

## EXCEL ENGINEERING COLLEGE (Autonomous) Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai Accredited by NBA, NAAC with "A<sup>+</sup>" and Recognised by UGC (2f &12B) KOMARAPALAYAM – 637303

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING M E - COMPUTER SCIENCE AND ENGINEERING REGULATION 2020 CHOICE BASED CREDIT SYSTEM I TO IV SEMESTERS CURRICULUM

I SEMESTER										
			Periods / Week			C	Maximum Marks			
Code No.	Course	Category	L	Т	Ρ	Ŭ	CA	FE	Total	
Theory Course(s)										
20PMA103	Applied Probability and Statistics	FC	3	2	0	4	40	60	100	
20PCS101	Mobile and Pervasive Computing	PC	3	0	0	3	40	60	100	
20PCS102	Applied Cryptography	PC	3	0	0	3	40	60	100	
20PCS103	Advanced Data Structures and Algorithms	PC	3	2	0	4	40	60	100	
20PCSEXX	Professional Elective I	PE	3	0	0	3	40	60	100	
20PCSEXX	Professional Elective II	PE	3	0	0	3	40	60	100	
<b>Practical Co</b>	urse									
20PCS104	Advanced Data Structures Laboratory	PC	0	0	4	2	50	50	100	
	20	4	4	22	290	410	700			

II SEMESTER										
			Perio	ds / W	leek	<b>C</b>	Max	imum	Marks	
Code No.	Course	Category	L	ΤP		C	CA	FE	Total	
Theory Course(s)										
20PCS201	Advanced Operating Systems	PC	3	0	0	3	40	60	100	
20PCS202	Internet of Things	PC	3	0	0	3	40	60	100	
20PCS203	Cloud Computing	PC	3	0	0	3	40	60	100	
20PCS204	Big Data Analytics	PC	3	0	0	3	40	60	100	
20PCSEXX	Professional Elective III	PE	3	0	0	3	40	60	100	
20PCSEXX	Professional Elective IV	PE	3	0	0	3	40	60	100	
Practical Cou	rse									
20PCS205	Data Analytics Laboratory	PC	0	0	4	2	50	50	100	
Employability	Employability Enhancement Course									
20PCS206	Technical Seminar and Internship	EEC	0	0	2	1	50	50	100	
	Total 18 0 6 21 340 460 800									

III SEMESTER										
			Period	ls / W	/eek	<b>C</b>	Maximum Marks			
Code No.	Course	Category	L T P		C	CA	FE	Total		
Theory Course(s)										
20PEE301	Research Methodology and Intellectual Property Rights	PC	3	0	0	3	40	60	100	
20PCSEXX	Professional Elective V	PE	3	0	0	3	40	60	100	
20PCSEXX	Professional Elective VI	PE	3	0	0	3	40	60	100	
Employab	Employability Enhancement Course									
20PCS301	Project Work Phase – I	EEC	0	0	12	6	50	50	100	
	TOTAL					15	170	230	400	

IV SEMESTER										
			Periods/Week				Maximum Marks			
Code No.	Course	Category	L	Т	Ρ	С	СА	FE	Total	
Employabi	Employability Enhancement Course									
20PCS401	Project Work Phase – II	EEC	0	0	24	12	50	50	100	
	Total		0	0	24	12	50	50	100	

## TOTAL CREDITS TO BE EARNED FOR THE AWARD OF THE DEGREE = 70

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S No	Catagory	CREDITS PER SEMESTE			TER	Total Credit	Crodits in %
3. NO	Category	I	II	III	IV	(AICTE)	
1	FC	4				4	6
2	PC	12	14	3		29	41
3	PE	6	6	6		18	26
4	EEC		1	6	12	19	27
	Total	22	21	15	12	70	100

FC - Foundation Course

PC - Professional Core

PE - Professional Electives

EEC - Employability Enhancement Courses

MC - Mandatory Courses (Non-Credit Courses)

CA - Continuous Assessment

FE - Final Examination

Electives – I										
	Course	Category	Perio	ods/W	/eek	l	Maximum Marks			
Code No	oourse	Oategory	L	Т	Ρ	С	СА	FE	Total	
20PCSE01	Advanced Computer Architecture	PE	3	0	0	3	40	60	100	
20PCSE02	Advanced Database Technology	PE	3	0	0	3	40	60	100	
20PCSE03	Advanced computer networks	PE	3	0	0	3	40	60	100	
20PCSE04	Real time systems	PE	3	0	0	3	40	60	100	
20PCSE05	Open Source Systems	PE	3	0	0	3	40	60	100	

Electives – II									
	Course		Periods/Week				Maximum Marks		
Code No	Course	Category	L	Т	Р	С	СА	FE	Total
20PCSE11	Soft Computing	PE	3	0	0	3	40	60	100
20PCSE12	Information Retrieval Techniques	PE	3	0	0	3	40	60	100
20PCSE13	Wireless Sensor Networks	PE	3	0	0	3	40	60	100
20PCSE14	Parallel Programming Paradigms	PE	3	0	0	3	40	60	100
20PCSE15	Compiler Optimization Techniques	PE	3	0	0	3	40	60	100

Electives – III										
			Periods / Week				Max	n Marks		
Code No.	Course	Category	L	т	Ρ	С	СА	FE	Total	
20PCSE21	Software Architectures And Design	PE	3	0	0	3	40	60	100	
20PCSE22	Ethical Hacking	PE	3	0	0	3	40	60	100	
20PCSE23	Network Security	PE	3	0	0	3	40	60	100	
20PCSE24	Intellectual Property Rights	PE	3	0	0	3	40	60	100	
20PCSE25	Social Network Analysis	PE	3	0	0	3	40	60	100	

Electives – IV									
			Periods /Week				Maximum Marks		
Code No.	Course	Category	L	Т	Ρ	С	СА	FE	Total
20PCSE31	Performance Analysis of Computer Systems	PE	3	0	0	3	40	60	100
20PCSE32	Language Technologies	PE	3	0	0	3	40	60	100
20PCSE33	Computer Vision	PE	3	0	0	3	40	60	100
20PCSE34	Speech Processing and Synthesis	PE	3	0	0	3	40	60	100
20PCSE35	Software Quality Assurance and Testing	PE	3	0	0	3	40	60	100

Electives – V										
			Peri	ods/V	Veek		Maximum Marks			
Code No.	Course	Category	L	т	Ρ	С	СА	FE	Total	
20PCSE41	Formal models of software Systems	PE	3	0	0	3	40	60	100	
20PCSE42	Embedded Software Development	PE	3	0	0	3	40	60	100	
20PCSE43	Machine Learning Techniques	PE	3	0	0	3	40	60	100	
20PCSE44	Bio-inspired Computing	PE	3	0	0	3	40	60	100	
20PCSE45	High-speed networks	PE	3	0	0	3	40	60	100	

Electives – VI											
			Peric	Periods / Week			Max	Maximum Marks			
Code No.	Course	Category	L	Т	Ρ	С	СА	FE	Total		
20PCSE51	Data Visualization Techniques	PE	3	0	0	3	40	60	100		
20PCSE52	Reconfigurable Computing	PE	3	0	0	3	40	60	100		
20PCSE53	Mobile Application Development	PE	3	0	0	3	40	60	100		
20PCSE54	Bio Informatics	PE	3	0	0	3	40	60	100		
20PCSE55	Information Storage Management	PE	3	0	0	3	40	60	100		