Society for Computer Technology and Research's

Pune Institute of Computer Technology

Strategic Development Plan

2020-25

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Contents

Institution Background and Overview

Society for Computer Technology and Research's(SCTR's) Pune Institute of Computer Technology (PICT), an elite academic Institute located in Pune (India), which is rightly known as "The Oxford of the East", playing an inspiring role in the education sector since its establishment in 1983, uder the aegis of Society for Computer Technology and Research (SCTR) with an objective to contribute to higher technical education and research. Great Visionaries and Nobel-towering personalities like Shri. Gopal Krishna, Shri. N. Ramakrishna, and Shri. R. S. Kothavale are amongst the founder members of PICT.

Considering the need for Computer Engineers globally, our great visionaries started the Bachelor of Engineering (B.E.) programme in Computer Engineering, in the year 1983 with the affiliation from Savitribai Phule Pune University (SPPU), formerly known as University of Poona. PICT is the first private self-financed institute to start a Computer Engineering programme (B.E.) in Maharashtra, with an intake capacity of 60 which was subsequently increased to 120 in the Academic Year (A.Y.) 1984-85. In the year 1995, considering the rapid growth in the electronic industry and huge demand for competent engineers, the institute has started BE Electronics & Telecommunication Engineering programme with an intake of 60. At present, the intake capacity of BE Computer Engineering and BE Electronics and Telecommunication Engineering is 240. Institute has started BE Information Technology programme in year 2000 with an intake of 60 and it is subsequently increased to the present intake of 180.

Institute offers post-graduate (PG) programmes in Computer Engineering, Data Science, Electronics and Communication (Wireless Communication Technology), and Information Technology. It is also Savitribai Phule Pune University (SPPU) recognized Research Center in Computer Engineering and Electronics & Telecommunication Engineering.

Institute is approved by AICTE, ISO 9001:2015 Certified, and is NAAC Accredited (3rd Cycle). All UG programmes of PICT are NBA Accredited (CE and E&TC – 6 times, IT – 4 times). PICT is Ranked 8th among private Engineering Institutions in India, 1st among all private Engineering Institutions in Maharashtra, and 4th among all Engineering Institutions including IITs, NITs, and Govt. Colleges in Maharashtra (as per the EDU-RAND ranking- 2015). As per the NIRF 2021 Ranking, PICT is placed in the band of 201 to 250.

To stay ahead in the competition, PICT students are always involved in creating and sustaining cutting-edge technology with the help of specialized laboratories/centers with industry support; like Virtual FinTech Lab, SAS Language Lab, e-yantra IIT Bombay, National Instruments LabVIEW, AICTE funded Center for Wireless Communication, Alumni funded 3D Printer Laboratory, etcPICT has a well-established Research & Development (R&D) center. The faculty members have undertaken research projects funded by Department of Science & Technology (DST), All India Council for Technical Education (AICTE), Defence Research and Development Organisation (DRDO), Rajiv Gandhi Science and Technology Commission (RGSTC), Govt. of

Maharashtra, and SPPU. There are various research labs established with well equipped facilities to carryout research in the latest emerging trends.

In an endeavour to generate opportunities for the students to realize their dream of starting up their own business/enterprise, and to empower the young talented students to transform their research/findings/innovative ideas into a successful product or service that creates values, PICT has established Entrepreneurship Development Cell (EDC) and Start-up & Innovation Cell (SIC). So, this way our objective of creating more job provider than job seekers is met, in line with Make in India, AatmaNirbhar Bharat Abhiyan, etc.To inculcate research culture and pave the way to a career in industries that are centered on research and innovation, PICT started Ph.D. programme in Computer Engineering and Electronics & Telecommunication Engineering in the A.Y. 2014-15 which is an approved research centre by SPPU.

Founder members' Philosophy of "Quality in Engineering Education and Research" is continuously nurtured and carried further by the Management, Director, Principal, and staff; to make PICT a leader in technical education and research of international repute by attracting and retaining talented individuals with a great potential.

The Strategic Development Plan (SDP) of the institute is formulated in line with the vision and mission of the institute. The SDP policy is driven by the Governing Body and College Development Committee followed by the entire organizational structure involving the Director, the Principal, heads of department, functional heads, faculty, and students. All the stakeholders are made aware about the SDP through institute website. The SDP of the institute is deployed and reviewed by the information collected through various stakeholders like students, parents, industry, regulatory/accreditation/ranking agencies, faculty, and staff.

