1. M. TECH. (ICT) - 4 SEMESTERS

SEMESTER I

(Software Engineering / Intelligent System)

S. No.	Courses	L	T	P	Credits
1	Object-Oriented Programming	3	0	0	3
2	Advanced Computer Architecture	3	0	0	3
3	Technical Communication	2	0	0	2
4	Information Security	3	0	0	3
5	***Data Base Management System***	***3***	***0***	***0***	***3***
6	Advanced Computer Networks	3	0	0	3
7	Artificial Intelligence	3	0	0	3
8	Object-Oriented Programming Lab	0	0	4	2
9	Advanced Computer Networks Lab	0	0	4	2
	Total	**20**	**0**	**8**	**24**

(Wireless Communication and Networks / VLSI Design)

S. No.	Courses	L	T	P	Credits
1	Object-Oriented Programming	3	0	0	3
2	Advanced Computer Architecture	3	0	0	3
3	Technical Communication	2	0	0	2
3	Information Security	3	0	0	3
4	***Digital Communication System***	***3***	***0***	***0***	***3***
5	Advanced Computer Networks	3	0	0	3
6	Artificial Intelligence	3	0	0	3
7	Object-Oriented Programming Lab	0	0	4	2
8	Advanced Computer Networks Lab	0	0	4	2
	Total	**20**	**0**	**8**	**24**

SEMESTER – II

S. No.	Courses	L	T	P	Credits
1	Electives of Main Specialization (04 Courses)	12	0	0	12
2	Elective of Other #Specialization (01 Course)	3	0	0	3
3	Role and Realm of Values	2	0	0	2
4	Seminar	0	0	4	2
5	Lab-I*	0	0	4	2
6	Lab-II*	0	0	4	2

7	General Proficiency	-	-	-	2
	Total	**17**	**0**	**12**	**25**

It refers to any one of the remaining three specializations offered by the school of ICT.
* Details of lab-I and Lab-II for different specializations are given below.

SEMESTER – III

S. No.	Courses	L	T	P	Credits
1	Electives of Main Specialization (04 Courses)	12	0	0	12
2	Elective of Other Specialization (01 Course)	3	0	0	3
3	Buddhist Ethics and Civilizational Harmony	2	0	0	2
4	Research Methodologies	3	0	0	3
5	Dissertation-Part I	1**	0	4	3
	Total	**21**	**0**	**4**	**23**

** *This will not be a usual lecture session, but this is one to one interaction of each individual student with the concerned faculty member.*

SEMESTER – IV

S. No.	Courses	L	T	P	Credits
1	Dissertation-Part II	0	0	38	19
2	General Proficiency	-	-	-	2
	Total	**0**	**0**	**38**	**21**

Grand Total of Credits = 93

2. INTEGRATED M. TECH. (ICT) -7 SEMESTERS

SEMESTER – I

S. No.	Courses	L	T	P	Credits
1	Engineering Mathematics	3	0	0	3
2	Basic Electronics	3	0	0	3
3	Fundamentals of Electrical Engineering	3	0	0	3
4	Discrete Structure	3	2	0	4
5	Problem Solving using Java	3	2	0	4
6	Technical Communication	2	0	0	2
7	Basic Electronics Lab	0	0	4	2
8	Problem Solving using Java Lab	0	0	4	2
	Total	**17**	**4**	**8**	**23**

SEMESTER – II

S. No.	Courses	L	T	P	Credits
1	Internet Technology	2	0	0	2
2	Data Structures & Algorithms	3	2	0	4
3	Analog and Digital Communication	3	2	0	4
4	Computer Organization	3	0	0	3
5	Digital Electronics	2	0	0	2
6	Logic Design	2	0	0	2
7	Linear Circuits	2	0	0	2
8	Data Structures & Algorithms Lab	0	0	4	2
9	Logic Design Lab	0	0	4	2
10	General Proficiency	-	-	-	2
	Total	**17**	**4**	**8**	**25**

SEMESTER – III

S. No.	Courses	L	T	P	Credits
1	Operating System	3	0	0	3
2	Data Base Management System	3	2	0	4
3	Computer Network	3	0	0	3
4	Software Engineering	3	0	0	3
5	Information Security	3	0	0	3
6	Artificial Intelligence	3	0	0	3
7	Data Base Management System Lab	0	0	4	2
8	Computer Network Lab	0	0	4	2

	Total	**18**	**2**	**8**	**23**

SEMESTER – IV

(For specialization in Wireless Communication and Networks / VLSI Design)

S. No.	Courses	L	T	P	Credits
1	Electromagnetic Theory	3	0	0	3
2	Information Theory	3	2	0	4
3	Digital Signal Processing	3	2	0	4
4	Automatic Control System	3	0	0	3
5	Introduction to VLSI Systems	3	0	0	3
6	Role and Realm of Values	2	0	0	2
7	Digital Signal Processing Lab	0	0	4	2
8	Introduction to VLSI Systems Lab	0	0	4	2
9	General Proficiency	-	-	-	2
	Total	**17**	**4**	**8**	**25**

(For specialization in Software Engineering / Intelligent System)

