.

# M. Sc. Medical Laboratory Technology

## **Objectives**

- ✓ Describe the guiding ideas and procedures utilised in molecular laboratory experiments.
- ✓ Describe the clinical importance of molecular laboratory techniques employed in illness diagnosis, treatment, and health maintenance.
- √ When choosing new methods and tools, keep the principles of method evaluation in mind.
- ✓ Analyze data using bio statistical concepts to make inferences and assess the importance of study findings.
- ✓ To plan, carry out, and share the findings of studies on novel technologies, practices, or diagnostic correlations, employ research methodologies.
- ✓ Examine the quality control procedures that are in place to guarantee the dependability and correctness of laboratory data.
- ✓ Describe and put into practice the main ideas and procedures related to budgeting, supervision, and laboratory management.
- ✓ Describe and put into practice the fundamentals of efficient test use.
- ✓ Interpret, put into practice, and abide by the applicable governmental and non-governmental organizations' rules, regulations, accreditation requirements, and recommendations.
- ✓ Utilize management concepts while purchasing and assessing laboratory information systems.
- ✓ Create, put into practice, and assess resource management plans to keep lab productivity at its peak.

- ✓ Create a strategy plan to assist clinical laboratory staff members in advancing their professional careers.
- ✓ Create instructional materials and communicate information using pedagogical techniques.
- ✓ Use a range of forms to successfully communicate with different audiences (e.g. presentations, written communications).
- ✓ Create and finish a capstone project in laboratory operations, teaching, or advanced clinical laboratory practice.

- ✓ Acquire the technical know-how and knowledge necessary for clinical laboratory procedures within acceptable quality control parameters in the areas of pathology (including hematology, blood banking, clinical pathology, histopathology, and cytology), microbiology (including virology, mycology, parasitology, and immunology), and biochemistry in the foundations of medical laboratory technology for an understanding of health issues.
- ✓ Determine how a laboratory test affects the formulation and application of research, analyses intricate laboratory difficulties, and draw well-supported conclusions from Pathology, Microbiology, and Biochemistry for medical laboratory technology diagnosis and research.
- ✓ Discover how to create solutions for challenging laboratory tests that identify health issues and create system parts or procedures that satisfy requirements while taking public health and safety, cultural, sociological, and environmental aspects into account.
- ✓ Use systematic approaches to solve problems in order to find and fix some procedural mistakes, troubleshoot instrument faults, and ask for the right kind of supervisory support.
- ✓ Gain hands-on experience by doing an internship in a variety of research centres and multispecialty hospitals.
- ✓ In order to safeguard both themselves and the patients they treat, educators must be knowledgeable about blood-borne infections, hazardous communication, and other laboratory requirements.

# **School of Technology**

# B. Tech. Forensic Science and Digital Criminology

## **Objectives**

- ✓ The basic analysis of biological samples found at the crime scene
- ✓ To handle the evidences left out at the crime scene
- ✓ The basic methods for examine the different types of questioned documents
- ✓ Identify the different petroleum products by TLC examination
- ✓ Examination of counterfeit Indian currency notes, passports and other mechanical impressions
- ✓ Identify the classification and mode of different types of poisons
- ✓ Understanding the classification of firearms and their mechanisms

#### **Outcomes**

The graduates after completion of the degree will be able to

- ✓ Apply the Laboratory skills to participate in the career needs of Forensic community.
- ✓ Become trained in the laboratory skills of different division of Forensic Science.
- ✓ Be able to work with different R&D organizations

# B. Tech. Avionics and Drone Engineering

### **Objectives**

- ✓ To provide the students, the strong foundation in science, mathematics, and engineering skills to pursue higher education and to solve engineering issues.
- ✓ To motivate the students to be lifelong learners to pursue career advancement.
- ✓ To provide the students an opportunity to participate and thrive in a multi-disciplinary, systems oriented work environment.
- ✓ To mould the students to contribute to the solution of complex technical problems that exist in the global aeronautical industry.
- ✓ To make the students to understand their ethical role as a professional engineer and strive to promote a practice of integrity and foster diversity, equity, and inclusion in the workplace.

#### **Outcomes**

The graduates after completion of the degree will be able to

✓ Apply the fundamentals of aerodynamics, structures, propulsion, materials, and avionics, to solve industrial challenges in the aeronautical field and to excel in the professional

career.

- ✓ Utilize the software tools for designing, manufacturing, testing, and maintenance of aeronautical and aerospace systems and components.
- ✓ To get placed in global careers and to take up the leadership responsibilities through consistent learning with idealistic managerial practices.

# B. Tech. Artificial Intelligence and Medical Imaging

## **Objectives**

- ✓ By undergoing this program, students develop critical, innovative, creative thinking and problem-solving abilities for a smooth transition from academic to the real-life work environment
- ✓ In addition, students will be trained in interdisciplinary topics and attitudinal skills to enhance their scope
- ✓ The above-mentioned features of the program, advanced teaching, and learning resources, and the experience of the faculty members with their strong connections with the ICT sector make this program unique.

### **Outcomes**

- ✓ Utilize their proficiencies in the fundamental knowledge of basic sciences, mathematics, Artificial Intelligence, data science and statistics to build systems that require management and analysis of large volumes of data.
- ✓ Advance their technical skills to pursue pioneering research in the field of AI and Data Science and create disruptive and sustainable solutions for the welfare of ecosystems.
- ✓ Design and model AI based solutions to critical problem domains in the real world.
- ✓ Exhibit innovative thoughts and creative ideas for effective contribution towards economy building

# B. Tech. Agricultural and Biological Engineering

## **Objectives**

The educational objectives of the Agricultural and Biological Engineering program are to produce graduates who:

✓ Demonstrate proficiency in analytical methods involving the application of mathematics, foundational physical and biological sciences, engineering principles, and computational techniques essential for agricultural engineering practice.

- ✓ Acquire the skills necessary for the design process, including the ability to think innovatively, formulate problem statements, communicate effectively, synthesize information, and assess and implement problem solutions.
- ✓ Exhibit the capacity to address ethical, safety, professionalism, cultural diversity, globalization, environmental impact, and social and economic considerations in engineering practice.
- ✓ Showcase continuous professional and technical development, along with practical experience, to qualify for professional engineering licensure or attain a corresponding level of expertise.

#### **Outcomes**

Graduates of this program will exhibit:

- ✓ Proficiency in identifying, formulating, and solving intricate agricultural and biosystems engineering problems through the application of engineering, scientific, and mathematical principles.
- ✓ Capability to employ engineering design to generate solutions that fulfill specified requirements, taking into account considerations such as public health, safety, welfare, as well as global, cultural, social, environmental, and economic factors.
- ✓ Effective communication skills across diverse audiences.
- ✓ Recognition of ethical and professional responsibilities in engineering scenarios, with the ability to make informed judgments considering the broader impact of engineering solutions in global, economic, environmental, and societal contexts.
- ✓ Ability to work efficiently within a team, contributing leadership, fostering a collaborative and inclusive environment, establishing goals, planning tasks, and achieving objectives.
- ✓ Proficiency in developing and conducting appropriate experiments, analyzing and interpreting data, and using engineering judgment to draw meaningful conclusions.
- ✓ Capability to acquire and apply new knowledge as necessary, utilizing appropriate learning strategies.

# B. Tech. Food Science and Technology

## **Objectives**

The educational objectives of the Food Science and Technology program are to:

- ✓ Create an engaging and conducive study environment for students aspiring to pursue careers in food science, food technology, food processing, and agri-business.
- ✓ Offer flexible learning opportunities, enabling students to acquire pertinent knowledge and skills highly sought after in both the job market and the food industry.
- ✓ Provide avenues for young individuals and other interested parties to enter emerging professions, facilitating a swift transition to employment.
- ✓ Integrate international expertise, best practices, and domestic potential to cultivate a pool of adept graduates capable of addressing skill shortages in the country's economy.

#### **Outcomes**

Graduates of this program will exhibit:

- ✓ Acquire fundamental knowledge of raw materials, intermediate products, and finished goods, as well as the management and marketing of food items.
- ✓ Develop an understanding of the processing techniques for both animal and plant-based products.
- ✓ Comprehend and implement standards and regulations related to food processing and safety.
- ✓ Utilize methods to analyze and control the quality and nutritional values of food products.
- ✓ Grasp the terms and conditions for the accumulation and storage of raw materials in industrial production.
- ✓ Apply technology for the entire food processing chain, from the collection and storage of raw materials to final production.
- ✓ Acquire knowledge and familiarity with laboratory environments, equipment, and processes.
- ✓ Engage in innovative product design, implement relevant production systems, and apply novel approaches to product packaging and marketing.

# M. Tech. Artificial Intelligence and Medical Imaging

## **Objectives**

- ✓ Identify and apply fundamental concepts, algorithms, and methodologies to formulate, analyze, design, and evaluate artificial intelligence for analysis of Medical Images
- ✓ Apply computing knowledge and tools to assist in performing Diseases Patterns
  Prediction with Medical Imaging Techniques
- ✓ Analysis complex machine learning and artificial intelligence problems using contemporary technologies and methodologies with tools
- ✓ Participate in a team to develop AI and machine learning applications; while recognizing the ethical, economic and environmental implications of their work

#### **Outcomes**

The post graduates after completion of the degree will be able to

- ✓ Undertake industry careers involving innovation and problem solving using AI and ML technologies for Medical Patterns Prediction Imaging
- ✓ Emerge as AI professionals, data scientists, researchers and entrepreneurs possessing collaborative and leadership skills, for developing innovative solutions in multidisciplinary domains.
- ✓ Promote knowledge transfer in the emerging areas of AI and ML technologies
- ✓ Design and model AI based solutions to critical problem domains in the real world.

# M. Tech. Forensic Science and Digital Criminology

## **Objectives**

✓ To prepare students to apply critical and ethical thinking skills and apply knowledge to positions in the criminology field and/or their graduate education.

### **Outcomes**

- ✓ Apply the Laboratory skills to participate in the career needs of Forensic community.
- ✓ Become trained in the laboratory skills of different division of Forensic Science.
- ✓ Be able to work with different R&D organizations
- ✓ Be able to propose new Technologies for better prediction in Forensic community

# M. Tech. Avionics and Drone Engineering

#### **Objectives**

✓ To prepare and provide the student with a strong academic and research environment to

- excel in Aeronautical Engineering and to succeed in industry / technical profession and the life-long learning needed for a successful professional career in Aeronautical Engineering and related fields.
- ✓ To train students with good scientific and engineering breadth so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.
- ✓ To inculcate in students professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, and an ability to relate engineering issues to broader social context.

- ✓ To employ comprehensive knowledge in Aeronautical Engineering and analytical skills to work towards solving complex problems to excel in the professional career.
- ✓ To design, analyze and produce cutting edge engineering solutions by employing modern techniques and adhering to moral values for sustainable development.
- ✓ To assume global careers and leadership responsibilities through consistent learning with idealistic managerial practices.

# 14. <u>University Authorities</u>

#### **Academic Council:**

The academic council shall be the principal academic body of the DTBU and shall, subject to the provision of the Rules of the DTBU, co-ordinate and exercise general supervision over the academic policy of the DTBU.

### The composition of the Academic Council shall be as follows:

- 1. Vice-Chancellor Chair person.
- 2. Pro Vice Chancellor
- 3. Deans
- 4. Head of Departments
- 5. Up to ten Professors (excluding Deans & Head of Departments) on the basis of seniority and rotation, to be nominated by Vice-chancellor in consultation with the Pro Vice-Chancellor giving due regard to representation of different Departments.
- 6. Up to six Associate Professors other than the Head of the Departments, by rotation according to seniority to be appointed by the Vice-Chancellor in consultation with the Pro-Vice chancellor.
- 7. Up to six Assistant Professors other than the Head of the Departments, by rotation according to seniority to be appointed by the Vice-Chancellor in consultation with the Pro-Vice chancellor.
- 8. Six persons of repute from amongst educationists or experts for their specialized Knowledge, who are not in the service of the DTBU, nominated by the Vice-Chancellor in consultation with the Pro-Vice-Chancellors.
- 9. The Registrar shall be the ex-officio Secretary of the Academic Council.

#### Note:

The representation of different categories shall be only through rotation and not through an election

The term of members, other than the ex-officio members, shall be for a period of three years.

The Controller of Examination shall be the permanent invitee to the meetings of the Academic council.

#### **Power and functions of the Academic Council:**

Subject to the provisions of these Regulations and Rules of the DTBU, the Academic Council shall, in addition to all the other powers vested on it, have the following powers:

- 1. To exercise general supervision over the academic policies of the DTBU and to give direction regarding methods of instruction, co- ordination of teaching among the Departments, evaluation of research and improvement of academic standards.
- 2. To bring about and promote inter-departmental, inter-faculty, co-ordination and to establish or appoint such committees or boards as may be deemed necessary for the purpose.
- 3. To consider the matters of general academic interest either on its own initiative, or on a reference by a Department/ Faculty or the Executive Council, and to take appropriate action thereon.
- 4. To prescribe courses/ Programs of study leading to degree of DTBU.
- 5. To make arrangements for the conduct of examinations in conformity with the Rules/Bye-Laws.
- 6. To maintain proper standards of the examinations.
- 7. To recognize degrees of Universities and other Institutions and to determine equivalence with the degrees of the DTBU.
- 8. To institute Fellowships, Scholarships, Medals, Prizes etc.
- 9. To frame rules covering the academic functioning of the DTBU, admissions, examinations, award of fellowships and studentships, free-ships, concessions, attendance, discipline, residence etc.,
- 10. To take a periodical review of the activities of the Departments and to take appropriate actions to maintain and improve standards of instruction.
- 11. To make recommendations to the higher body BOM.
- 12. To exercise such other powers, and to perform such other duties, as may be conferred or imposed upon it by the Rules.

### **Meeting of the Academic Council:**

The Academic council shall meet as often as necessary but not less than four times (at least twice in a semester) during an academic year with no less than 7 days of notice being given before every meeting of the Academic Council. Emergency meetings can be covered by giving a short notice.

More than one third of the total number of members of the Academic Council shall constitute the quorum for the meeting of the Academic Council.

Each member of the Academic Council, including the Chairperson, shall have one vote and decisions at the meeting shall be taken by simple majority; and in case of a tie, the Chairperson shall have a casting vote.

# **Finance Committee:**

The composition of Finance Committee of the DTBU shall be as under:

- 1. Vice-Chancellor Chair person
- 2. Pro Vice Chancellor
- 3. Three members, one from each CI nominated by the respective Directors
- 4. Three Members to be nominated by the Chancellor
- 5. The Finance Officer shall be the ex- officio Secretary of the Academic Council
- 6. Tenure of members of the Finance Committee:

All the members of the Finance Committee other than ex- officio members shall hold office for a term of three years

The Finance Committee shall meet at least four times a year (at least twice each semester) to examine the accounts and scrutinize proposals for expenditure. More than one-third of the total number of members of Finance Committee shall form the quorum for a meeting.

All proposals relating to creation of posts in the DTBU, and those items which have not been included in the Budget, shall be examined by the Finance committee before the Executive council/BOM considers them.

The annual accounts and financial estimates of the DTBU prepared by the Finance Officer shall be placed before the Finance committee for consideration and comments and thereafter submitted to the Executive Council/ BOM for approval.

The Finance Committee shall recommend limits for the total recurring and non-recurring expenditures for the year, based on the income and resources of the DTBU.

#### **Board of Studies:**

There shall be one Board of Studies for each Department/ Program of the DTBU. The composition of the Board of studies shall be as under:

- 1. One of the Deans would assume the responsibility as the Chairperson by rotation on seniority.
- 2. The other two Deans then assume the responsibility as the Vice-Chairpersons.
- 3. All faculty members in the rank of professor of equivalent grade of the Department.
- 4. Two Associate Professors of equivalent grade of the Department by rotation based on the seniority.
- 5. Two Assistant Professors of equivalent grade of the Department by rotation based on the seniority.
- 6. Two external experts to be co-opted for their specialized Knowledge.

Subject to overall control and supervision of the Academic Council, the functions of the Board of Studies shall be to approve subjects for teaching and research for various degrees and other requirements of research degrees and to recommend to the concerned Department in the manner prescribed by the Rules:

- 1. Course of Studies
- 2. Appointment of supervisors for research
- 3. Measures for the improvement of the Standards of teaching and Research.

Note: The powers and functions of the Board of Studies shall be prescribed by the Rules of the DTBU.

## **Disqualification:**

A person can be disqualified for being chosen as, and for being, a member of any of the authorities, or being appointed as, and for being, an officer, of the DTBU if:

- 1. If he/she is of unsound mind; or
- 2. If he/she is an un-discharged insolvent; or
- 3. If he/she has been convicted by a court of law for an offence involving moral turpitude and sentenced in respect thereof to imprisonment for not less than six months; or
- 4. If he/she has not been appointed as per the provisions of these Regulations.

If any question arises as to whether a person is or had been subjected to any of the disqualifications mentioned above, the question shall be referred to the Chancellor and his decision shall be final and no suit or other proceeding shall lie in any civil court against such

decision.

## Miscellaneous matters pertaining to different authorities:

If any question arises, as to whether any person has been duly nominated or appointed as, or is, entitled to be a member of any authority or any committee of the DTBU, the matter shall be referred to the Chancellor, whose decision there on shall be final and binding.

Any member, other than an ex-officio member of any authority, may resign by a letter addressed to the Registrar and the resignation shall take effect as soon as it is accepted by the Chancellor or the Chairperson of the Executive Council/BOM, as the case may be.

Sudden vacancies among the members of any authority or any Committee of the DTBU shall be filled by the respective authority, as soon as may be, and within a period of six months.

# 15. Officers of The Deemed to Be University

## Officers of the University are:

Chancellor

**Pro Chancellor** 

**Vice Chancellor** 

Pro - Vice - Chancellor

**Registrar (Administration)** 

**Finance Officer** 

**COE** (Registrar- Evaluation)

### **Chancellor:**

The Chairman, is the chancellor of the DBTU

### Vice-Chancellor:

- The Vice-Chancellor shall be one of the Eligible candidate appointed by the Chancellor and shall hold office for a term of 3/5 years from the date on which he/ she assumes office.
- ➤ If the office of the Vice-Chancellor becomes vacant due to death, resignation or otherwise, or if he/she is unable to perform his/ her duties due to ill-health, or any other. Cause, a Pro-Vice-Chancellor as per seniority shall perform the 'duties of the Vice-Chancellor;

#### Powers and duties of Vice-Chancellor:

- The Vice-Chancellor shall be the Principal Executive Officer and academic officer of the DTBU and shall exercise general supervision and control over the affairs of the DTBU and give effect to the decision of all authorities of the DTBU.
- The Vice-Chancellor may, if he/she is of the opinion that immediate action is necessary on any matter, exercise any power conferred on any authority of the DTBU by or under these Regulations and shall report to such authority at its next meeting the action taken by him/her on such matter.
- Provided that if the authority mentioned in Clause (ii) herein above is of the opinion that such action ought not to have been taken, it may refer the matter to the Chancellor

- whose decision thereon shall be final
- ➤ Provided further that any person in the service of the DTBU who is aggrieved by the action taken by the Vice-Chancellor under this sub-section shall have the right to represent against such action to the Executive Council / BOM within 90 days from the date on which decision on such action is communicated to him/her and There upon the Executive Council / BOM may confirm, modify or reverse the action taken by the Vice-Chancellor.
- The Vice-Chancellor, if he/she is of the opinion that any decision of any authority of the DTBU is beyond the power of the authority conferred by the provisions of these Regulations or that any decision taken is not in the interest of the DTBU, may ask the authority concerned to review its decision within sixty days of such decision and if the authority refuses to review the decision either in whole or in part or no decision is taken by it within the said period of sixty days, the matter shall be referred to the Chancellor whose decision thereon shall be final.
- The Vice-Chancellor shall be the Ex-Officio Chairperson of the Executive Council/BOM, the Academic Council and the Finance Committee and shall, in the absence of the Chancellor, preside at the Convocations held for conferring degrees.
- The Vice-Chancellor shall be entitled to be present at, and address, any meeting of any authority or other body of the DTBU, but shall not be entitled to vote there at unless he/she is a member of such authority or body.
- It shall be the duty of the Vice-Chancellor to see that these Regulations are duly observed and implemented and he/she shall have all the powers necessary to ensure such observance.
- The Vice-Chancellor shall have all the powers necessary for the proper maintenance of discipline in the DTBU and he/she may delegate any such powers to such person or persons as he/she deems fit.
- The Vice-Chancellor shall have the power to convene or cause to be convened the meetings of the Executive Council/ BOM, the Academic Council, and the Finance Committee and other authorities.

