

ADHIYAMAAN COLLEGE OF ENGINEERING
 (An Autonomous Institution, Affiliated to Anna University, Chennai)
 (Accredited by NAAC)
REGULATION 2018
CHOICE BASED CREDIT SYSTEMS

B.E.-COMPUTER SCIENCE AND ENGINEERING

Curricula and Syllabi for Semesters I to VIII
SEMESTER I

S.NO	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	118ENT01	Technical English	HS	2	0	0	2	2
2	118MAT02	Engineering Mathematics-I	BS	3	0	0	3	3
3	118PHT03	Engineering Physics	BS	2	0	0	2	2
4	118CYT04	Engineering Chemistry	BS	3	0	0	3	3
5	118PPT05	Problem Solving And Python Programming	ES	3	0	0	3	3
6	118ESE0X	ELECTIVE (GROUP1)	ES	3	0	0	3	3
PRACTICALS								
7	118PHP07	Engineering Physics Laboratory	BS	0	0	2	2	1
8	118PPP08	Problem Solving and Python Programming Laboratory	ES	0	0	2	2	1
TOTAL				16	0	4	4	18

ELECTIVE (GROUP1)

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	118ESE01	Basic Civil and Mechanical Engineering	ES	3	0	0	3	3
2	118ESE05	Basic Mechanical Electrical and Instrumentation Engineering	ES	3	0	0	3	3
3	118ESE06	Basic Electrical Electronics and Instrumentation Engineering	ES	3	0	0	3	3
4	118ESE07	Biology For Engineers	ES	3	0	0	3	3

SEMESTER II

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								

1	218ENT01	Communicative English	HS	2	0	2	3	3
2	218MAT02	Engineering Mathematics-II	BS	3	1	0	4	4
3	218GET03	Environmental Science and Engineering	HS	2	0	0	2	2
4	218EMT04	Engineering Mechanics	ES	3	0	0	3	3
5	218PPT05	Programming in C	ES	3	0	0	3	3
6	218BSE0X	ELECTIVE (GROUP2)	BS	2	0	0	2	2
PRACTICALS								
7	218PHP07	Engineering Physics Laboratory	BS	0	0	2	1	1
8	218PPP08	Programming in C Laboratory	ES	0	0	2	1	1
TOTAL				15	1	6	19	19

ELECTIVE (GROUP2)

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	218BSE01	Material Science	BS	2	0	0	2	2
2	218BSE02	Quantum Mechanics for Engineers	BS	2	0	0	2	2
3	218BSE03	Chemistry for Technologists	BS	2	0	0	2	2
4	218BSE04	Energy Storage Devices and Fuel Cells	BS	2	0	0	2	2

SEMESTER – III

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	318MAT01	Engineering Mathematics-III	BS	3	1	0	2	4
2	318CIT02	Digital Electronics	ES	3	0	0	2	3
3	318CST03	Database Management Systems	HS	3	0	0	2	3
4	318CIT04	Object Oriented Programming in C++	PC	3	0	0	2	3
5	318CIT05	Data Structures	PC	3	0	0	3	3
6	318CIT06	Computer Organization	PC	3	0	0	3	3
PRACTICALS								
7	318CIP07	Digital Electronics Laboratory	ES	0	0	2	2	1
8	318CSP08	Database Management Systems Laboratory	PC	0	0	2	2	1
9	318CSP09	OOPs and Data Structures Laboratory	PC	0	0	2	2	1

SEMESTER – IV

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1	418DMT01	Discrete Mathematics	BS	3	1	0	2	4
2	418CIT02	Design and Analysis of algorithm	PE	3	0	0	2	3
3	418CIT03	Java Programming	PC	3	0	0	2	3
4	418CIT05	Operating Systems	PC	3	0	0	2	3
5	418CST05	Computer Networks	PC	3	0	0	3	3
6	418CIT06	Software Engineering	PC	3	0	0	3	3
PRACTICALS								
7	418CIP07	Java Programming Laboratory	ES	0	0	2	2	1
8	418CIP08	Operating Systems Laboratory	PC	0	0	2	2	1
9	418CSP09	Computer Networks Laboratory	PC	0	0	2	2	1

SEMESTER – V

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1	518PQT01	Probability and Queuing Theory	BS	3	1	0	2	4
2	518CIT02	Micro-Processor and Microcontroller	ES	3	0	0	2	3
3	518CIT03	Object Oriented Analysis and Design	PC	3	0	0	2	3
4	518CIT04	Theory of Computation	PC	3	0	0	2	3
5	518CSExx	Open Elective –I	OE	3	0	0	3	3
6	518CSExx	Professional Elective -I	PE	3	0	2	3	4
PRACTICALS								
7	518CIP06	Micro-Processor and Microcontroller Laboratory	ES	0	0	2	2	1
8	518CIP07	Object Oriented Analysis and Design Laboratory	PC	0	0	2	2	1
9	518CIP08	Employability Skill Laboratory	EEC	0	0	2	2	1

