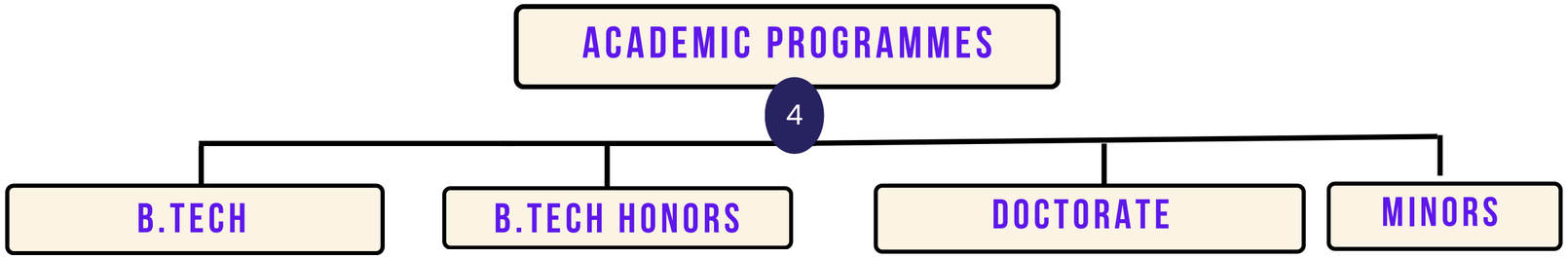
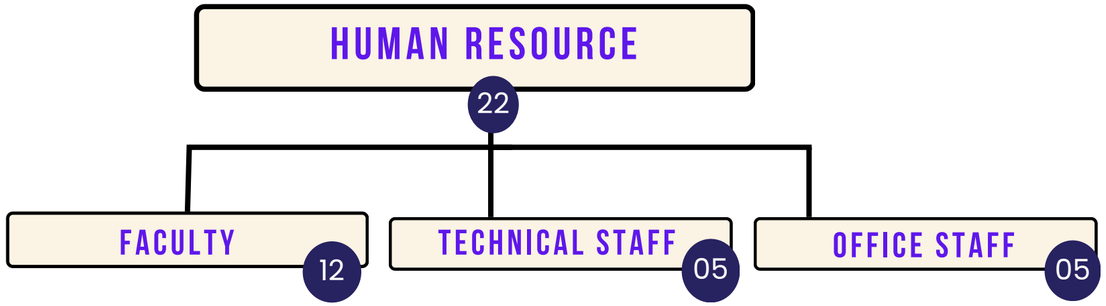
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ISLAMIC UNIVERSITY OF SCIENCE AND TECHNOLOGY, KASHMIR

DEPARTMENT

- Established : 2007
- Students Enrolled : 263
- Scholars Enrolled : 15
- Research Assistants : 04





THRUST AREAS

VISION

To produce globally competent professionals by imparting quality education with focus on cutting-edge technology and inter-disciplinary research of high distinction, both of value and relevance to the society we serve.

MISSION

1. To provide excellent engineering education in a state-of-the-art environment
2. To prepare students to become computer professionals not only for the industry, but government and academia as well
3. To attain self-sustainability and overall development through research, consultancy and development activities
4. To provide an environment in which students are given the essential resources to address, research and solve real-world problems, participating in interdisciplinary and multidisciplinary research and its applications
5. To encourage students to become self-motivated, problem-solving individuals who can find and understand the knowledge needed to be successful in the profession.
6. To provide intellectual inputs to state and national industries in the form of qualified and trained manpower.

STRENGTHS

- Faculty with diversified areas of specialization
- State-of -the-art High Performance Computing Facilities
- Adequate Library & e-resources
- Robust in-house ERP
- Timely Grievance Redressal Mechanism

FACULTY

Dr. Assif Assad
Ph.D (IIT Roorkee)
Machine Learning, Deep Learning

Dr. Sajaad Ahmed Lone (HEAD)
Ph.D (NIT Srinagar)
N/W Security, Image Processing

Dr. Asif Ali Banka
Ph.D (NIT Srinagar)
Graph Analytics, Info. Diffusion

Mr. Syed Mujtiba Hussain
Ph.D Pursuing (NIT Srinagar)
Internet of Things

Dr. Syed Zubair Ahmad Shah
Ph.D (Jamia Millia Islamia)
Data Mining, Data Analytics