## **Pro- Vice – Chancellor:**

- The post of the Pro-Vice- chancellor will be held optional if required Vice Chancellor can appoint a suitable person.
- The pro- Vice- Chancellor shall assist the Vice-Chancellor in respect of such matters

as may be specified by the Vice- Chancellor on his/her behalf, from time to time, and shall also exercise such powers and perform such duties as may be assigned or delegated to him/her by the Vice- Chancellor.

The Pro-Vice- Chancellor shall hold office for a term of 3 years from the date on which he/she assumes office.

## **Registrar:**

The Registrar shall be a whole-time salaried officer of the DTBU and shall be appointed by the Executive Council/ BOM on the recommendations of the Selection Committee consisting of the following:

- **Vice Chancellor Chairperson.**
- Pro-Vice-Chancellor Vice Chairperson.
- Member nominated by the Chancellor.
- **Two members of the Executive Council/ BOM nominated by the Council.**
- ♦ One expert from outside nominated by the Executive Council/ BOM

The meeting of the selection committee shall be fixed after prior consultation with, and subject to the convenience of the Chancellor's nominee and the experts nominated by the Executive Council/ BOM. The proceedings of the Selection Committee shall not be valid unless at least three of the, Chancellor's nominee & persons nominated by the Executive Council/ BOM attend the meeting.

- The Registrar shall hold office for a term as per the University norms from the date of assuming office, and shall be eligible for reappointment for a second term. Provided further that, in any case, the Registrar shall retire on attaining the age of sixty years. The emoluments and other terms and conditions of service of the Registrar shall be as prescribed by the University norms.
- When the office of the Registrar is vacant or when the Registrar is on leave or absent due to any other reasons, the duties and functions of the Registrar shall be performed by such other person as the Vice-Chancellor may appoint for the purpose.
- The Registrar shall be ex-officio Secretary of the Executive Council/ BOM and the Academic Council, but shall not be Deemed to be a member of any of these authorities.
- The Registrar shall be directly reporting to the Vice-Chancellor and work under
  Page | 105

his/her direction.

- The Registrar shall have the power to take disciplinary action against such of the employees, excluding faculty and other academic staff, as may be specified in the order of the Executive Council / BOM and to suspend them pending inquiry, to administer warnings to them or to impose on them the penalty of censure or the withholding or increment.
  - Provided that no such penalty shall be imposed unless the person has been given a reasonable opportunity of showing cause against the action proposed to be taken in regard to him.
  - An appeal shall lie with the Vice-Chancellor against any order of the Registrar imposing any of the penalties specified above.
- In case where the inquiry discloses that a punishment beyond the power of the Registrar is called for, the Registrar shall, upon the conclusion of the inquiry, make a report to the Vice-Chancellor along with his/her recommendations.
  - Provided that an appeal shall lie with the Executive Council/ BOM against an order of the Vice-Chancellor imposing any penalty.

### It shall be the duty of the Registrar:

- 1. To be the custodian of the records, the common seal, and such other property of the DTBU as the Executive Council/ BOM shall commit to his/her charge
- 2. To issue all notices convening meetings of the Executive Council/ BOM, the Academic Council and of any Committees appointed by those authorities
- 3. To keep the minutes of all the meetings of the Executive Council/ BOM, the Academic Council and of any Committees appointed by those authorities
- 4. To conduct the official correspondence of the Executive Council/ BOM and the Academic Council
- 5. To make available to the Chancellor copies of the agenda of the meetings of the authorities of the DTBU as soon as they are issued and the minutes of such meetings.
- 6. To represent the DTBU in suits or proceedings by or against the University, sign power of attorney and verify pleadings or depute his representative for the purpose.
- 7. To perform such other duties as may be specified in the Rules or as may be required from time to time by the Executive Council or the Vice-Chancellor.
- 8. To enter into agreement, sign documents and authenticate records on behalf of the

DTBU.

- 9. To make arrangements to safeguard and maintain the buildings, gardens, office, canteen, cars and other vehicles, laboratories, libraries, reading rooms, equipment and other properties of the DTBU.
- 10. To conduct the official correspondence on behalf of the authorities of the DTBU.

## **Finance Officer:**

The Finance Officer shall be a full-time salaried officer of the DTBU and shall be appointed by the Executive Council on the Recommendations of the Selection Committee consisting of the following:

- **Vice Chancellor Chairperson.**
- **Pro-Vice-Chancellor Vice Chairperson.**
- **\*** Member nominated by the Chancellor.
- **Two members of the Executive Council/ BOM nominated by the Council.**
- ❖ One expert not in the service of the DTBU nominated by the Executive Council

The meeting of the selection committee shall be fixed after prior consultation with, and subject to the convenience of the Chancellor's nominee and the experts nominated by the Executive Council/ BOM. The proceedings of the Selection Committee shall not be valid unless at least three of the, Chancellor's nominee & persons nominated by the Executive Council attend the meeting.

The Finance Officer shall hold office for a term as per the University norms from the date of assuming office, and shall be eligible for reappointment for a second term. Provided further that, in any case, the Finance Officer shall retire on attaining the age of sixty years. The emoluments and other terms and conditions of service of the Finance Officer shall be as prescribed by the University norms.

When the office of the Finance Officer is vacant or when the finance Officer is, by reason of illness, absence or any other cause, unable to perform the duties of his/her office, the duties of the office shall be performed by such persons as the Vice-Chancellor may appoint for the purpose.

The Finance Officer shall be ex-officio Secretary of the Finance Committee but shall not

be deemed a member of such Committee.

#### The Finance Officer shall

- 1. Exercise general supervision over the funds of the DTBU and shall advise it as regards its financial policy.
- 2. Perform such other financial functions as may be assigned to him by the Executive Council or as may be prescribed by the Rules of the DTBU.

### **Subject to the control of the Executive Council, the Finance Officer shall:**

- 1. Ensure that the limits fixed by the Executive Council for recurring and non-recurring expenditure for a year are not exceeded and that all amounts of money are expended on the purpose for which they are granted or allotted
- 2. Be responsible for the preparation of annual accounts and the budget of the DTBU and for their presentation to the Executive Council/ BOM
- 3. Keep a constant watch on the state of the cash and bank balances and on the state of investments
- 4. Watch the progress of the collection of revenue and advice on the methods of collection employed
- 5. Ensure that the registers of buildings, land, furniture, and equipment are maintained and upto-date and stock-checking is conducted, of equipment and other consumable materials in the DTBU.
- 6. Bring to the notice of the Vice-Chancellor unauthorized expenditure and other financial irregularities and suggest disciplinary action against persons at fault.
- 7. Call for from any Office, Department, Laboratory, etc. maintained by the DTBU any information or returns that he/she may consider necessary for the performance of his/her duties.
- 8. The Finance Officer shall work under the direction of the Vice-Chancellor and shall be responsible to the Executive Council through the Vice-Chancellor.

### **Controller of Examinations:**

The Controller of Examinations shall be a full-time salaried officer of the DTBU and shall be appointed by the Executive Council on the Recommendations of the Selection Committee consisting of the following:

- **Vice Chancellor Chairperson.**
- **Pro-Vice-Chancellor Vice Chairperson.**

- **Member nominated by the Chancellor.**
- **Two members of the Executive Council/ BOM nominated by the Council.**

One expert not in the service of the DTBU nominated by the Executive Council

Quorum The meeting of the selection committee shall be fixed after prior consultation with, and subject to the convenience of the Chancellor's nominee and the experts nominated by the Executive Council. The proceedings of the Selection Committee shall not be valid unless at least three of the, Chancellor's nominee & persons nominated by the Executive Council attend the meeting.

The Controller of Examinations shall hold office for a term as per the Central University norms from the date of assuming office, and shall be eligible for reappointment for a second term. Provided further that, in any case, the Controller of Examinations shall retire on attaining the age of sixty years. The emoluments and other terms and conditions of service of the Controller of Examinations shall be as prescribed by the Central University norms.

When the office of the Controller of Examinations is vacant or when the Controller of Examinations is, by reason of illness, absence or any other cause, unable to perform the duties of his/her office, the duties of the office shall be performed by such persons as the Vice- Chancellor may appoint for the purpose.

The Controller of Examination shall arrange for and superintend the examinations of the DTBU in the manner prescribed by the Rules.

The Controller of Examinations shall be a permanent invitee to the Academic Council.

The Controller of Examinations shall ensure that all the specific directions of the Executive Council, Academic Council and Vice-Chancellor in respect of examination and evaluation are complied with.

#### Dean

The Director of each School will nominate a person who shall be appointed by the Vice-Chancellor for a period of two years.

# **Head of the Department**

The Directors of the Schools would nominate the Heads of the Department.

Heads of Department shall be appointed by the Vice-Chancellor based on the nomination,

for a period of two years.

Provided that if there is no Professor or Scientist of equivalent grade in the Department or there is only one Professor in the Department or Scientist of equivalent grade whose term as Head of the Department the Vice-Chancellor may appoint an Associate Professor of equivalent grade as Head of the Department, based on the nomination by the Directors of the Schools.

Notwithstanding anything contained in these Regulations, the governance system and management structure of the DTBU managed/ controlled/ receiving funds more than or equal to 50% of its annual expenditure from the Central Government or the State Government shall be in accordance with the decision of the appropriate Government.

# 16. Fifteen Years Strategic Vision Plan & Five Year Rolling Implementation Plan

#### 16.1 Academic Plan

#### Flexible Curriculum:

The College with its Autonomous Status designs the most competent Curriculum to provide a Holistic and Comprehensive Education, based on the Guidelines of UGC, Tamil Nadu State Council for Higher Education (TANSCHE) and Bharathiar University. Implementation of Outcome Based Education (OBE) and Choice Based Credit System (CBCS) has enabled Student-Centric Teaching-Learning Methodology. During all the Board of Studies Meeting, New Courses are incorporated in all Programmes with the objective of enhancing, Employability, Skill Development and Entrepreneurship. The syllabus framed is compared with Top Ranking Universities and Autonomous Institutions and vetted by External Experts before implementation. Programme Outcomes (POs), Programme Specific Outcomes (PSOs), Course Outcomes (COs) are designed focusing on Local, National and Global needs for Knowledge Enrichment, Skill Acquisitions and Attitude Enhancement to attain the Stated Graduate Attributes. We are planning to implement NEP from the upcoming academic year in a phased manner.

We offer four Languages - Tamil, Hindi, Malayalam and French in PART-I to cater to Students coming from different parts of the State, Country and the World. English Communication Skill Enhancement is aimed at PART-II by offering Business English, Functional English and Language Laboratory. Core and Allied Papers, including CBCS Papers and Projects are provided under PART-III. Curriculum includes Courses for societal concerns like Environmental Sustainability, Gender Equity, Human Rights, Gandhian Thoughts, Yoga and Value Education in PART IV. Industry run Value-Added Courses, Non Major Electives and Extra Departmental Courses are also offered under PART IV to create Interdisciplinary interest among students. Extension Activity is included in PART V of the Curriculum and carries 02 Credits.

38 Programmes, 4784 Courses are offered, as listed by the Institution, across all Programmes, during the last five years. CBCS/ Elective Course System is implemented in all Programmes. Course content of Languages help the students to understand Human Values through the lens of Literature and Language. It is mandatory for Students at the Undergraduate level to earn Two Credits for the Course in Environmental Studies with Compulsory Field Project.

## **Teaching-Learning and Evaluation**

We attract Students from Coimbatore, surrounding Districts of neighboring States, other States and Foreign Countries. Students are admitted as per the Reservation Policy of the Governments. The Average Demand Ratio of applications is 1:5 at present. The College has 165 Qualified Teachers with 94 Ph. D. holders (56%). They continuously enhance Skills and competency through FDPs, EDPs, Refresher Course, MOOCs and Industry Training. The average Teaching Experience of faculty is 06 yrs. The average Student-Teacher ratio is 18:1.

The Students are assessed at 03 Phases: Entry Level Assessment, Internal Assessment, and Post Evaluation. The Curriculum includes Lab - Oriented Courses, Industrial Visits, Field Visits, Internship and Industry Linked Training, Placement Training and Out Bound Training. College facilitates Participative Learning through Peer Teaching, Group Learning, Toppers Talk and Flipped Classes. Problem Solving capabilities are enhanced through Invited Talks, Project Presentation, Case Study Analysis, Hackathons and Ideathons.

The Students are mandated to complete the **Online Certification** through NPTEL, SWAYAM, COURSERA, IIT Spoken Tutorial and Infosys Spring Board. We promote Digital Libraries like National Library and Information Services (N-LIST), National Digital Library (NDL). Focusing at **NEP**, Academic Bank of Credits (**ABC**) is initiated using Digi-Locker of National Academic Depository (NAD), for all the Students enrolled from 2020-21 Academic Year. Students started earning Credits to their ABC Account.

**Examination Management System - COXCO** is used for Automation of Examination Process. Collective efforts are taken by the Principal and his Team for coining the PEOs, POs, PSOs and COs for each Programme, in consultation with External Peers. Teachers assess and evaluate the Students' performance through Assignments/ Surprise Tests/ Internal Assessment Tests/ Classroom Presentations, Peer Teaching, and Group Learning Methods, Debates, Quizzes as indicators for attainment of Course Outcomes. Student Feedback on Teachers is taken twice a year, online. They are evaluated on a Five Point Scale. The feedback is analyzed and the report is submitted to the Principal by IQAC. The Excellent and Very Good Teachers are appreciated and felicitated. Good, Average and Below Average Teachers are encouraged and supported by the Principal through Performance Counselling in the presence of HoDs and Deans, to perform better.

The performance is further monitored by each Head of the Department and Dean - Academic Affairs. The average number of days between last date of examination and date

of **declaration of results is 12 days**. The average number of examination grievance received is 3%.

## **Student Support and Progression**

The College has **08 Centre's of Excellence** to extend Student Support Activities and to ensure holistic development. NASC has entered into **MoUs** with **136 Organizations** for Industry-Institute partnership to offer Add-On Courses, Internship, Projects and Placements. **Consortium of 21 Colleges - CANNY** is initiated for Student and Staff Exchange, Collaborative Learning, Credit Transfer, Cultural Exchange, Under Graduate Research Promotion focusing on Nationalization and Internationalization of Education in multi-cultural settings.

We provide **Nehru Vigyan Scholarship** to Meritorious Students, Economically Challenged, Single Girl, Teacher Referral, Single Parent, Ex-Servicemen, Heirs of COVID Warriors, and Sports Excellence. **Staff Welfare Association** and **Alumni Association** offer free ships to meritorious and economically challenged 02 Students every year. Guidance and support are provided to secure Scholarships from Governments and NGOs.

Nehru Corporate Placement and Industrial Relations (NCP&IR) takes care of the overall Personality Development and Industry Readiness of Students by imparting technical and soft-skill training from the first year itself. Students are trained on Soft Skills, Employable Skills, Aptitude and Company Specific Career Guidance, with Specific Modules for 120 hours from Second to Fifth Semester. During final year, On- Campus and Off-Campus Placements opportunities are provided. 50 to 60 Companies visit our College for Placement Activities and more than 70% of the Job Aspirants are absorbed by the Companies.

Career Counseling and Training for Competitive Examinations are offered through Centre for Skill Development. We adhere to the Guidelines of Regulatory Bodies with regard to Anti-ragging, Anti-Sexual harassment and Internal Compliance Committee (IIC).

College encourages Sports, Cultural Events, Yoga and other activities. Our Students have bagged Medals in Sports at National Level, in Swimming, Boxing, Archery, Foot Ball, Weight Lifting, Body Building, and Cricket. Students have been placed in Top 15 at National level Yoga competition and won Silver Medal in International Level Yoga Competition. Fine Arts Club Students have won 22 Overall Trophies in Cultural Competitions hosted by various Colleges in and around Tamil Nadu and Kerala. NSS Volunteers participate in Mission Clean Campus, Mission Clean City, Societal

Development, and Outreach activities. NCC Cadets are dynamic in participating in all major NCC Camps. **19 Cadets** are awarded with **'C' Certificate**. **06 Cadets** have attended National Selection Camp for **RDC Parade**. Defense Training Club is established to train for Career in Armed Forces. We have hosted 03 National Training Camps of NCC, enduring to 10 days each, in our campus.

The 'Student Academic Council' plays a pivotal role in Academic, Co-curricular and Extra-curricular activities. The Council is represented with 02 Students from each Department.

"SAMAGAMAM" is our Registered Alumni Association. The Alumni extend support through Peer Mentoring, Alumni Guest Lecture, Internships and Placements to their juniors. Alumni offer Scholarships and Endowment Funds. Alumni Chapters are functional at UAE, Bangalore and Cochin effectively.

#### 16.1.1 Academic Plan for Next Five Years:

Nehru College of Educational and Charitable Trust (NCECT), is proposing the establishment of P. K. DAS Institute of Social Sciences, Health Sciences and Technology as a Deemed-to-be University under a Distinct Category. This initiative is centered on addressing the strengths, weaknesses, opportunities, and challenges (SWOC analysis), aligning with the requirements of Quality Assurance agencies, and incorporating recommendations from NEP-2020. The primary focus is on providing a holistic, multidisciplinary, value-based education with flexibility for learners. The identified programs are instrumental in shaping the university's vision, mission, and goals, reflecting its commitment to excellence and innovation in education.

Our proposed University is planning to establish and embrace the strategies envisaged in the National Education Policy (NEP) 2020. This academic plan aligns with the key principles of NEP, focusing on learner-centric education, flexibility in curriculum design, and promoting a multidisciplinary approach. Emphasizing skill development, research, and innovation, the plan integrates technology for effective learning outcomes. It also places a strong emphasis on inclusivity, equity, and quality in education, aiming to produce all-rounded individuals capable of meeting the challenges of a rapidly evolving global landscape. Through dynamic implementation, this academic plan seeks to contribute to the realization of NEP 2020's transformative vision for the education sector. Figure 16.1 serves as a visual representation providing an overview of the Academic Plan for the upcoming five years.

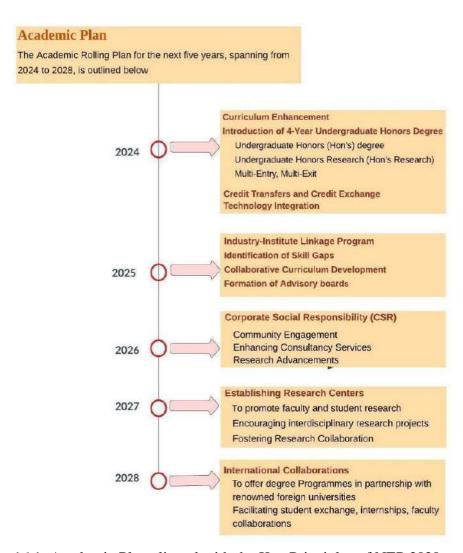


Figure 16.1: Academic Plan aligned with the Key Principles of NEP 2020

Year	Academic Rolling Plan		
2024	<ul> <li>Curriculum Enhancement:</li> <li>✓ A comprehensive review and update of all program curricula is a meticulous process aimed at enhancing the quality and relevance of educational offerings. This involves a thorough examination of existing curricula, encompassing course content, delivery methods, student- teacher-relation and assessment approaches.</li> <li>✓ Ensure relevance of curricula and alignment with industry trends and academic standards. This includes analysing current industry requirements, advancements in the respective fields of study, and global academic benchmarks. It leads to robust education that prepares them for the challenges of the evolving global job market.</li> <li>✓ Developing a roadmap for the introduction of 4 Year UG Honours Degree Programmes which involves defining the goals and objectives of the new programs, considering the unique features of an Honours Degree, and mapping out a phased implementation plan. The roadmap outlines key milestones, resource requirements, and faculty development strategies. It takes into account</li> </ul>		

Year	Academic Rolling Plan		
	accreditation standards, regulatory requirements, and potential challenges, ensuring a smooth transition to the extended duration of undergraduate programs. The introduction of 4-year UG Honours Degree Programmes reflects a commitment to provide students with a more in-depth and comprehensive educational experience.  Introduction of 4-Year Undergraduate Honors Degree:		
	✓ Include discipline – specific courses, Discipline Specific Electives, ability enhancement, skill enhancement courses, multi-disciplinary, interdisciplinary courses and add on courses.		
	✓ Value added courses on Indian Knowledge System which focus on the rich heritage of the Indian Knowledge System, contributing to a more comprehensive and culturally informed education.		
	✓ Students have the choice to graduate with an Undergraduate Honors  (Hon's) degree or an Undergraduate Honors Research (Hon's Research) degree at the end of the fourth year.		
	✓ Undergraduate Honors (Hon's) Degree:  Students have the option to graduate with a standard Honors Degree after completing the four-year program.		
	<ul> <li>✓ Undergraduate Honors Research (Hon's Research):         For those interested in research, this option allows students to engage in a more in-depth research project, culminating in a research-focused degree.     </li> <li>Offers Multi-Entry and Multi-Exit Options:</li> </ul>		
	✓ Multi-Entry  The program supports flexibility by allowing students to enter at various points, accommodating those who may join after completing a diploma or transfer from another program.		
	✓ Multi-Exit Students can exit the program at different stages with recognized qualifications, such as a diploma or a standard degree, providing flexibility for those who may not complete. Credit Transfers and Credit Exchange:		
	The inclusion of credit transfers and credit exchange options in the academic program is designed to provide students with greater flexibility and enhance their overall educational experience.		
	<ul> <li>✓ Academics program includes credit transfer and credit acceptance options</li> <li>✓ Facilitates program includes credit exchange program to enhance the educational experience</li> <li>Credit Transfer Options:</li> </ul>		
	✓ Flexibility in credit transfer empowers students to tailor their academic journey by moving credits seamlessly between courses or programs.		

