Curriculum

Scheme & Syllabi

for M.Tech Course in

EMBEDDED SYSTEMS

of

Kerala Technological University

Cluster No 09 : Calicut

(With Effect from the Academic Year 2015 onwards)

Scheme of M.Tech. Programme in EMBEDDED SYSTEMS

(With Effect from the Academic Year 2015 onwards)

Semester 1 (Credits 23)

Sl No	Course Code	Name of the Subject	Hours / Week			Internal Marks	End Semester Exam		Total Marks	Credits
			L	T	P		Marks	Dur (h)		
1.	09EC6611	System Design using Embedded Processors	3	1	0	40	60	3	100	4
2.	09EC6621	Advanced Engineering Mathematics	3	1	0	40	60	3	100	4
3.	09EC6631	Embedded Programming	3	1	0	40	60	3	100	4
4.	09EC6641	Advanced Digital System Design	3	0	0	40	60	3	100	3
5.	09EC66x5	Elective I	3	0	0	40	60	3	100	3
6.	09EC6651	Research Methodology	0	2	0	100	0	0	100	2
7.	09EC6661	Seminar	0	0	2	100	0	0	100	2
8.	09EC6671	System Design using Embedded Processors - Laboratory	0	0	2	100	0	0	100	1
		Total	**16**	**3**	**4**	**500**	**300**		**800**	**23**
		Elective I					-			
1.	09EC6615	Electronic System Design								
2.	09EC6625	Wireless Sensor Networks								
3.	09EC6635	Advanced Data Communications								
4.	09EC6645	Software Engineering								

Semester 2 (Credits 19)

Sl No	Course Code	Name of the Subject	Hours / Week			Internal Marks	End Semester Exam		Total Marks	Credits
			L	T	P		Marks	Dur (h)		
1.	09EC6612	Embedded OS & RTOS	3	1	0	40	60	3	100	4
2.	09EC6622	Design of Digital Signal Processing Systems	3	0	0	40	60	3	100	3
3.	09EC6632	Product Design and Quality Management	3	0	0	40	60	3	100	3
4.	09EC66x6	Elective - II	3	0	0	40	60	3	100	3
5.	09EC66x6	Elective - III	3	0	0	40	60	3	100	3
6.	09EC6662	Mini Project	0	0	4	100	0	0	100	2
7.	09EC6672	Design of Digital Signal Processing Systems - Laboratory	0	0	2	100	0	0	100	1
		Total	**15**	**0**	**6**	**400**	**300**		**700**	**19**
		Elective II & III								
1.	09EC6616	Internet of Things **(**IoT)								
2.	09EC6626	Multimedia Compression Techniques								
3.	09EC6636	Information Security								
4.	09EC6646	ASIC & SOC								
5.	09EC6656	High Speed Digital Design								
6.	09EC6666	Embedded Applications in Power Conversion								
7.	09EC6676	Advanced Networking Technologies								
8.	09EC6686	Electronic Packaging								

L – Lecture, T- Tutorial, P – Practical

Semester 3 (Credits 14)

Sl No	Course Code	Name of the Subject	Hours / Week			Internal Marks		End Semester Exam		Total Marks	Credits
			L	T	P			Marks	Dur (h)		
1.	09EC76x7	Elective IV	3	0	0	40		60	3	100	3
2.	09EC76x7	Elective V	3	0	0	40		60	3	100	3
3.	09EC7663	Seminar	0	0	2	100		0	0	100	2
4.	09EC7683	Master Research Project Phase I	0	0	12	Guide	EC	0	0		6
						20	30			50	
		Total	**6**	**0**	**14**	**230**		**120**		**350**	**14**
		Elective IV & V									
1.	09EC7617	Wireless Technologies									
2.	09EC7627	Automotive Electronics									
3.	09EC7637	Mixed Signal System Design									
4.	09EC7647	Robotics and Machine Vision									
5.	09EC7657	Electronic Instrumentation Design									
6.	09EC7667	Advanced Digital Communications									
7.	09EC7677	VLSI Signal Processing									
8.	09EC7687	Cloud Computing									

Semester 4 (Credits 12)

Sl No	Course Code	Name of the Subject	Hours / Week			Internal Marks			End Semester Exam		Total Marks	Credits
			L	T	P				Marks	Dur (h)		
1.	09EC7684	Master Research Project Phase II	0	0	21	Guide	Ext expert	EC	0	0		12
						30	30	40			100	
		Total	**0**	**0**	**21**	**100**			**0**		**100**	**12**
		Grand Total				**1350**			**600**		**1950**	**68**

EC-Evaluation Committee, L – Lecture, T- Tutorial, P – Practical,

Teaching assistance of 6 hours/week in all semesters for GATE students