

About the Program

The Executive M.Tech. in Computer Science and Engineering (Specialization in Cloud Computing & Blockchain) is designed for working professionals seeking advanced knowledge and skills in next-generation distributed computing technologies. With the rapid growth of cloud infrastructure, decentralized systems, and blockchain-based applications, this program equips learners with the expertise required to design, deploy, and manage scalable, secure, and efficient computing solutions.

The program emphasizes hands-on learning, industry relevance, and research-oriented thinking through lab components and a two-stage dissertation. It prepares professionals for roles in cloud architecture, blockchain development, distributed systems engineering, and emerging technology research, while fostering innovation in secure and scalable computing ecosystems.

Program Educational Objectives

PEO-1	Develop a strong foundation in computer science principles, including algorithms, networks, and distributed systems relevant to cloud and blockchain technologies.
PEO-2	Acquire advanced knowledge in cloud computing architectures, virtualization, distributed systems, and blockchain technologies.
PEO-3	Design and implement scalable, secure, and fault-tolerant cloud and blockchain-based solutions for real-world applications.
PEO-4	Apply modern tools, platforms, and frameworks for cloud deployment, smart contract development, and distributed computing.
PEO-5	Understand security, privacy, and ethical considerations in cloud and decentralized systems.
PEO-6	Conduct research and innovation in emerging areas such as distributed ledgers, cloud-native systems, and next-generation computing.

Program Outcomes

PO-1	Apply knowledge of computing, mathematics, and engineering principles to solve complex problems in cloud and blockchain systems.
PO-2	Analyze and design scalable distributed systems and cloud-based architectures.
PO-3	Develop and deploy secure blockchain applications, smart contracts, and decentralized systems.
PO-4	Utilize modern tools and technologies for cloud computing, containerization, virtualization, and blockchain platforms.
PO-5	Address security, privacy, and ethical challenges in cloud and blockchain ecosystems.
PO-6	Apply project management and leadership skills in executing large-scale cloud and blockchain projects and communicate technical solutions effectively to stakeholders across domains.

CURRICULUM

Executive M.Tech in Computer Science and Engineering (With Specialization in Cloud Computing & Blockchain)

Semesters	Courses Name	Category	L	T	P	Credits
Semester-1	Advance Programming with Python	DC	2	0	2	3
	Mathematical foundation for Computer Science	DC	3	0	0	3
	Advanced Data Structures & Algorithms	DC	2	0	2	3
	Elective-1	DE	3	0	0	3
Semester-2	Data Engineering and Analytics	DC	2	0	2	3
	Cloud Computing and Distributed Systems	DC	2	0	2	3
	Blockchain Technologies	DC	2	0	2	3
	Elective-2	DE	3	0	0	3
Semester-3	Elective-3	DE	3	0	0	3
	Elective-4	DE	3	0	0	3
	Project work / Dissertation-I	PW	-	-	16	8
Semester-4	Project Work / Dissertation-II	PW	-	-	36	18
		Total Credits				56

Tentative List of Elective Subjects may be updated as and when required	
Elective-1	Elective-2
Advance Computer Networks	Cryptography and Network Security
Quantum Computing	Grid Computing

Elective-3	Elective-4
Next Generation Computing	Distributed Ledger Technologies and Applications
Security & Privacy of AI	Cloud Security
Cyber Physical System Security	Digital Forensics