Year	Academic Rolling Plan		
	✓ Transfer between institutions offers students the opportunity20242 to continue their education at a different educational institution, promoting adaptability. Credit Exchange Program:		
	✓ The Credit Exchange Program promotes collaboration by establishing partnerships with various institutions, creating a rich and diverse academic environment.		
	✓ Through this initiative, students gain access to unique courses and experiences, broadening their educational horizons.  The book are the court for t		
	<ul><li>Technology Integration:</li><li>✓ Invest in and integrate cutting-edge technology for enhanced learning experiences.</li></ul>		
	✓ Explore the use of virtual and augmented reality, online learning platforms, and educational apps.		
	Enhancing the Industry-Institute Linkage Program involves strengthening the collaboration and interaction between educational institutions and industries to better align academic programs with industry needs.  Identification of Skill Gaps:		
	✓ The Industry-Institute Linkage Program involves identifying prevalent skill gaps within the workforce. Understanding the skills and competencies sought by industries is crucial for tailoring educational programs to meet these demands.		
2025	Collaborative Curriculum Development:  ✓ The program facilitates the establishment of collaborative platforms where educational institutions and industry experts work together to develop and update academic curricula. This ensures that the content is relevant, up-to-date, and aligned with industry standards.  Formation of Advisory boards:		
	✓ It comprising industry professionals are formed to provide valuable insights and recommendations on curriculum design. This ensures that academic programs remain responsive to the evolving needs of the industry.		
	Incorporating a dynamic response to the shifting socio-economic demands of the community, encompassing Corporate Social Responsibility, Community Engagement, Strategic Partnerships, Consultancy Services and Research Advancements within the framework of our academic plan. The elaborate explanation of each component is described below:  Corporate Social Responsibility (CSR):		
	<ul> <li>✓ Corporate Social Responsibility (CSR) involves an institution recognizing its impact on society and committing to ethical business practices, environmental sustainability, and social welfare efforts.</li> </ul>		
	✓ Implementation of CSR includes sustainable practices like energy conservation, waste reduction, and community outreach programs. The institution actively		

Year	Academic Rolling Plan		
	engages students in CSR activities to encourage a sense of social responsibility and ethical leadership.		
	<ul> <li>✓ This approach goes beyond mitigating negative consequences and aims to contribute positively to the community. Students, through their involvement, gain practical insights into ethical practices and societal contributions.</li> <li>✓ CSR becomes an integral part of the institution's identity, aligning its operations with a commitment to creating positive impacts.</li> <li>Community Engagement:</li> </ul>		
	✓ Conduct regular assessments to identify the specific needs and challenges faced		
2026	<ul> <li>by the local community.</li> <li>✓ Develop community-centric programs that address identified needs, such as educational outreach, health initiatives, and skill development projects.</li> <li>✓ Integrate service-learning opportunities into the curriculum, allowing students to apply their knowledge and skills to benefit the community.</li> </ul>		
	Enhancing Consultancy Services:		
	✓ Leverage the expertise within the institution to offer consultancy services to businesses, government agencies, and community organizations.		
	✓ Provide consultancy services that contribute to the skill development and capacity-building of external entities.		
	✓ Generate revenue through consultancy services to support institutional growth and sustainability.		
	Research Advancements:		
	✓ Identify key research themes that align with the socio-economic needs of the community and contribute to national development goals.		
	✓ Encourage interdisciplinary research to address complex challenges from multiple perspectives.		
	✓ Disseminate research findings through publications, conferences, and community forums to maximize their impact.		
	Establishing Research Centres:		
	✓ Establish research centres or strengthen existing ones to promote faculty and student research.		
	✓ Encourage interdisciplinary research projects.		
2027	✓ Foster research collaboration with foreign universities by identifying partners, formalizing agreements, developing joint research projects and ensuring legal compliance to enhance academic excellence and global recognition.		
	International Collaborations:		
	✓ In line with our commitment to academic excellence and global exposure, our deemed-to-be university is proud to offer degree Programmes in partnership with renowned foreign universities, facilitated through a seamless credit transfer system. This unique opportunity enables our students to earn internationally		

Year	Academic Rolling Plan	
2028	recognized qualifications while gaining a broader global perspective, ensuring their readiness for a competitive and interconnected world.	
	✓ Facilitating student exchange, internships, faculty collaborations and research opportunities to enrich the academic experience and foster innovation within our institution	

# 16.2 Faculty Recruitment Plan:

The Faculty Recruitment Plan serves as a strategic framework for our institution's efforts to attract and retain high- calibre faculty members. The vacancies will be advertised in the News Papers and Social Media Websites. We will select the faculty based on four-layer, fool-proof selection process as follows:

## **Application Review:**

- ✓ Create a comprehensive application form that requires detailed information about the candidate's educational background, teaching experience, research work, and any relevant achievements.
- ✓ Use a scoring system to objectively evaluate applications, giving higher scores to candidates with qualifications and experiences that align with the specific requirements of the faculty position.

#### **Interview Process:**

- ✓ Conduct a structured interview that includes a panel of interviewers representing different perspectives, such as academic experts, administrators, and potential colleagues.
- ✓ Ask a mix of technical questions related to the subject matter and teaching methodologies, as well as behavioural questions to assess interpersonal skills and alignment with the institution's values.

#### **Teaching Demonstration:**

- ✓ Require candidates to provide a teaching demonstration, either in person or through a recorded video. This allows the selection committee to evaluate the candidate's actual teaching style, communication skills, and ability to engage students.
- ✓ Provide a clear rubric for evaluating the teaching demonstration to maintain objectivity.

### **Reference Check and Background Verification:**

✓ Contact the candidate's listed references, including previous employers, colleagues, and supervisors, to gain insights into their teaching abilities, work ethic, and

- interpersonal skills.
- ✓ Conduct a thorough background check to verify the accuracy of the information provided in the application, ensuring there are no red flags.

# **Importance of Faculty Recruitment in Achieving Institution Goals:**

Faculty recruitment plays a pivotal role in achieving institutional goals for several crucial reasons:

#### **Academic Excellence:**

- ✓ High-caliber faculty members contribute significantly to the academic reputation of the institution.
- ✓ Recruiting experienced and knowledgeable faculty enhances the quality of education and research.

# **Programmatic Development:**

- ✓ Faculty members drive the development and enhancement of academic programs.
- ✓ Recruitment allows for the expansion of expertise in emerging fields and the adaptation of curricula to industry trends.

#### **Research and Innovation:**

- ✓ A diverse and skilled faculty fosters a culture of research and innovation.
- ✓ Recruiting faculty with strong research backgrounds enhances the institution's contributions to knowledge creation and innovation.

#### **Student Engagement and Success:**

- ✓ Well-qualified faculty create a positive learning environment that fosters student engagement.
- ✓ Recruiting faculty members who are committed to student success contributes to higher retention and graduation rates.

#### **Global Perspective:**

- ✓ Diverse faculty bring different cultural perspectives and experiences to the institution.
- ✓ Recruitment with an international focus helps in preparing students for a globalized world.

#### **Institutional Growth:**

- ✓ Faculty recruitment is essential for accommodating the growth of student enrolment and expanding academic offerings.
- ✓ A dynamic faculty team attracts more students and funding opportunities, contributing to institutional growth.

# **Alignment with Mission and Values:**

- ✓ Strategic recruitment ensures that faculty members align with the mission, values, and goals of the institution.
- ✓ Hiring individuals who share the institution's vision enhances cohesiveness and commitment to its objectives.

## **Leadership Development:**

- ✓ Faculty members often play leadership roles in academic departments and committees.
- ✓ Recruitment is an opportunity to identify and develop future academic leaders within the institution.

#### **Community Engagement:**

- ✓ Engaged faculty members contribute to the institution's relationship with the community.
- ✓ Recruiting faculty members with a commitment to community engagement enhances the institution's social impact.

## **Continual Improvement:**

- ✓ Regular faculty recruitment allows the institution to continually evolve and adapt to changing educational landscapes.
- ✓ It facilitates the incorporation of new teaching methodologies, technologies, and pedagogical advancements.
- ✓ In summary, faculty recruitment is integral to the overall success and growth of an institution. It directly influences academic quality, research productivity, student outcomes, and the institution's ability to contribute meaningfully to society. Strategic and thoughtful faculty recruitment is, therefore, a cornerstone of institutional advancement.

# **Strategic Framework for Faculty Management and Development:**

Comprehensive plan for faculty management and development within the university is explained below

## 1. Student - Teacher Ratio Management:

Maintaining 20:1 Student - Teacher Ratio to ensure the delivery of high-quality education. The University recognizes the importance of ensuring that there are an adequate number of qualified faculty members available to cater to the educational needs of the student body.

## 2. Establishment of a Comprehensive Staff Recruitment Policy:

The qualified Faculty as per UGC norms and the Central government will be identified. Based on the interview performance the right candidate will be selected on a transparent way. We do have our Human Capital Management Policy in place.

### 3. Competitive Remuneration for Staff:

Recognizing that fair and competitive remuneration as per the UGC norms in attracting and retaining top-tier talent, the university is determined to offer a compensation package. This practice ensures that staff members are compensated adequately for their contributions and are motivated to deliver their best in their roles.

## 4. Program-Specific Expertise:

Recruit Faculty with specialized expertise in each program area, ensuring a strong match between faculty qualification and program requirements. Teachers having MOOC certification in their domain will be given additions credits. Teachers are encouraged to complete domain specific MOOC every semester.

# 5. Long-Term Vision:

Recruited Faculty must be subjected to an induction program. Semester wise training will be offered to all faculty. An Internal Training Team will be formulated to train others at regular intervals. All the faculty, as a part of strengthening their profile, need to publish Research Papers in High Indexed Journals, apply for Research from Govt. and private Funding Agencies. Innovation will be another component connecting to Product Research and Student and Faculty Start-ups in the Technology Business Incubators.

### 6. Diversity and Growth:

Encourage diversity in faculty hiring and provide opportunities for professional development, research and international collaboration. Each semester, teachers will undergo FDP or EDP outside the College at least once. Once in a semester the College also will organize 5 to 7 Day FDP/ EDP in the Campus on latest topics with emphasis to Technology incorporation in Teaching-Learning process.

### 7. Research and Industry Integration:

Emphasize the recruitment of faculty members who can bridge academic research with industry needs, fostering practical knowledge transfer and collaboration. Industry Training for staff is mandated in our institutions. Through this collaboration, we conduct Industrial Visits, Industry run Add-on Courses, Staff Training, Placement, Internship and inclusion of experts in to our BoS and Academic Council.

## 8. Global Perspective:

Promote international faculty exchanges and collaborations to bring diverse perspective to the Programmes, enhancing global academic exposure and research opportunities. Curriculum revision, evaluation pattern and pedagogy is based on Outcome Based Education, which is Global in nature. Students are trained to have a global perspective for better career planning.

# **Comprehensive Employee Recruitment and Management Policies:**

In a Faculty Recruitment Plan, addressing Recruitment and Employment as well as maintaining a Record of Age are crucial aspects. Here's a brief overview:

- No person below the age of 18 shall be recruited as Employee in the establishment
- Appointment of employee shall be made by the selection of persons possessing the required qualifications and experience and competency to discharge the duties allotted to them with diligence, sincerity and honesty in the best interests of the establishment.
- At the time of recruitment, every employee has to produce certificate to prove his/her age and date of birth to the Management or the officer authorized by the Management. In determining the correctness of the age of an employee, certified extract from the Registrar of Birth or SSLC Certificate/similar qualification certificate showing age shall be accepted as proof of his/her age. The age or Date of Birth notified at the time of appointment shall not under any circumstances be altered for whatsoever purpose/ reason.
- ➤ He may submit an attested copy of Aadhar Card, Passport, the Election ID card and three copies of passport size photos also.
- ➤ Residential address of the employee: An employee shall furnish to the Management immediately on his/ her appointment; the details of his/her residential address and thereafter promptly communicate any change in his/her address to the HR Department.
- ➤ In case, the Employee has not communicated to the Management the change in his/her address, the communication to his/her last given address shall be treated as proper service of communication and binding it on him/her even if it is returned

with postal endorsement "addressee left".

- ➤ Every Employee shall submit himself/ herself to medical examination by a Medical practitioner Nominated by the Management, at the time of his/her initial appointment and at such other interval as may be deemed necessary by the Management.
- No Employee is allowed to undertake any studies, private, or Institutional without permission in writing from the Chairman & Managing Trustee and CEO & Secretary. Such permission, if granted, may be withdrawn at any time if studies are found to interfere in the proper discharge of his/ her duties. Such permission will be under the sole discretion of the Management.
- Any Employee who has been dismissed or discharged for misconduct shall not be considered for new employment.
- ➤ Every Employee shall on being admitted to service, sign the form with regard to conditions of service signifying his/her consent to comply with Standing Order of the establishment.
- Every employee shall submit a declaration specifying that he is not involved in any fraud, dishonesty or other civil criminal offences as on date of his/her joining.
- Any information furnished at the time of appointment, later if found to be false on subsequent verification, will lead to termination and the appointment will be treated as cancelled with effect from the date of the joining in the service of the establishment.
- ➤ The Management shall from time to time fix the qualification; experience etc. required for any post and shall have the right to waive any of the conditions in specific cases.
- ➤ Wherever professional registration is statutorily required, the employee shall provide sufficient conclusive evidence for having acquired such registration with the appropriate authority at the time of appointment.
- All appointments of permanent nature shall be made in writing by the Chairman
   & Managing Trustee or any Authority authorized by him/her.
- Every employee shall submit an NOC/ Clearance certificate from the previous employer stating that he/ she is a faculty relieved from their institutes and that he/ she is having a good conduct and character during their service period.

# 16.3 Student Admission Plan:

This Admission Policy outlines the principles and procedures guiding the university's admission process, ensuring fairness, transparency, and alignment with our mission to provide high- quality education. Creating a comprehensive Student Admission Plan involves several below mentioned key components. Our proposed deemed-to-be university will have the following key components for the admission.

# a. Admission Philosophy

## **Equal Opportunity:**

Our proposed Deemed- to-be University is dedicated to provide equal opportunities for all qualified applicants, irrespective of race, color, religion, gender, national origin, age, disability, or any other protected status.

#### **❖** Merit-Based Selection:

The admission process is merit-based, considering academic achievements, standardized test scores, and non-academic factors such as extracurricular activities, leadership, and community engagement.

# b. Legal and Ethical Compliance

# **Complaints with Laws:**

University shall adhere to all relevant local, national, and international laws and regulations governing the admission of students.

#### **❖** Ethical Standards:

The university upholds the highest ethical standards in all aspects of the admission process, ensuring fairness, integrity, and confidentiality.

### **Application Procedure:**

The university provides a user-friendly online application system, clearly communicating deadlines, required documents, and any additional steps.

#### **Application Review:**

A transparent and systematic process is in place for reviewing applications, ensuring confidentiality, fairness, and timely responses.

# **!** Interviews:

Specific programs or scholarships may require interviews to assess interpersonal skills and alignment with the university's values

# c. Communication and Marketing:

#### **Outreach Strategies:**

A strategic marketing plan is employed to reach potential applicants through channels such as social media, informational sessions, and collaboration with high schools

#### **Communication Plan:**

Clear and timely communication is provided to applicants, offering support and guidance throughout the application process

### **Admission Guidelines and Policies**

- ✓ Admission for students at our deemed-to-be university will adhere to the guidelines set forth by the State, Government of India, and the University Grant Commission (UGC).
- ✓ All admission procedures, including the prospectus, will be made accessible through our website.
- ✓ Our primary criteria for admission is merit, ensuring that students form across India have an opportunity to enrol in our selective and innovative and distinct programs.
- ✓ In case where necessary, all India admission test will be conducted. For international students, admission will be in accordance with the regulations of the Government of India and the UGC.
- ✓ We are committed to following the reservation policies established by government and statutory bodies, facilitating access for socially and financially disadvantaged students to pursue their studies within our university.
- ✓ Face-to-Face Interview will be conducted to assess the candidates' suitability and enthusiasm.
- ✓ Tuition fees, as outlined in the prospectus, will be the only charges levied on students.
- ✓ We maintain a strict policy against collecting any form of donation beyond the prescribed fees.
- ✓ Additionally, proper receipt will be issued for any fees collected. To uphold our commitment to charity, a fundamental value of our institution's promoters, financial support will be extended to needy students to facilitate their education.
- ✓ For admission into doctoral programs across all disciplines, the selection process will adhere to the UGC's regulations regarding minimum standards and procedure for conferring a Ph. D. degree.

Government of India

Face-to-Face Interview

State

Financial Support

Prospectus

Website

Guidelines

Assessment

No Other Charges

Minimum Standards

Accessibility

Admission Process for Deemed-to-be University

Receipt Issuance

Procedure for Conferring
Ph.D.

Regulations for International Students

All-India Admission Test

University

Face-to-Face Interview

Financial Support

No Other Charges

Tuition Fees

Criteria

Government and Statutory

Bodies

All-India Admission Test

The following diagram shows the overall process for Admission:

Figure 16.2. Admission Process

# 16.4 Research Plan

P. K. Das Institute of Social Sciences and technology recognizes the pivotal role of research in fostering academic excellence and contributing to societal progress. This document outlines the university's research policy and introduces the establishment of the Center for Research and Development.

#### **Establishing Research Priorities**

The objective is to define the key research areas and priorities aligned with the university's mission and strengths. The activities involve conducting a thorough literature review to identify emerging trends and gaps in knowledge and, engaging faculty members, stakeholders, and potential collaborators in discussions in the process to identify key research themes.

### **Faculty Development**

The objective is to build a strong and diverse research faculty. The process will involve recruitment of experienced researchers with expertise in identified priority areas. Professional development through will be encourages workshops, conferences, and collaboration opportunities conducted under the aegis of the Centre. Mentor-Ship Programs will be conducted on a regular basis to support junior faculty to build their research portfolios.

#### **Research Funding and Grants**

The Centre strongly supports efforts by the faculties to secure external funding and sponsored research projects. The Centre helps in identifying potential funding agencies - both

national and international - and provide training and support for faculty to prepare competitive grant proposals. Future plan involves establishment of an office for research support to assist faculty in navigating grant application processes.

### **Collaborations and Partnerships**

Being an integral part of Research and Development of any organization, the Centre fosters collaborations with other institutions, industries, and research organizations. It helps the faculties to explore opportunities for joint research projects with established universities and research centers and, to develop partnerships with industry to address real-world challenges and thereby enable and promote technology transfer. Interdisciplinary/ Multidisciplinary research is encouraged by the Centre to tackle complex problems.

## **Ethical Compliance and Research Integrity**

To ensure adherence to ethical standards and promote research integrity, the Centre implements training programs on research ethics for faculty and students.

#### **Student Involvement in Research**

Students' involvement in research activities is ensured to foster a research-oriented culture in the University. Undergraduate and graduate research programs are developed and faculty-student collaborative research projects are encouraged. The Centre provides a strong platform for showcasing student research by encouraging them to present the research outcome in conferences and publications of high reputation.

#### **Research Communication and Dissemination**

To promote the visibility and impact of research outcomes and, to facilitate the dissemination of research findings, the Centre is actively involved in communication with the faculties. They are encouraged to publish in reputable journals and present their work at conferences. Research incentives are initiated for publications of high quality as a means of rewarding high-performers. The faculties are also encouraged to organize regular research seminars, symposiums, and conferences to showcase research achievements.

