



Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for M. Tech in Microelectronics and VLSI Technology(MVD)

(Applicable from the academic session 2019-2020)

Credit of M.Tech in Microelectronics & VLSI Technology

Semester-1

Sl.No	Code	Paper Name	Contact hours/week				Credit points
			L	T	P	Marks	
1	PGMVD-101	Advanced Engineering Mathematics	4	0	0	100	4
2	PGMVD-102	Physics of VLSI Devices	4	0	0	100	4
3	PGMVD-103	Processor Architecture & SOC Design	4	0	0	100	4
4	PGMVD-104	Microelectronics Technology	4	0	0	100	4
5	PGMVD-105	Digital VLSI Circuit and Systems	4	0	0	100	4
		Total of Theory	20	0	0	500	20
6	PGMVD-191	Microelectronics Lab-I (Fabrication Techniques)	0	0	3	100	2
7	PGMVD-192	VLSI Design Lab-I	0	0	3	100	2
8	PGMVD-193	Seminar _ Review of current Research papers	0	0	0	100	2
		Total of Practical	0	0	6	300	6
		Total	20	0	6	800	26



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Semester-2

Sl.No	Code	Paper Name	Contact hours/week				Credit points
			L	T	P	Marks	
1	PGMVD-201	Analog VLSI Circuits & Systems	4	0	0	100	4
2	PGMVD-202	Testing & Verification of VLSI Systems	4	0	0	100	4
3	PGMVD-203 (Elective)	A: Digital Signal Processing and Application (Elective) B. Advanced Communication System	4	0	0	100	4
4	PGMVD-204 (Elective)	A: Advanced Micro & Nano Devices B: Design Concepts in Micro & Nano	4	0	0	100	4
5	PGMVD-205	Project Management	4	0	0	100	4
		Total of Theory	20	0	0	500	20
6	PGMVD-291	Micro Electronics Lab-II (Characterisation)	0	0	3	100	2
7	PGMVD-292	VLSI Design Lab-II	0	0	3	100	2
8	PGMVD-293	Term paper leading to thesis	0	0	0	100	2
		Total of Practical	0	0	6	300	6
		Total	20	0	6	800	26



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Semester 3

Sl.No	Code	Paper Name	Contact hours/week			Credit points	
			L	T	P	Marks	
1	PGMVDE-301 (Elective)	A:Operating System B:Computer Architecture C:Algorithm	4	0	0	100	4
		Total of Theory			4		
2	PGMVD-391	Project part-I	0	0	24	100	4
3	PGMVD-392	Project Defence				100	4
4	PGMVD-393	Group Project (System Design)			6	100	4
		Total of Practical			30	300	
		Total	4	0	34	800	16



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Semester 4

Sl.No	Code	Paper Name	Contact hours/week				Credit points
			L	T	P	Marks	
1	PGMVD-491	Project Part -II	0	0	24	100	10
2	PGMVD-492	Comprehensive viva -voce				100	4
		Total	0	0	24	200	14