RESEARCH AREAS

- Computer Vision
- Cryptography
- Cyber-Physical Systems
- Data Mining
- Distributed Algorithms
- Formal Methods
- Game Theory
- Machine Learning
- Network Security
- Software Engineering
- Wireless Sensor Networks

SOME PRESENT RESEARCH TOPICS

- High Density Crowd Flow Analysis (e.g. Ratha Yatra Surveillance)
- HCI Systems for Disabled
- Road and Traffic Surveillance (Smart City Traffic Control)
- Sensor Guided Physical Rehabilitation
- AR/VR in Classroom Learning
- Design of efficient Controller for Software Defined Networks
- Homomorphic Cryptosystem for Data Security
- Configuration Compliance checking, Security Policy verification and Threat Diagnosis for ECN
- Spatio-temporal Anomaly Event Detection
- Modeling of Indian Monsoon Rainfall
- Design and implementation of a large-scale testbed for research on Internet-of-Things
- Runtime Enforcement of Cyber-Physical Systems
- Robust Machine Learning Algorithm with Game Theory
- Security of Pacemakers using Runtime Verification
- CPU-GPU Computing

RESEARCH LABS AND FACILITIES

- High Density Crowd Flow Analysis
- HCI Systems for Disabled
- Road and Traffic Surveillance
- Sensor Guided Physical Rehabilitation
- AR/VR in Classroom Learning
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Number of Publications
- 70
  - Journals
  - 142
  - Conference Proceedings

PhD Student Guidance (completed/ongoing)
- 13

DST and Consultancy Projects
- 10

Workshops/Seminars/Conferences Organized
- 4

Awards (best paper/poster/other)
- 6

Patents Granted/Filed
- 9

Collaboration with Industries and Government Agencies
- DRDO, Bharat Electronics, Cisco, Emc2, Duke Energy, Infosys, KIST (South Korea) and IKST (Bangalore)

The department has full-fledged laboratories to train the undergraduate and research students from the very basics to modern trends in the field of Computer Science Engineering. Students utilize the modern lab equipment to carry out design and testing of various projects.

AR/VR Guided Learning

Configuration Compliance checking, Security Policy verification and Threat Diagnosis for ECN

Spatio-temporal Anomaly Event Detection

Security Enforcement Framework for Software Defined Networks

Security of Pacemakers using Runtime Verification

Runtime Enforcement of Cyber-Physical Systems

Modeling of Indian Monsoon Rainfall