Advanced Postgraduate Program in Software Technologies (APGP-ST)

An Autonomous Full-Time Residential Postgraduate Program (24 months)

"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 any Bachelors Degree (with minimum 55 percent marks or equivalent grades) of at least three years' duration with Mathematics at 10+2 level. Sound computing background in C and C++ programming languages.

FOCUS AREAS

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

COURSE STRUCTURE

	CODE	COURSE NAME	CREDITS*
BRIDGE	AST001	Computer Architecture	
	AST002	Operating Systems	
	AST003	Data Structures & Algorithms using C	
	AST004	Foundation in C/C++	
	AST005	Problem Solving and Algorithms Development	
	NTW002	Computer Networks	
COMMON	COM001	Life Skills Development - I	2
	COM002	Life Skills Development - II	2
FOUNDATION	AST501	Organizational Information Systems	2
	AST502	Mathematical Foundation	2
	AST503	Statistics	1
	AST504	Database Development Methodology	3
	AST505	Object Oriented Programming - I	3
	AST506	Object Oriented Programming - II	3
	AST507	Linux Programming	2
CORE	AST601	System Analysis and Design Techniques	3
	AST602	Software Engineering & Project Management	3
	AST603	Extended Enterprise Applications	3
	AST604	Data Warehousing	3
ADVANCED	AST701	Software Performance Engineering	3
	AST702	Enterprise Application Integration	3

ELECTIVES
Select any five (Two from CORE Electives & Three from ADVANCED Electives)

	CODE	COURSE NAME	CREDITS*
CORE ELECTIVE	AST801	Complex Database Systems	3
	AST802	Web Application Development - I	3
	AST803	Mobile Computing	3
	AST804	Web Application Development - II	3
	AST805	Advanced Business Application Programming - I	3
	AST806	Customer Relationship Management	3
	AST807	Data Mining Techniques	3
	AST808	Software Process Techniques and Models	3
	AST809	Parallel Algorithms	3
	AST810	Concurrent Programming	3
	AST811	Business Process Management	3
	AST812	Information Security Management	3
	AST813	Artificial Intelligence	3
ADVANCED ELECTIVE	AST814	Database Administration	3
	AST815	Open Source Database Technology	3
	AST816	Open Source Application Development	3
	AST817	Enterprise Application Development - I	3
	AST818	Advanced Web Application Development	3
	AST819	Enterprise Application Development - II	3
	AST820	Advanced Enterprise Application Development	3
	AST821	Advanced Business Application Programming - II	3
	AST822	Business Intelligence	3
	AST823	Advanced Data Mining	3
	AST824	Software Product Line Development	3
	AST825	Advanced Software Engineering and Project Management	3
	AST826	Parallel Programming	3
	AST827	Cluster and Grid Computing	3
	AST828	Multi-core Programming	3
	AST829	Service Oriented Architecture	3
	AST830	Service Management	3
	AST831	Advanced Artificial Intelligence and Application Programming	3
PROJECT	AST901	Seminar / Mini Project - I	1
	AST902	Research Methodology and Mini Project - II	2
	AST903	Project	32

NOTE: Advance C++ Programming is compulsory Audited course

1 Credit Hr = 16 Class Hrs / 32 Lab Hrs in a semester.