

Faculty of Engineering, School of Computer and Communication Engineering

Department of IoT and Intelligent Systems

Degree: B. Tech. (Hons) CSE (IoT and Intelligent Systems)

Total Credit: 178 (160 + 18*)

Third Semester						Fourth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
MEE20XX	Engineering Economics	3	0	0	3	MAS20XX	Statistics & Probability	3	0	0	3
MBB21XX	Management of Technology	3	0	0	3	IIS2201	Relational Database Management Systems	3	1	0	4
IIS2101	Digital Design and Computer Architecture	3	1	0	4	IIS2202	Operating Systems	3	1	0	4
IIS2102	Data Communication and Computer Networks	3	1	0	4	IIS22XX	Flexi Core 2	3	1	0	4
IIS2103	Data Structures and Algorithms	3	1	0	4	IIS22XX	Program Elective 1	3	0	0	3
IIS21XX	Flexi Core 1	3	1	0	4	IIS00XX	Open Elective 1	3	0	0	3
IIS2130	Data Communication and Computer Networks Lab	0	0	2	1	IIS2230	Relational Database Management Systems Lab	0	0	2	1
IIS2131	Data Structures and Algorithms Lab	0	0	2	1	IIS2231	Operating Systems Lab	0	0	2	1
IIS2170	Project-based Learning 1	0	0	2	1	IIS2270	Project-based Learning 2	0	0	2	1
					25						24
	Total Contact Hours (L+T+P)	18+4+6=28					Total Contact Hours (L+T+P)	18+3+6=27			

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Fifth Semester						Sixth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
IIS3101	Design and Analysis of Algorithms	3	1	0	4	IIS3201	IoT Architecture and Design	3	1	0	4
IIS3102	Sensors and Microcontrollers	3	1	0	4	IIS32XX	Program Elective 4	3	0	0	3
IIS3120	Flexi Core 3	3	1	0	4	IIS32XX	Program Elective 5	3	0	0	3
IIS31XX	Program Elective 2	3	0	0	3	IIS32XX	Program Elective 6	3	0	0	3
IIS31XX	Program Elective 3	3	0	0	3	IIS00XX	Open Elective 3	3	0	0	3
IIS00XX	Open Elective 2	3	0	0	3	IIS3202	Professional Practice	1	0	0	1
IIS3130	Design and Analysis of Algorithms Lab	0	0	2	1	IIS3230	IoT Architecture and Design Lab	0	0	2	1
IIS3131	Sensors and Microcontrollers Lab	0	0	2	1	IIS3231	Competitive Programming Lab	0	0	2	1
IIS31770	Project-based Learning 3	0	0	2	1	IIS3270	Project-based Learning 4	0	0	6	3
IIS318X*	Research Methodology*	1	0	0	1	IIS328X*	Honors Elective1*	3	0	0	3
					25						25
	Total Contact Hours (L+T+P)	19+3+6=28					Total Contact Hours (L+T+P)	19+1+10=30			

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Seventh Semester						Eighth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
IIS41XX	Program Elective 7	3	0	0	3	IIS4270	Major Project				12
IIS41XX	Program Elective 8	3	0	0	3	IIS4280*	Honors Project*				8
IIS00XX	Open Elective 4	3	0	0	3						
IIS00XX	Open Elective 5	3	0	0	3						
IIS4170	Internship (Industry or Research)	0	0	2	1						
IIS418X*	Honors Elective 2*	3	0	0	3						
IIS418X*	Honors Elective 3*	3	0	0	3						
					19						20
	Total Contact Hours (L+T+P)	18+0+2=20					Total Contact Hours (L+T+P)				

Flexi Cores

Flexi Core 1(III Sem)	Flexi Core 2(IV Sem)	Flexi Core 3 (V Sem)
IIS2120: Object-Oriented Programming using C++ IIS2121: Object-Oriented Programming using Java	IIS2220: Artificial Intelligence and Machine Learning IIS2221: Automata theory	IIS3120: Digital Image Processing and Computer Vision IIS3121: Cloud and Edge Computing

Program Electives

IV Sem	V Sem	VI Sem	VII Sem
PE1 IIS2240: Foundation of Data Science IIS2241: Web Programming IIS2242: Cryptography and Network Security	PE2 IIS3140: Advanced Internet Technologies IIS3141: Software Engineering IIS3142: Information System Security PE3 IIS3150: Embedded Systems IIS3151: Deep Learning IIS3152: Privacy and Security in IoT	PE 4 IIS3240: Smart Patient Monitoring IIS3241: Big Data Analytics IIS3242: IoT Forensics PE5 IIS3250: DevOps Fundamentals IIS3251: Recommender Systems IIS3252: Wearable Computing PE6 IIS3260: Full Stack Development IIS3261: Image and Video Analytics IIS3262: Robotic Process Automation	PE 7 IIS4140: Social Network Analysis IIS4141: Human-Computer Interaction IIS4142: Design of Smart Cities PE8 IIS4150: Mobile Application Development IIS4151: Natural Language Processing IIS4152: Wireless Sensors & Adhoc Networks

Open Electives

Graded OE	Non-Graded OE
IIS0001 Introduction to Intelligent Systems IIS0002 Introduction to Smart Cities IIS0003 Introduction to Industry 4.0	To be proposed later

Program Electives for Hons.

V/ VI / VII Sem

IIS3180: Research Methodology
 IIS3280: Advanced IoT Applications
 IIS4180: Introduction to Industry 4.0 and Industrial Internet of Things
 IIS4181: Foundation of Cloud IoT Edge ML