

National Institute of Technology, Jamshedpur

Department of Electronics & Communication Engineering

Course Structure for M.Tech in Embedded Systems Engineering

SEMESTER I

Subject Code	Subject	L	T	P	Cr
EC4126	Analog VLSI Design	3	0	2	4
EC4127	Embedded Systems	4	0	0	4
EC4128	Microcontrollers for Embedded Systems Design	3	0	2	4
EC4129	Real Time Embedded Systems	4	0	0	4
EC41XX	Elective-1	4	0	0	4
EC4130	VLSI Design Laboratory	0	0	2	2
Total					22

Elective-1

- 1. Computational Intelligence (EC4106)**
2. VLSI Technology (EC4131)
3. Embedded Computing system (EC4132)
4. Adaptive Signal Processing (EC4133)

SEMESTER II

Subject Code	Subject	L	T	P	Cr
EC4234	Digital VLSI Design	3	0	2	4
EC4235	VLSI Architecture	4	0	0	4
EC4236	Network Embedded Applications	4	0	0	4
EC4237	Software for Embedded Systems	3	0	2	4
EC42XX	Elective-2	4	0	0	4
EC4238	Embedded Computing System Laboratory	0	0	2	2
Total					22

Elective-2

1. **Architecture for Digital Signal Processing (EC4215)**
2. MEMS & NEMS (EC4239)
3. Hardware Software Co-Design (EC4240)
4. VLSI Testing & Testability (EC4241)

SEMESTER III

Code	Subject	L	T	P	Cr
EC4342	Thesis-1	0	0	0	16
EC4343	Seminar	0	0	0	4
Total					20

SEMESTER IV

Code	Subject	L	T	P	Cr
EC4444	Thesis-2	0	0	0	20
Total					20

Total Credits: 84

Note: Bold items are common Elective in both the streams (Embedded Systems & Communication Systems)