Dr. Adil Bashir
Ph.D (NIT Srinagar)
Internet of Things, Cyber Security

Dr. Sahil Sholla
Ph.D (NIT Srinagar)
Computational Ethics, IoT

Dr. Ahsan Hussain
Ph.D (NIT Goa)
Data Science, Soft Computing

Dr. Riaz Ahmed Khan
Ph.D (NIT Srinagar)
Computer N/Ws, Info. Security

Dr. Ab Rouf Khan
Ph.D (NIT Srinagar)
Fog Computing, IoT

Dr. Hushmat Amin Kar
Ph.D (NIT Srinagar)
Internet of Things

Dr. Syed Abdul Basit Andrabi
Ph.D (MANUU, Hyderabad)
Data Science

CURRICULAR ASPECTS

PROGRAM OBJECTIVES

1. To produce globally competent engineers with innovative and problem solving skills for addressing emerging technological challenges
2. To produce competent workforce for industry & research involving innovation, engineering and entrepreneurship
3. To inculcate ethical values among students for overall development of society

PROGRAMME OUTCOMES

1. **Engineering Knowledge**
   - Programming Courses
   - Core Courses
2. **Problem Analysis & Solution**
   - Projects in 03 Semesters Programming Courses
   - Design & Analysis of Algorithms
3. **Modern Tool Usage**
   - Modern Programming Languages
   - Simulators
   - Lab Courses
4. **Societal welfare**
   - Research Ethics
   - Programming
   - IoT
5. **Environment & Sustainability**
   - Environmental Science
6. **Communication**
   - Communication Skills
   - Organizational Behaviour
7. **Project Management**
   - Organisational Behaviour
   - Software Project Management
8. **Life-long Learning**
   - Organisational Behaviour
9. **Designing Solutions**
   - Design & Analysis of Algorithms
   - Compiler Design
10. **Investigating Complex Problem**
    - Machine Learning
    - Deep Learning
    - Algorithms
11. **Ethics**
    - Computational Design Ethics
    - Research Ethics
12. **Individual & Team Work**
    - Organizational Behaviour
    - Projects

CREDIT DISTRIBUTION

B.Tech

Minimum Credits	163
Core	140
Discipline Centric Electives	15
Open Electives	08

Ph.D

Miminum Course Work	12

B.Tech(Honors)

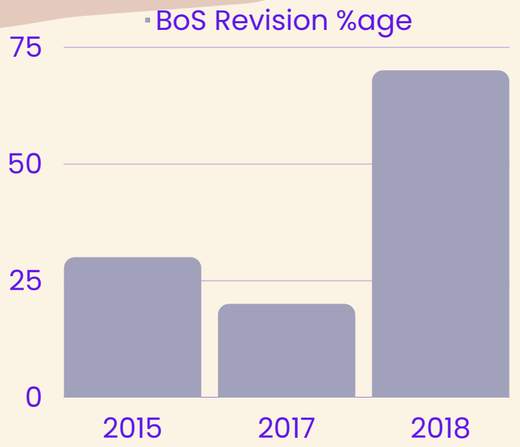
Minimum Credits	163 + 20
Core	140
Discipline Centric	15
Open Electives	08
MOOCs Credits	20

SALIENT FEATURES OF CURRICULUM

- Industry Driven
- Diverse Discipline Centric and Open Electives
- 60% courses focusing on employability / entrepreneurship / skill development
- Courses on Disruptive Technologies
- Designed and modelled based on the feedback of faculty, industry experts , alumni & students

Courses on environment, sustainability, human values & professional ethics

- Environmental Science
- Computational Design of Ethics
- Advanced Computational Design of Ethics
- Research and Publication Ethics



