GITAM UNIVERSITY

(Declared as Deemed to be University U/S 3 of UGC Act, 1956)

Scheme of Instruction
OF

M.Tech. (Digital Systems & Signal Processing)

(w.e.f 2009 -10 admitted batch)

Gandhi Nagar Campus, Rushikonda
VISAKHAPATNAM – 530 045
Website: www.gitam.edu

M.Tech. (Digital Systems and Signal Processing)
Programme Code: EPRDS 200801

I Semester

Course Code	Name of the Course	Credits	Hours per Week	Continuous Evaluation	Semester End Examination	Total Marks
EPRDS101	Digital Logic Design	4	4L	40	60	100
EPRDS102	Digital IC Design	4	4L	40	60	100
EPRDS103	Digital Signal Processing	4	4L	40	60	100
EPRDS104	Microcontrollers and Applications	4	4L	40	60	100
EPRDS121 EPRDS122 EPRDS123 EPRDS124	Elective-I	4	4L	40	60	100
EPRDS111	Technical Seminar I	2	2L	100	-	100
EPRDS112	Digital Systems Laboratory	2	6P	100	-	100
	Total	24	25	400	300	700

Elective-1

EPRDS121 : Wireless Communications and Networks
EPRDS122 : DSP Processors and Architectures
EPRDS123 : Digital Signal Compression
EPRDS124 : Advanced Computer Architecture.

II semester

Course Code	Name of the Course	Credits	Hours per Week	Continuous Evaluation	Semester End Examination	Total Marks
EPRDS201	ASIC Design	4	4L	40	60	100
EPRDS202	Image and Video Processing	4	4L	40	60	100
EPRDS203	Advanced Digital Signal Processing	4	4L	40	60	100
EPRDS204	Embedded Systems	4	4L	40	60	100
EPRDS231 EPRDS232 EPRDS233 EPRDS234	Elective –II	4	4L	40	60	100
EPRDS211	Technical Seminar-II	2	2L	100	--	100
EPRDS212	Advanced Digital Systems Laboratory	2	6P	100	-	100
EPRDS213	Comprehensive Viva Voce	2	--	100	--	100
	Total	26	25	500	300	800

Elective-II

EPRDS231: Operating Systems
EPRDS232: Speech and Audio Processing
EPRDS233: Communication Networks
EPRDS234: Embedded Software Design
EPRDS235: Advanced Digital IC Design

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III Semester

Course Code	Name of the Course	Credits	Continuous Evaluation	Semester End Examination	Total Marks
EPRDS311	Project Work	8	50	50	100
	Total	8	50	50	100

IV Semester

Course Code	Name of the Course	Credits	Continuous Evaluation	Semester End Examination	Total Marks
EPRDS411	Project work	16	50	50	100
	Total	16	50	50	100

Total Credits : 74

M.Tech (Digital Systems and Signal Processing)

In this first semester, the student learns about Digital Logic Design, Digital VLSI design, DSP and Digital Systems lab which involves EDA tools, VHDL, MATLAB. In the second semester, the student will learn about Embedded Systems, Analog Digital Signal Processing, Advanced Digital Systems Lab. In the third and fourth semesters, he/she has to undergoes a project, which is industry oriented. The response from the students is very good and encouraging. Number of students admitted during academic year 2008-09 is 29 and in 2009-10 is 32. The program is first of its kind to offer a combination of two different specializations of industry relevance.