Scheme & Syllabus
for
Master of Technology

(Electronics & Communication Engineering)
w.e.f.
2018-19
(CBCS)

Department of Electronics & Communication Engg.
Guru Jambheshwar University of Sc. & Tech.
HISAR

Department of Electronics & Communication Engineering

Semester	Total Credits
I.	26
II.	22
III.	14
IV.	8
Grand Total	70 Credits

- ➢ 04 Contact Hrs per week are required for each theory subject including electives. However 03 Contact Hrs per week are required for Open Electives Subjects.
- ➢ 04 Contact Hrs per week are required for each lab.
- ➢ 02 Hrs per student per week teaching load will be assigned for thesis work for part I and Part II.
- ➢ 02 Contact Hrs per week are required for each Audit Course.

First Semester

List of Compulsory/Core Courses

Sr. No.	Course	Code	Credit	Semester
1	IC Fabrication Technology	ECL-712	4	1st
2	Digital VLSI Design	ECL-713	4	1st
3	Hardware Description Languages	ECL-714	4	1st
4	Embedded System Design	ECL-715	4	1st
5	Signal Processing	ECL-719	4	1st
6	Digital VLSI Design Lab	ECP-716	2	1st
7	HDL Lab	ECP-717	2	1st
8	Embedded System Design Lab	ECP-718	2	1st
9	Audit Course 1(Any One)		0	1st
	Total Credits		**26**	

List of Audit Courses 1:

Sr.No	Course	Code	To be taught by Department
1	English for Research paper writing	AC01	CMT
2	Disaster Management	AC02	ESE
3	Value Education	AC04	Religious Study
4	Stress Management by Yoga	AC07	Physiotherapy

Second Semester

List of Compulsory/Core Courses

Sr. No.	Course	Code	Credit	Semester
1	Mobile Communication	ECL-721	4	2nd
2	Advanced Optical Communication Systems	ECL-722	4	2nd
3	Analog IC Design	ECL-723	4	2nd
4	Adaptive Signal Processing	ECL-724	4	2nd
5	Elective-I		4	2nd
6	Adaptive Signal Processing Lab	ECP-726	2	2nd
7	Audit Course 2 (Any One)		0	2nd
		Total Credits	22	

List of Electives-I: The student can opt any one elective from the following list.

Sr. No.	Course	Code
1	Algorithms for VLSI Design Automation	ECL-725(i)
2	Advanced Computer Architecture	ECL-725(ii)
3	MEMS and IC Integration	ECL-725(iii)

List of Audit Courses 2:

Sr.No	Course	Code	To be taught by Department
1	Sanskrit for Technical Knowledge	AC03	Religious Study
2	Constitution of India	AC05	Faculty of Law
3	Pedagogy Studies	AC06	HRDC
4	Personality development through Life Enlightenment Skills	AC08	Applied Psychology

Third Semester

List of Compulsory/Core Courses

Sr. No.	Course	Code	Credit	Semester
1	Elective-II		3	3rd
2	Elective-III (Open Elective)		3	3rd
3	Advance VLSI Design Lab	ECP-732	2	3rd
4	Communication System Design Lab	ECP-733	2	3rd
5	Thesis – Part I	ECD-730	3	3rd
6	Seminar	ECD-735	1	3rd
		Total Credits	14	

List of Electives-II: The student can opt any one elective from the following list.

Sr. No.	Course	Code
1	Mixed-Signal Design	ECL-731(i)
2	RF Micro-electronics	ECL-731 (ii)
3	VLSI Testing And Testability	ECL-731 (iii)
4	Memory System Design	ECL-731 (iv)
5	Low Power VLSI Design	ECL-731 (v)
6	Embedded System for Wireless & Mobile Communication	ECL-731 (vi)
7	Hardware & Software Co-Design	ECL-731 (vii)
8	Advanced Digital Communication	ECL-731 (viii)
9	Satellite Communication	ECL-731 (ix)

List of Electives-III (Open Elective): The student can opt any one Open elective from the following list. If the no. of students in a particular open elective is less than 15, it will not be offered.

Sr. No.	Course	Code
1	Business Analytics	3OE01
2	Industrial Safety	3OE02
3	Operations Research	3OE03
4	Cost Management of Engineering Projects	3OE04
5	Composite Materials	30E05
6	Waste to Energy	3OE06
7.	Advancements in Communication System	3OE07
8.	Introduction to soft computing Techniques	3OE08
9.	Advanced Printing Technology	3OE09
10.	Computer Aided Design & Manufacturing	3OE10
11.	Food Safety and Quality Assurance	3OE11
12.		3OE12

Fourth Semester:

Sr. No.	Title of course	Code	Core/Elective	Credit	L
1	Thesis – Part II	ECD-740	Core	8	4