IIIT Nagpur Scheme for B.Tech ECE (IOT)|| 2022 Onwards

B-Tech ECE (Internet-of-Things)

First Semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
1	1	MAL108	Applied Mathematics for Engineers	BS	3	1	0	4
1	1	ECL103	Electronic Devices and Applications	EC	3	0	2	4
1	1	ECL104	Introduction to IoT	EC	3	0	2	4
1	1	CSL112	Programming Fundamentals	CSE	3	0	2	4
1	1	ECL105	Electrical Systems	EC	3	0	2	4
1	2	HUL102	Environmental Studies	HU	2	0	0	2
1	1	*SAP101	Health Sport & Safety	HU	0	0	2	0
Sub Total					17	1	10	22

Second Semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
1	2	ECL106	Digital System Design with HDL	EC	3	0	2	4
1	2	CSL102	Data Structures	CSE	3	0	2	4
1	2	ECL107	Analog IC & Fabrication	EC	3	0	2	4
1	2	ECL108	IOT Workshop - I	EC	0	0	4	2
1	2	MAL201	NMPT	BS	3	1	0	4
1	2	ECL109	Instrumentation Techniques	EC	3	0	0	3
1	1	HUL101	Communication Skills	HU	2	0	2	3
Sub Total					17	1	12	24
Total					34	2	22	46

* SAP101 Audit Course

Third Semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
2	3	ECE205	Applied Signals and Systems	DC	3	0	2	4
2	3	CSL 202	Introduction to Object Oriented PROGRAMING	CSE	3	0	2	4
2	3	ECE206	Sensors and Transducers	DC	3	0	2	4
2	3	ECE207	Workshop - II	EC	0	0	4	2
2	3	CSL 217	Programming Techniques for IoT	CSE	2	0	2	3
2	3	ECE208	Electromagnetic Field Theory	DC	3	0	0	3
Sub Total					14	0	12	20

Fourth Semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
2	4	ECE307	DSP and Applications	EC	3	0	2	4
2	4	ECE308	Modelling for IoT	EC	3	0	2	4
2	4	ECE309	Micro. Proc. & Micro. Contr.	EC	3	0	2	4
2	4	ECE310	Communication Systems	EC	3	0	2	4
2	4	CSL 301	DBMS	CSE	3	0	2	4
2	4	ECE311	Workshop-III	EC	0	0	4	2
Sub Total					15	0	14	22
Total					29	0	27	42

Fifth semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
3	5	ECE321	Communication Network	EC	3	0	2	4
3	5	ECE322	Embedded System Design	EC	3	0	2	4
3	5	ECE323	DE	EC	3	0	0	3
3	5	ECE324	DE	EC	3	0	2	4
3	5	ECE325	DE	EC	3	0	1	4
3	5		OC - I	Others	3	0	0	3
Sub Total					18	0	7	22

Sixth Semester

Year	Semester	Subject Code	Course Name	Type	L	T	P	Credits
3	6	ECE326	IoT Security	EC	3	0	0	3
3	6		DE	EC	3	0	2	4
3	6		DE	EC	3	0	2	4
3	6	ECEF01	Fractal Course (DE) (1.1)	EC	1	0	0	1
3	6	ECEF02	Fractal Course (DE) (1.2)	EC	1	0	0	1
3	6	ECEF03	Fractal Course (DE) (1.3)	EC	1	0	0	1
3	6	ECD405	Minor Project	EC	0	0	6	3
3	6		OC - II	Others	3	0	0	3
Sub Total					15	0	12	20
Total					33	0	19	42

Seventh/ Eighth Semester

Year	Semester		Course Name	Type	L	T	P	Credits
4	7		OPEN / MOOC course	Others	3	0	0	3
4	7		DE	EC	3	0	2	4
4	7	ECEXX	DE	EC	3	0	0	3
4	7	ECD406	Major Project Phase-I	EC	0	0	2	2
			OR					
4	7	ECD406	Major Project Phase-I	EC	0	0	2	2
4	7	ECD407	Internship	EC	0	0	0	6
			Sub Total		9	0	4/2	12/8
4	8	ECD407	Internship		0	0	6	6
4	8	ECD408	Major Project Phase-II	EC	0	0	6	6
			OR					
4	8		OPEN / MOOC course	Others	3	0	0	3
4	8		DE	EC	3	0	2	4
4	8	ECEXX	DE	EC	3	0	0	3
4	8	ECD408	Major Project Phase-II	EC	0	0	6	6
			Total		9	0	12/8	12/16

GRAND TOTAL	154

Sem	Credits	No of Subjects
1	**23**	**06**
2	**23**	**06**
3	**21**	**06**
4	**22**	**06**
5	**21**	**06**
6	**20**	**06**
7&8	**24**	**3 + Project**
TOTAL	**154**	

Type	Credits
Other	**09**
BS	**13**
CSE	**19**
DE	29
DC	84
TOTAL	154

Proposed Elective Bucket

Course Code	Course Name	L	T	P	Credits
ECE 454	Process Control Systems	3	0	2	4
ECE 455	IC system Design	3	0	1	4
ECE 456	RTOS	3	0	2	4
ECE 457	Data Analytics / Cloud Computing	3	0	2	4
ECE 458	Data Analytics / Cloud Computing	3	0	2	4
ECE 459	ML in IoT	3	0	2	4
ECE 460	Industrial IoT	3	0	0	3
ECE 461	Fractal Course – I (1.1, 1.2, 1.3)	3	0	0	3
ECL415	Digital Image Processing	3	0	2	4
ECL421	Pattern Recognition	3	0	2	4
ECL416	Image and Video Communication	3	0	2	4
ECL411	Advanced Digital Signal Processing – Wavelets and Multirate	3	0	2	4
ECL414	Adaptive Signal Processing	3	0	2	4
ECL439	Coding Techniques	3	0	2	4
ECL432	Wireless Sensor Network	3	0	2	4
ECL439	Biomedical Signal Processing	3	0	2	4
ECL314	Devices and Modelling	3	0	2	4
ECL410	Computer Communication Network	3	0	2	4
ECL437	Statistical Signal Analysis	3	0	2	4
ECL 441	Computer Vision	3	0	2	4
ECL 442	Robotics	3	0	2	4
ECL 311	Wireless Communication	3	0	2	4
CSL 421	Artificial Intelligence	3	0	2	4
CSL 422	Machine Learning	3	0	2	4