

# **Institutional Distinctiveness**

# Distinctiveness of Kumaraguru – Innovation Ecosystem in Education, Research and Quality

KCT has the vision set as "to become a technical university of International Standards through continuous improvement". Senior Leadership and Governance has laid down Mission, Values and commitment of the leaders are visible in actions and plans, and reinforces the activities and developments. Decentralised and participative Management has led to openculture, driven creativity and innovations of stakeholders.

Planning and execution of policies, processes and procedures have led to develop an Innovation Ecosystem, through involvement of its stakeholders in Education, Research and achieving Quality in the Outcomes (Fig. 7.3.1).



Fig. 7.3.1 Innovation Ecosystem

#### Innovations in Education

KCT has been introducing innovative features in the Regulation and Curriculum and was one of the first Engineering Colleges in TN to plan for CBCS in 2009. Suggestions and participation of stakeholders in addressing future manpower helped KCT to start distinct programmes, MBA – Innovation, Entrepreneurship and Venture Development, MTech – Technology Management and revising curriculum to achieve 90% plus courses focusing on Skill Development, Employability and Entrepreneurship (Criterion 1.1.3) without losing focus on Ethics as specified in Criterion 1.3.1.

Flexible and Comprehensive Learning Framework for Open Electives, Embedded Courses to understand concepts, Engineering Clinics for learning Innovation through series of hands-on activities, Project Based and Problem Based Learning, *Protosem* and Value Added Courses are some of the innovative pedagogical initiatives adopted by KCT. 32 Chapters of Professional Bodies / Associations have been established to enhance skills and knowledge through expert interactions.

## **Innovations for Research**

On realising the needs to enrich education through research findings, KCT started its efforts by establishing research laboratories, support systems and different centres. Research Policy provides competitive atmosphere to showcase talents and contribute to value creation and addition. Sabbatical leave policy facilitates short-term engagement with industries/institutions with monetary benefits. Students are inducted as interns at Re, iQube, Garage, KC.IRI and Forge Accelerator with financial incentives and are involved in projects funded by various agencies. KCT has instituted Seed Grant for young faculty members to carry out initial research works, prior to approaching funding agencies. Financial incentives are provided for quality publication, research works and IP created by students and faculty members. IP Cell created through Institutional Innovation Cell facilitates dissemination of research, supporting IP claims through patents/copyrights. Coimbatore Innovation and Business Incubator, supported and catalysed by DST provides

a platform to students, faculty members and public to incubate new ideas into products/processes.

## **Innovations for Quality**

Quality has the focus on Life of Students and Faculty on Campus, ensuring sustainable measures within the campus, networking with communities, villages and industries for enhancing livelihood of public. Supporting the artisans, retaining traditional culture and values by coordinated efforts of Management, Faculty Members and Students are seen as the best practices. Statutory, Mandatory and Non-Statutory Committees have been established to self-regulate the processes and practices with a focus on Vision and Values. KCT has established *Microcosm* with a focus to ensure the implementation of sustainable practices in using natural resources, waste management and introducing innovation. These efforts helped KCT to increase collaborations and partnerships with stakeholders for improving quality of life.

## Outcomes, Recognitions and Rewards

#### **Education Related Outcomes**

- 100% of programmes have been revised in the last 5 years
- 100% CBCS with Summer and Winter Track options
- 90% of courses have focus on Employability, Skill Development and Entrepreneurship
- 80% of students carry out Projects in STEM areas
- 80% of students undergo training / internships
- 70% of students benefited through Value Added Courses
- 517 Courses Introduced
- Value Based Education with a focus on personal, professional, family and global values
- Participative and Peer Learning
- 35+ Clubs and Societies for Co-curricular Activities
- 91 % of students pass successfully during final year

- 3594 scholarships through Management, Government and NGOs
- 381 students cleared competitive examinations in the last 5 years

#### **Research Outcomes**

- 198 Faculty Members with Ph D
- 12 Research Centres approved by the Anna University
- 16 Industry supported collaborative laboratories
- 23 Teachers received awards from Government and NGOs
- Rs 570 lakhs received as project grants in the last 5 years
- Rs 714 Lakhs generated through Consultancy/Testing Services
- 75% of the Departments have funded projects
- 831 workshops conducted on Research Methodology, IPR and Skill Development
- 1677 papers in indexed journals, and 1200 book chapters and conference proceedings published in the last 5 years
- 12261 Citations cumulatively for 5 years
- DSIR Recognition as SIRO
- DST Forge Accelerator for incubation and innovation
- TIFAC CORE in Textile Machinery

#### **Enhancing Quality of Life**

- 374 Extension Programmes organised through NSS / NCC and Forums
- Green Campus with 4900+ Trees of 150+ Varieties
- Home for 70+species of native and migratory birds
- *Ahimsa Vanam* inside the campus
- 83,00,000 litres water harvested annually during monsoon
- 7 Lakh Litres of waste water recycled every day
- 250 kWp power generation through Solar Power plant
- **Namadhu Pangu** adopted 5 villages for Health awareness, Sociocultural events and woman-empowerment.

- Kumaraguru Action for Relief and Empowerment (KARE) supported the public during Chennai Floods (2015), Gaja Cyclone (2018), Kerala/TN Floods (2019) and COVID-19 pandemic.
- NSS involved in 110 Voluntary activities including 25 Eye camps, donation of 1549 units of blood and planting 210 saplings
- NCC rendered services including Lake cleaning, Conduct Environmental Awareness Programs
- Rotaract Club helps orphanages, conduct Aids Awareness programs,
   Road Safety Patrol
- Social Immersion Project to identify problems in society and develop products
- Microcosm has a focus on campus sustainability activities and support for campus green cover
- KCT TN Government COVID Isolation Centre is 800 beds capacity, inaugurated by the Chief Minister, to serve thousands of COVID patients
- KCT Campus Centre for Weavers (2019) gives training to weavers with stipend in handloom weaving
- Coimbatore Weaver's Centre provides training to 500 handloom weavers of Coimbatore in developing newer products and design in sarees, to use Jacquard
- Centre for Bhavani Jamakalam takes efforts to popularize the Jamakalam with value addition and recently recognized by Atma Nirbhar Bhaarat for Design, New Delhi
- Initiatives to Enhance Farmers' Income supports 5000 farmers to enhance agriculture activities and introduce Integrated Farm Practices
- Foundation for South Indian Heritage supports preservation and restoration of Heritage Building, Assets of South India

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