SCHOOL OF ENGINEERING AND TECHNOLOGY

AMBI, TALEGAON, PUNE

B. Tech. PROGRAMME FOR ACADEMIC YEAR 2020-21

BATCH 2020 - 2024

SUBJECT BASKET

Computer Engineering (Generic) and

Specialization tracks Network & Information Security, Artificial Intelligence and Computer Science and Business systems

School of Engineering and Technology
Department of Computer Engineering

B. Tech. Computer Engineering (Generic)

FIRST YEAR SEMESTER - I	FIRST YEAR SEMESTER - II	SECOND YEAR SEMESTER - III	SECOND YEAR SEMESTER - IV
B. Tech. in Computer Engg.	*B. Tech. in Computer Engg*	*B. Tech. in Computer Engg*	*B. Tech. in Computer Engg*
Engineering Mathematics-I	Engineering Mathematics-II	Engg Mathematics III	Engg Mathematics IV
Engineering Physics / Engineering Chemistry	Engineering Physics / Engineering Chemistry	Basic Electronics and Digital Logic	Operating Systems
Engineering Graphics	Engineering Mechanics	Data Structures	Theory of Automata and Formal Languages
Basic Electrical Engineering	C Programming	Computer Organization and Architecture	Computer Networks
Basic Workshop Practices - I	English for Engineers	Database Management Systems	Design and Analysis of Algorithm
Business Analytics	Basic Workshop Practices - II	OOPM(Java)	Open Source Lab(Python)
	Environmental Studies		
	Economics for Engineers		

The School/College has all the rights to revise the syllabus/curriculum at any time.

School of Engineering and Technology
Department of Computer Engineering

B. Tech. Computer Engineering (Generic)

THIRD YEAR SEMESTER - V	THIRD YEAR SEMESTER - VI	FOURTH YEAR SEMESTER - VII	FOURTH YEAR SEMESTER - VIII
B. Tech. in Computer Engg	*B. Tech. in Computer Engg*	*B. Tech. in Computer Engg*	*B. Tech. in Computer Engg*
Software Engineering	Stream Core1- Cryptography and Network Security	Stream Core 4- High Performance Computing	Project/Internship
Compiler Design	Stream Core2- Distributed Systems	Stream Elective I -Pervasive Computing, -Digital Image Processing, -Android Application Development	
Machine Learning	Stream Core3- Artificial Intelligence and Soft Computing	Stream Elective II- -Augmented and Virtual Reality, -Internet of Things, -Block Chain Technology and Applications	
Cloud Computing	Technical Elective I- -Advanced Algorithm, -Advanced Operating Systems, -Advanced Computer Networks, -Information Theory and Coding, -Data Warehousing and Mining, -Embedded System	Technical Elective II- -Mobile Computing and Communication, -Human Machine Interface, -Big Data Analytics, -Software Testing and Analysis, -Computer Vision, -Information Retrieval	
Web Programming	Open Elective I- - Project Management, -Non-Government Organization Management, -IT for Healthcare, -Intellectual Property Rights	Open Elective 2- - Entrepreneurship and Business Startup, - Cyber and Data Laws, - Remote Sensing and GIS, - Research Methodologies	
Professional Communication and Ethics	Mini Project I	Mini Project II	

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School of Engineering and Technology
Department of Computer Engineering

B. Tech. Specialization track Network & Information Security

FIRST YEAR SEMESTER - I	FIRST YEAR SEMESTER - II	SECOND YEAR SEMESTER - III	SECOND YEAR SEMESTER - IV
B. Tech. in NIS.	*B. Tech. in NIS.*	*B. Tech. in NIS.*	*B. Tech. in NIS.*
Engineering Mathematics-I	Engineering Mathematics-II	Engg Mathematics III	Engg Mathematics IV
Engineering Physics / Engineering Chemistry	Engineering Physics / Engineering Chemistry	Basic Electronics and Digital Logic	Operating Systems
Engineering Graphics	Engineering Mechanics	Data Structures	Theory of Automata and Formal Languages
Basic Electrical Engineering	C Programming	Computer Organization and Architecture	Computer Networks
Basic Workshop Practices - I	English for Engineers	Database Management Systems	Design and Analysis of Algorithm
Business Analytics	Basic Workshop Practices - II	OOPM(Java)	Open Source Lab(Python)
	Environmental Studies		
	Economics for Engineers		

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B. Tech. Specialization track Network & Information Security

SEMESTER - V	THIRD YEAR SEMESTER - VI	FOURTH YEAR SEMESTER - VII	FOURTH YEAR SEMESTER - VIII
B. Tech. in NIS.	*B. Tech. in NIS.*	*B. Tech. in NIS.*	*B. Tech. in NIS.*
Software Engineering	Stream Core1- Mobile Communication and Computing	Stream Core 4- Infrastructure Security	Project/Internship
Compiler Design	Stream Core2- Cyber security and forensics	Stream Elective I - Internet of Things, - Malware Analysis , - Software Defined Networks	
Machine Learning	Stream Core3- Cryptology	Stream Elective II- - Adhoc Networks and security, - Cloud Security, - Block Chain Technology and Applications	
Cloud Computing	Technical Elective I- -Advanced Algorithm, -Advanced Operating Systems, -Advanced Computer Networks, -Information Theory and Coding, -Data Warehousing and Mining, -Embedded System	Technical Elective II- -Human Machine Interface, -Big Data Analytics, -Software Testing and Analysis,	
Web Programming	Open Elective I- - Project Management, -Non-Government Organization Management, -IT for Healthcare, -Intellectual Property Rights	Open Elective 2- - Entrepreneurship and Business Startup, - Cyber and Data Laws, - Remote Sensing and GIS, - Research Methodologies	
Professional Communication and Ethics	Mini Project I	Mini Project II	