TEACHING - LEARNING & EVALUATION

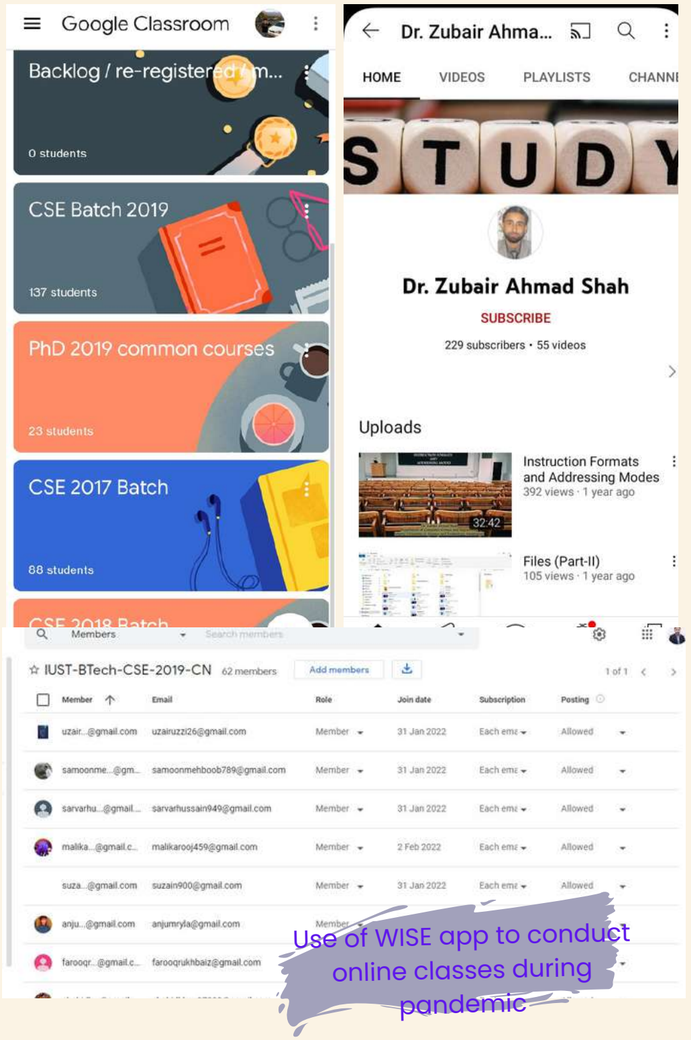
ICT INTERVENTIONS

Complete track of attendance, lecture plan, lecture delivery, syllabus coverage & results on ERP.

24 x 7 access to e-resources (494 e-books)

ICT for effective teaching

ICT enabled: Labs 100% , Classrooms 75%



Use of WISE app to conduct online classes during pandemic

ENHANCED LEARNING

Participative Learning
Projects & Seminars

Problem Solving Methodologies
Programming Assignment, Live Projects

Experiential Learning
Internships & Industrial Visits
(IIT ROPAR, BOMBAY, NIELET, DUCAT)

DEPARTMENTAL INITIATIVES

SLOW LEARNERS

- Mentor-Mentee Meets
- Parent - Teacher Meets
- Programming Day
- Distribution of e- material
- Remedial Sessions

ADVANCED LEARNERS

- B.Tech Honors Degree through MOOCs
- Seed Funding for Start-ups from CIED
- Funding for innovation from DIC, IUST
- Internships from IITs

More than 60 courses completed through MOOCs

RESEARCH, INNOVATION & EXTENSION

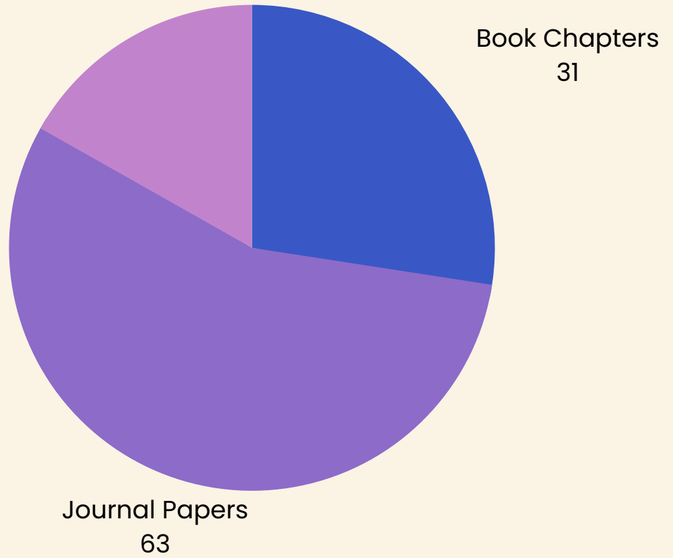
RESEARCH PROJECTS AND GRANTS

Total Grant	16.80 Crores
Completed	09
Ongoing	06
Research Scholars	15
Research Assistants	04