### **Monitoring and Evaluation**

To ensure continuous assessment and improvement the research ecosystem, regular evaluations of research performance are implemented. The impact is assessed by collecting feedback from faculty, students, and stakeholders to identify areas for improvement. The research plan is adjusted based on the assessments and changing priorities.

In short, the aim is to establish a research culture among the faculties and students and to create an environment that fosters a vibrant research culture based on a culture of curiosity,

innovation, and continuous learning.

# **Research Ethics Committee**

A Research Ethics Committee (REC) is essential for endorsing the ethical standards and protecting the research participants by ensuring legal and regulatory compliance. REC forms an indispensable component that fosters a culture of integrity and responsibility in research within the University. The rationale for the establishment of REC are manifold;

## **Protection of Human Subjects**

To ensures that research involving human subjects is conducted ethically and in consensus with the participants' rights, well-being, and confidentiality.

## **Compliance with Ethical Standards**

To help the University to adhere to national and international ethical standards and guidelines for research, ensuring compliance with regulatory requirements including legal requirements thus protecting the institution from potential legal issues.

## **Maintaining Institutional Integrity**

To demonstrates the university's commitment to ethical conduct in research, contributing to its reputation and integrity.

#### **Ethical Conduct with Animal Subjects**

To ensure that research involving animals follows ethical principles and guidelines, promoting the humane treatment of animals.

### **Prevention of Research Misconduct**

To take precautions against research misconduct by thoroughly reviewing research proposals and ensuring the integrity of the research process.

### **Protection of Vulnerable Populations**

To ensure that special considerations and protections are in place for vulnerable populations involved in research, such as children, pregnant women, and marginalized groups.

### **Community Engagement and Trust**

To facilitate community engagement in the research process, building trust with local communities and ensuring that research aligns with community values.

#### **Education and Awareness**

To provides educational opportunities on research ethics for researchers, faculty, and students, fostering a culture of ethical research conduct.

## **Confidentiality and Privacy**

To ensures that researchers maintain the confidentiality and privacy of research participants, addressing any potential breaches.

# **Ongoing Monitoring**

To monitor ongoing research projects to ensure that they continue to meet ethical standards and regulatory requirements.

# **Institutional Review Board**

An Institutional Review Board (IRB) is established to review and approve research involving human subjects and other areas/topics of ethical concern. The aim is to develop clear guidelines for data management and research conduct. The main functions are -

#### **Ethical Review**

Research proposals involving human subjects are reviewed to ensure the protection of participants' rights, safety, and well-being.

#### **Informed Consent**

Evaluates and approves informed consent processes to ensure that participants are adequately informed about the research and voluntarily agree to participate.

#### **Risk Assessment**

Assess potential risks and benefits associated with research participation, ensuring that risks are minimized and justifiable.

#### **Protocol Review**

Scrutinize research protocols, methodologies, and procedures to ensure scientific and ethical validity.

#### **Continuing Review**

Conduct periodic reviews of ongoing research projects to ensure that ethical standards are maintained throughout the study.

# **Record-Keeping**

Maintain thorough records of all reviews, approvals, and correspondence related to research ethics.

#### Communication

Communicate with researchers to provide feedback, guidance, and clarification on ethical considerations.

# **Research Objectives:**

- ✓ Promoting Excellence in research across all disciplines.
- ✓ Encourage collaboration and knowledge exchange among different academic departments and research centers.
- ✓ Ensure adherence to ethical standards in all research activities.
- ✓ Promote the translation of research findings into real-world applications and solutions

# **Research Infrastructure:**

**Infrastructure Development** - the Objective is to develop and enhance research infrastructure to support various research activities. To achieve this, existing facilities will be assessed and areas for improvement or expansion will be identified. Further, securing funds for the acquisition of state-of-the-art equipment and laboratories and, establishing collaborations with research institutions (outside the organization) for resource sharing, will be a priority of CRD.

# **Funding:**

Securing adequate funding for research activities will be a priority. We will actively seek funding opportunities from government agencies, philanthropic organizations, and industry partners. Grant writing workshops and mentorship programs will be organized to enhance researchers' capacity to secure research funding.

# **TIMELINE**

### **Year 1: Foundation and Assessment**

**Strategic Planning** - Form a committee to develop a strategic plan for the Research and Development (R&D) center. Conduct a needs assessment and identify key research areas aligned with the university's mission.

**Infrastructure and Resources** - Assess the current facilities and technological resources available for research. Identify immediate needs and plan for the acquisition of necessary infrastructure.

**Faculty and Staff Recruitment** - Recruit experienced researchers and staff to lead and support the R&D initiatives. Establish collaborations with other research institutions and industry partners.

**Research Priorities** - Define specific research priorities and areas of focus. Develop a road map for interdisciplinary research projects.

**Capacity Building** - Organize workshops and training sessions to build research capabilities among faculty and students. Develop a mentorship program for early-career researchers.

# **Year 2-3: Growth and Development**

**Infrastructure Development** - Secure funding for the development of specialized research laboratories and equipment. Upgrade technology infrastructure to support cutting-edge research.

**Research Initiatives** - Launch flagship research projects aligned with the identified priorities.

Seek external funding through grants and partnerships.

**Faculty Development** - Provide ongoing training and professional development opportunities for faculty. Establish seed grants to encourage faculty to pursue innovative research.

**Collaborations and Partnerships** - Strengthen collaborations with industry partners, government agencies, and international research institutions. Facilitate joint research projects and knowledge exchange programs.

**Student Involvement** - Introduce research opportunities for undergraduate and graduate students.

Establish a research mentorship program connecting students with faculty.

# **Year 4: Integration and Optimization**

**Technology Integration** - Optimize the use of technology for data collection, analysis, and dissemination. Implement advanced research tools and software. **Publications and Conferences** - Encourage faculty to publish research findings in reputable journals.

Facilitate participation in national and international conferences to showcase research outcomes.

**Evaluation and Adaptation** - Conduct a comprehensive evaluation of the center's research activities and impact. Adapt the research plan based on feedback and emerging opportunities.

**Community Engagement** - Expand community outreach programs to demonstrate the practical impact of research. Organize public lectures, workshops, and events to engage the local community.

# **Year 5: Sustainability and Future Planning**

**Financial Sustainability** - Diversify funding sources, including government grants, industry partnerships, and philanthropic support. Develop long-term strategies for financial sustainability.

**Global Recognition** - Enhance the center's global visibility through collaborations and participation in international research networks. Attract visiting scholars and researchers from around the world.

**Innovation Hub** - Establish an innovation hub within the center to foster entrepreneurial activities.

Facilitate the commercialization of research outcomes and support startups.

**Strategic Review and Forward Planning** - Conduct a strategic review of the achievements and challenges of the R&D center. Develop a new strategic plan for the next five years, incorporating lessons learned.

**Celebration and Recognition** - Celebrate significant research milestones and achievements.

Recognize and reward outstanding contributions from faculty, staff, and students.

# 16.4.1 School Research Activities

P. K. Das Institute of Social Sciences, Health Sciences and Technology recognizes the pivotal role of research in fostering academic excellence and contributing to various applications in Technology. The university's research policy and introduces the establishment of the Centre for Research and Development is briefed as follows.

## **Establishing Research Priorities**

The objective is to define the key research areas and priorities aligned with the university's mission and strengths. The activities involve conducting a thorough literature review to identify emerging trends and gaps in knowledge and, engaging faculty members, stakeholders, and potential collaborators in discussions in the process to identify key research themes.

### **Faculty Development**

The objective is to build a strong and diverse research faculty. The process will involve recruitment of experienced researchers with expertise in identified priority areas. Professional development through will be encourages workshops, conferences, and collaboration opportunities conducted under the aegis of the Centre. Mentor-Ship Programs will be conducted on a regular basis to support junior faculty to build their research portfolios.

## **Research Funding and Grants**

The Centre strongly supports efforts by the faculties to secure external funding and sponsored research projects. The Centre helps in identifying potential funding agencies - both national and international - and provide training and support for faculty to prepare competitive grant proposals. Future plan involves establishment of an office for research support to assist faculty in navigating grant application processes.

### **Collaborations and Partnerships**

Being an integral part of Research and Development of any organization, the Centre fosters collaborations with other institutions, industries, and research organizations. It helps the faculties to explore opportunities for joint research projects with established universities and research centers and, to develop partnerships with industry to address real-world challenges and thereby enable and promote technology transfer. Interdisciplinary/ Multidisciplinary research is encouraged by the Centre to tackle complex problems.

# **Ethical Compliance and Research Integrity**

To ensure adherence to ethical standards and promote research integrity, the Centre implements training programs on research ethics for faculty and students.

#### **Student Involvement in Research**

Students' involvement in research activities is ensured to foster a research-oriented culture in the University. Undergraduate and graduate research programs are developed and faculty- student collaborative research projects are encouraged. The Centre provides a strong platform for showcasing student research by encouraging them to present the research outcome in conferences and publications of high reputation.

#### **Research Communication and Dissemination**

To promote the visibility and impact of research outcomes and, to facilitate the dissemination of research findings, the Centre is actively involved in communication with the faculties. They are encouraged to publish in reputable journals and present their work at conferences. Research incentives are initiated for publications of high quality as a means of rewarding high- performers. The faculties are also encouraged to organize regular research seminars, symposiums, and conferences to showcase research achievements.

### **Monitoring and Evaluation**

To ensure continuous assessment and improvement the research ecosystem, regular evaluations of research performance are implemented. The impact is assessed by collecting feedback from faculty, students, and stakeholders to identify areas for improvement. The research plan is adjusted based on the assessments and changing priorities.

In short, the aim is to establish a research culture among the faculties and students and to create an environment that fosters a vibrant research culture based on a culture of curiosity, innovation, and continuous learning.

The institute has a systematic approach to focus on research and it is planned to be executed in various steps as follows:

- **\*** Establishing Research Foundations
- **\*** Focus and Expansion
- **Research Excellence and Impact**
- **Research Dissemination and Innovation**
- **♦** Advancement and Sustainability

ICT tools also developed to facilitate research collaboration among faculty and students across different disciplines as mentioned above and between institutions. This Department has leverage ICT tools such as video conferencing, cloud-based collaboration platforms, and data analytics software to enable researchers to collaborate and share data and insights.

It is briefed its various planes spread across Five Years Plan.

# **FIRST YEAR: Establishing Research Foundations**

- 1. **Strategic Planning:** Form a committee to develop a strategic plan for the Research and Development (R&D) center. Conduct a needs assessment and identify key research areas aligned with the university's mission.
- 2. **Research Infrastructure:** Set up interdisciplinary research labs, centres, and facilities aligned with the institution's focus areas.
- 3. **Faculty and Staff Recruitment:** Recruit experienced researchers and staff to lead and support the R&D initiatives. Establish collaborations with other research institutions and industry partners.
- 4. **Research Priorities:** Define specific research priorities and areas of focus. Develop a road map for interdisciplinary research projects.
- 5. **Capacity Building:** Organize workshops and training sessions to build research capabilities among faculty and students. Develop a mentorship program for early-career researchers.
- 6. **Faculty Engagement and Seed Funding:** Encourage faculty members to define their research interests and create research groups or clusters. Allocate initial seed funding for

faculty research projects and pilot studies.

- 7. Research Policies and Research Advisory Board: Develop research policies, ethics guidelines, and procedures for grant applications and project management. Form a research advisory board comprising eminent researchers and industry leaders to provide guidance.
- 8. **Collaborations:** Establish collaborations with industry partners, research institutions, and other universities.

# **SECOND YEAR: Focus and Expansion**

- 1. **Research Clusters:** Formalize research clusters in key areas to encourage interdisciplinary collaboration.
- 2. **External Funding:** Develop strategies for securing external research grants from government agencies and industry partners. Various Research Initiatives Launch flagship research projects aligned with the identified priorities. Seek external funding through grants and partnerships too.
- 3. **Faculty Development:** Provide workshops and training to enhance faculty research skills and proposal writing.
- 4. **Research Symposiums:** Organize internal and external research symposiums to showcase ongoing research and attract potential collaborators.
- 5. **Collaborations and Partnerships**: Strengthen collaborations with industry partners, government agencies, and international research institutions. Facilitate joint research projects and knowledge exchange programs.
- 6. **Student Involvement**: Introduce research opportunities for undergraduate and graduate students. Establish a research mentorship program connecting students with faculty.

# **THIRD YEAR: Research Excellence and Impact**

- 1. **High-Impact Journals:** Encourage faculty to publish in high-impact journals and conferences relevant to their fields.
- 2. **Doctoral Programs:** Launch Ph.D. programs to create a pipeline of research scholars and contribute to advanced research.
- 3. **Research Outreach:** Engage in community outreach by conducting research that addresses local challenges and contributes to social development.
- 4. **International Collaborations:** Establish international research collaborations to enhance the institution's global research network.

# **FOURTH YEAR: Research Dissemination and Innovation**

- 1. **Technology Integration:** Optimize the use of technology for data collection, analysis, and dissemination. Implement advanced research tools and software.
- 2. **Publications and Conferences:** Encourage faculty to publish research findings in reputable journals.
- 3. **Patents and Innovations:** Encourage faculty and students to file patents and develop innovative solutions through research.
- 4. **Technology Transfer:** Create mechanisms for transferring research outcomes to the industry for practical applications.
- 5. **Research Communication:** Enhance communication through research publications, newsletters, and public talks to disseminate findings.
- 6. **Research Impact Assessment:** Assess the impact of research projects on society, industries, and policy-making.

# FIFTH YEAR : Advancement and Sustainability

- 1. **Research Centers of Excellence:** Elevate select research clusters to become Centres of Excellence, attracting substantial funding and recognition.
- 2. **Endowment for Research:** Establish an endowment fund to support long-term research initiatives and sustainability.
- 3. **Collaborative Grants:** Strengthen collaborative grant applications with industry and international partners.
- 4. **Evaluation and Adaptation**: Conduct a comprehensive evaluation of the center's research activities and impact. Adapt the research plan based on feedback and emerging opportunities.
- 5. **Community Engagement:** Expand community outreach programs to demonstrate the practical impact of research. Organize public lectures, workshops, and events to engage the local community.
- 6. **Evaluation and Future Planning:** Evaluate the achievements and challenges of the five-year plan, and develop a strategic research plan for the next phase.
- 7. **Financial Sustainability** Diversify funding sources, including government grants, industry partnerships, and philanthropic support. Develop long-term strategies for financial sustainability.
- 8. **Global Recognition**: Enhance the center's global visibility through collaborations and participation in international research networks. Attract visiting scholars and researchers from around the world.
  - a. Innovation Hub: Establish an innovation hub within the center to foster

- entrepreneurial activities.
- b. Facilitate the commercialization of research outcomes and support **startups**.
- c. **Strategic Review and Forward Planning** Conduct a strategic review of the achievements and challenges of the R&D center. Develop a new strategic plan for the next five years, incorporating lessons learned.
- d. **Celebration and Recognition** Disseminate the research milestones
- e. Recognize and reward outstanding contributions from faculty, staff, and students

# **Expected Outcome**

These outcomes are expected to contribute to the advancement of knowledge in the field of Engineering, Technology and Healthcare. This will be achieved through rigorous scientific research that employs robust methodologies and data analysis techniques. This framework will be based on a thorough understanding of the strengths and limitations of each system and will aim to optimize their synergies. The framework will be designed to be adaptable to different Engineering, Technology and Healthcare settings. This will be achieved through the provision of training and education programs that are based on the latest research findings and best practices. The aim is to equip Engineering, Technology and Healthcare Professionals with the knowledge and skills necessary to provide high-quality Research. Overall, the expected outcomes of the research plan are significant and have the potential to make a substantial contribution to the fields.

Quantitative Goals of P. K. Das Institute of Social Sciences, Health Sciences and Technology

S. No	Parameters	Baseline (first 5 years)	Long term outlook for next 10 years
1	Number of Ph. D graduates	123	200
2	Publication in SCI/ SCIE/ SSCI/ A&HCI indexed journals	1000	2500
3	Publication of Book Chapters	500	1500
4	Publication of Conference Proceedings	500	2000
5	Sponsored R&D projects (₹)	₹ 100 L	₹ 500 L
6	Books/ Laboratory Manuals Published	1000	2000 (100% Copy Rights)
7	Patents Published/ Granted	200/50	1000 / 250
8	New product development projects with or without collaboration	25	150

#### **Qualitative Goals**

- ✓ Cultivate an environment that fosters interdisciplinary collaboration, innovation, and ethical research practices while prioritizing the well-being of researchers and promoting a diverse and inclusive research community.
- ✓ Emphasize effective knowledge transfer, international collaboration, and community impact, creating a culture of continuous improvement, strategic partnerships, and recognition for outstanding research contributions.

# **Strategic Initiatives**

- ✓ Foster interdisciplinary collaboration for innovative problem-solving and holistic research approaches.
- ✓ Seek strategic international collaborations to enhance knowledge exchange and amplify research impact.
- ✓ Cultivate strong ties with industry partners for practical application of research findings and technology transfer.
- ✓ Strategically diversify funding sources to ensure sustainability and support a broad range of research project
- ✓ Invest in upgrading research infrastructure to attract top-tier researchers and facilitate cutting-edge initiatives.

# 16.5 Campus Information and Communication Technology Plan

In today's digital age, higher education institutions recognize Information and Communication Technology (ICT) as highly advantageous and inevitable for effectively preparing students for the rapidly growing global demands. The integration of ICT allows the institutions to provide a learning experience that is modern and engaging which fosters collaboration and communication among both students and faculty. Furthermore, it plays an essential role in streamlining administrative processes, ensuring a more efficient operation, and equipping students with the requisite technical skills vital for success in their impending careers. The escalating demand for ICT skills in the job market, coupled with the imperative for colleges to stay abreast of technological progress, underscores the necessity for institutions to seamlessly incorporate ICT into their educational programs and day-to-day operations. In the absence of such integration, Universities and Colleges run the risk of lagging behind their counterparts and failing to adequately prepare their students for the multifaceted challenges that lie ahead.

There are numerous areas within an institute where Information and Communication

Technology can be applied to enhance various aspects of operations and education. Here are some key areas:

## **Learning Management Systems (LMS):**

- ✓ Utilizing Learning Management Systems for efficient course material management, assignments, and assessments.
- ✓ Enhancing student-faculty communication through discussion forums within the LMS, fostering collaboration beyond traditional classrooms.
- ✓ Tailoring educational experiences with personalized learning paths within the LMS, meeting diverse student needs and preferences.
- ✓ Employing LMS tools for assessment analytics and real-time feedback, providing insights into student performance and enhancing assignment understanding
- ✓ Elevating the learning experience with multimedia integration in the LMS, incorporating videos and simulations for engaging course content.
- ✓ Expanding educational resources by seamlessly integrating the LMS with external tools and platforms.
- ✓ Providing tools within the LMS for effective progress tracking and detailed reporting on individual or class-wide performance.
- ✓ Ensuring mobile accessibility within the LMS, enabling students to engage with course materials on various devices.
- ✓ Motivating students through gamification elements like badges or leader boards within the LMS, fostering engagement and a sense of achievement
- ✓ Harnessing insights into student engagement and learning patterns through the integration of learning analytics tools within the LMS.
- ✓ Implementing accessibility features within the LMS to ensure usability for students with diverse needs and abilities.
- ✓ Enhancing communication and organization with automated reminders and notifications within the LMS for crucial deadlines, assignments, and course announcements
- ✓ Fostering collaborative learning through the integration of peer review functionalities within the LMS, allowing students to provide constructive feedback to their peers.
- ✓ Keeping course materials current by enabling content versioning and updates within the LMS

## **Virtual Labs and Simulations:**

- ✓ Virtual labs and simulations offer a hands-on experience in a controlled environment, particularly beneficial for fields like engineering design and analysis.
- ✓ They provide a cost-effective and safe alternative to traditional hands-on experiments, eliminating the need for physical materials and minimizing potential risks.
- ✓ Virtual labs enable access to remote or expensive laboratory equipment, broadening the scope of experiments and enhancing the learning experience.
- ✓ Integration with Learning Management Systems facilitates easy access, tracking of students' progress, and alignment with the overall curriculum.

# **Data Analytics:**

- ✓ The application of Information and Communication Technology (ICT) is important for managing and scrutinizing extensive datasets originating from diverse fields. This involves leveraging advanced technological tools and methodologies to effectively handle and analyse the massive volume of data generated across various domains.
- ✓ Furthermore, the implementation of data analytics skills within educational frameworks is essential for empowering students with the capability to extract meaningful insights from these large datasets.
- ✓ Through this process, students acquire the expertise to employ analytical techniques and tools, such as statistical analyses, machine learning algorithms, and data visualization, enabling them to make informed, data-driven decisions.
- ✓ This practical application of data analytics skills equips students to address challenges in an increasingly data-driven world.

