Promotion of Research and Facilities

The department has a well-established mechanism to foster research for contributing to societal benefits, through which all R&D activities are promoted, encouraged, and appraised.

The department has structured guidelines for quality research and the research facilities are enhanced periodically to support the faculty and Research Scholars. The Departmental Research Committee forms the apex body for the research activities of the departments. There is a Doctoral Committee to monitor the progress of each student registered for research in the University and its recognized Institutions. Additionally, there is a Research Advisory Committee for the entire University, which meets regularly to assess the progress of all the sponsored research projects running on the campus.

During the last five years, an amount of Rs 2.75 lakhs was given to faculty for research as seed money, 19 PhDs were awarded, and 4 Research projects were received with an outlay of an amount of Rs 527.61 lakhs. University has received its first patent from the United States for software research (Patent No.:10824402, dated: 03.11.2020) through the department.

The major initiatives for promoting research are:

1. Research facilities are regularly upgraded subsequent to the developments in the corresponding research area.
2. The departmental research interests span the computer science spectrum. Students are made to involve actively in research projects, and many of them co-author technical papers and give conference presentations. The numerous refereed publications that have resulted from master's theses, research work, and projects testify to the quality of research. DCS research potential is reflected in the Ministry of Education grants for thrust area research.

- Thrust Areas of Research

1. Artificial Intelligence	12. Big Data
2. Machine Learning	13. Agent-Based Modeling
3. Deep Learning	14. Automated Software Engineering
4. Natural Language Processing (NLP)	15. Unified Modeling Language
5. Internet Of Things (IoT)	16. Formal Verification
6. Pattern Recognition	17. Human-Computer Interaction
7. Cloud Computing	18. Cyber-Physical Systems
8. Bioinformatics	19. Social Network Analysis
9. Digital Image Processing	20. E-Governance
10. Computer Vision	21. Cyber Security
11. E-Commerce	22. Blockchain Technology

- Promotes research through the active research projects during various M-Tech programmes and the PhD programmes offered.
    a. M.Tech Regulations
    b. Ph.D. Guidelines and Regulations

- Faculty members are assisted to establish a network with other universities within India as well as abroad and go for MoUs for the benefit of faculty and students.
  The current functions MoUs.
    a. Tata Consultancy Services (TCS)
    b. US Technologies International private ltd
    c. ITC Infotech India Pvt ltd.

- Faculty members are encouraged to apply for research projects from international and national funding agencies apart from local bodies, industries, and other funding sources for research projects.
  The major funding agencies for ongoing projects include
    a. The Research Council of Norway
    b. MHRD, India
    c. DBT, Government of India
    d. The Kerala State Higher Education Council (KSHEC), Government of Kerala

- Appropriate research skills are cultivated among faculty members by deputing them for postdoctoral research, conferences, workshops, and Short Term Training Programmes.
- In accordance with the UGC/AICTE norms, high standards of research output are one of the main criteria for the recruitment and promotion of faculty.
- Promotes a culture of research through subject-specific seminars/conferences as well as skill-building workshops/training programs.

- Regularly conducts national/international conferences on emerging areas of studies and many eminent academics from India and abroad participate.
  The biennial conferences conducted by the department:
  a. International Conference on Data Science and Engineering (ICDSE)
  b. National Conference on Software Engineering (NCSOFT)

- Post-Doctoral, Junior, and Senior Research Fellowships are awarded by the University for promoting research.
- During the last five years, our faculties and students received many awards for their achievements including
  a. AICTE Visvesvaraya Best Teacher Award 2021
  b. Kairali Gaveshana Puraskaram 2019-20 (Physical Science)
  c. CUSAT Distinguished Young Faculty Award 2020
  d. Innovative Student Projects Award 2020 for the Best Ph.D. Thesis
  e. National Embedded Security Challenge winner 2018