

M.Tech. IN ADVANCED INFORMATION TECHNOLOGY WITH SPECIALIZATION IN SOFTWARE TECHNOLOGIES (MTECHST)

2 years, full-time and residential



FOCUS AREAS

- ▶ Database Technologies
- ▶ BPM and SOA
- ▶ Data Warehousing and Data Mining
- ▶ Grid Computing
- ▶ Artificial Intelligence
- ▶ Software Engineering
- ▶ Parallel Processing
- ▶ Applications Development

“In economic recession, knowledge does not exhaust, jobs may be for a while. In the job market too, finally knowledge resources always triumph.”

The modern dynamic and competitive business environment has raised the necessity for improved technological support for achieving business goals. To keep pace with the dynamic nature of software and technologies; Enterprise Applications and Analytics, Application Integration Issues, Business Dynamics and Technology usage platforms have undergone dramatic changes. Integrated applications, the mainstay of large enterprises, are now a pervasive phenomenon. From being mere text and numeric data stores, databases have evolved with capabilities of handling rich data and varied content. A paradigm shift to rich content and open platform based integrated / shareable applications and Multi-core Architecture have given rise to new technologies such as Service Oriented Architecture, Business Process Management, Multi-core Parallel Programming, Enterprise Application Integration, Data Warehousing, Advanced Data Mining, Extended Enterprise Application and Information Security that challenge IT professionals to build applications to leverage business.

ELIGIBILITY

Graduates with a Bachelors Degree in Engineering / Technology (with minimum 55 percent marks or equivalent grades) in Information Technology / Computer Science or equivalent.

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COURSE STRUCTURE

SEMESTER	CODE	COURSE NAME	CREDITS
SEMESTER I			
	MIN-003	Computing System I	6
	MIN-004	Mathematical Foundation and Algorithm Design	6
	MINI-014	Data Management	6
	MINI-015	Information Systems Analysis and Design	6
	Elect 1	Select any one from the Core Electives	6
	Elect 2	Select any one from the Core Electives	6
	MINI-005	Seminar	4
	MIN-001	Life Skills Development I	6
		Total	46
		CORE ELECTIVE SUBJECTS	
	MINE-001*	Complex Database Systems	6
	MINE-002*	Data Mining Techniques	6
	MINE003*	Computational Numerical Methods	6
	MINE-004*	Mobile Computing	6
	MINE-005*	Enterprise Web Solutions	6
	MINE-006*	Application Development Techniques	6
	MINE-007*	Advanced Business Application Programming I	6
	MINE-008*	Open Source Development Techniques	6
	MINE-009*	Parallel Algorithms	6
	MINE-010*	Concurrent Programming	6
	MINE-011*	Business Process Management	6
	MINE-012*	Enterprise Application Integration	6
	MINE-013*	Information Security Management	6
	MINE-014*	Requirements Engineering	6
	MINE-015*	Software Design and Architecture	6
	MINE-016*	Software Testing	6
SEMESTER II			
	MIN-006	Computing System II	6
	MINI-0166	Internet and Web Based Technologies	6
	Elect 1	Select any one from the Advanced Electives	6
	Elect 2	Select any one from the Advanced Electives	6
	Elect 3	Select any one from the Advanced Electives	6
	MIN-002	Life Skills Development-II	6
	MINI-017	Mini Project	6
		Total	42
		ADVANCED ELECTIVES	
	MINE-017*	Database Administration	6
	MINE-018*	Advanced Enterprise Web Solutions	6
	MINE-019*	Web Application Development	6
	MINE-020*	Advanced Application Development Techniques	6
	MINE-021*	Advanced Business Application Programming II	6
	MINE-022*	Business Intelligence	6
	MINE-023*	Parallel Programming	6
	MINE-024*	Multicore Programming	6
	MINE-025*	Service Oriented Architecture	6
	MINE-026*	Service Management	6
	MINE-027*	Cloud Computing	6
	MINE-028*	Management of Software Development	6
	MINE-029*	Software Product Line Development	6
	MINE-030*	Software Reliability and Performance Engineering	6
	MINE-31*	Artificial Intelligence	6
	MINE-32*	Optimization Techniques	6
SEMESTER III			
	MINP-001	Project Phase I	36
SEMESTER IV			
	MINP-002	Project Phase II	48
Total Credits			172

Delivery of an elective will be subject to availability of domain expert / faculty as well as minimum number of students for that particular elective