Vision

Pune Institute of Computer Technology aspires to be the leader in Higher technical education and research of international repute

Mission

To be the leading and the most sought-after institute of education and research in emerging engineering and technology disciplines that attracts, retains, and sustains gifted individuals of significant potential

Objectives

- To provide best technical, professional, multidisciplinary education at both Undergraduate and the Post Graduate level, and also inculcate research in the field of Information Communication Technology (ICT) leading to professional excellence of the students.
- To facilitate all-round development of the students not only in the academics but also to excel in cocurricular, extra-curricular, professional society activities resulting in a wholistic development of the students.
- To provide the state-of-the-art infrastructural classroom and laboratory learning facilities.
- To facilitate continuous capacity building of faculty in the domain expertise, pedagogical practices, research, and communication skills for lifelong learning.
- To engage in academic, application oriented socially relevant research work and disseminate the research outcomes to the benefit of industry, society, and nation.
- To involve all the stake holders, especially Alumni in meeting the vision and mission of the institute.
- To directly contribute towards fulfilment of the needs and wellbeing of the society and community

Core Values

- Integrity: All the academic and research activities will be carried out by the institution in an environment adhering to highest standards of ethics, transparency, freedom, and honesty

- Humility: Institution upholds the respect and dignity of every individual with equality irrespective of the position, caste, creed, religion, region.

- Responsibility and Accountability: Every individual in the institution is responsible for our words, our actions, and our results.

- Empathy: Institution is well aware of the conditions of all the sections of our society and shall strive to contribute towards the betterment of everyone as a team

SWOT Analysis

- **Strengths**

    o Committed and visionary management with high ethical and administrative values.
    o Centrally located campus with good accessibility facilities.
    o 100% admissions with quality intake of students with high cut-off percentile
    o Excellent academic environment disciplined and committed faculty.
    o Well-equipped laboratories with 3D printing facility, resourceful library, and infrastructure
    o Excellent results, placements, and achievements.
    o Good student faculty ratio and well qualified supporting staff.
    o Long term Accreditations from NBA, NAAC.
    o Rigorous well planned academic programs.
    o State-of-the-art research facilities with shared open access.
    o Strong administrative system with a modern enterprise resource planning system.
    o Strong alumni engagement and support. Improved entrepreneurship and industry interaction MoU.
    o Strong focus on Excellence in Education
    o Research and Promotion of Innovation & Entrepreneurship via well-established Entrepreneurship Development Cell, Startup and Innovation cell.
    o Ranked in the band of 201-250 by NIRF during 2021.
    o SPPU approved Research center in Computer Engineering and Electronics & Telecommunication Engineering.
    o Inter-disciplinary research carried out by faculty and students under domain research laboratories.
    o MoU with many industries Vibrant professional society student chapters like IEEE, ACM, and CSI
    o Adequate and well-maintained infrastructure for Curricular, Co-curricular and Extra-curricular activities which include NSS/Rotract/Cultural clubs/MUN/Automobile club/etc. ensuring good participation.
    o Robust and scalable IT Infrastructure with 1200+ computers, 500 Mbps (1:1) Internet connectivity and Campus Wi-fi facility

- **Weaknesses**

  - Less number of international students and students from other states.
  - Less number of PhDs and Poor Cadre ratio.
  - Less international engagement.
  - PG programs do not attract talented students.
  - Less number of research publications per faculty, limited funded, research projects and consultancy.
  - Limited academic flexibility due to affiliation university.
  - Limited space for outdoor sports activities.

- **Opportunities**
  - National Education Policy (NEP) and autonomous status.
  - Young and committed faculty.
  - Students' diversity.
  - Strengthening Alumni engagement.
  - Improve quality of research by increasing number of PhD faculty, encouraging more number of faculty for PhD.
  - Expand educational and research programs to address needs of industry.
  - Leverage existing branding of the institute with National/International organizations for joint projects.
  - Starting new UG Programs in emerging areas.
  - Accreditation the PG Programs.
  - Scope to improve NIRF ranking.

- **Threats**

  - Ever changing technologies and stakeholders interests.
  - Affiliating system, ever growing autonomous institutes and competition.
  - Ensuing financial viability with single source from fees collected from students.
  - Increasing competition from other institutions for faculty and students.
  - Fetching research funds.
  - Difficulty to attract and retain PhD faculty with research potential.
  - PG admissions.

Strategic Goals

1. Obtain the Autonomous Status

2. In top 150 NIRF Ranked institutions

3. Enhance Research, Innovations, Startup, Entrepreneurship culture among the faculty and students

4. Start new programs in in emerging areas /technologies/multi disciplinary, thus improving the employability among students

5. Improve PG admission

6. NBA Accreditation for PG in Phased Manner and Improve the scores in NBA, NAAC

7. Strengthen the competency and qualification improvement of the faculty through FDPs/QIPs

8. Implement NEP 2020 in a phased manner

9. Achieve Zero Backlog Policy

10. Place all students above 5 LPA Package & provide skilled engineers to meet the global needs

11. Enhance Industry Institute Interaction opportunities Projects/Internship/Employment

12. Enhance the collaboration/interaction with reputed Indian/ international institutions

13. Further improve Laboratories /Research facilities/ Library to enhance the quality of teaching and learning process

Actions and Expected Outcomes

Strategic Goal – 1

➢ **Obtain the Autonomous Status**

    ➢ Analyze the eligibility criteria

    ➢ Meeting the eligibility criteria

    ➢ Prepare the application

        ➢ Set up Administrative & Academic System

        ➢ Outcome Based Education based Curriculum

        ➢ Teaching Learning Centre

        ➢ Innovative Teaching Learning

        ➢ Evaluation & Examination Reforms

❖ Outcomes

  ❖ Academic autonomy

  ❖ Administrative, admissions, recruitment, fee fixation autonomy in future

Strategic Goal – 2

- **In top 150 NIRF Ranked institutions**
  - Analyze the requirements, present status and Top 100 institutions with reference to criteria
  - Identify the Gaps to be in top 150
  - Actions to bridge the gaps
  - Detailed action plan and monitoring with specified time line and targets
- Outcomes
  - Good position in NIRF & other Ranking
  - Better Score for NBA & NAAC
  - Better Perception/Image building

