

An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi Approved by All India Council for Technical Education (AICTE), New Delhi,Recognized by Govt. of Karnataka, UG Programs Accredited by National Board of Accreditation (NBA) : CSE, ECE & ISE www.epcet.edu.in

# **Research Center – Computer Science and Engineering**

The Research journey in the Department of Computer Science and Engineering at East Point College of Engineering and Technology (EPCET) has evolved significantly since its inception in April 2007, with the R&D center established under the approval of Visvesvaraya Technological University (VTU), Karnataka. The department actively nurtures research-oriented minds and aims to contribute meaningfully to advancing science, technology, and engineering domains. With six dedicated research supervisors guiding scholars, EPCET has established itself as a hub for innovation and exploration. Currently, 30 research scholars are registered under the R&D center, of which 8 have been awarded their doctorates within the stipulated period, and 30 are actively pursuing their research and 10 scholars are completed. The college's strong focus on mentoring and hands-on support has enabled students and staff to explore innovative ideas and tackle real-world challenges effectively.

EPCET's R&D center is driven by a commitment to fostering a culture of learning, innovation, and experimentation. By encouraging scholars to think "out of the box," the department equips them with the tools, resources, and mentorship necessary to address pressing technological challenges. The department has a broad and diverse set of active research areas that cater to emerging technologies and real-world applications, including:

- **Cloud Computing**: Optimization of cloud resources, energy-efficient computing, and scalable cloud architectures.
- **Machine Learning**: Predictive analytics, algorithm development, and practical applications in automation.
- Artificial Intelligence (AI): Development of intelligent systems and algorithms for complex problem-solving.
- **Deep Learning**: Neural networks for applications like speech recognition, image analysis, and natural language processing.

- **Image Processing**: Innovations in computer vision, medical imaging, and visual data interpretation.
- **Big Data**: Analysis of large-scale datasets for insights and decision-making.
- **Cybersecurity**: Enhancing digital safety through encryption techniques, threat detection, and privacy-preserving technologies.
- **Health Informatics**: Leveraging technology to improve healthcare delivery and patient outcomes.
- Wireless Sensor Networks (WSN): Real-time monitoring systems for smart applications in industries like agriculture and health.
- Fog Computing: Addressing challenges in low-latency, distributed computing.
- Networks and Distributed Systems Security: Secure communication protocols and resilience against cyber threats.

#### **Additional Focus Areas:**

EPCET's R&D center is constantly expanding its scope by identifying and addressing modern challenges in areas like Internet of Things (IoT), block chain, robotics, quantum computing, and renewable energy systems. Scholars are encouraged to collaborate with industry partners, leading academic institutions, and government organizations to deliver impactful research results.

#### **Commitment to Excellence:**

The R&D center's mission is not only to support research scholars in achieving academic excellence but also to translate their ideas into practical solutions. This vision is supported by state-of-the-art laboratories, computational resources, and a culture of collaboration that bridges academia and industry.

#### **Open Source Software:**

Open-source software plays a pivotal role in Computer Science and Engineering (CSE), enabling students, researchers, and professionals to access, modify, and distribute software freely. It fosters innovation, collaboration, and learning, making it an essential tool in various areas of study and application.

Name	CSE R&D Center
No of Systems	22
System Configurations	Processor : Intel core i5-6500@3.20GHz RAM : 8 GB DDR4,16 GB HDD : 1 TB SSD : 256 GB
Networking Components	Switch : D- Link 24 Port Cable : Cat-6 UTP LAN Cable
Operating System	Windows 10 (open source)
Internet Bandwidth	1Gbps
Software (open source)	Overleaf, Jupyter Notebooks, TensorFlow, Keras, Visual Studio Code, Apache Hadoop, VM Ware, Linux, NS2, Anaconda, Virtual Box

### **CSE Research Center Facilities**

## List of Research Scholars from Computer Science and Engineering-R&D Center:

SL	Name of the	Name of the Research	Area of	Year of	Year of	Status
No.	<b>Research Supervisor</b>	Scholar	Research	Registration	Award	
01	Dr. Chandramouli H	Amarnath J L	Cloud Computing with Security	2024	-	Colloquium to be conducted
02	Dr. Anand R	Gollapudi Mounika	Internet of Things with Security	2024	-	Course work yet to be started
03	Dr. Heena Kousar	Komuraiah Sevella	Deep Learning	2024	-	Course work yet to be started
04	Dr. Komala C R	Mithuna H R	Integrated AI Cloud Computing with Machine Learning	2024	-	Course work yet to be started
05	Dr. Komala C R	Suchethana H C	Machine Learning	2024	-	Course work yet to be started
06	Dr. Chandramouli H	V Christy	Image Processing with Security	2024	-	Course work yet to be started
07	Dr. Komala C R	Bharathi K	Block Chain Technology	2024	-	Course work to be completed
08	Dr. Komala C R	Pushpalatha K S	IOT using AI Driven Edge- Cloud Computing	2024	-	Course work to be completed

