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UNIVERSITY SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

M.TECH. COMPUTER SCIENCE AND ENGINEERING

SPECIALIZATION: SOFTWARE ENGINEERING

2022-2024

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GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

School of ICT Gautam Buddha University Greater Noida, (U.P.) SEMESTER I

S.No.	Course Code	SEMESTER I					
		Course Name	L	Ť	P	Credits	Types
1	CS521	Advanced Data Base Management System	3	0	0	3	CC1
2	CS523	Design and Architecture for Software Systems	3	0	0	3	CC2
3	CS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3
4	CS527	Research Techniques in ICT	3	0	0	3	CC4
5	CS529	Java Programming	3	0	0	3	
6	ES415	Energy and Environment	3	_	_		CC5
7	EN531	Language, Culture and Society		0	0	3	OE1 /AECC
8	CS581	-	3	0	0	3	OE2 /AECC
	-	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
9	CS583	Java Programming Lab	0	0	3	2	CC-L2 / SEC
10							
		Total Hours and Credits	21	1	6	26	

SEMESTER II

S.No.	M. Comment						
	Course Code	Course Name			· P	Credits	Types
1	CS522	Python Programming	3	0	0	3	
2	CS524	Advanced Software Engineering	-	_	-		CC6
3	CS526	Open Source Software Systems	3	0	0	3	CC7
4	CS528		3	0	0	3	CC8
-	C3328	Software Engineering for Data Science	3	0	0	3	CC9
5		Elective-1	3	0	0	3	
1		Elective-2	3	_	-		E1/DSE
7		Generic Elective	-	0	0	3	E2 / DSE
8	CS582		3	1	0	4	GE1
9		Python Programming Lab	0	0	3	2	CC-L3 / SEC
	CS584	Open Source Software Systems Lab	0	0	3	2	CC-L4
10	GP	General Proficiency	Non Credit				CC-L4
Totalia							
		Total Hours and Credits	21	1	6	26	

Summer Project in Industry will be done individually after Fourth Year of Integrated B.Tech. - M.Tech. CSE and Second Year of M.Tech. during the summer break and it will be of minimum 4 weeks. It will be evaluated as per University Examination Rules in III semester of M.Tech. and IX semester for Integrated B.Tech. - M.Tech. CSE.

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SEMESTER III

Course Code						
CS621	Course Name		T	P	Credits	Types
	AI Methods for Software Engineering	3	0	0	3	CC10
CS623	Software Engineering for Cloud Computing	3	0		2	CC11
		<u> </u>	_	-	3	
		3	0	0	3	E3 / DSE
	Elective-4	3	0	0	3	E4 / DSE
CS681	Cloud Computing Lab	0	0	2	2	
CS683	Summer Project	_			- 2	CC-L5
C5601	·	0	0	8	4	SP/E
C3031	Dissertation Part - I	0	0	16	8	DP1/E
GP	General Proficiency		Non	Credi	t	
	Total Hours and Credits	12				
	CS623 CS681	CS623 Software Engineering for Cloud Computing Elective-3 Elective-4 CS681 Cloud Computing Lab CS683 Summer Project CS691 Dissertation Part - I GP General Proficiency	CS623 Software Engineering for Cloud Computing Elective-3 Elective-4 CS681 Cloud Computing Lab CS683 Summer Project CS691 Dissertation Part - I GP General Proficiency	CS623 Software Engineering for Cloud Computing 3 0	CS623 Software Engineering for Cloud Computing 3 0 0 Elective-3 3 0 0 Elective-4 3 0 0 CS681 Cloud Computing Lab 0 0 3 CS683 Summer Project 0 0 8 CS691 Dissertation Part - I 0 0 16 GP General Proficiency Non Credit	CS623 Software Engineering for Cloud Computing 3 0 0 3 Elective-3 3 0 0 3 Elective-4 3 0 0 3 CS681 Cloud Computing Lab 0 0 3 2 CS683 Summer Project 0 0 8 4 CS691 Dissertation Part - I 0 0 16 8 GP General Proficiency Non Credit



SEMESTER IV

S.No.	Course Code	Course Name					
1 1	CS692	Dissertation Part - II	700		Р	Credits	Types
		Dissertation Part - II	0	0	52	26	DP2/E
2	GP	General Proficiency	Non Credit				
		Total Harman I C. III					
		Total Hours and Credits	0	0	52	26	

GRAND TOTAL OF CREDITS = 104

Summer Project will be done individually and It will be evaluated as per University Examination Rules.

Diartation will be done individually and It will be evaluated as per University Examination Rules.

USICT will provide a mentor/supervisor for summer project, and dissertation.