Total Publications **113**

Patents filed **06**

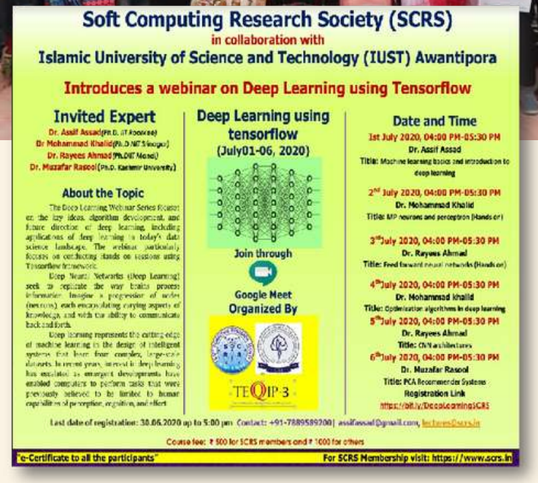
Department mentors degree colleges **03**



PATENTS FILED

S.No	Innovator	File No.	Title
1	Dr. Sahil Sholla	201811047804	Ethics Switching Towards Exception Handling in Ethics of Operation (EOP)
2	Dr. Sahil Sholla	201811025275	Toward Friendly Machines: A Boolean Algebra Based Method Implementing Ethics based on Context
3	Dr. Syed Zubair Ahmad Shah	202211063914	Prayer Time Indicator based on Internet of Things
4	Mr. Syed Mujtiba	202111055682	Apple Disease Detection using Deep Learning Algorithms
5	Dr. Assif Assad	202211016238	A System for detection of Disease in plants and Analysing Treatment Process hereof
6	Dr. Assif Assad	202211018901	System and Method for Detecting and Classifying Pashmina Shawl

WORKSHOPS AND FDPS ORGANIZED - 18



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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FUNCTIONAL MOUs & COLLABORATIONS

ACADEMIC & RESEARCH

IIT Bombay
eYantra
Engineering a better tomorrow

AWaDH
Agriculture and Water
Technology Development Hub

intel
FICE

MAULANA ABUL KALAM AZAD
UNIVERSITY OF TECHNOLOGY,
WEST BENGAL
Utech
In Pursuit Of Knowledge And Excellence