09	Dr. Chandramouli H	G M Anand Reddy	Wireless Communication Networks	2024	-	Comprehensive viva to be conducted
10	Dr. Chandramouli H	K Laxmi	Machine Learning and Natural Language Processing	2024	-	Course work to be completed
11	Dr. Chandramouli H	Lohith C	Natural Language Processing and Machine Learning	2024	-	Course work to be completed
12	Dr. Anand R	Triveni N	Internet of Things with Security	2024	-	Course work to be completed
13	Dr. Anitha N	Pavan M	Deep Learning and Fog Computing	2024	-	Course work completed
14	Dr. I Manimozhi	Sindhuja M	Deep Learning Techniques	2024	-	Course work to be completed
15	Dr. Anitha N	Vandana N S	Machine Learning Techniques	2022	-	Course work to be completed
16	Dr. Anitha N	Bindiya A J	Deep Learning Techniques	2021	-	Course work to be completed
17	Dr. Anitha N	Indumathi S	Fog Computing and Deep Learning	2021	-	Course work completed
18	Dr. C EmilinShyni	Rebecca Sandra Paul	Deep Learning	2021	-	Course work completed
19	Dr. I. Manimozhi	Sowmya L	Machine Learning Techniques	2022	-	Course work to be completed
20	Dr. I. Manimozhi	Suresha S	Artificial Intelligence and Machine Learning	2021	-	Course work completed
21	Dr. Nagraj L	Kangana W M	Machine Learning and Big Data Analytics	2021	-	Change of Research Center
22	Dr. Anitha N	Jayashree M	Machine Learning Techniques	2019	-	Course work completed
23	Dr. Anitha N	Nandini Gowda P	Fog Computing	2019	-	Course work

			with Internet of Things (IoTs)			completed
24	Dr. Josephine Prem Kumar	Divya U H	Image Processing	2018	-	Comprehensive viva Completed
25	Dr. B R Prasad Babu	Ravi Kumar M	Vehicular Adhoc Networks	2018 (Re- reg)	-	Final thesis needs to be submitted
26	Dr. Josephine Prem Kumar/ Dr. Nanda Ashwin	Manimegalai A	An Efficient Content Bases Image Processing with CNN	2016	-	Comprehensive viva and OS 1 is Completed
27	Dr. Josephine Prem Kumar/Dr. Nanda Ashwin	Kesavan M V	Big Data and Analytics	2016	-	Comprehensive viva and OS 1 is Completed
28	Dr. Anirban Basu	Mrs. Swathi Shembekar	QoS with Software Architecture	2011	-	Course work completed
29	Dr. Ramachandra A C	Nithyananda C R	Image Processing	2008	-	Thesis submitted and corrections need to be done
30	Dr. Anirban Basu	Mrs. Anitha N	Cloud Computing	2011	2017	Awarded
31	Dr. Anirban Basu	Mrs. Dhanalakshmi M	Cloud Computing	2011	2017	Awarded
32	Dr. Anirban Basu	Mrs. Sunitha B. S	Cloud Computing	2011	2018	Awarded
33	Dr. Josephine P Kumar	Mrs. Nanda P	Wireless Communication	2011	2018	Awarded
34	Dr. Prasad Babu B R	Mr. Pramod	Cloud Computing	2011	2018	Awarded
35	Dr. Anirban Basu	Mrs. Rashmi S	Cloud Computing	2013	2019	Awarded
36	Dr. Prasad Babu B R	Mrs. Heena Kousar	Cloud Computing	2012	2020	Awarded
37	Dr. Josephine P Kumar	Mr. Mathiyalagan R	Networks and Distributed Systems Security	2015	-	Change of Research Center
38	Dr. Chandramouli H	Mrs. Maithri C	Networks and Distributed	2017	2022	Awarded

			Systems			
			Security			
39	Dr. Chandramouli H	Mrs. Vasantha M	Cloud	2019	2024	Awarded
			Computing			
40	Dr. Chandramouli H	Mrs. Shwetha K S	Networks and	2019	2024	Awarded
			Distributed			
			Systems			
			Security			

# List of Research Supervisors from Computer Science and Engineering-R&D Center:

SL.	Name of the Research	No. of Research	No. of Research	No. of Research
No.	Supervisor/Co-Supervisor	Scholars Registered	Scholars Pursuing	Scholars Awarded
1	Dr. I. Manimozhi	03	03	-
2	Dr. Chandramouli H	08	05	03
3	Dr. Anand R	02	02	-
4	Dr. Heena Kousar	01	01	-
5	Dr. Komala C R	04	04	-
6	Dr. Nanda Ashwin	02	02	-
	(Co-Supervisor)			
7	Dr. Anitha N	06	06	-
8	Dr. C Emilin Shyni	01	01	-