S. No.	Courses	L	T	P	Credits
1	Advanced Java Programming	3	2	0	4
2	Data Mining and Warehousing	3	0	0	3
3	Design and Analysis of Algorithms	3	0	0	3
4	Object-Oriented Analysis and Design	3	2	0	4
5	Compiler Design	3	0	0	3
6	Role and Realm of Values	2	0	0	2
7	Advanced Java Programming Lab	0	0	4	2
8	Compiler Design Lab	0	0	4	2
9	General Proficiency	-	-	--	2
	Total	**17**	**4**	**8**	**25**

SEMESTER – V

S. No.	Courses	L	T	P	Credits
1	Electives of Main Specialization (04 Courses)	12	0	0	12
2	Electives of Other # Specialization (01 Course)	3	0	0	3
3	Buddhist Ethics and Civilizational Harmony	2	0	0	2
4	Seminar	0	0	4	2

5	Lab-I*	0	0	4	2
6	Lab-II*	0	0	4	2
	Total	**17**	**0**	**12**	**23**

It refers to any one of the remaining three specializations offered by school of ICT.
* Details of lab-I and Lab-II for different specializations are given below.

SEMESTER – VI

S. No.	Courses	L	T	P	Credits
1	Electives of Main Specialization (04 Courses)	12	0	0	12
2	Elective of Other Specialization (01 Course)	3	0	0	3
3	Research Methodologies	3	0	0	3
4	Dissertation-Part I	1**	0	4	3
5	General Proficiency	-	-	-	2
	Total	**19**	**0**	**4**	**23**

** *This will not be a usual lecture session, but this is one to one interaction of each individual student with the concerned faculty member.*

SEMESTER – VII

S. No.	Courses	L	T	P	Credits
1	Dissertation-Part II	0	0	38	19
	Total	**0**	**0**	**38**	**19**

Grand Total of Credits = 161

LABS

SOFTWARE ENGINEERING	
Lab-I	Open Source Software Systems
Lab-II	Software Testing and Tools
INTELLIGENT SYSTEM	
Lab-I	Logic and AI Programming Languages
Lab-II	Robotics
WIRELESS COMMUNICATION AND NETWORKS	
Lab-I	Networking Protocols

Lab-II	QoS in Networks
VLSI DESIGN	
Lab-I	Digital VLSI Design
Lab-II	HDL and Design of Digital Systems

3. TENTATIVE LIST OF ELECTIVES

1. SOFTWARE ENGINEERING

S. No.	Courses	L	T	P	Credits
1	Software Project Management	3	0	0	3
2	Object-Oriented Software Engineering	3	0	0	3
3	Open Source Software Systems	3	0	0	3
4	Component-Based Software Engineering	3	0	0	3
5	Software Quality Assurance and Engineering	3	0	0	3
6	Software Testing and Tools	3	0	0	3
7	Aspect-Oriented Software Engineering	3	0	0	3
8	Software Reusability	3	0	0	3
9	Software Re-Engineering	3	0	0	3
10	Software Architecture and Design	3	0	0	3
11	Software Measurement and Estimation	3	0	0	3
12	Software Reliability and Fault Tolerant Systems	3	0	0	3
13	Software Maintenance	3	0	0	3
14	Software Agents	3	0	0	3

2. INTELLIGENT SYSTEM

S. No.	Courses	L	T	P	Credits
1	Logic and AI Programming Languages	3	0	0	3
2	Natural Language Processing	3	0	0	3
3	Soft Computing	3	0	0	3
4	Machine Translation and Learning	3	0	0	3
5	Speech Processing	3	0	0	3
6	Robotics	3	0	0	3
7	Neural Network	3	0	0	3
8	Pattern Matching	3	0	0	3
9	Expert System	3	0	0	3
10	Discourse Analysis and Natural Language Generation	3	0	0	3
11	Intelligent Information Retrieval	3	0	0	3
12	Data Mining in AI	3	0	0	3

13	Knowledge Engineering	3	0	0	3

3.

4. WIRELESS COMMUNICATION AND NETWORKS

S. No.	Courses	L	T	P	Credits
1	Networking Protocols	3	0	0	3
2	Wireless Telecom Networks	3	0	0	3
3	QoS in Networks	3	0	0	3
4	Ad-Hoc Wireless Networks	3	0	0	3
5	Broadband Wireless Networks	3	0	0	3
6	Security in Wireless Networks	3	0	0	3
7	Microwave Techniques	3	0	0	3
8	Advanced RF Engineering	3	0	0	3
9	Smart Antenna System	3	0	0	3
10	Sensor Network	3	0	0	3
11	Mobile Computing	3	0	0	3
12	Distributed systems	3	0	0	3
13	Network Programming	3	0	0	3
14	Discrete Simulation and Modeling	3	0	0	3

5. VLSI DESIGN

S. No.	Courses	L	T	P	Credits
1	VLSI Technology	3	0	0	3
2	Digital VLSI Design	3	0	0	3
3	Analog Integrated Circuits	3	0	0	3
4	HDL and Design of Digital Systems	3	0	0	3
5	VLSI Physical Design Tools	3	0	0	3
6	Embedded System Design	3	0	0	3
7	Test and Verification of VLSI circuits	3	0	0	3
8	ASIC/SOC CAD Tools	3	0	0	3
9	Advanced HDL (prototyping with FPGA)	3	0	0	3
10	Advanced Digital VLSI Design	3	0	0	3
11	Advanced Analog VLSI Design	3	0	0	3
12	RF Design	3	0	0	3

13	Design of Semiconductor Memories	3	0	0	3
14	VLSI Algorithms	3	0	0	3