V Semester-Professional Elective-I (Integrated)

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		

1	518CIE01	C# and .NET Programming	PE	3	0	2	2	4
2	518CSE02	Scripting Language	PE	3	0	2	2	4
3	518CIE03	Advanced Java Programming	PE	3	0	2	2	4
4	518CSE04	Software Testing	PE	3	0	2	2	4
5	518CSE05	Computer Graphics and Multimedia Systems	PE	3	0	2	3	4

SEMESTER – VI

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1	618CIT01	Mobile Application Development	PC	3	0	0	2	3
2	618CIT02	Compiler Design	PC	3	0	0	2	3
3	618CIT03	Data Warehousing and Data Mining	PC	3	0	0	2	3
4	618CIT04	Web Programming	PC	3	0	0	2	3
5	618CST05	Artificial Intelligence	PC	3	0	0	3	3
6	618CSExx	Professional Elective –II	PE	3	0	0	3	3
PRACTICALS								
7	618CSP07	Mobile Application Development Laboratory	PC	0	0	2	2	1
8	618CSP08	Data Mining Laboratory	PC	0	0	2	2	1
9	618CSP09	Web Programming Laboratory	PC	0	0	2	2	1

VI Semester – Professional Elective – II

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
1	618CSE01	Multi core Architecture	PE	3	0	0	3	3
2	618CSE02	Parallel and Distributed Computing	PE	3	0	0	3	3
3	618CSE03	High Performance Computing	PE	3	0	0	3	3
4	618CSE04	Network Design and Management	PE	3	0	0	3	3
5	618CSE05	Software Project Management	PE	3	0	0	3	3
6	618CSE06	Advanced Java Scripting Language	PE	3	0	0	3	3

SEMESTER – VII

S.No	Course Code	Course Title	Category	Periods Per Week		Credits
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				L	T	P	Total Contact Periods	
THEORY								
1	718CIT01	Cryptography and Security in Computing	PC	3	0	0	2	3
2	718CIT02	Machine Learning Techniques	PC	3	0	0	2	3
3	718CIT03	Mobile Computing	PC	3	0	0	2	3
4	718CIT04	Cloud Computing	PC	3	0	0	2	3
5	718CSExx	Professional Elective- III	PC	3	0	0	3	3
6	718CSExx	Open Elective - II	PE	3	0	0	3	3
PRACTICALS								
7	718CIP07	Machine Learning Laboratory	PC	0	0	2	2	1
8	718CIP08	Cloud Computing Laboratory	PC	0	0	2	2	1
9	718CSP09	Mini Project	EEC	0	0	2	2	1

VII Semester- Professional Elective- III

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
1	718CIE01	Internet of Things	PE	3	0	0	3	3
2	718CSE02	Building Enterprise Application	PE	3	0	0	3	3
3	718CSE03	Business Intelligence and its Applications	PE	3	0	0	3	3
4	718CSE04	Information Storage Management	PE	3	0	0	3	3
5	718CIE05	Agile Software Development	PE	3	0	0	3	3
6	718CIE06	Cyber Security and Law	PE	3	0	0	3	3

SEMESTER – VIII

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1	818CIT01	Big Data Analytics	PC	3	0	0	2	3
2	818CSExx	Professional Elective- IV	PC	3	0	0	2	3
3	818CSExx	Professional Elective- V	PC	3	0	0	2	3
PRACTICALS								
4	818CSP01	Project Work & Viva Voce	PC	0	0	16	8	16

VIII Semester-Professional Elective- IV

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
1	818CIE01	Software Defined Networks	PE	3	0	0	3	3
2	818CSE02	Social Network Analysis	PE	3	0	0	3	3
3	818CSE03	Augmented and Virtual Reality	PE	3	0	0	3	3
4	818CIE05	Green Computing	PE	3	0	0	3	3
5	818CIE04	Ad hoc and Sensor Networks	PE	3	0	0	3	3
6	818CSE06	Block Chain Technologies						

VIII Semester- Professional Elective- V

S.No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
1	818CSE07	Service Oriented Architecture	PE	3	0	0	3	3
2	818CSE08	Digital Forensics	PE	3	0	0	3	3
3	818CSE09	Deep Learning	PE	3	0	0	3	3
4	818CIE10	Visualization Techniques	PE	3	0	0	3	3
5	818CSE11	Software Quality Assurance	PE	3	0	0	3	3
6	818CSE12	Web Mining	PE	3	0	0	3	3

