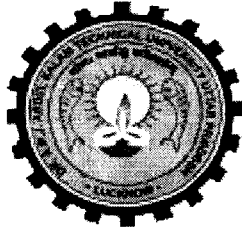


**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY,
UTTAR PRADESH, LUCKNOW**



Syllabus

For

M.Tech.

VLSI DESIGN

**(VLSI & EMBEDDED SYSTEM,
ELECTRONICS DESIGN & TECHNOLOGY,
ELECTRONICS CIRCUITS & SYSTEM DESIGN)**

(Effective from the Session: 2016-17)

Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

Study and Evaluation Scheme M. Tech. in VLSI DESIGN

(Effective from Session 2016-17)

First Year, Semester-I

Sr. No.	Course Code	Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1.	MTVL101	Low Power VLSI Design	3	0	0	3	20	10	70	-	-	100
2.	MTVL102	FPGA Architecture & Applications	3	0	0	3	20	10	70	-	-	100
3.	MTVL01?	Departmental Elective I	3	0	0	3	20	10	70	-	-	100
4.	MTVL02?	Departmental Elective II	3	0	0	3	20	10	70	-	-	100
5.	MTCC10	Research Process & Methodology	3	0	0	3	20	10	70	-	-	100
6.	MTVL151	VLSI Circuit Design Lab	0	0	3	2	-	-	-	20	30	50
7.	MTVL152	FPGA Design Lab	0	0	3	1	-	-	-	20	30	50
		Total	15	0	6	18						600

MTCC101

First Year, Semester-II

Sr. No.	Course Code	Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1.	MTVL201	Hardware Description Languages	3	0	0	3	20	10	70	-	-	100
2.	MTVL202	VLSI DSP Architectures	3	0	0	3	20	10	70	-	-	100
3.	MTVL03?	Departmental Elective III	3	0	0	3	20	10	70	-	-	100
4.	MTVL04?	Departmental Elective IV	3	0	0	3	20	10	70	-	-	100
5.	MTVL05?	Departmental Elective V	3	0	0	3	20	10	70	-	-	100
6.	MTVL251	Advanced VLSI Design Lab	0	0	3	2	-	-	-	20	30	50
7.	MTVL252	Seminar I	0	0	3	1	-	-	-	50		50
		Total	15		6	18						600

Second Year, Semester-III

Sr. No.	Course Code	Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1.	MTVL351	Seminar II ✓	0	0	6	3	-	-	-	100	-	100
2.	MTVL352	Dissertation ✓	0	0	30	15	-	-	-	200	300	500
		Total			36	18						600

Second Year, Semester-IV

S. No.	Course Code	Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1.	MTVL451	Dissertation ✓	0	0	36	18	-	-	-	200	400	600
		Total			36	18						600

Departmental Elective I

- MTVL 011: SOC Design
- MTVL 012: Designing with ASICS
- MTVL 013: Analog VLSI Design ✓

Departmental Elective II

- MTVL 021: Advanced Embedded Systems ✓
- MTVL 022: Testing of VLSI Circuits ✓
- MTVL 023: Digital IC Design

Departmental Elective III

- MTVL 031: Advanced Microcontroller & Systems
- MTVL 032: VLSI based SignalProcessing Architectures
- MTVL 033: Analog IC Design

Departmental Elective IV

- MTVL 041: Real Time Operating Systems
- MTVL 042: VLSI Testing & Testability
- MTVL 043: Memory Technologies

Departmental Elective V

- MTVL 051: Algorithms for VLSI Design Automation
- MTVL 052: MEMS & Micro Sensor Design
- MTVL 053: Embedded System for Wireless Communication