# **Administrative Systems:**

- ✓ Automation of admission processes through ICT, including online application submissions, electronic document verification, and streamlined communication with applicants to speed up the admission cycle.
- ✓ Online registration procedures facilitated by ICT, enabling digital enrolment in courses, online class selection, and schedule management, leading to a reduction in paperwork and minimization of errors.
- ✓ Centralization and digitization of record-keeping through ICT, ensuring secure storage and easy retrieval of student and institutional data, including academic records and personal

- information. This enhances data accuracy, accessibility, and the ability to generate comprehensive reports.
- ✓ Streamlined generation of various administrative reports through ICT, encompassing financial reports and student performance analytics.
- ✓ Enterprise Resource Planning (ERP) systems provide a comprehensive solution for academic administration by integrating various functions across the institution

# **E-Learning Platforms:**

# **Integrating E-Learning Platforms into the Educational Framework:**

- Enhancing traditional classroom teaching methods with digital learning resources.
- Providing students with flexibility in accessing course materials and resources.
- ♦ Allowing 24/7 accessibility for students to engage in continuous learning.
- Offering a variety of multimedia resources for a richer learning experience.
- ❖ Tailoring learning paths to individual student needs and preferences.
- ❖ Incorporating tools for assessments and quizzes within the e-learning platform.
- Providing real-time feedback on assignments and assessments.
- Enabling students to track their progress and performance in real-time.

#### **Integration of Multimedia Elements:**

- Promoting interactive learning through multimedia elements and collaborative tools.
- ❖ Integrating video lectures for visual and auditory learning experiences.
- ❖ Incorporating interactive quizzes within e-learning platforms.
- Offering diverse digital resources to cater to different learning styles.
- Engagement through collaborative tools for interactive learning.

# **Research and Development:**

- ✓ ICT platforms enable researchers to enable real-time communication and coordination across geographical distances.
- ✓ Online databases, journals, and repositories, made accessible through ICT, offer researchers with a vast pool of knowledge for literature reviews and remain updated.
- ✓ The accessibility of resources through ICT, including online libraries and digital archives, promotes inclusivity in research and facilitates a global exchange of ideas.
- ✓ Virtual collaboration tools and video conferencing platforms powered by ICT allow

researchers to participate in events and engage in academic exchange remotely.

# **IT Support and Help Desk:**

## Setting up IT support services and helpdesk:

- Establishing dedicated IT support services and helpdesk to provide assistance to both students and faculty encountering technical issues.
- Creating a centralized point of contact for addressing a wide range of technical concerns, from software glitches to hardware problems.
- Establishing dedicated IT support services and helpdesk to provide assistance to both students and faculty encountering technical issues.

## Offering Remote Assistance and Troubleshooting:

- Providing remote assistance services through the IT support and helpdesk ensures swift resolution of technical issues, providing users with efficient and timely solutions to enhance their overall experience.
- Ensuring that users, whether on-campus or off-campus, receive timely support, contributing to a seamless and efficient technological environment.
- Leveraging remote troubleshooting capabilities allows for the resolution of technical issues without the necessity for physical presence, enabling swift and efficient problem-solving. This approach minimizes downtime, enhances productivity, and provides a convenient solution for users facing IT challenges.

# **Mobile Applications**

- ✓ Creating mobile apps for on-the-go education involves creating user-friendly interfaces and integrating features like offline access, ensuring convenient and seamless access to educational resources anytime, anywhere. Regular updates and user feedback contribute to continuous improvement and relevance in the educational app development process.
- ✓ Incorporating interactive features into mobile apps fosters collaborative learning by enabling users to engage in real-time discussions, share resources, and participate in group activities, enhancing the overall educational experience. Features such as live chat, collaborative document editing, and interactive quizzes promote active participation and knowledge sharing among app users.
- ✓ Integrating forums, discussion boards, and virtual study groups in educational apps

facilitates collaborative learning, providing a platform for students to exchange ideas, seek help, and engage in academic discussions. These interactive features foster a sense of community, promoting effective knowledge sharing and peer-to-peer support within the app.

✓ Ensuring anytime, anywhere accessibility of educational content in mobile apps promotes continuous engagement, allowing users to learn at their own pace and convenience. This flexibility supports a dynamic and personalized learning experience, catering to diverse schedules and preferences.

The following Time Line Chart shows the implementation of Five-Year Rolling Plan of Campus Information and Communication Technology Plan from 2024 - 2029 shown in the Figure: 16.3.

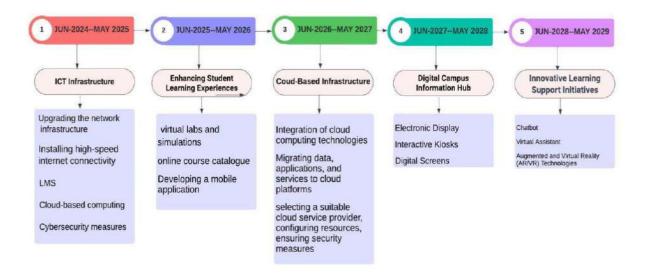


Figure 16.3.: Overview of Five-Year ICT Plan

# Implementation of Five Years Plan of Information and Communication Technology (ICT) from 2024 - 2029 as given below:

Year	Activities
2024 - 2025	<ul> <li>✓ In the initial year, the primary focus will be on establishing a robust foundation for the university's ICT infrastructure. This involves upgrading the network infrastructure and installing high-speed internet connectivity.</li> <li>✓ Additionally, there will be an implementation of a comprehensive Learning Management System (LMS) to facilitate effective distance learning. This system will empower students to access course materials, assignments, assessments, and collaborative tools. Faculty members will undergo training to proficiently utilize the LMS and create engaging course materials.</li> </ul>
	✓ Furthermore, a training program will be introduced to educate faculty and staff on the utilization of ICT tools and technologies. This initiative aims to ensure their proficiency in using new technologies and systems, covering aspects such as the LMS, cloud-based computing, cybersecurity measures, and other relevant technologies.
2025 - 2026	<ul> <li>✓ Improve the practical learning encounters of students across courses by broadening the integration of virtual labs and simulations throughout the curriculum. This initiative focuses on providing hands- on exposure to reinforce theoretical concepts.</li> <li>✓ Introduce a user-friendly online course catalogue, empowering students to effortlessly explore and enrol in courses through a dedicated web platform.</li> </ul>
	This catalogue will serve as a centralized resource, offering real-time information on course options, schedules, prerequisites, and other pertinent details.  ✓ Develop a mobile application designed to provide students with seamless access to course materials, schedules, and a range of university resources directly from their mobile devices. This mobile application aims to optimize convenience, ensuring students stay connected to essential information and
2026 - 2027	<ul> <li>✓ Deploying a cloud-based infrastructure involves the adoption and integration of cloud computing technologies to support and enhance various aspects of the organization's operations.</li> <li>✓ This includes migrating data, applications, and services to cloud platforms, allowing for scalable, flexible, and often cost-effective solutions.</li> <li>✓ The implementation of cloud based infrastructure typically involves selecting.</li> </ul>
	✓ The implementation of cloud-based infrastructure typically involves selecting a suitable cloud service provider, configuring resources, ensuring security measures, and optimizing the system for improved performance and efficiency.

Year	Activities
2027 - 2028	<ul> <li>Implementing electronic displays and interactive kiosks throughout the campus to provide real-time information on events, schedules, and university news.</li> <li>This initiative involves installing digital screens and interactive kiosks that offer students, faculty, and staff dynamic access to campus-related information, promoting engagement and ease of navigation.</li> </ul>
2028 - 2029	<ul> <li>✓ Implementing a chatbot or virtual assistant stands as a key initiative, focusing on resolving student queries and delivering assistance around the clock.</li> <li>✓ In response to the growing need for online learning support, this automated system is tailored to provide instant help to students, eliminating the requirement for human intervention.</li> </ul>
	<ul> <li>✓ Proficient in addressing common questions, offering guidance on assignments and assessments, and effectively directing students, the chatbot or virtual assistant enhances support services.</li> <li>✓ Incorporating augmented and virtual reality (AR/VR) technologies across various courses aims to extend their usage, providing students with immersive and interactive learning experiences.</li> </ul>

## **Time Line Chart for Campus ICT Plan:**

The following Time Line Chart shows the implementation of Five Year Rolling Plan of Campus Information and Communication Technology Plan from 2024-2029



# 16.6 Infrastructure Development Plan

Infrastructure Plan Consists of:

Category 1: Building/ Classrooms/ library/ Laboratory/ Hostel etc.,

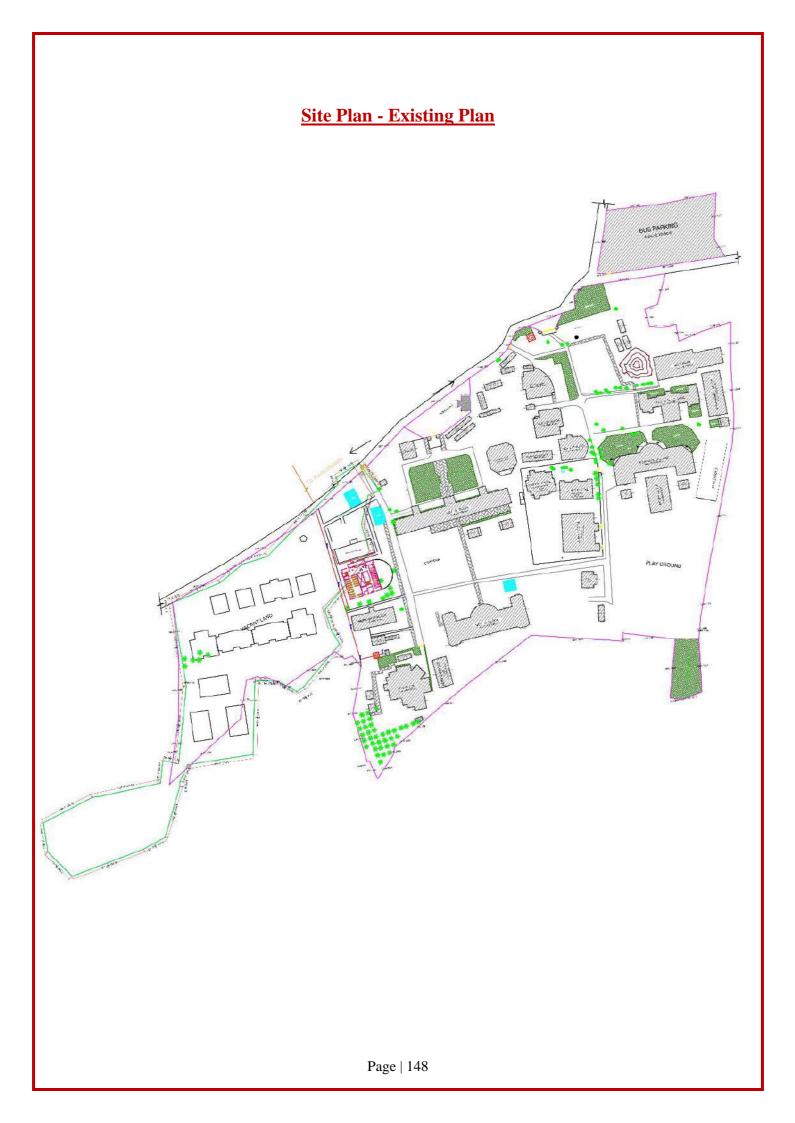
Category 2: Equipment & Technical infrastructure

Category 3: IT facilities & Smart or digital infrastructure

S. No	Particulars	1st year	II <sup>nd</sup> year	III <sup>rd</sup> year	IV <sup>th</sup> year
1.	Building (Main Block) Administrative, Academic, Library, Hostel	15 Crores	9 Crores	8 Crores	8 Crores
2.	Laboratory Equipment, books	7.5 Crores	7.5 Crores	7.5 Crores	7.5 Crores
3.	Furniture	4.5 Crores	4.5 Crores	2.25 Crores	2.25 Crores
4.	IT facilities/ (computers)	1.5 Crore	1.5 Crore	1.5 Crore	75 Lakhs
5.	Buses (10 buses)	15 Crores	6 Crores	3 Crore	3 Crore
6.	Miscellaneous	6 Crores	6 Crores	7.5 Crores	9 Crores
	Capital Expenditure	49.5	34.5	29.75	30.5

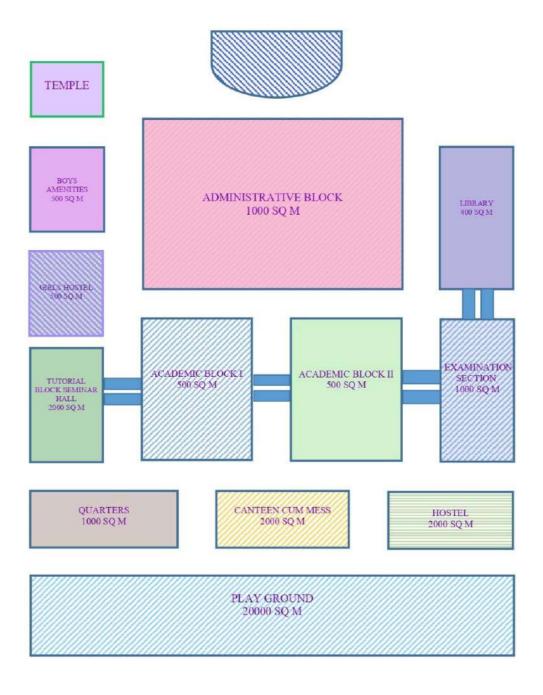
#### **Note:**

7.	Other Expenditure	5 Crores	5 Crores	7.5 Crores	10 Crores
	Grand Total	54.5	39.5	36.25	40.5



# Site Plan - Proposed

P K DAS INSTITUTE OF SOCIAL SCIENCE, HEALTH SCIENCE & TECHNOLOGY (DEEMED TO BE UNIVERSITY) SF. No. 48/1A, 48/38



# 16.7 Finance Plan

Year	rs	2024 25	2025 26	2026 27	2027 20	2020 20	TD-4-1
Particulars		2024 – 25 ₹ (lakhs)	2025 – 26 ₹ (lakhs)	2026- 27 ₹ (lakhs)	2027 – 28 ₹ (lakhs)	2028 – 29 ₹ (lakhs)	Total ₹ (lakhs)
ment	New Academic blocks	200	100	100	-	-	400
/elop	Auditorium	50	50	50	-	-	150
re Dev	Smart Class rooms	50	25	25	25	25	150
Infrastructure Development	Laboratory & Central Facility	100	50	50	25	25	250
Infr	Library books	50	100	-	-	-	150
	ce of existing astructure	100	100	100	110	125	535
Up gradation & procurement of learning Resources Digitalization & IT support Academic activities Faculty & Students		25	30	25	25	25	130
		10	15	20	25	30	100
T		150	210	250	300	350	1670
Expenditure or salary & service		+50	+60	+75	100	125	10/0
Other I	Expenditure	235	240	220	200	240	1135

# 16.8 Human Resources & other Requirements

## 1. Each Program and all programs put together

Particulars	Per Program	Total
Faculty	4 - 6	75
Non-Teaching	2 - 4	50
Laboratories	5 - 6	30
Class rooms	3	35
Library Books	750	20000
Computers	25	150
Buses and Cars	1/2	20/5

# 17. Scheme of Curriculum

# BACHELOR OF TECHNOLOGY (FORENSIC SCIENCE AND DIGITAL CRIMINOLOGY) Curriculum

		1		Semester I	_				
	S. No	Category	<b>Course Code</b>	Name of the Course	L	T	P	Hours	Credits
	1.	SC	24UBS101	Basic Engineering Science	3	0	2	5	4
	2.	SC	24UMA101	Engineering Mathematics I	3	1	0	4	4
<b> </b>	3.	ES	24UES101	Structured Programming	3	0	2	5	4
EAR	4.	OE	24UFSDOXX-1	Open Elective 1	3	0	0	3	3
TX	5.	AEC	24UEN101	Communicative English	2	0	2	4	3
FIRST YEAR	6.	AEC	24UAEC101	Developing Interpersonal Skills	1	0	0	1	1
	7.	VEC	24UVECXX-1	Value Enhancement Course 1	0	0	2	2	1
	8.	VEC	24UVECXX-2	Value Enhancement Course 2	0	0	2	2	1
	9. SEC 24USECXX-1 Skill Enhancement Course 1					0	2	2	1
				Total	15	1	12	28	22
			Semester II						
	S. No Category Course Code Name of the Course I								
	S. No	Category	<b>Course Code</b>	Name of the Course	L	T	P	Hours	Credits
	<b>S. No</b> 1.	<b>Category</b> SC	Course Code 24UMA202	Name of the Course  Engineering Mathematics II	<b>L</b> 3	<b>T</b> 1	<b>P</b> 0	Hours 4	Credits 4
\R									
YEAR	1.	SC	24UMA202	Engineering Mathematics II	3	1	0	4	4
RST YEAR	1. 2.	SC ES	24UMA202 24UES202	Engineering Mathematics II Object Oriented Programming	3 2	1 0	0 2	4	3
FIRST YEAR	1. 2. 3.	SC ES ES	24UMA202 24UES202 24UES203	Engineering Mathematics II Object Oriented Programming Data Structure & Algorithms Introduction to Forensic	3 2 2	1 0 0	0 2 2	4 4 4	3 3
FIRST YEAR	1. 2. 3. 4.	SC ES ES DSC	24UMA202 24UES202 24UES203 24UFSDC201	Engineering Mathematics II Object Oriented Programming Data Structure & Algorithms Introduction to Forensic Science	3 2 2 2	1 0 0	0 2 2 0	4 4 4 2	4 3 3 2
FIRST YEAR	1. 2. 3. 4. 5.	SC ES ES DSC	24UMA202 24UES202 24UES203 24UFSDC201 24UFSDOXX-2	Engineering Mathematics II Object Oriented Programming Data Structure & Algorithms Introduction to Forensic Science Open Elective 2	3 2 2 2 3	1 0 0 0	0 2 2 0 0	4 4 4 2 3	4 3 3 2 3
FIRST YEAR	1. 2. 3. 4. 5.	SC ES ES OSC OE AEC	24UMA202 24UES202 24UES203 24UFSDC201 24UFSDOXX-2 24UEN202	Engineering Mathematics II Object Oriented Programming Data Structure & Algorithms Introduction to Forensic Science Open Elective 2 Proficiency of English	3 2 2 2 3	1 0 0 0 0	0 2 2 0 0 2	4 4 4 2 3	4 3 3 2 3 3
FIRST YEAR	1. 2. 3. 4. 5. 6. 7.	SC ES ES OSC OE AEC	24UMA202 24UES202 24UES203 24UFSDC201 24UFSDOXX-2 24UEN202 24UAEC202	Engineering Mathematics II  Object Oriented Programming  Data Structure & Algorithms  Introduction to Forensic  Science  Open Elective 2  Proficiency of English  Career Development	3 2 2 2 3 2	1 0 0 0 0 0	0 2 2 0 0 2 0	4 4 4 2 3 4 1	4 3 3 2 3 3 1
FIRST YEAR	1. 2. 3. 4. 5. 6. 7.	SC ES ES DSC OE AEC VEC	24UMA202 24UES202 24UES203 24UFSDC201 24UFSDOXX-2 24UEN202 24UAEC202 24UVECXX-3	Engineering Mathematics II  Object Oriented Programming  Data Structure & Algorithms  Introduction to Forensic  Science  Open Elective 2  Proficiency of English  Career Development  Value Enhancement Course 3	3 2 2 2 3 2 1 0	1 0 0 0 0 0 0	0 2 2 0 0 2 0 2	4 4 4 2 3 4 1 2	4 3 3 2 3 3 1 1

The detailed Schemes for all the proposed Programs are given in the Annexure - III.