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ELECTIVES FROM DCSE

Course Code	Course Name	T	T	P	Credits	Types
CS530	Software Relibility Engineering	3	0	0	3	E1
CS532	Parallel Comutation and Applications	3	0	0	3	E1
CS534	Web-Based Software Engineering	3	0	0	3	E1
CS536	Service-Oriented Computing	3	0	0	3	E1
CS538	Soft Computing	3	0	0		E2
CS540	Software Maintenance	3	0	0		E2
CS542	Software Measurement and Estimation	3	0	0		E2
CS544	Software Quality Assurance	3	0	0		E2
CS625	Embedded System Design	3	0	0		E3
CS627	Applied Machine Learning	3	0	0		E3
CS629	Blockchain Technology and Software Systems	3	0	0		E3
CS631	Secure Software Engineering	3	0	0		 E3
CS633	Al Enabled Cyber Security	3	0	0		E4
CS635	Big Data Platforms and Analytics	3	0	0		E4
CS637	Internet of Things	3	0	0		E4
CS639	Edge Computing	3	0			E4
CS641	Deep Learning and Deep Neural Networks	3	0			E4
	OPEN AND GENERIC ELECTIVES FROM OTHER SC	HOOLS				571
	CS530 CS532 CS534 CS536 CS538 CS540 CS542 CS544 CS625 CS627 CS629 CS631 CS633 CS635 CS637	CS532 Parallel Comutation and Applications CS534 Web-Based Software Engineering CS536 Service-Oriented Computing CS538 Soft Computing CS540 Software Maintenance CS542 Software Measurement and Estimation CS544 Software Quality Assurance CS625 Embedded System Design CS627 Applied Machine Learning CS629 Blockchain Technology and Software Systems CS631 Secure Software Engineering CS633 Al Enabled Cyber Security CS635 Big Data Platforms and Analytics CS639 Edge Computing CS639 Edge Computing CS641 Deep Learning and Deep Neural Networks	CS530 Software Relibility Engineering 3 CS532 Parallel Comutation and Applications 3 CS534 Web-Based Software Engineering 3 CS536 Service-Oriented Computing 3 CS538 Soft Computing 3 CS538 Soft Ware Maintenance 3 CS540 Software Measurement and Estimation 3 CS542 Software Measurement and Estimation 3 CS544 Software Quality Assurance 3 CS625 Embedded System Design 3 CS627 Applied Machine Learning 3 CS629 Blockchain Technology and Software Systems 3 CS631 Secure Software Engineering 3 CS633 Al Enabled Cyber Security 3 CS635 Big Data Platforms and Analytics 3 CS637 Internet of Things 3 CS639 Edge Computing 3 CS641 Deep Learning and Deep Neural Networks 3	CS530 Software Relibility Engineering 3 0 CS532 Parallel Comutation and Applications 3 0 CS534 Web-Based Software Engineering 3 0 CS536 Service-Oriented Computing 3 0 CS538 Soft Computing 3 0 CS540 Software Maintenance 3 0 CS542 Software Measurement and Estimation 3 0 CS544 Software Quality Assurance 3 0 CS625 Embedded System Design 3 0 CS627 Applied Machine Learning 3 0 CS629 Blockchain Technology and Software Systems 3 0 CS631 Secure Software Engineering 3 0 CS633 Al Enabled Cyber Security 3 0 CS635 Big Data Platforms and Analytics 3 0 CS637 Internet of Things 3 0 CS639 Edge Computing 3 0	CS530 Software Relibility Engineering 3 0 0 CS532 Parallel Comutation and Applications 3 0 0 CS534 Web-Based Software Engineering 3 0 0 CS536 Service-Oriented Computing 3 0 0 CS538 Soft Computing 3 0 0 CS540 Software Maintenance 3 0 0 CS542 Software Measurement and Estimation 3 0 0 CS542 Software Quality Assurance 3 0 0 CS544 Software Quality Assurance 3 0 0 CS625 Embedded System Design 3 0 0 CS627 Applied Machine Learning 3 0 0 CS629 Blockchain Technology and Software Systems 3 0 0 CS631 Secure Software Engineering 3 0 0 CS633 Al Enabled Cyber Security 3 0 0 C	CS530 Software Relibility Engineering 3 0 0 3 CS532 Parallel Comutation and Applications 3 0 0 3 CS534 Web-Based Software Engineering 3 0 0 3 CS536 Service-Oriented Computing 3 0 0 3 CS538 Soft Computing 3 0 0 3 CS540 Software Maintenance 3 0 0 3 CS542 Software Measurement and Estimation 3 0 0 3 CS544 Software Quality Assurance 3 0 0 3 CS625 Embedded System Design 3 0 0 3 CS627 Applied Machine Learning 3 0 0 3 CS629 Blockchain Technology and Software Systems 3 0 0 3 CS631 Secure Software Engineering 3 0 0 3 CS633 Al Enabled Cyber Security

17	ES415	Energy and Environment	3	0	0	3	OE1
18	EN531	Language, Culture and Society	3	0	0	3	OE2
19	MA402	Modeling and Simulation	3	1	0	4	GE1
20	MA416	Probability and Stochastic Process	3	1	0	4	GE1

CS Computer Science for Course Code

CC Core Course from USICT for Type of Course

CC-L Core Course Lab from USICT for Type of Course

GE General Elective from related discipline of other Deptt./School

AECC Ability Enhancement Compulsary Course

OE Open Elective from other discipline of other Deptt./School

DSE Discipline Specific Course

FC Foundation Course

SEC Skill Enhancement Course

E Elective

DP1 Dissertation Part 1

DP2 Dissertation Part 2

SP Summer Project

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