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School of Engineering and Technology
Department of Computer Engineering

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B. Tech. Specialization track Artificial Intelligence

FIRST YEAR SEMESTER - I	FIRST YEAR SEMESTER - II	SECOND YEAR SEMESTER - III	SECOND YEAR SEMESTER - IV
B. Tech. in AI.	*B. Tech. in AI.*	*B. Tech. in AI.*	*B. Tech. in AI.*
Engineering Mathematics-I	Engineering Mathematics-II	Engg Mathematics III	Engg Mathematics IV
Engineering Physics / Engineering Chemistry	Engineering Physics / Engineering Chemistry	Basic Electronics and Digital Logic	Operating Systems
Engineering Graphics	Engineering Mechanics	Data Structures	Theory of Automata and Formal Languages
Basic Electrical Engineering	C Programming	Computer Organization and Architecture	Computer Networks
Basic Workshop Practices - I	English for Engineers	Database Management Systems	Design and Analysis of Algorithm
Business Analytics	Basic Workshop Practices - II	OOPM(Java)	Open Source Lab(Python)
	Environmental Studies		
	Economics for Engineers		

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B. Tech. Specialization track Artificial Intelligence

THIRD YEAR SEMESTER - V	THIRD YEAR SEMESTER - VI	FOURTH YEAR SEMESTER - VII	FOURTH YEAR SEMESTER - VIII
B. Tech. in AI.	*B. Tech. in AI.*	*B. Tech. in AI.*	*B. Tech. in AI.*
Software Engineering	Stream Core1- Artificial Intelligence	Stream Core 4 Soft Computing	Project/Internship
Compiler Design	Stream Core2- Machine Learning	Stream Elective I - Computer Vision, - Big Data Analytics, - Natural Language Processing	
Machine Learning	Stream Core3- High Performance Computing	Stream Elective II- - Deep Learning , - Pattern Recognition, - Information Retrieval	
Cloud Computing	Technical Elective I- -Advanced Algorithm, -Advanced Operating Systems, -Advanced Computer Networks, -Data Warehousing and Mining, -Embedded System	Technical Elective II- - Mobile Computing and Communication -Human Machine Interface, -Software Testing and Analysis,	
Web Programming	Open Elective I- - Project Management, -Non-Government Organization Management, -IT for Healthcare, -Intellectual Property Rights	Open Elective 2- - Entrepreneurship and Business Startup, - Cyber and Data Laws, - Remote Sensing and GIS, - Research Methodologies	
Professional Communication and Ethics	Mini Project I	Mini Project II	

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School of Engineering and Technology
Department of Computer Engineering

B. Tech. Specialization track Computer Science and Business systems

FIRST YEAR SEMESTER - I	FIRST YEAR SEMESTER - II	SECOND YEAR SEMESTER - III	SECOND YEAR SEMESTER - IV
B. Tech. in CSBS.	*B. Tech. in CSBS.*	*B. Tech. in CSBS.*	*B. Tech. in CSBS.*
Discrete Mathematics (PCC-CS401)	Linear Algebra	Formal Language and Automata Theory (PCC-CS502)	Operating Systems (PCC-CS-403) + Lab (Unix)
Probability & Statistics	Statistical Modeling + Lab	Computer Organization & Architecture (PCC-CS 402)	Database Management Systems (PCC-CS503) + Lab
Fundamentals of Computer Science+ Lab	Data Structures & Algorithms (PCC-CS301) + Lab	Object Oriented Programming (PCC-CS503) + Lab	Software Design with UML + Lab
Principles of Electrical Engineering + Lab	Principles of Electronics + Lab	Computational Statistics + Lab	Introduction to Innovation, IP Management & Entrepreneurship
Fundamentals of Physics+ Lab	Fundamentals of Economics	Software Engineering + Lab	Design Thinking
Business Communication & Value Science - I	Business Communication & Value Science – II	Indian Constitution (Non Credit)	Operations Research + Lab
	Environmental Sciences (Non Credit)		Essence of Indian Traditional Knowledge(Non Credit)

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B. Tech. Specialization track Computer Science and Business systems

THIRD YEAR SEMESTER - V	THIRD YEAR SEMESTER - VI	FOURTH YEAR SEMESTER - VII	FOURTH YEAR SEMESTER - VIII
B. Tech. in CSBS.	*B. Tech. in CSBS.*	*B. Tech. in CSBS.*	*B. Tech. in CSBS.*
Design And Analysis of Algorithms (PCC-CS 404) + Lab	Computer Networks (PCC-CS602) + Lab	Usability Design of Software Applications + Lab	Services Science & Service Operational Management + Lab
Compiler Design (PCC-CS 601) + Lab (LEX & YACC)	Information Security + Lab	IT Workshop Skylab / Matlab (PCC-CS 302) + Lab	IT Project Management + Lab
Fundamentals of Management	Artificial Intelligence + Lab	Financial Management	Marketing Research & Marketing Management
Business Strategy	Financial & Cost Accounting	Human Resource Management	Elective V
Business Communication & Value Science – III	Business Communication & Value Science – IV	Elective III	Elective VI + Lab
Elective I + Lab	Elective II + Lab	Elective IV+ Lab	Project Evaluation II
Mini Project	Building Services - III	Project Evaluation I	

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#Non-credit courses

Course Name
Music
Dance
Nature
Photography
Singing
Culture
Literature
German
French

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