#### 18. National and International Collaboration

- ➤ Nehru College of Educational and Charitable Trust dedicated to Academic Excellence, proudly boasts a robust network of 136 Memoranda of Understanding (MoUs) that encapsulate both National and International Collaborations.
- These strategic partnerships serve as the bedrock for fostering Academic Exchange, Addons, Placement Programs, Fieldwork Initiatives, and Comprehensive Training Modules.
- The multiplicity of our collaborations reflects our unwavering commitment to providing our students with a well-rounded and globally enriched educational experience. We have a fervent belief that exposure to diverse academic environments and cultural landscapes is paramount for the holistic development of our student body.
- ➤ The spectrum of our MoUs spans across National borders, facilitating an exchange of Ideas, Methodologies, and Best Practices. This International outreach not only broadens the academic horizons of our students but also fortifies our position as a university with a global perspective.
- The academic exchange programs embedded in our collaborations serve as a conduit for students to immerse themselves in different academic ecosystems. Through these exchanges, students gain invaluable insights, perspectives, and skills that transcend traditional classroom boundaries. This exposure not only enriches their academic acumen but also cultivates a nuanced understanding of various industries and cultural nuances, preparing them for the challenges of a dynamically evolving global landscape.
- Apart from academic exchange, our MoUs also lay the foundation for innovative add-on programs that augment the standard curriculum. These programs are designed in collaboration with our partners to provide students with a competitive edge in their chosen fields.
- ➤ Whether it's specialized workshops, seminars, or **interdisciplinary courses**, our collaborative initiatives are tailored to equip students with skills that are directly applicable to the demands of the professional realm.
- **Placement programs** embedded within our collaborations extend a helping hand to our students as they navigate the transition from academia to the workforce.
- ➤ By tapping into the expansive networks established through our MoUs, we create avenues for internships, co-op programs, and direct placement opportunities with leading industry players.

- The seamless integration between academia and industry not only bolsters the employability of our graduates but also reinforces our commitment to producing workforce-ready professionals.
- > **Fieldwork** initiatives represent another dimension of our collaborative efforts, providing students with **hands-on experiences** that bridge theory and practice.
- Through partnerships with organizations and institutions, we facilitate field trips, research projects, and **experiential learning opportunities** that enable students to apply their theoretical knowledge in real-world scenarios. This approach not only enhances the practical skills of our students but also instills in them a sense of responsibility and awareness of the societal impact of their academic pursuits.
- Training modules, a cornerstone of our collaborative endeavors, are meticulously designed to equip students with the skills and competencies essential for success in their chosen fields.
- These training programs, often developed in consultation with industry experts, ensure that our graduates possess not only theoretical knowledge but also the practical aptitude required for a seamless transition into the professional realm. From soft skills to technical proficiency, our training initiatives are tailored to meet the evolving demands of the job market.
- As we navigate the ever-changing landscape of higher education, our extensive network of MoUs stands as a testament to our proactive approach in adapting to the evolving needs of our students and the global academic community. These collaborations not only contribute to the intellectual capital of our institution but also serve as a conduit for the cross-pollination of ideas, fostering an environment of innovation and research excellence.
- The essence of any thriving educational institution lies not only in its current academic endeavors but also in the enduring connections it forges with its alumni. Alumni serve as the living testament to the Institution's impact on individuals and society at large. In our commitment to fostering a vibrant and engaged community, we have strategically leveraged the power of Alumni Connect through a network of National and International Memoranda of Understanding (MoUs).
- ➤ The **Alumni Connect** based collaborative partnerships are not only instrumental in the development of the university but also in creating a dynamic ecosystem that extends beyond the classroom, transcending geographical boundaries.
- Our Alumni Connect initiatives serve as the linchpin for university development, and the 136 MoUs, both national and international, are a testament to our dedication to building a strong and interconnected academic community.
- The above mentioned agreements lay the foundation for meaningful and enduring Page | 153

- relationships with our alumni, providing a platform for collaboration, mentorship, and knowledge exchange.
- Our Alumni Connect programs are deeply embedded in the fabric of our institution. Through strategic MoUs with alumni associations and organizations, we have created a seamless bridge between the university and its graduates. This connection is not merely transactional; it is a symbiotic relationship that benefits both the institution and its alumni.
- ➤ By fostering a sense of pride and belonging among our graduates, we create a community that is invested in the continued success and growth of the university. The national Alumni Connect initiatives encompass a spectrum of activities, including mentorship programs, networking events, and collaborative research projects. These endeavors serve to harness the wealth of experience and expertise our alumni have amassed in their respective fields.
- ➤ By providing current students with access to this reservoir of knowledge, we ensure that they are not only academically prepared but also equipped with insights into the practical realities of their chosen professions.
- Furthermore, our Alumni Connect programs extend beyond the borders of our nation through international MoUs. These agreements are crafted with a vision to create a global network of alumni who contribute not only to the internationalization of the university but also to the development of a diverse and interconnected academic community.
- Through strategic partnerships with international alumni associations, corporations, and educational institutions, we facilitate **cross-cultural collaboration** and knowledge exchange. The international dimension of our Alumni Connect initiatives is particularly valuable in an era where the boundaries between nations are increasingly porous, and a global perspective is essential for success.
- ➤ By tapping into the diverse experiences and perspectives of our international alumni, we enrich the academic environment for all students, fostering a truly global mindset that transcends geographical constraints.
- Collaborative Research projects, joint conferences, and exchange programs are integral components of our international Alumni Connect endeavors.
- The initiatives not only contribute to the intellectual capital of the university but also position our graduates as global citizens with a deep understanding of the interconnected nature of today's world. Through these collaborations, we aim to prepare our students not just for local or national challenges but also for the complexities of a globalized society.
- In addition to academic collaboration, our Alumni Connect programs play a pivotal role in

- enhancing placement opportunities for our students. Alumni, with their established networks and industry insights, become invaluable resources in bridging the gap between academia and the professional world.
- Through job fairs, industry-specific events, and alumni-led career development workshops, we facilitate a seamless transition for our graduates into the workforce. The impact of Alumni Connect on university development goes beyond the academic and professional realms. The emotional connection and sense of community fostered through these initiatives contribute significantly to the overall well-being and reputation of the institution.
- As alumni become ambassadors for the university in their respective spheres of influence, the positive ripple effect on the institution's brand and standing is immeasurable.
- Moreover, the financial support garnered through alumni engagement is a critical aspect of university development. Alumni who feel a strong connection to their alma mater are more likely to contribute financially, whether through donations, endowments, or sponsorships.
- These contributions play a pivotal role in funding scholarships, research endeavors, infrastructure development, and other initiatives that contribute to the overall growth and sustainability of the university.

# 19. Existing Academic and Physical Infrastructure

Item	Seminar Halls
Area In Sq. Ft.	6530 Sq. Ft./ 1997 Sq. ft./ 689 Sq.ft
<b>Seating Capacity</b>	600/200/75
Facilities	LCD - Enabled
Location	Netaji Block, NCPIR Block, NASC Block



Figure 19.1 Seminar Hall - I



Figure 19.2 Seminar Hall - II



Figure 19.3 Seminar Hall - III

Item	<b>Board Rooms</b>				
Area In Sq. Ft.	875 Sq. Ft./ 650 Sq. ft./ 500 Sq. ft				
Seating Capacity	50/ 35/ 25				
Facilities	LCD - Enabled				
Block & Room No.	A & AG - 6				



Figure 19.4 Board Room - I



Figure 19.5 Board Room - II



Figure 19.6 Board Room – III

Item	Computer Laboratories
Area In Sq. Ft.	1266 Sq. Ft./ 1475 Sq. Ft
Block/ Floor	A/ First



Figure 19.7 Computing Lab – 1



Figure 19.8 Computing Lab - 2

#### PK DAS LEARNING RESOURCE CENTRE (LIBRARY)

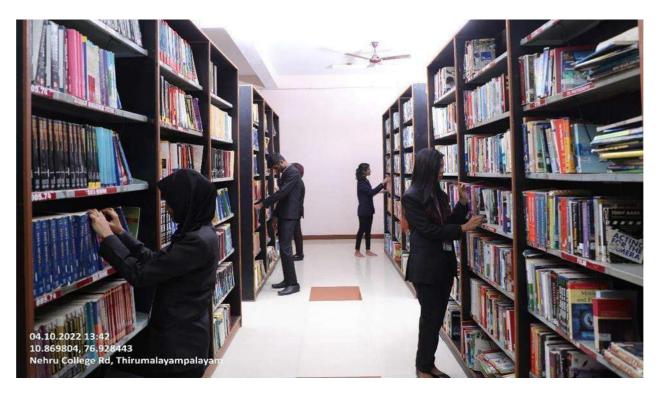


Figure 19.9 Library – One of the Book Shelves



**Figure 19.10 Library – Reference and Reading Facility** 

# P.K. DAS AUDITORIUM





Figure 19.11 Auditorium

## **MULTIPLEX THEATRE**



Figure 19.11
Inauguration of "Nehru Cinema" A Theatre with advanced facilities



Figure 19.13 Facilities of Sports Facilities – Play Ground - I



Figure 19.14 Facilities of Sports Facilities – Play Ground – II



Figure 19.15 Facilities of in-house Game Facilities

## 20. Conclusion

Nehru Group of Institutions understands it's current state and future aspirations. The emphasis on trust, institutional values, and a clearly defined vision and mission emphasize the commitment to academic excellence. The diverse list of proposed programs, reflects a strategic approach to meeting the evolving needs of students and the market. As NGI has very Strong Academic, and Research Experiences with committed Faculty Members and State of the Art Facilities, which will successfully run Deemed to be University under Distinct Category and will definitely serve the student community of future generation with student centric approach giving exposure to Indian Knowledge system through implementation of NEP 2020 for their better Career.

Further, The Strengths and Opportunities identified demonstrate the institution's readiness for university status, with a focus on distinctive and multi-disciplinary programs. The proposed strategic plans, spanning fifteen years and incorporating a five-year rolling plan, outline a robust roadmap for academic, research, and infrastructure development. The faculty recruitment, student admission, and research plans underscore a commitment to building a strong academic foundation.

The meticulous market study supports the rationale for introducing new programs, ensuring alignment with current and future industry demands. The detailed financial, administrative, and human resources plans provide a comprehensive framework for successful implementation.

# $\underline{Annexure-I-Infrastructure\ Facilities}$

## NEHRU CORPORATE PLACEMENTS & INDUSTRIAL RELATIONS



**NCPIR BLOCK** 

**ONLINE EXAM CENTRE** 



**SEMINAR HALL – 1** 



**BOARD ROOM** 



TRANING CLASSROOM - 1



**INTERVIEW ROOM – 1** 

#### TECHNOLOGY BUSINESS INCUBATOR



**ACTIVITY ARENA** 



**DISCUSSION AREA** 



**HELP DESK** 



**SEMINAR HALL** 



**BOARD ROOM** 



INNOVATION / WORK SPACE

#### **HOSTEL FACILITIES**



**NIT HOSTEL** 



**NIET HOSTEL** 



**DINING AREA** 



**HOSTEL ROOM – 1** 



**VERMICOMPOST UNIT** 



**HOSTEL ROOM – 2** 

# Annexure –II Sample Scheme

# BACHELOR OF BUSINESS ADMINISTRATION with AVIATION MANAGEMENT Curriculum

			I Ye	ar								
			Semester I									
ER					Instr Iours			Examination Marks				ts
SEMESTER	Part	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Credits
	I	24UBMC101	DSC1: Principles of Management	3	2	-	5	3	25	75	100	4
	I	24UBMC102	DSC2: Business Environment	4	-	-	4	3	25	75	100	4
,	I	24UBMC103	DSC3: Business Communication	3	2	-	5	3	25	75	100	3
I	III	24UBMG101/ 24UBMG102/ 24UBMG103	GEC1: Business Mathematics/ Statistics for Management/ Operations Research	3	1	-	4	3	25	75	100	3
	IV	24UBMA101/ 24UBMA102	AEC1(E): Professional English I/ Technical English I	2	1	-	3	3	20	30	50	2
	IV	24UBMA103 24UBMA104 24UBMA105 24UBMA106 24UBMA107	AEC3(L): Elanthamizh Kadhayum Samskaaravum Rachnathmak Hindi Le Français Fondamental – I Sanskrit I	2	1	-	3	3	20	30	50	2
	V	24UBMS101/ 24UBMS102	SEC1(Practical): PC Software/ Computer Applications in Business	-	-	4	4	3	25	75	100	2
	VI	24UCAV101	VAC1: Environmental Studies	2	-	-	2	-	50	-	50	2
	-		Extension Activities - Outreach Programmes (Panchayat, Municipality)	-	-	-	-	Grade				
	DTC	- I - Additional Cı	redit Courses (SWAYAM- NF	TEL	or A	ny o	ther co	ourses ce	ertified	by Sta	tutory B	odies)
	Outro	each Programmes	- Community Engagement ar	nd Se	rvices	S						
							30				650	22

			I Ye	ar									
			Semest	ter II									
				Instruction Hours / Week				Examination Marks				S	
	Part	Course Code	Name of the Course	L	Т	P	Total	<b>Duration</b> <b>Hours</b>	CIA	ESE	Total	7	
•	I	24UBMC204	DSC4: Organizational Behaviour	3	2	-	5	3	25	75	100	4	
	I	24UBMC205	DSC5: Managerial Economics	3	2	-	5	3	25	75	100	3	
[	I	24UBVC206	DSC6: Principles of Aviation Management	3	2	-	5	3	25	75	100	2	
Ī	I	24UBMC207	DSC7: Business Law	4	1	-	5	3	25	50	75	4	
-	III	24UBMG204/ 24UBMG205/ 24UBMG206	GEC2: Artificial Intelligence/ Internet and Web Page Design/ Multimedia Technologies	3	1	-	4	3	25	75	100	-	
Ī	IV	24UBMA208/ 24UBMA209	AEC2(E): Professional English II/ Technical English II	2	1	-	3	3	20	30	50	,	
	IV	24UBMA210 24UBMA211 24UBMA212 24UBMA213 24UBMA214	AEC4(L): Pynthamizh Novalum Bhashaapadanavum Sanchar Hindi Le Français Fondamental –	2	1	-	3	3	20	30	50	,	
	VII	24UBMI201	Summer Internship	-	-	-	-	3	25	75	100	2	
	-	24UBMD201	Addon Course – Industry Institute Linkage	-	-	-	-	Grade					
	-		Extension Activities - Outreach Programmes (Panchayat, Municipality)	-	-	-	-	Grade					
	Bodie	es)	- Community Engagement an				other	courses	certifie	ed by St	tatutory		
							30				675	2	

			II Year									
			Semester 1		tructi / W	on H /eek	ours	Exa	minat	ion M	arks	rs.
	Part	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Credits
	I	24UBMC308	DSC8: Accounting for Business	3	2	-	5	3	25	75	100	4
	I 24UBVC309 DSC9: Introduction to Airport 3 3 3 Management						6	3	25	75	100	4
	I	24UBMC310	DSC10:						25	75	100	3
III	II	24UBME301/ 24UBME302/ 24UBME303	DSE1: Consumer Behaviour/ Introduction to Banking/ Time Management	4	-	-	4	3	25	75	100	4
	III	24UBMG307/ 24UBMG308/ 24UBMG309	GEC3: Introduction to Office Management/ Office Management Tools/ Communication and Interpersonal Skills	3	1	-	4	3	25	75	100	3
	V	V 24UBMS303/ Sec2: Personality Development/ Soft Skills Development			-	-	4	3	20	30	50	2
	VI 24UCAV302 VAC2: Yoga for Human Excellence 2 -						2	-	50	-	50	2
											600	22

			II Year									
			Semester 1	IV								
	1.)			Ins	tructi / W	on H eek	ours	Exa	minati	on Ma	rks	its
	Part	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Credits
	I	24UBVC411	DSC11: Aviation Logistics and Cargo	4	2	-	6	3	25	75	100	4
	I	24UBMC412	-	5	3	25	75	100	3			
	I	Marketing Management						3	25	50	75	2
I V	DSE2:  24UBME404/ Brand Management/ Financial Markets/ Reward and Compensation Management					2	5	3	25	75	100	4
	III	24UBMG410/ 24UBMG411/ 24UBMG412	GEC4: Spoken Hindi/ Spoken French/ Spoken German	3	1	-	4	3	25	75	100	3
	V	24UBMS405/ 24UBMS406	SEC3: Insurance Principles and Practices/ Tally Practical	4	-	-	4	3	20	30	50	2
	VAC3: Human Rights and Constitution of India/ 24UCAV404/24 UCAV405  VAC3: Human Rights and Constitution of India/ Women's Rights/ Indian Culture and Heritage						2	-	50	-	50	2
	VII	VII 24UBMI402 <b>Summer Internship</b>							25	75	100	2
											675	22

			III Year									
			Semester V									
					Instr lours			Exa	minati	on Ma	rks	S
	Part	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Credits
	I 24UBMC514 DSC14: Human Resource Management						6	3	25	75	100	4
	I 24UBMC515 DSC15: Financial Management					-	6	3	25	75	100	4
	DSC16:  I 24UBVC516 Air Regulation and Air Traffic Management					-	6	3	25	75	100	4
V	II	24UBME507/ 24UBME508/ 24UBME509	DSE3: Services Marketing/ International Trade Finance/ Organizational change and development	4	1	-	5	3	25	75	100	4
	II	24UBME510/ 24UBME511/ 24UBME512	DSE4: Retail Marketing/ Corporate Taxation/ International Human Resource Management	4	1	-	5	3	25	75	100	4
	V 24UBMS507/ SEC4: Data Analysis and Business Modelling/ Digital Marketing				-	-	4	3	20	30	50	2
	-	24UCAD202	Addon Course – Industry Institute Linkage	-	-	-	-		(	Grade		
	30 550 22											

			III Year									
			Semester V	[								
	Part	Correct Code	Name of the Course		Instr lours			Exa	minati	on Ma	rks	Credits
	Pa	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Cre
	I	24UBMC617	DSC17: Industrial Relations and Labour Welfare	4	2	-	6	3	25	75	100	4
	I 24UBVC618 DSC18: Air Safety and Security Services					-	6	3	25	75	100	4
VI	II	24UBME613/ 24UBME614/ 24UBME615	DSE5: E-Business/ Materials Management/ Fundamentals of Entrepreneurship	4	-	-	4	3	25	75	100	4
	II	24UBME616/ 24UBME617/ 24UBME618	DSE6: Enterprise Resource Planning/ Facilities Location and Process Design/ Business Modelling and Planning	4	-	-	4	3	25	75	100	4
	V	24UBMS609/ 24UBMS610	SEC5: Design Thinking/ Emotional Intelligence	4	-	-	4	3	20	30	50	2
	V	24UBMS611/ 24UBMS612	SEC6: Intellectual Property Rights/ Professional Ethics	4	-	-	4	3	20	30	50	2
	VI 24UCAV606/24 UCAV607/24U CAV608 VAC4: Gandhian Thoughts/ Waste Management/ Consumer Affairs					-	2	-	50	-	50	2
30									550	22		

			IV Year	•								
			Semester	VII								
				Ins		tion 1 Week	Hours	Exa	minati	on Ma	rks	Credits
	Part	Course Code	Name of the Course	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Cre
	I 24UBMC719 DSC19: Investment Analysis and Portfolio Management 3 2					-	6	3	25	75	100	4
-	I 24UBVC720 Airport Ground Handling Management				2	-	6	3	25	75	100	4
VII	Ι	24UBMC721	DSC21: Advertising and Sales Promotion	6	-	-	5	3	25	75	100	3
	I	24UBMC722	DSC22: Information Management	6	-	-	5	3	25	75	100	3
	II  24UBME719/ 24UBME720/ 24UBME721  Data Mining for Business Intelligence/ Total Quality Management/ Business Opportunity Identification			4	-	-	4	3	25	75	100	4
	II 24UBME722/ Decision Support Systems/ World Class Manufacturing/ Venture Establishment 4 -					-	4	3	25	75	100	4
	30 600 22										600	22

			IV Year									
			Semester V	Ш								
				Ins		tion I Veek	Hours	Exam	ination	Marl	KS	lits
	Part	Course Code	L	Т	P	Total	Duration Hours	CIA	ESE	Total	Credits	
VIII	I	24UBMC823	DSC23: Strategic Management	4	2	-	6	3	25	75	100	4
	I	24UBVC824	DSC24: Aviation Maintenance Management	4	2	-	6	3	25	75	100	4
	I 24UBMC825 Entrepreneurship and Small Business Management					-	6	3	20	30	50	2
	VIII	24UCAR801	Research Project / Dissertation	-	-	12	12	3	100	200	300	12
	30   550   22											

## **Distribution of Credits and Marks**

Semester	Credits	No. of Courses	Marks
I	22	8	650
II	22	6+1	675
III	22	7	600
IV	22	6+1	675
V	22	6	550
VI	22	6	550
VII	22	6	550
VIII	22	3+1	600
Total	176	48 +3	4850