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

STARTUPS

COLD STORAGE UNIT

Malik Wajid Mushtaq

Batch 2011

ADVENTURE SPORTS

Adil Shah & Rasikh Lawlakh

Batch 2017

HIGH DENSITY APPLE ORCHARD AUTOMATION

Mr S A Lone

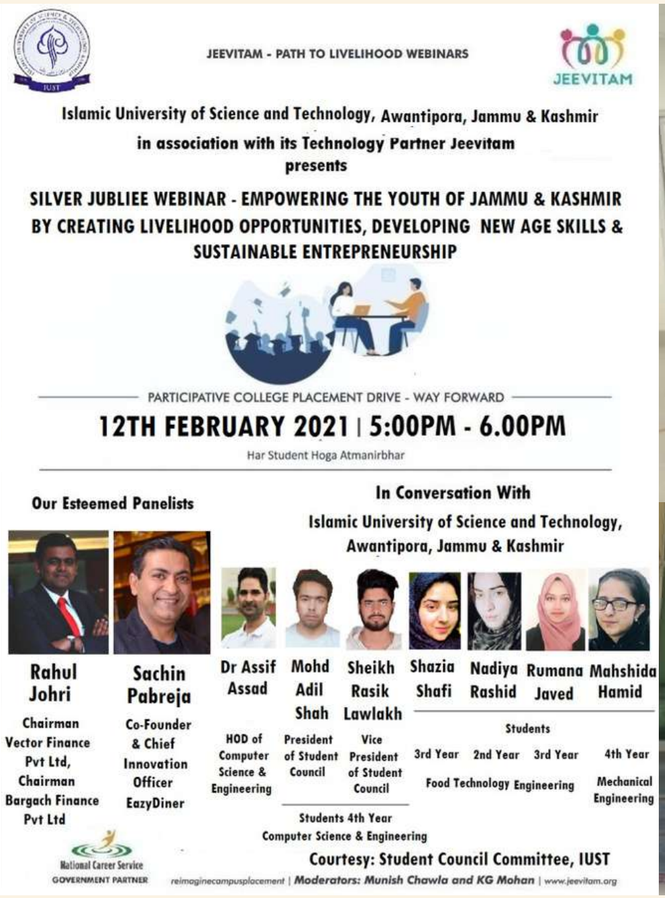
Assistant Professor, CSE

SOFTWARE DEVELOPMENT COMPANY

Qazi Firdous & Dawood Wani

Batch 2010

EXTENSION ACTIVITIES



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INFRASTRUCTURE & LEARNING RESOURCES

Auditorium	
ICT enabled classrooms	03
Labs	05
Departmental Library	
Software	

H/W & N/W LAB

PROGRAMMING LAB

RESEARCH LAB

PROJECT LAB

HIGH PERFORMANCE COMPUTING LAB

APPOX. COST - 3.0 CRORE

HEAD NODE

CPU: 2 x Intel Xeon Gold 3.1G, 20 Cores/40 Threads
RAM: 16 x 64 GB **(1 TB)**
Storage: 2 x 960 GB SSD SATA
6 x 4 TB @7.2K RPM NLSAS

COMPUTE NODE 03

CPU: 2 x Intel Xeon Gold 3.1G, 20Cores/40 Threads
RAM: 8 x 64 GB **(512 GB)**
Storage: 2 x 960 GB SSD SATA

STORAGE NODE 02

CPU: Intel Xeon Gold 3.1G, 20Cores/40 Threads
RAM: 4 x 32 GB **(128 GB)**
Storage: 2 x 480 GB SSD SATA
Cluster Storage:
60 x 40 TB HDD @ 7.2K SAS
3 x 1.8 TB HDD @ 10K SAS

GPU NODE 03

CPU: 2 x Intel Xeon Gold 3.1G, 20Cores/40 Threads
RAM: 8 x 64 GB **(512 GB)**
Storage: 2 x 960 GB SSD SATA
GPU: NVIDIA Tesla V100 32 GB