Strategic Goal – 3

- **Enhance Research, Innovations, Startup, Entrepreneurship culture among the faculty and students**
    - Provide the necessary infrastructure facility to promote & develop industry standard products
    - Provide Seed money/capital for pursuing innovation/ startup
    - Organize workshops /training/mentorship on specific area including Finance, Marketing
    - Organize training on IPR and entrepreneurship
- Outcomes
    - Attracting more Funded Research projects/ Consultancy/Quality Research Publications Focus towards IPR and Entrepreneurship

Strategic Goal – 4

> **Start new Programs in emerging & multidisciplinary areas / technologies**

> > Identify the emerging multidisciplinary areas/technologies

> > Build infrastructure, faculty competencies, cluster/tie up with other institutes

- ❖ Outcomes
  - o Skilled UG Students leading to better employment

Strategic Goal – 5

- ❖ **Improve PG Admissions**
  - ➢ Publicity about new courses
  - ➢ Incentivize meritorious students
  - ➢ Provide better Internship & Project opportunities
  - ➢ Through proper training programs improve employment opportunities
- ❖ Outcomes
  - ❖ Research Focused PG Programs
  - ❖ Skilled PG Students leading to better employment

Strategic Goal – 6

- **NBA Accreditation for PG in Phased Manner and Improve the scores in NBA, NAAC**
    - Improve Admissions
    - Establish the OBE system for PG
    - Inculcate better research culture among PG students
    - Meet the eligibility criteria
    - Prepare the NBA application
- ❖ Outcomes
    - ❖ All accredited UG & PG programs
    - ❖ Accreditation of all UG programs for six years

Strategic Goal – 7

- **Strengthen the competency and qualification improvement of the faculty through FDPs/QIPs**
    - Identify the training requirements in domain, research, pedagogy, life skills
    - Follow the faculty training policy strictly
    - Link the training outcomes to annual appraisals, incentives, promotions etc
- Outcomes
    - Skilled competent faculty leading to improved research and academic outcomes

Strategic Goal – 8

- **Implement NEP 2020 in a phased manner**
  - Autonomous status
  - Cluster institutes, multidisciplinary programs
  - Academic Bank of Credits
- ❖ Outcomes
  - ❖ Enhanced students skill sets, global acceptance, flexibility for students

Strategic Goal – 9

- **Achieve Zero Backlog Policy**
  - Implement Innovative enhanced learning activities such as case studies/project/problem-based learning projects/ assignments/etc. leading to increased learning outcomes

- ❖ Outcomes
  - ❖ Enhanced learning experience
  - ❖ Improved pass percentage /transition rate
  - ❖ Enhanced employability
  - ❖ University Ranks

Strategic Goal – 10

- **Place all students above 5 LPA Package & provide skilled engineers to meet the global needs**
    - Increase the interaction with Tier-1/Tier-2 Industries
    - Implement well designed training modules right from first year
    - Improve training of students on Contemporary issues
    - Collaborate/explore with various skill development platforms
    - Implement training and placement policy
- ❖ Outcomes
    - ❖ Increase in quality & quantity of Placements
    - ❖ Enhanced learning outcomes leading to increased employment

Strategic Goal – 11

- **Enhance Industry Institute Interaction opportunities Projects/Internship/Employment**
    - Identify the industries in emerging areas for collaboration
    - Create an ecosystem for collaboration
    - Motivate & incentivize the students and faculty
    - Set up industry supported laboratories
- Outcomes
    - Joint research projects, consultancy, internship, employment opportunities, faculty exchange
    - Increased MoUs

Strategic Goal –12

- **Enhance the collaboration/interaction with reputed Indian/ international institutions and cluster with other institutions**
  - Strengthen the existing MoUs and collaborations
  - Identify mutual beneficial common interests/areas
  - Adopt best practices
  - Nurture other upcoming institutions with outreach programs
- ❖ Outcomes
  - ❖ Faculty capacity building leading to better teaching learning outcomes
  - ❖ Faculty exchange, and student exchange programs
  - ❖ Support system for NEP, Ranking and Accreditation

Strategic Goal – 13

- **Further improve Laboratories /Research facilities/ Library to enhance the quality of teaching and learning process**

    - Set up of new laboratories in the emerging areas to improve the quality of PG/research

    - Strengthen of Library resources to keep pace with fast change in technology

- ❖ Outcomes
    - ❖ Rich Library Resources, Modern PG/Research Laboratories