ALLOCATION OF CREDITS

Semester	I	II	III	IV	V	VI	VII	VII
Credits	18	21	22	22	22	21	21	17
Total	164							

HUMANTICS, SOCIAL SCIENCES AND MANAGEMENT COURSES (HSMC)

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFER RED SEMESTER	CREDITS
			L	T	P			
1	118ENT01	Technical English	2	0	0	2	I	2
2	218ENT01	Communicative English	2	0	2	3	II	3
3	218GET03	Environmental Science and Engineering	2	0	0	2	II	2

BASIC SCIENCE COURSES (BSC)

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFER RED	CREDITS
			L	T	P			

							SEMESTER	
1	118MAT02	Engineering Mathematics-I	3	0	0	3	I	3
2	118PHT03	Engineering Physics	2	0	0	2	I	2
3	118CYT04	Engineering Chemistry	3	0	0	3	I	3
4	118PHP07	Engineering Physics Laboratory	0	0	2	2	I	1
5	218MAT02	Engineering Mathematics-II	3	1	0	4	II	4
6	218PHP07	Engineering Physics Laboratory	0	0	2	1	II	1
7	218BSE01	Material Science	BS	2	0	2	II	2
7	218BSE02	Quantum Mechanics for Engineers	BS	2	0	2	II	2
8	218BSE03	Chemistry for Technologists	BS	2	0	2	II	2
9	218BSE04	Energy Storage Devices and Fuel Cells	BS	2	0	2	II	
10	318MAT01	Engineering Mathematics-III	BS	3	1	2	III	4
11	418DMT01	Discrete Mathematics	BS	3	1	2	IV	4
12	518PQT01	Probability and Queuing Theory	BS	3	1	2	V	4

ENGINEERING SCIENCE COURSES (ES)

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFERRED SEMESTER	CREDITS
			L	T	P			
1	118PPT05	Problem Solving And Python Programming	3	0	0	3	I	3
2	118PPP08	Problem Solving and Python Programming Laboratory	0	0	2	2	I	1
3	118ESE01	Basic Civil and Mechanical Engineering	3	0	0	3	I	3
4	118ESE05	Basic Mechanical Electrical and Instrumentation Engineering	3	0	0	3	I	3
5	118ESE06	Basic Electrical Electronics and Instrumentation Engineering	3	0	0	3	I	3
6	118ESE07	Biology For Engineers	3	0	0	3	I	3
7	218EMT04	Engineering Mechanics	3	0	0	3	II	3
8	218PPT05	C Programming Laboratory	3	0	0	3	II	1
9	318CIT02	Digital Electronics	0	0	2	1	III	1
10	318CIP07	Digital Electronics Laboratory	2	0	0	2	III	1
11	518CIT02	Micro-Processor and Microcontroller	3	0	0	2	V	3
12	518CIP06	Micro-Processor and Microcontroller Laboratory	ES	0	0	2	V	1

PROFESSIONAL CORE COURSES

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFERRED SEMESTER	CREDITS
			L	T	P			

1	318CIT04	Problem Solving And Python Programming	3	0	0	2	III	3
2	318CIT05	Problem Solving and Python Programming Laboratory	3	0	0	3	III	3
3	318CIT06	Basic Civil and Mechanical Engineering	3	0	0	3	III	3
4	318CSP08	Database Management Systems Laboratory	0	0	2	2	III	1
5	318CSP09	OOPs and Data Structures Laboratory	0	0	2	2	III	1
6	418CIT03	Java Programming	3	0	0	2	IV	3
7	418CIT05	Operating Systems	3	0	0	2	IV	3
8	418CST05	Computer Networks	3	0	0	3	IV	3
9	418CIT06	Software Engineering	3	0	0	3	IV	3
10	418CIP07	Java Programming Laboratory	0	0	2	2	IV	1
11	418CIP08	Operating Systems Laboratory	0	0	2	2	IV	1
12	418CSP09	Computer Networks Laboratory	0	0	2	2	IV	1
13	518CIT03	Object Oriented Analysis and Design	3	0	0	2	V	3
14	518CIT04	Theory of Computation	3	0	0	2	V	3
15	518CIP07	Object Oriented Analysis and Design Laboratory	0	0	2	2	V	1
16	618CIT01	Mobile Application Development	3	0	0	2	VI	3
17	618CIT02	Compiler Design	3	0	0	2	VI	3
18	618CIT03	Data Warehousing and Data Mining	3	0	0	2	VI	3
19	618CIT04	Web Programming	3	0	0	2	VI	3
20	618CST05	Artificial Intelligence	3	0	0	3	VI	3
21	618CSP07	Mobile Application Development Laboratory	0	0	2	2	VI	1
22	618CSP08	Data Mining Laboratory	0	0	2	2	VI	1
23	618CSP09	Web Programming Laboratory	0	0	2	2	VI	1
24	718CIT01	Cryptography and Security in Computing	3	0	0	2	VII	3
25	718CIT02	Machine Learning Techniques	3	0	0	2	VII	3
26	718CIT03	Mobile Computing	3	0	0	2	VII	3
27	718CIT04	Cloud Computing	3	0	0	2	VII	3
28	718CIP07	Machine Learning Laboratory	0	0	2	2	VII	1
29	718CIP08	Cloud Computing Laboratory	0	0	2	2	VII	1
30	818CIT01	Big Data Analytics	3	0	0	2	VIII	3