INTERCONNECT

- Mellanox 100 Gb/s
- Ethernet 1 Gb/s
- Ethernet 1 Gb/s for management

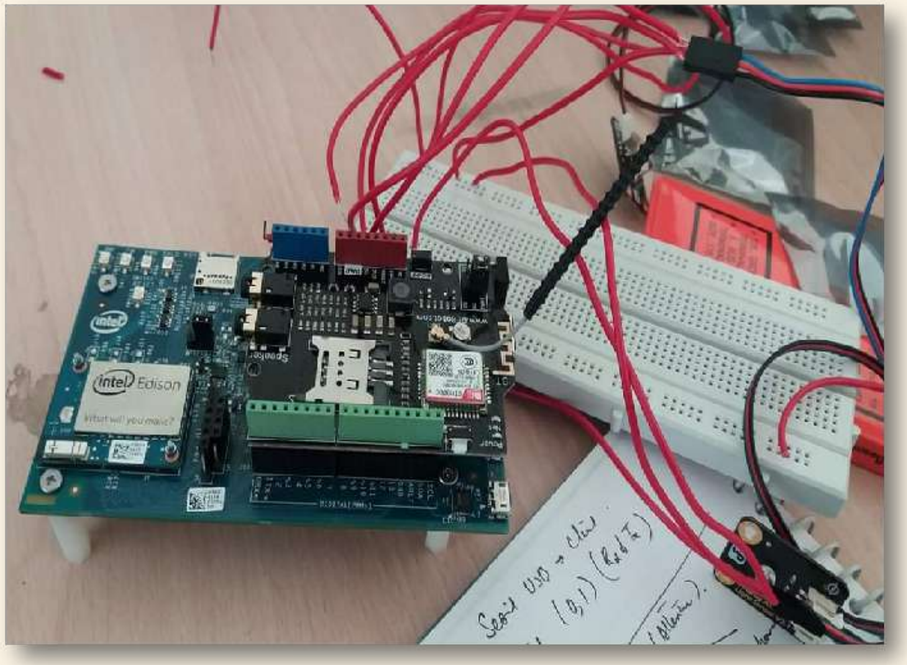
SOFTWARE

OS: CentOS
Scheduler: SLURM Job Scheduler
Cluster Management Software: Samooh
File System: PFS (Lustre)

COMPUTE CORES	240
CUDA CORES	15360
STORAGE	160 TB
PERFORMANCE	2.976 TFLOPS

HPC at a glance

INTEL INTELLIGENT SYSTEMS LAB/E-YANTRA EMBEDDED SYSTEM AND ROBOTICS LAB



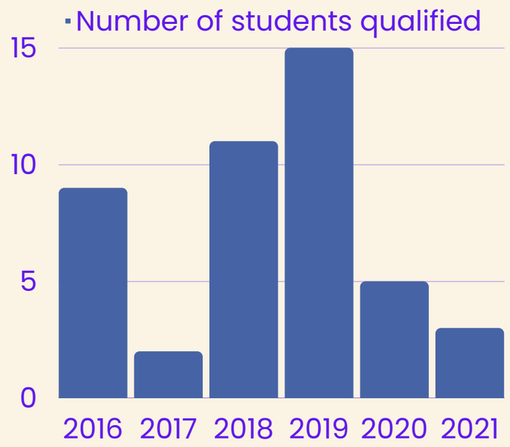
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC ACHIEVEMENTS

STUDENT SUPPORT & PROGRESSION

- Gate Mentorship
- Guidance for career counselling
- Frequent Alumni Meets
- Industry Visits
- Sports & Cultural Activities

GATE 2019
Amir Yaseen - AIR 126
Wahid Gulzar - AIR 152



Around 20 students have qualified competitive exams like GRE, IELTS, TOEFL, NET/SET

'60 IUST students qualify GATE 2019'

Srinagar, Mar 25: About 60 students from Islamic University of Science and Technology (IUST) Awantipora have performed fairly in the Graduate Aptitude Test Engineering GATE – 2019.

A statement said 60 students belonging to different branches of engineering have qualified GATE- 2019 examination.

"Last year 20 students had qualified GATE-2018," the spokesman said.

He said Amir Yaseen and Wahid Gulzar Bhat have secured All India Rank 126 and 152 in computer science and engineering branch.

Meanwhile Vice Chancellor IUST, Prof Mushtaq Ahmad Sidique has congratulated the qualifiers especially Amir Yaseen and Wahid Gulzar Bhat for bringing laurels to IUST.

Dean school of engineering and technology and Project coordinator TEQIP-III Prof. A H Moon also congratulated students.

PROMINENT ALUMNI

Sarmad Mehraj
Vice President
BYJU's, **India**

Neha Jain
IT Professional
Syntel, **India**

Imran Amin
Lead Software Developer
Al Rajhi Bank, **Saudi Arabia**

Aakif Mehraj
Lecturer
Purdue University (NW), **USA**

Insha Kanue
AI Product Owner
HRS Group, **Germany**

Asra Azad
Chief Marketing Officer
VOSTAD, **India**

Muneer Ahmad Dedmari
AI Solutions Architect
NetApps, **Germany**

Basharat Bhat
Chief Scientist
Otago University, **New Zealand**

Younis Shah
Associate Manager
Accenture, **Singapore**

Bawna Bhat
Sr Executive HR
Operations
Persolkelly, **India**

ALUMNI MEETS

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SPORTS & CULTURAL ACTIVITIES

TT TOURNAMENT

STUDENT SUMMIT

FUN FEST

CSE LIFTS THE TITLE (FOOTBALL)

