

FACULTY OF ENGINEERING
Scheme of Instruction & Examination
B.E. 8 Semesters
Of
Four Year Degree Programme
In
CSE (AI&ML)

(With effect from the academic year 2020-2021)

As approved in the faculty meeting held on



Issued by

Dean, Faculty of Engineering
Osmania University, Hyderabad
2021-2022

19.05.2022

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - I SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hours/ Week	CIE	SEE	Duration in Hours	
Theory Courses										
	Three Week Induction Programme									
1	MC 801 PO	Indian Constitution	2	0	-	2	30	70	3	-
2	HS101EG	English	2	-	-	2	30	70	3	2
3	BS 202 PH	Physics	3	1	-	4	30	70	3	4
4	BS 201 MT	Mathematics-I	3	1	-	4	30	70	3	4
5	ES 301 EE	Basic Electrical Engineering	3	1	-	4	30	70	3	4
Practical/ Laboratory Courses										
6	HS151EG	English Lab	-	-	2	2	25	50	3	1
7	BS 251 PH	Physics Lab	-	-	3	3	25	50	3	1.5
8	ES353 CE	Engineering Graphics	-	-	3x2	6	50	50	3	3
9	ES354 CE	Basic Electrical Engineering Lab	-	-	2	2	25	50	3	1
Total			13	03	13	29	275	550		20.5

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - II SEMESTER
CSE (AI&ML)

S.No	Course Code	Course Title	Scheme of Instruction				Scheme of Examination		
			L	T	P	Contact Hrs/Wk	CIE	SEE	Credits
Theory Courses									
1	MC 802 CE	Environmental Sciences	2	-	-	2	30	70	-
2	MC 803 PY	Essence of Indian Traditional Knowledge	2	-	-	2	30	70	-
3	BS 201 MT	Mathematics-II	3	1	-	4	30	70	4
4	BS 204 CH	Chemistry	3	1	-	4	30	70	4
5	ES 302 CS	Programming for Problem Solving	3	1	-	4	30	70	4
Practical/ Laboratory Courses									
6	BS 252CH	Chemistry Lab			3	3	25	50	1.5
7	ES 351 CS	Programming for Problem Solving Lab			2	2	25	50	1
8	ES 352ME	Workshop Practice	-	-	2x3	6	50	50	3
Total			13	3	11	27	250	500	17.5

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - III SEMESTER
CSE (AI&ML)

S.No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	BS204MT	Mathematics III (Probability Theory and Statistics)	3	-	-	3	30	70	3	3
2	HS105CSM	Finance and Accounting	3	-	-	3	30	70	3	3
3	PC301CSM	Data Structures and Algorithms	3	-	-	3	30	70	3	3
4	ES302EC	Digital Electronics	3	-	-	3	30	70	3	3
5	ES303CSM	Python Programming	3	-	-	3	30	70	3	3
6	PC304CSM	Automata Languages and Computation	3	-	-	3	30	70	3	3
7	*MC306HS	Gender Sensitization	3	-	-	3	30	70	3	0
Practical/ Laboratory Courses										
8	PC 351 CSM	Data Structures and Algorithms Lab	-	-	2	2	25	50	3	1
9	PC 352 CSM	Python Programming Lab	-	-	2	2	25	50	3	1
			21	0	4	25	260	590	-	20

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - IV SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	HS104EG	Effective Technical Communication in English	3	-	-	3	30	70	3	3
2	PC401CSM	Design and Analysis of Algorithms	3	-	-	3	30	70	3	3
3	PC402CSM	Database Management Systems	3	-	-	3	30	70	3	3
4	PC403CSM	Software Engineering	3	-	-	3	30	70	3	3
5	PC404CSM	Introduction to Machine Learning	3	1	-	4	30	70	3	4
6	PC405CSM	Java Programming	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
7	PC451CSM	Database Management Systems Lab	-	-	2	2	25	50	3	1
8	PC452CSM	Machine Learning Lab	-	-	2	2	25	50	3	1
9	PC453CSM	Java Programming Lab	-	-	2	2	25	50	3	1
			18	1	6	25	255	570	-	22