# BACHELOR OF TECHNOLOGY (AGRICULTURAL AND BIOLOGICAL ENGINEERING) Curriculum

				Semester I					
	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits
	1.	SC	24UBS101	Basic Engineering Science	3	0	2	5	4
	2.	SC	24UMA101	Engineering Mathematics I	3	1	0	4	4
	3.	ES	24UBC101	Fundamentals of Biochemistry	3	0	0	3	3
	4.	ES	24UES101	Engineering Graphics	0	0	2	2	1
FIRST YEAR	5.	OE	24UABOXX-1	Open Elective 1	3	0	0	3	3
TRST	6.	AEC	24UEN101	Communicative English	2	0	2	4	3
	7.	AEC	24UAEC101	Developing Interpersonal Skills	1	0	0	1	1
	8.	VEC	24UVECXX-1	Value Enhancement Course 1	0	0	2	2	1
	9.	VEC	24UVECXX-2	Value Enhancement Course 2	0	0	2	2	1
	10.	SEC	24USECXX-1	Skill Enhancement Course 1	0	0	2	2	1
				Total	15	1	12	28	22

П				Semester II					
	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits
	1.	SC	24UMA202	Engineering Mathematics II	3	1	0	4	4
	2.	SC	24UBM201	Fundamentals of Biotechnology and Molecular Biology	3	0	2	5	4
	3.	ES	24UES202	Problem Solving and Python Programming	2	0	2	4	3
<b>Y</b>	4.	ES	24UES211	Engineering Practices Laboratory	0	0	2	2	1
FIRSTYEAR	5.	OE	24UABOXX-2	Open Elective 2	3	0	0	3	3
FIRS	6.	AEC	24UEN202	Proficiency of English	2	0	2	4	3
	7.	AEC	24UAEC202	Career Development	1	0	0	1	1
	8.	VEC	24UVECXX-3	Value Enhancement Course 3	0	0	2	2	1
	9.	VEC	24UVECXX-4	Value Enhancement Course 4	0	0	2	2	1
	10.	SEC	24USECXX-2	Skill Enhancement Course 2	0	0	2	2	1
				Total	14	1	14	29	22

Ī				Semester III					
	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits
	1.	SC	24UMA303	Engineering Mathematics III	3	1	0	4	4
	2.	ES	24UES303	Surveying and Levelling	2	0	2	4	3
	3.	DSC	24UABE301	Soil Science and Engineering	3	0	2	5	4
7 × 5	4.	DSC	24UABE302	Fluid Mechanics and Thermodynamics	2	1	2	5	4
	5.	OE	24UABOXX-3	Open Elective 3	3	0	0	3	3
	6.	AEC	24UAEC311	Employability Skills	0	0	2	2	1
	7.	VEC	24UVECXX-5	Value Enhancement Course 5	0	0	2	2	1
	8.	VEC	24UVECXX-6	Value Enhancement Course 6	0	0	2	2	1
	9.	SEC	24USECXX-3	Skill Enhancement Course 3	0	0	2	2	1
		_		Total	13	2	14	29	22

Ī				Semester IV					
	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits
	1.	SC	24UMA404	Probability and Statistics	3	1	0	4	4
ı	2.	ES	24UES404	Strength of Materials	2	0	2	4	3
ı	3.	DSC	24UABE403	Hydrology and Water Resources Engineering	3	0	2	5	4
_	4.	DSC	24UABE404	Drawing of Farm Structures	0	0	2	2	1
THIRD YEAR	5.	DSC	24UABE405	Unit Operations in Agricultural Processing	2	0	2	4	3
H	6.	OE	24UABOXX-4	Open Elective 4	3	0	0	3	3
	7.	AEC	24UAEC412	Professional Etiquette	0	0	2	2	1
	8.	VEC	24UVECXX-7	Value Enhancement Course 7	0	0	2	2	1
	9.	VEC	24UVECXX-8	Value Enhancement Course 8	0	0	2	2	1
	10.	SEC	24USECXX-4	Skill Enhancement Course 4	0	0	2	2	1
				Total	13	1	16	30	22

				Semester V					
	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits
	1.	DSC	24UABE506	Remote Sensing and Geographical Information System	2	0	2	4	3
	2.	DSC	24UABE507	Post Harvest Technology	2	0	2	4	3
	3.	DSC	24UABE508	Farm Machinery and Equipment	3	0	0	3	3
_	4.	DSC	24UABE509	Agronomy and Livestock Management	2	0	2	4	3
THIRD YEAR	5.	DSE	24UABPXX-1	Professional Elective I	3	0	0	3	3
HIRL	6.	OE	24UABOXX-5	Open Elective 5	3	0	0	3	3
	7.	AEC	24UAEC513	Competency Development	0	0	2	2	1
	8.	VEC	24UVECXX-9	Value Enhancement Course 9	0	0	2	2	1
	9.	VEC	24UVECXX-10	Value Enhancement Course 10	0	0	2	2	1
	10.	SEC	24UABES511	Internship I*	0	0	0	0	1
		_		Total	15	0	12	27	22

\*Three weeks industrial internship carries one credit. Internship during IV SemesterVacation will be evaluated in V semester

ı	Semester VI											
	S.No	Category	Course Code	Course Code Name of the Course				Hours	Credits			
	1.	DSC	24UABE610	Agricultural Microbiology	3	0	2	5	4			
	2.	DSC	24UABE611	Precision Agriculture	0	2	5	4				
	3.	DSC	24UABE612	Seminar / Quiz / Group Discussion	3	0	0	3	1			
2	4.	DSE	24UABPXX-2	Professional Elective II	3	0	0	3	3			
AVAA GAIHJ.	5.	DSE	24UABPXX-3	Professional Elective III	3	0	0	3	3			
	6.	OE	24UABOXX-6	Open Elective 6	3	0	0	3	3			
	7.	AEC	24UAEC614	Corporate readiness program	0	0	2	2	1			
	8.	VEC	24UVECXX-11	Value Enhancement Course 11	0	0	2	2	1			
	9.	VEC	24UVECXX-12	Value Enhancement Course 12	0	0	2	2	1			
	10.	SEC	24USECXX-5	Skill Enhancement Course 5	0	0	2	2	1			
				Total	18	0	12	30	22			

		Semester VII											
		S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits			
		1.	DSC	24UABE713	Renewable Energy in Agriculture	2	0	2	4	3			
	<b>×</b>	2.	DSC	24UABE714	Smart Farming	3	0	0	3	3			
FOUTH YEAR		3.	DSE	24UABPXX-4	Professional Elective IV 3			0	3	3			
	OUTE	4.	OE	24UABOXX-7	Open Elective 7	3	0	0	3	3			
	Ŧ	5.	AEC	24UAEC715	Business Modelling		0	2	2	1			
		6.	SEC	24UABES711	0	0	10	10	5				
					Total	11	0	14	25	18			

Semester VIII										
H <b>^</b>	S.No	Category	Course Code	Name of the Course	L	T	P	Hours	Credits	
YEAR	1.	SEC	24UABES811	Research Project/Internship	0	0	20	20	10	
¥ ′				Total	0	0	20	20	10	

## CREDIT DISTRIBUTION – SUMMARY

S.No	Catagomy	Credits/Semester								
5.110	Category	I	II	III	IV	V	VI	VII	VIII	Credits
1.	Science Core (SC)	8	8	4	4					24
2.	Engineering Science (ES)	4	4	3	3					14
3.	Department Specific Core (DSC)			8	8	12	12	6		46
4.	Department Specific Elective (DSE)					3	3	3		9
5.	Open Elective (OE)	3	3	3	3	3	3	3		21
6.	Ability Enhancement Courses (AEC)	4	4	1	1	1	1	1		13
7.	Value Enhancement Courses (VEC)	2	2	2	2	2	2			12
8.	Skill Enhancement Courses (SEC)	1	1	1	1	1	1	5	10	21
<b>Total Credits</b>		22	22	22	22	22	22	18	10	160

# MASTER OF CLINICAL MICROBIOLOGY Curriculum

ster	·t					ructions / W		Е	xamiı	nation	Marks	lits
Semester	Part	Course Code	Name of the Course	L	T	P	Total	Hours	CIA	ESE	Total	Credits
I	I	24PCMC101	DSC1: Basic Sciences- Anatomy and Physiology	4	1	-	5	3	25	75	100	3
	I	24PCMC102	DSC2: General Microbiology and Immunology	4	1	-	5	3	25	75	100	4
	I	24PCMC103	DSC3: Clinical Biochemistry-I	3	1	-	4	3	25	75	100	3
Ī	I	24PCMQ101	DSP1: Basics Sciences	-	-	2	2	3	25	75	100	2
	I	24PCMQ102	DSP2: General Microbiology and Immunology	-	-	6	6	9	25	75	100	3
	I	24PCMQ103	DSP3: Clinical Biochemistry	-	-	3	3	3	25	75	100	2
j			2	1		3	3	20	30	50	2	
	I 24PCMCT101 Clinical Training			-	1	3	4					2
							30				650	21
II	I	24PCMC204	DSC4: MB-II-Systemic bacteriology	3	1	-	4	3	25	75	100	3
11	I	, c,					3	3	25	75	100	3
	I	24PCMC206 DSC6: Hematology & Blood transfusion			1	-	4	3	25	75	100	3
E		24PCMC207	DSC7: Clinical Pathology	3	1	_	4		25	75		3
-	I	24PCMQ204	DSP4: MB-II-Systemic bacteriology/ virology/ Mycology	-	-	5	5	9	25	75	100	3
		24PCMQ205	DSP5: Histopathology and Cytology	-	-	3	3	5	20	30	50	1
-		24PCMQ206	DSP6: Hematology & Blood transfusion	-	-	3	3	5	20	30	50	1
		24PCMQ207	DSP7: Clinical Pathology	-	-	2	2	5	20	30	50	1
	I	24PCME20X	Discipline specific Elective-II	1	1		2	3	20	30	50	1
							30				750	21
Sumr	ner Ir	nternship for 30 d	ays in Clinical Laboratory									
III	I	24PMCC308	DSC8: MB-III-Parasitology and Entomology	3	1	-	4	3	25	75	100	3
ļ	I	24PMCC309	DSC9: Molecular diagnostic tools and techniques	3	1	-	4	3	25	75	100	3
Ī		24PMCC310	DSC10: Pharmacology	2	1	-	3	3	25	75	100	3
		24PMCR301	DSR1: Biostatistics and Research Methodology	2	1	-	3	3	25	75	100	2
	I	24PCMQ308	DSP8: MB-III-Parasitology and	-	-	4	4	4	25	75	100	2

							T			,		
		24PCMQ309	DSP9: Molecular diagnostic tools and techniques	-	-	4	4	5	20	30	50	2
	Ι	24PCMGE301	Generic Elective -I* (Multi-disciplinary)	2	1	-	3	3	20	30	50	2
	I	24PMCOL301	Online course								50	2
	I	24PCMCT302	Clinical Training	-	-	5	5	3				2
							30				650	21
IV		24PCMC409	DSC 09: Element of Molecular Biology	4	-	-	4	3	25	75	100	3
		24PCMR401	DSR 2: Infectious Diseases and its prevention	4	-	-	4	3	25	75	100	3
		24PCMC412	DSC12: Clinical Virology	4	-	-	4	3	25	75	100	3
		24PCMC413	DSC13: Clinical Mycology	4	-	-	4	3	25	75	100	3
		24PCMQ410	DSP 10: Element of Molecular Biology	-	-	3	3	5	20	30	50	2
		24PCMQ411	DSP 11: Infectious Diseases	-	-	4	4	6	25	75	100	2
		24PCMQ412	DSC12: Clinical Virology/ Mycology	-	-	4	4	6	20	30	50	2
		24PCME40X	Discipline specific Elective -IV	4	-	-	4	3	25	75	100	2
		24PMCOL401	Online course@								50	2
							28				750	22
	•									Γotal	2950	85

Semester V and VI											
S.No	Course Code	Name of the Course		Name of the Course		Name of the Course		T	P	Hours	Credits
2.	24PCMCRP517	Research Project	ı	-	3 Months	320	10				
3.	24PCMI618	Internship	-	-	7 Months	624	10				
4.	24PCM619	ALS/BLS	4	-	12	2 days	5				
		Total	4	0	10 months	944	25				
	Grand Total										

# Note:

- \*Generic elective courses interdisciplinary and multidisciplinary can be off line course or online course from the list of recommended courses approved by the Board of Studies.
- Each department shall offer generic elective courses (Interdisciplinary) to the students.
- Students shall choose Generic elective courses multidisciplinary courses offered by other departments.
- Students shall choose online multidisciplinary or interdisciplinary generic courses offered by other universities also. The course list must be approved by the Board of Studies.
- In second semester, any one core course shall be in blended mode.
- In fourth semester, any one core course shall be a self-study paper.

- Students shall opt for dissertation or industrial training for 5 months in the fourth semester to earn 10 credits. Students who have opted for industrial shall be given an opportunity to complete the course work through online mode.
- Students shall earn 2 extra credits in each semester for maximum of 4 credits.
- @Students shall choose any course from SWAYAM related to their discipline and complete and produce the certificate for the award of credits.

# Annexure - III - Year Audit Report

# **Audit Report 2022-23**



Office: 57A, Chinna Subbannan Street K.K. Pudur, Coimbatore-641 038 Tel: 0422 - 4387382 Email: bskumar10@rediffmail.com / ca@bskumar.in

# Bindu Sureshkumar & Associates

**Chartered Accountants** 

#### Independent Auditor's Report

To the Board of Trustees of Nehru College of Educational and Charitable Trust

#### Opinion

We have audited the accompanying financial statement of Nehru College of Educational and Charitable Trust, ("The Trust") which comprise the balance sheet as at 31st March 2023, the income and expenditure account and the Receipts and Payments Accounts for the year then ended, and a summary of the significant accounting policies and other explanatory information (together herein after referred to as financial statement") which has been prepared by the Board of Trustees of the Trust.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Trust as at 31 March 2023, and of its financial performance for the year then ended in accordance with the financial statements, as there are presently no authoritatively established accounting principles for the specialized aspects related to charitable trusts not having any commercial activities.

#### **Basic for Opinion**

We conducted our audit in accordance with the standards on Auditing (SAs) issued by Institute of Chartered Accountant of India (ICAI). Our responsibilities under those standards are future described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Trust in accordance with the ethical requirements that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basic for our opinion.

# Responsibilities of Trust's Management and Those Charged with Governance for the Financial Statements

Trust's Management is responsible for the preparation and fair presentation of the financial statements in accordance with the aforesaid Accounting Policies, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, Trust's management is responsible for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern basis of accounting unless management either intends to liquidate the Trust or to cease operations, or has no realistic alternative but to do so,

Those charged with governance are responsible for overseeing the Trust's financial reporting process.

#### Independence Auditors Report (Continued)

# Auditor's Responsibilities for the Audit of the Financial Statements

Our objectivities are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists, Misstatement can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decision of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also.

\* Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risks of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

\* Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control.

Evaluate the appropriateness of according policies used and the reasonableness of accounting estimates and related disclosures made by management.

\* Conclude on the appropriateness of Trust's management 's use of the going concerns basic of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Trust's ability to continues as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the project financial statements or, if such disclosure is inadequate, to modify our opinion, our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Trust's to cause to continue as a going concern.

We communicate with those charged with governance regarding, among other matter, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

For Bindu Sureshkumar& Associates

CIESTA COMBATORE

Partner

M: No:055395

Place: Coimbatore

Date: 28.08.2023

UDIN:NO: 23055395BGWVIL4976

# **Audit Report 2021-22**



Office: 57A, Chinna Subbannan Street K.K. Pudur, Coimbatore-641 038 Tel: 0422 - 4387382 Email: bskumar10@rediffmail.com / ca@bskumar.in

# Bindu Sureshkumar & Associates

**Chartered Accountants** 

# Independent Auditor's Report

To the Board of Trustees of Nehru College of Educational and Charitable Trust

#### Opinion

We have audited the financial statement of Nehru College of Educational and Charitable Trust, which comprise the balance sheet as at 31st March 2022, the income and expenditure account for the year then ended, and notes to the financial statements, including the summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Trust as at 31 March 2022, and of its financial performance for the year then ended in accordance with the financial statements, as there are presently no authoritatively established accounting principles for the specialized aspects related to charitable trusts not having any commercial activities.

#### **Basic for Opinion**

We conducted our audit in accordance with the standards on Auditing (SAs) issued by Institute of Chartered Accountant of India (ICAI). Our responsibilities under those standards are future described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Trust in accordance with the ethical requirements that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basic for our opinion.



# Responsibilities of Trust's Management and Those Charged with Governance for the Financial Statements

Trust's Management is responsible for the preparation and fair presentation of the financial statements in accordance with the aforesaid AccountingPolicies, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, Trust's management is responsible for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern basis of accounting unless management either intends to liquidate the Trust or to ceaseoperations, or has no realistic alternative but to do so,

Those charged with governance are responsible for overseeing the Trust's financial reporting process.

## Independence Auditors Report (Continued)

# Auditor's Responsibilities for the Audit of the Financial Statements

Our objectivities are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists, Misstatement can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decision of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also.

\* Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risks of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.



\* Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control.

Evaluate the appropriateness of according policies used and the reasonableness of accounting estimates and related disclosures made by management.

\* Conclude on the appropriateness of Trust's management 's use of the going concerns basic of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Trust's ability to continues as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the project financial statements or, if such disclosure is inadequate, to modify our opinion, our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Trust's to cause to continue as a going concern.

We communicate with those charged with governance regarding, among other matter, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

For Bindu Sureshkumar& Associates

E. Sureshkumar

Partner

M: No:055395

UDIN:NO: 22055395APZBZO6547

Place: Coimbatore

Date: 18-08-2022

# **Audit Report 202-21**



Office: 57A, Chinna Subbannan Street K.K. Pudur, Coimbatore-641 038 Tel: 0422 - 4387382 Email: bskumar10@rediffmail.com

# Bindu Sureshkumar & Associates

**Chartered Accountants** 

# Independent Auditor's Report

To the Board of Trustees of Nehru College of Educational and Charitable Trust

#### Opinion

We have audited the financial statement of Nehru College of Educational and Charitable Trust, which comprise the balance sheet as at 31st March 2021, the income and expenditure account for the year then ended, and notes to the financial statements, including the summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Trust as at 31 March 2021, and of its financial performance for the year then ended in accordance with the financial statements, as there are presently no authoritatively established accounting principles for the specialized aspects related to charitable trusts not having any commercial activities.

#### **Basic for Opinion**

We conducted our audit in accordance with the standards on Auditing (SAs) issued by Institute of Chartered Accountant of India (ICAI). Our responsibilities under those standards are future described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Trust in accordance with the ethical requirements that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basic for our opinion.

# Responsibilities of Trust's Management and Those Charged with Governance for the Financial Statements

Trust's Management is responsible for the preparation and fair presentation of the financial statements in accordance with the aforesaid AccountingPolicies, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, Trust's management is responsible for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern basis of accounting unless management either intends to liquidate the Trust or to ceaseoperations, or has no realistic alternative but to do so,

Those charged with governance are responsible for overseeing the Trust's financial reporting process.

# Independence Auditors Report (Continued)

# Auditor's Responsibilities for the Audit of the Financial Statements

Our objectivities are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists, Misstatement can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decision of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also.

\* Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risks of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

\* Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control.

Evaluate the appropriateness of according policies used and the reasonableness of accounting estimates and related disclosures made by management.

\* Conclude on the appropriateness of Trust's management 's use of the going concerns basic of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Trust's ability to continues as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the project financial statements or, if such disclosure is inadequate, to modify our opinion, our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Trust's to cause to continue as a going concern.