PROFESSION ELECTIVE COURSES (PC)

S.No	Course Code	Course Title	Periods Per Week		PREFERRED SEMESTER	Credits
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			L	T	P	Total Contact Periods		
1	518CIE01	C# and .NET Programming	3	0	2	2	V	3
2	518CSE02	Scripting Language	3	0	2	2	V	4
3	518CIE03	Advanced Java Programming	3	0	2	2	V	3
4	518CSE04	Software Testing	3	0	2	2	V	3
5	518CSE05	Computer Graphics and Multimedia Systems	3	0	2	3	V	3
6	618CSE01	Multi core Architecture	3	0	0	3	VI	3
7	618CSE02	Parallel and Distributed Computing	3	0	0	3	VI	3
8	618CSE03	High Performance Computing	3	0	0	3	VI	3
9	618CSE04	Network Design and Management	3	0	0	3	VI	3
10	618CSE05	Software Project Management	3	0	0	3	VI	3
11	718CIE01	Internet of Things	3	0	0	3	VII	3
12	718CSE02	Building Enterprise Application	3	0	0	3	VII	3
13	718CSE03	Pervasive Computing	3	0	0	3	VII	3
14	718CSE04	Information Storage Management	3	0	0	3	VII	3
15	718CIE05	Agile Software Development	3	0	0	3	VII	3
16	818CIE01	Software Defined Networks	3	0	0	3	VIII	3
17	818CSE02	Social Network Analysis	3	0	0	3	VIII	3
18	818CSE03	Virtual Reality	3	0	0	3	VIII	3
19	818CIE04	Ad hoc and Sensor Networks	3	0	0	3	VIII	3
20	818CIE05	Green Computing	3	0	0	3	VIII	3
21	818CSE06	Software Quality Assurance	3	0	0	3	VIII	3
22	818CSE07	Visualization Techniques	3	0	0	3	VIII	3
23	818CSE08	Web Mining	3	0	0	3	VIII	3
24	818CIE09	Digital Forensics	3	0	0	3	VIII	3
25	818CSE10	Service Oriented Architecture	3	0	0	3	VIII	3

OPEN ELECTIVE COURSES

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFER RED SEMESTER	CREDITS
			L	T	P			
1	X18OE01	PC Hardware and Troubleshooting	3	0	0	3	I	3
2	X18OE02	OOPs in C++	3	0	0	3	I	3
3	X18OE03	Computer organization and Architecture	3	0	0	3	I	3
4	X18OE04	Java Programming	3	0	0	3	II	3

5	X18OE05	Software Project Management	3	0	0	3	III	3
6	X18OE06	Software Quality and Testing	3	0	0	3	IV	3
7	X18OE07	Ad hoc and Sensor Networks	3	0	0	3	IV	3
8	X18OE08	Grid and Cloud Computing	3	0	0	3	V	3
9	X18OE09	Web Programming	3	0	0	3	V	3
10	X18OE10	Internet of Things	3	0	0	3	VI	3
11	X18OE10	Big Data Analytics	3	0	0	3	VII	3

EMPLOYABILITY ENHANCEMENT COURSES (EEC)

S.NO	COURSE CODE	COURSE TITLE	PERIODS PER WEEK			TOTAL CONTACT PERIODS	PREFERRED SEMESTER	CREDITS
			L	T	P			
1	518CIP08	Employability Skill Laboratory	0	0	2	2	V	1
2	718CSP09	Mini Project	0	0	2	2	VII	1
3	818CSP01	Project Work & Viva Voce	0	0	16	8	VIII	16