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - V SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	ES501EC	Compiler Design	3	-	-	3	30	70	3	3
2	PC502CSM	Artificial Intelligence	3	1	-	4	30	70	3	4
3	PC503CSM	Operating Systems	3	-	-	3	30	70	3	3
4	PC504CSM	Web and Internet Technologies	3	-	-	3	30	70	3	3
5	PC505CSM	Natural Language Processing	3	-	-	3	30	70	3	3
6	PE-I	Professional Elective-1	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
7	PC551CSM	Artificial Intelligence Lab	-	-	2	2	25	50	3	1
8	PC552CSM	Operating Systems Lab	-	-	2	2	25	50	3	1
9	PW533CSM	Mini Project	-	-	2	2	25	50	3	1
			18	1	6	25	255	570	-	22

PROFESSIONAL ELECTIVE -1	
COURSE CODE	COURSE TITLE
PE511	EMBEDDED SYSTEMS
PE512	COMPUTER GRAPHICS
PE513	OBJECT ORIENTED ANALYSIS AND DESIGN
PE514	MACHINE LEARNING FOR DATA SCIENCE
PE515	BLOCK CHAIN TECHNOLOGY

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - VI SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	PC601CSM	Deep Learning Techniques	3	-	-	3	30	70	3	3
2	PC602CSM	Computer Networks	3	-	-	3	30	70	3	3
3	PC603CSM	Advanced Machine Learning	3	1	-	4	30	70	3	4
4	PC604CSM	Soft Computing	3	-	-	3	30	70	3	3
5	PE-II	Professional Elective-2	3	-	-	3	30	70	3	3
6	OE-I	Open Elective-1	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
7	PC651CSM	Deep Learning Techniques Lab	-	-	2	2	25	50	3	1
8	PC652CSM	Computer Networks Lab	-	-	2	2	25	50	3	1
9	PC653CSM	Advanced Machine Learning Lab	-	-	2	2	25	50	3	1
10	PC671CSM	Summer Internship(To be evaluated during VII Semester)	-	-	-	-	-	-	-	-
			18	1	6	25	255	570	-	22

PROFESSIONAL ELECTIVE -2	
COURSE CODE	COURSE TITLE
PE521	QUANTUM COMPUTING
PE522	ADVANCED COMPUTER ARCHITECTURE
PE523	IMAGE PROCESSING
PE524	SOFTWARE QUALITY AND TESTING
PE525	DATA MINING
PE526	MOBILE COMPUTING

OPEN ELECTIVE(OE 1)	
COURSE CODE	COURSE TITLE
CS600OE	COMPETITIVE PROGRAMMING
MS600OE	INTELLECTUAL PROPERTY RIGHTS
CE600OE	GREEN BUILDING TECHNOLOGIES

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - VII SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	PC701CSM	Cryptography and Network Security	3	-	-	3	30	70	3	3
2	PE-III	Professional Elective-3	3	-	-	3	30	70	3	3
3	PE-IV	Professional Elective-4	3	-	-	3	30	70	3	3
3	OE-II	Open Elective-2	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
4	PC751CSM	Cryptography and Network Security Lab	-	-	2	2	25	50	2	1
5	PC752CSM	Technical Seminar	-	-	4	4	25	50	2	2
6	PW751CSM	PROJECT WORK-1	-	-	4	4	50	-	-	2
7	SI752CSM	Summer Internship(To be completed during VI Semester)	-	-	-	-	50	-	-	2
			9	0	10	19	240	310	-	19

PROFESSIONAL ELECTIVE -3	PROFESSIONAL ELECTIVE -4
PE711 ADVANCED OPERATING SYSTEMS	PE721 DATA VISUALIZATION
PE6712 MULTI MEDIA TECHNOLOGIES	PE722 INFORMATION RETRIEVAL SYSTEMS
PE713 BIG DATA ANALYTICS	PE723 AUTONOMOUS SYSTEMS
PE6714 PREDICTIVE ANALYTICS	PE724 INFORMATION SECURITY

SCHEME OF INSTRUCTION & EXAMINATION
B.E. - VIII SEMESTER
CSE (AI&ML)

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	HS106CSM	Management Science	3	-	-	3	30	70	3	3
2	OE-III	Open Elective-3	3	-	-	3	30	70	3	3
3	PE-VI	Professional Elective-5	3	-	-	3	30	70	3	3
4	PW861CSM	PROJECT WORK-2	-	-	16	16	50	100	3	8
			9	0	16	25	140	310	-	17

PROFESSIONAL ELECTIVE -5
PE811 IOT
PE812 ROBOTICS
PE813 SECURE SOFTWARE ENGINEERING
PE814 NEURAL NETWORKS