We communicate with those charged with governance regarding, among other matter, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

For BinduSureshkumar& Associates

nts Sureshkumar

Partner

RN: 0081528

COMMENTORE

Place: Coimbatore

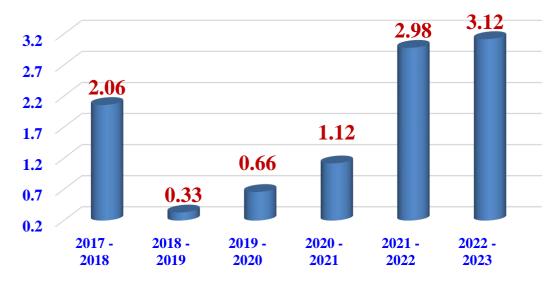
Date: 06-10-2021

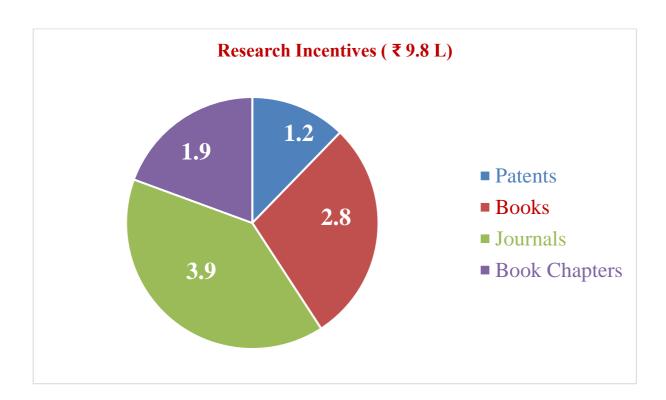
M: No:055395

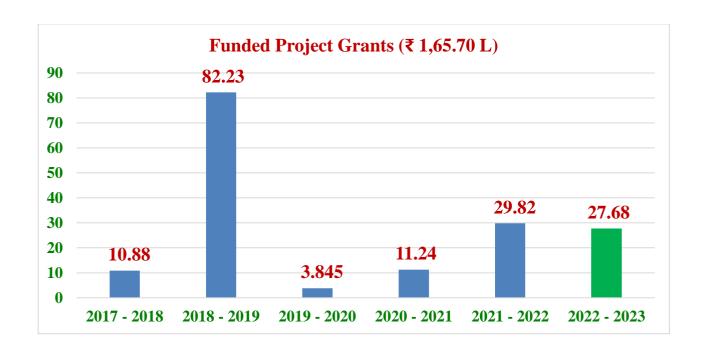
UDIN:NO:21055395AAAAEO6653

# <u>Annexure – IV Research and Promotions</u>

Seed Money (10.27 L) - 41 Projects



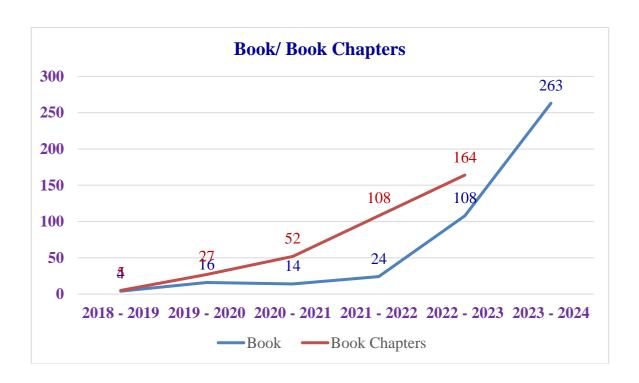




FUNDING AGENCY	FUNDS (LACS)	FACULTY INVOLVED
DBT	82.00	51
UGC	07.90	06
ICSSR	33.77	04
TNSCST	00.76	05
New-Gen IEDC	52.00	21
SEED Money	07.15	25
Non-Govt. Agency	04.50	01
TOTAL	1,65.70	111







# **Annexure – V Institutional Achievements**

### **Nehru Arts and Science College**



**ATAL RANKING** 



**NIRF RANKING** 



A+ NAAC ACCREDITATION



ISO CERTIFCATION

## **Nehru Arts and Science College**



**IIC RATING** 

## **Nehru Institute of Engineering and Technology**





### ISO CERTIFICATION

### **A+ NAAC ACCREDITATION**



**NBA ACCREDITATION** 

## **Nehru Institute of Technology**





## **NBA ACCREDITATION**

**A+ NAAC ACCREDITATION** 



**IIC RATING** 

# **ANNEXURE - VI**

## UNDERGRADUATE CURRICULUM FRAMEWORK-2023-24 BASED ON NATIONAL EDUCATION POLICY-2020



# **Undergraduate Curriculum Framework 2022**

Preamble

NGI plan of action (Goals)

**Multidisciplinary Programs** 

Multidisciplinary courses

Features of UGCF

Qualification Type & Credit requirements

Structure of UGCF

#### **PREAMBLE:**

"The National Education Policy 2020 envisions an India centered education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society, by providing high quality education to all". The National Education Policy (NEP) - 2020 was approved by the Union Cabinet of India on July 28th, 2020 after a gap of 34 years.

The policy has 360-degree holistic development both at school level and Higher education level. The policy foresees the alignment with the global sustainable development goals to give an integrated yet flexible approach to education, drawing from India's heritage, Liberal arts approach with focus on high quality research. The main objective of NEP-2020 is to increase the GER to 100% at school level and 50% at Higher education level by 2035, by revamping the higher education system through creation of world class multidisciplinary higher education institutions across the country.

Now, it is the responsibility of the HEI to produce not only qualified graduates, but ethically strong, knowledgeable, committed, creative good human beings having 360-degree approach. At NGI the learning outcome-based curriculum framework (LOCF) would enable an individual to study one or more specialized areas of interest at a deeper level, while at the same time building character, ethical and constitutional values, intellectual curiosity, spirit of service, and 21st century capabilities across a range of disciplines including the sciences, social sciences, arts, humanities, as well as professional, technical, and vocational crafts.

At society level, the aim of NGI is to enable the development of an enlightened, socially conscious, knowledgeable, and skilled nation that can uplift its people, and construct and implement robust solutions to its own problems. Higher education must form the basis for knowledge creation and innovation in the nation and thereby contribute deeply to a growing national economy. The purpose of quality higher education at the institute is therefore more than simply the creation of greater opportunities for individual employment; In order to attain these critical end goals, higher education must possess some fundamental attributes. It must provide students with broad based multidisciplinary education and 21st century skills, while developing specialized knowledge with true disciplinary rigor. It should engage faculty and students with local communities and with real world problems, and function in collaborative, inclusive, and cross-disciplinary ways.

NGI encourages active learners to develop the abilities of independent, logical, and scientific thinking, creativity and problem solving, and decision making. It is engaging young people in national issues and concerns of the day.

The structure, curriculum, and processes of higher education must all work together coherently towards attaining all of these characteristics in order to deliver its lofty end goals. It should be emphasized that higher education must build expertise that society will need over the next 25 years and beyond. Simply tailoring people into jobs that exist today, but that are likely to change or disappear after some years, is sub optimal and even counter productive. The future workplace will demand critical thinking, communication, problem solving, creativity, and multidisciplinary capability. Therefore, there will be a great need to focus on multidisciplinary and 21st century competencies for future work roles.

Prof. (Dr.) H .N. Nagaraja Executive Director

# **NGI PLAN OF ACTION**

# **Short-term (Up to 2Years)**

- ❖ Increase in intake capacity (GER) in the existing departments having adequate infrastructure and resources.
- ❖ Introduction of skill-based courses (Vocational Courses) to increase employability potential in UG programmes (Plumbing, welding, carpentry, Electrician, Gardening, Horticulture, Music, Dance, Yoga etc.),
- ❖ Enhancement of sports/cultural & other recreation facilities.
- ❖ All stake holders involvement in implementing effective Learning outcome based curriculum framework (LOCF).
- ❖ Ensuring that all buildings and facilities (existing and upcoming) are barrier free, wheelchair-accessible and disabled-friendly.
- Strict enforcement of anti-ragging and anti-harassment rules with equal treatment of all regions, religion students.
- Community-based projects/start-ups in collaboration with local talent to attract job-oriented youth of the area to join the University.
- ❖ Introduction of more programs / courses taught in Indian languages and / or bilingually.
- Introduction to flexible exit/entry options to facilitate Lifelong learning opportunities at all levels.
- Improving the bridge courses for students coming from disadvantaged educational backgrounds.
- Strengthening and modernizing of University library to ensure an adequate supply of books and software that cater to the Specific needs and interests of persons with / without disabilities.
- ❖ Partnership with the Ministry of Social Justice and Empowerment, NCERT, NCTE, RCI, Ministry of Skill Development and Entrepreneurship etc. for appropriate support to differently-abled persons.

# Mid-term (2 to 5 Years)

- ❖ Auditing of implementation of NEP at regular intervals
- \* Expanding the range of academic, vocational and professional programs.
- \* Technological support for the initiatives towards inclusive and quality higher education.
- \* Creation of various informal platforms to support diverse student groups.

- ❖ On-campus logistic and academic support to attract the students from diverse backgrounds.
- ❖ Providing more financial assistance and scholarships to SEDGs.
- ❖ Making the admission processes and curriculum more inclusive.
- Review of Institutional Development Plans that contain specific plans for action on increasing participation from SDGs.
- ❖ Introduction of special courses and programmers on Disability Studies and Gender Studies.
- \* Exposure to Vocational skills and experiential learning in the curriculum of all the disciplines.
- **\*** Ensuring a safe campus to all.

### Long-term (5 to 10 Years)

- Quality Accommodation facility to attract international students.
- **\*** Ensuring an Inclusive Campus to all.
- Aligning the Indian standards of vocational skills with International Standard Providing Equal Opportunities to impart all sort of Academic, Professional and Career counseling / coaching to the students.
- Arranging sponsorship (s) for the under-privileged students aspiring to pursue higher education.
- ❖ Fair representation of women, differently-abled and SEDGs in the leadership roles.
- ❖ Implementation of the remaining targets relating to Equity and Inclusion in Higher Education as envisioned NEP-2020.

### **Multidisciplinary Courses:**

S. No	Title of the course	S. No	Title of the course
1.	Fundamentals of Computer Organization	19	C and C++ programming
2.	Consumer electronics	20	Introduction to Cryptography
3.	Micro controller and embedded systems	21	Machin e- Learning
4.	Mobile Communication	22	Java Programming
5.	Fundamentals of IOT	23	Risk Management
6.	Neural Networks & Machine Learning	24	Capital Market & Security Laws
7.	Union Budget	25	Stock trading & Digital Marketing
8.	Indian Psychology	26	Entrepreneurial Finance
9.	Social Anthropology	27	Consumer electronics
10.	Yoga Meditation	28	Interior Design
11	Human Values and Professional Ethics	29	Medical Bio technology
12	Constitution of India	30	Green Building & Technology
13	Communication skills	31	Modeling and Simulation
14	Principles of Acoustic design	32	Finite Element Method
15	Vastu Shastra for Home Design	33	Automotive Electricals and Autotronics
16	Urban planning & Development	34	Introduction To Food & Beverage production and Service
17	Sustainable Smart Cities	35	Non-Conventional Energy Resources

S. No	Title of the course	S. No	Title of the course
18	Hospitality Marketing –Principles and Concept	36	Corporate Funding and Listing in Stock
			Exchange
37	Smart Grid Technology	40	Capital Market and Security Laws
38	Electrical and Hybrid Vehicles	41	Cloud Based Application Development and
			Management
39	Biomedical Electronics	42	Mobile Applications Development

# Features of Under Graduate Curriculum Framework (UGCF) at NGI

### The below mentioned objectives have been reflected in various features of UGCF:

- ➤ Holistic development of the students shall be nurtured through imparting life skills in initial years. These life skill courses shall include courses on 'Environment and Sustainable Development Studies', 'Communication Skills', 'Ethics and Culture', 'Science and Society', 'Computational Skills', 'IT & Data Analytics', and similar such skills which shall make the students better equipped to deal with the life's challenges.
- Flexibility to the students to determine their learning trajectories and pursuance of programmes of study has been well ingrained in the UGCF. The Frame work allows students to opt for one, two, or more discipline(s) of study as a core discipline(s) depending on his/her choice. He/she has been provided the option of focusing on studying allied courses of his/her selected discipline(s) (DSEs) or diversifying in other areas of study of other disciplines. Students have also been provided with the flexibility to study Skill Enhancement Course SECs or opt for Internships or Apprenticeship or Projects or Research or Community Outreach at an appropriate stage. In the fourth year, students are provided flexibility to opt for writing a dissertation (on major, minor, or combination of the two) or opt for Academic Projects or Entrepreneurship depending upon their choice and their future outlook, post completion of their formal education. For more details on the flexibility provided, refer to the Framework provided in Table-1.
- Five of the extent of plurality of the Indian society and the diverse background to which students belong, multiple exits and provision of re-entry have been provided at various stages of the undergraduate programme to accommodate their requirement and facilitate them to complete their studies depending upon their priorities of life. The earning and accumulation of credits in the Academic Bank of Credit (ABC), and the flexibility to redeem the requisite credit for award of appropriate Certificate / Diploma/ Degree, as per the norms laid down by the UGC and the University, shall be made available to the students to provide the opportunity for lifelong learning as well as for availing academic outreach beyond the superstructure of the programme of study in another University/Institution at the national/international level depending up on individual choice of the student(s).

- ➤ UGCF has incorporated multidisciplinary education by embedding within the framework the need to opt for at least four elective papers from any other disciplines other than the one opted as core discipline(s). In fact, if a student desires to obtain (minor) in a particular discipline other than the core discipline (for students pursuing single-core discipline programme), he/she can do so by earning at least 28 credits in that particular discipline.
- ➤ One of the significant hallmarks of the framework is a provision of pursuing multilingualism while studying any other discipline as core subject(s), which has no bearing with any language and linguistics. I and II semesters of the programme provides an opportunity to the students to study languages which are enshrined under the eighth schedule of the Constitution of India, thereby allowing the students for their holistic development, including the ability to acquire proficiency in a language beyond their mother tongue.
- The framework provides a mandatory programme on research methodologies as one of the generic elective courses at the VI &VII semester for students who opt for writing dissertation on major/minor at VII and VIII semesters. Further, provision for internship / apprenticeship/ project/ community outreach right from the III semester up to VI semester provides ample opportunity to the students to explore areas of knowledge / activity beyond the four walls of the classroom and reach out to the world outside without any dilution of the academic feature of the course of study, he/she is pursuing. This also acts a precursor for the students to take up academic project or entrepreneurship at a later stage in VII & VIII semester. Such an initiative will help in skill development and laying a strong foundation for research and thus contribute towards overall national development through the development of skilled man power and innovation.
- Intra and inter University mobility of students is another element of critical importance which has been ingrained in the framework. A student, by virtue of such mobility, will be able to make lateral movement within the University as well as from the University to any other Institution and vice-versa. Such an attribute allows a student maximum flexibility in terms of pursuance of education with special reference to higher education and enables him/her to achieve goal of life, the way he/she perceived it.

#### **Qualification Type and Credits Requirements**

"Qualifications are formal 'awards' such as a certificate, diploma or a degree As we know, NEP-2020 provides multiple exit and 1st year, 2nd year, 3rd year and 4th year of degree programme. These are awarded by the university in recognition of the attainment by students of the expected learning outcomes on the successful completion of a particular programme of study. They are awarded after an assessment and evaluation of learning levels conducted by a competent body that determines the achievement by students of the expected learning outcomes to given standards.

A student who exits at the end of any even semesters has to earn the requisite credits (stated in Table - 1) in order to be awarded the relevant certificate/diploma/ degree. The qualification title/nomenclature and corresponding credits requirements relevant for Level 5 to Level 8 of the undergraduate programmes are clearly stated in Table -1.

Table – 1 Qualification Type and Credit Requirements\*

NHEQF LEVEL	QUALIFICATION TITLE /NOMENCLATURE	CREDIT REQUIREMENT
Level 5	UG Certificate in the field of learning/ discipline for those who exit after successful completion of Semester II. (Programme duration: 2 semesters of the undergraduate programme)	44
Level 6	UG Diploma in the field of learning/ discipline for those who exit after successful, completion of Semester IV. (Programme duration: 4 the undergraduate programme).	88
Level 7	Bachelor's Degree (Honours) for those who opt for single discipline core courses and exit after successful completion of Semester VI. (Programme duration: 6 semesters).	132
Level 7	Bachelor's Degree for those who opt for core courses of more than one discipline and exit after successful completion of Semester VI. (Programme duration: 6 semesters).	132
Level 7	Bachelor of Vocation (B. Voc.) (Programme duration: VI semesters). (Programme duration: 6 semesters) to be introduced	132
Level 8	Bachelor's Degree (Honours) with Research/Academic Project/Entrepreneurship) for those who opt for single discipline core courses and exit after successful completion of Semester VIII. (Programme duration: 8 semesters)	176

<sup>\*</sup>Mapping of qualification type and credit requirements of UGCF based on draft

# **Structure of UGCF**

The UGCF is a structure for four-year undergraduate programmes in different disciplines with multiple exit options. The details of the structure are provided below in Table -2.

**Table – 2 Structure of UGCF** 

			Ва	achelor of (Field of Study	/ Discipline) (Hons.) 3 / 4 Yea	ar programme		
Semester	Core (DSC)	Elective (DSE)	Generic Elective (GE)	Ability Enhancement Course (AEC)	Skill Enhancement Course (SEC)	Project/Community		
I	DSC - 1(4) DSC - 2(4) DSC - 3(4)		Choose one from a pool of courses GE-1 (4)	Choose one from a pool of AEC courses (2) AEC -1	Choose one from a pool of courses (2)		Choose one from a pool of courses (2)	22 Credits
II	DSC - 4(4) DSC - 5(4) DSC - 6(4)		Choose one from a pool of courses GE-2 (4)	Choose one from a pool of AEC courses (2) AEC -2	Choose one from a pool of courses (2)		Choose one from a pool of courses (2)	22 Credits
Students on	n exit shall be aw	varded Under	graduate Cert	ificate (in the Field of Stu	dy/ Discipline) after securing	g the requisite 44 credits In Se	mesters I and II	Total = 44
Ш	DSC - 7(4) DSC - 8(4) DSC - 9(4)	Choose one from pool of courses DSE-1 (4)  Choose one from a pool of AFC courses (2)  Choose one SEC  OR			Choose one from a pool of courses (2)	22 Credits		
IV	DSC -10(4)  DSC - 11(4)  DSC - 12(4)			Choose one from a pool of AEC courses (2) AEC -4	Choose one SEC OR Internship/Apprenticeship/ P (IAPC) (2)*	Choose one from a pool of courses (2)	22 Credits	
Students on	n exit shall be aw	arded Under	graduate Dipl	oma (in the Field of Study	y/ Discipline) after securing t	he requisite 88 credits on com	pletion of Semester IV	<b>Total</b> = <b>88</b>
V	DSC -13(4) DSC - 14(4) DSC - 15(4)	Choose one f of courses D 1 or 2		Choose one from a pool of courses GE-3 or 4 (4)		Choose one SEC  OR  Internship/Apprenticeship/Pr oject/Community Outreach (IAPC) (2)***		22 Credits
VI	DSC -16(4) DSC - 17(4) DSC - 18(4)	Choose one f of courses DS 2 or 3		Choose one from a pool of courses GE-4 or 5 (4)		Choose one SEC  OR Internship/Apprenticeship/Pr oject/ Community Outreach (2)***		22 Credits
Students or Semester V		warded Bach	elor of (in the	Field of Study/ Disciplin	ne) Honours (3 years) after	securing the requisite 132 cro	edits on completion of	<b>Total</b> = 132

			В	achelor of (Field of Study/	Discipline) (Hons.) 3 / 4 Ye	ar programme			
Semester	Core (DSC)	Elective (DSE)	Generic Elective (GE)	Ability Enhancement Course (AEC)	Skill Enhancement Course (SEC)	Internship/Apprenticeship/ Project/Community Outreach (2)	Value Addition Course (VAC)	Total Credits	
VII	DSC -19(4)	Choose three courses <b>OR</b> (1) DSE-(2x4) at (4) course <b>O</b> ? one DSE (4) (2x4) course (Total =12) #	Choose two nd one GE R Choose and two GE				Dissertation on Major (6) <b>OR</b> Dissertation on Minor (6) <b>OR</b> Academic Project / Entrepreneurship (6)	22 Credits	
VIII	DSC -20(4)	Choose three courses <b>OR</b> (1) DSE-(2x4) at (4) course <b>O</b> 2 one DSE (4) (2x4) course (Total =12) #	Choose two nd one GE R Choose and two GE				Dissertation on Major (6) <b>OR</b> Dissertation on Minor (6) <b>OR</b> Academic Project / Entrepreneurship (6)	22 Credits	
Students on exit shall be awarded Bachelor of (in the Field of Study/ Discipline) (Honours with Research / Academic Project / Entrepreneurship) OR Honours with Research in Discipline -1 (Major) with Discipline -2 (Minor) after securing the requisite 176 credits on completion of Semester VIII									

<sup>\*</sup>There shall be choice in III, IV, V and VI Semester to choose either one 'SEC' or in the alternative 'Internship / Apprenticeship / Project / Community Outreach' in each Semester for two credits each.

- # There shall be four choices in VII and VIII Semesters
  - to choose three DSEs of 4 credits each OR
  - to choose two DSEs and one GE of 4 credits each OR
  - to choose one DSE and two GEs of 4 credits each OR
  - to choose three GEs of 4 credits each
- 'Research Methodology' shall be offered as one of the GE courses in VI semester in a 3-year degree and in VII Semester in a 4-year degree.

  Suppose a student wishes to study the Research Methodology course offered by another discipline (as one of its DSEs). In that case, he / she may opt for it provided such discipline is his minor discipline. The Research Methodology of another discipline so opted shall be treated as GE for him / her.

<sup>\*\*</sup> There shall be choice in Semester III and IV to either choose a DSE or a GE.