CRICKET TOURNAMENT

VARIOUS SPORTS' TEAMS

STUDENT ACTIVITIES

BASKETBALLL TOURNAMENT WINENRS

DEEKSHARAMBH (SIP)

FUN FEST

CSE LIFTS THE TITLE AGAIN (FOOTBALL)

GOLD MEDALISTS

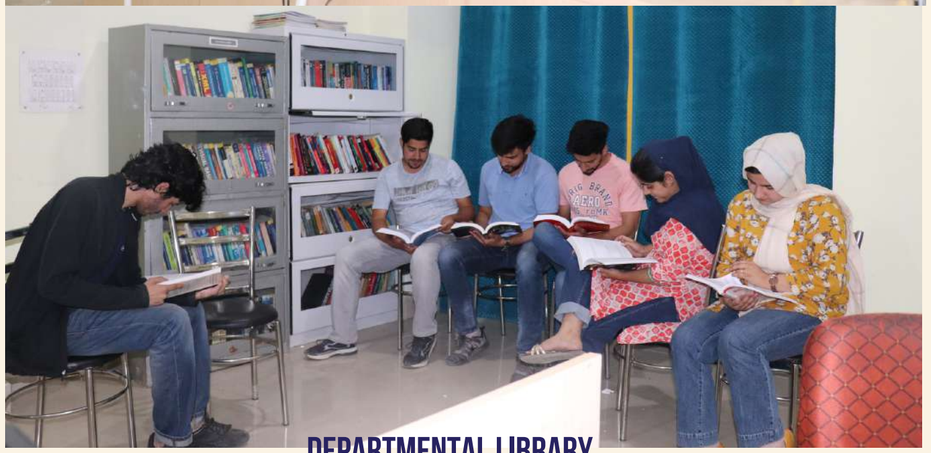
DEPARTMENT

OFFICE

AUDITORIUM

ROBOTICS LAB

STUDENT COUNCIL



DEPARTMENTAL LIBRARY

GIRLS COMMON ROOM

GOVERNANCE, LEADERSHIP & MANAGEMENT

DECENTRALIZED & PARTICIPATORY MODE OF GOVERNANCE

REPRESENTATION OF DEPARTMENT IN VARIOUS STUDENT COMMITTEES

- Student Council
- Cultural Committee
- Innovation Club
- Ideation Club
- Entrepreneurship Club

FUNCTIONAL COMMITTEES

- DIQAU
- Departmental Monitoring Committee
- Examination Committee
- Academics Committee
- Departmental Research Committee
- Training and Placement Committee
- Finance Committees

BEST PRACTICES

ACADEMICS

- Centre for Innovation and Entre-preneurship Development(CIED)
- MOOCs Committee
- Training & Placement Committee
- Proctorial Team & Harassment Committee
- Induction Program
- Startup & Inovation grants
- Robust ERP
- Seed Grants for faculty

GREIVANCE REDRESSAL & FEEDBACK MECHANISM

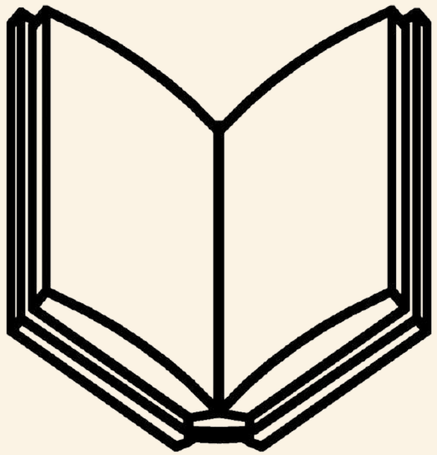
- **For addressing grievances related to:**
  - Academics
  - Examination & Evaluation
  - Indiscipline Related Issues
  - Gender Specific Complaints

  Topic wise feedback by students

GENDER SENSITIVITY

- CCTV for safety & security
- Mentor-Mentee Meets for Counseling
- Separate common rooms for boys and girls

FUTURE PLANS

- To establish Centre of Excellence in AI and Cyber Security & Forensics.
- To collaborate with foreign Universities for faculty and student exchange programs.

Thank You