ELECTRICAL ENGINEERING (DD in MicroElectronics)

COURSE CURRICULUM FOR THE NEW PROGRAMME (DD- MICRO.) w.e.f. 2007 BATCH										
Semester I						**Semester – II**				
Course code	**Course Name**	**Credit Structure**				**Course Code**	**Course Name**	**Credit Structure**		
		L	**T**	**P**	**C**			**L**	**T**	**P**	**C**
CS 101	Computer Programming & Utilization	2	0	2	6	CH 103	Chemistry	2	1	0	6
EE 111	Introduction to Electrical Systems (DIC-I)	3	0	0	6	MA 106 And MA 108	Linear Algebra and Ordinary Differential Equations I	3	1	0	8
MA 105	Calculus	3	1	0	8						
PH 103	Electricity and Magnetism	2	1	0	6	EE 112	Introduction to Electronics (DIC-II)	3	0	0	6
ME 113	Workshop Practice	0	1	3	4	IC 102	Data Analysis and Interpretation	2	1	0	6
PH 117	Physics Lab	0	0	3	3	CH 117	Chemistry Lab.	0	0	3	3
NC 101#	National Cadet Corps (NCC)	0	0	0	P/NP	ME 119	Engineering Graphics and Drawing	0	1	3	5
NO 101#	National Sports Organization (NSS)	0	0	0	P/NP	NC 102#	National Cadet Corps (NCC)	0	0	0	P/NP
NS 101#	National Service Scheme (NSS)	0	0	0	P/NP	NO 102#	National Sports Organization (NSS)	0	0	0	P/NP
						NS 102#	National Service Scheme (NSS)	0	0	0	P/NP
					33						**34**
# Any one of these three P/NP courses						# Any one of these three P/NP courses					

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Semester III						Semester –IV					
Course code	**Course Name**	**Credit Structure**				**Course Code**	**Course Name**	**Credit Structure**			
		L	**T**	**P**	**C**			**L**	**T**	**P**	**C**
MA 205 MA 207	Mathematics II (Complex Analysis + DE II)	3 3	1 1	0 0	4 4	EE 210	Signals and Systems	2	1	0	6
HS 101	Economics	3	0	0	6	EE 204	Analog Circuits	2	1	0	6
EE 225	Network Theory	2	1	0	6	EE 222	Electrical Machines and Power Electronics	2	1	0	6
EE 207	Electronic Devices	2	1	0	6	EE 224	Digital Systems	2	1	0	6
EE 236	Electronic Devices Lab	0	0	3	3	EE 230	Analog Lab	0	0	3	3
IC 211	Measurements Lab	0	0.5	3	4	EE 214	Digital Circuits Lab	0	0	3	3
						EE 234	Machines Lab	0	0	4	4
							Specialization Elective - I	3	0	0	6
					33						**40**

Electrical Engineering COURSE CURRICULUM FOR THE NEW PROGRAMME (DD-MICRO.) w.e.f. 2007 BATCH										

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COURSE CURRICULUM FOR THE NEW PROGRAMME (DD-MICRO.) w.e.f. 2007 BATCH

Semester V						Semester –VI					
Course code	Course Name	Credit Structure				Course Code	Course Name	Credit Structure			
		L	T	P	C			L	T	P	C
EE 309	Microprocessors	2	0	2	6	EE 302	Control Systems	2	1	0	6
HS 301/ HS 303/ HS 305/ HS 307	Philosophy/ Psychology/ Literature/ Sociology	3	0	0	6	CS 303	Digital Signal Processing	2	1	0	6
EE 308	Communication Systems	2	1	0	6	EE 328	Digital Communications	2	1	0	6
EE 301	EM Waves	2	1	0	6	EE 620	Physics of Transistors	2	1	0	6
EE 325	Probability and Random Processes	2	1	0	6	EE 340	Communications Lab	0	0	3	3
	Institute Elective – I	3	0	0	6	EE 324	Control Systems Lab	0	0	3	3
						CS 399	Digital Signal Processing Lab	0	0.5	3	4
							Specialization Elective II	3	0	0	6
					36						40

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Semester VII						Semester –VIII					
Course code	**Course Name**	**Credit Structure**				**Course Code**	**Course Name**	**Credit Structure**			
		L	**T**	**P**	**C**			**L**	**T**	**P**	**C**
	Specialization Elective III	3	0	0	6	EE 590	Foundations of Project	1.5	0	3	6
	Specialization Elective IV	3	0	0	6	EE 454	Microelectronics Technology Lab	1	0	4	6
	Specialization Elective V	3	0	0	6		Specialization Elective VI	3	0	0	6
EE 445	Digital VLSI Design	3	0	0	6		Specialization Elective VII	3	0	0	6
EE 447	Microelectronics Design Lab	1	0	4	6		Specialization Elective VIII	3	0	0	6
EE 449	VLSI Technology	3	0	0	6		Institute Elective II	3	0	0	6
	Supervised Research Exposition	3	0	0	6						
					42						36

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Semester IX						Semester – X					
Course code	**Course Name**	**Credit Structure**				**Course Code**	**Course Name**	**Credit Structure**			
		L	**T**	**P**	**C**			**L**	**T**	**P**	**C**
ES 200 And HS 200	Environmental Studies: Science and Engg And Environmental Studies	3 3	0 0	0 0	3 3		Specialization Elective IX	3	0	0	6
EE 593	Dual Degree Project Stage I				36	EE 594	Dual Degree Project Stage II				36
					42						42

ELECTRICAL ENGINEERING

Specialization Elective List For DD-Microelectronics

1. Hardware Description Language (EE721)
2. VLSI System Design (EE 404)
3. Embedded System Design (EE712)
4. Analog VLSI Design (EE618)
5. RF VLSI Design (EE 406)
6. Mixed-Signal VLSI Design (EE 410)
7. Nano Electronics (EE724)
8. MEMS Design and Technology (EE 412)
9. Introduction to MEMS (EE701)
10. Fundamentals of CAD (EE 414)
11. Simulation of Circuits and Devices (EE634)
12. Advanced Network Analysis (EE 442)
13. Computing Systems (EE 416)
14. Growth and Characterization of Nano Electronic Materials (EE 728)
15. Semiconductor Optoelectronic Devices (EE 418)
16. High-Power Semiconductor Devices (EE666)
17. Electronics Design Lab (EE318, enrollment by permission of instructor)
18. Microwave Integrated Circuits (EE611)
19. Wireless and Mobile Communication (EE764)
20. Signal Processing and VLSI (EE 456)
21. Optics (PH201)
22. Thermodynamics- (PH203, 8 Credits)
23. Quantum Mechanics (EP307, 8 Credits)
24. Introduction to Condensed Matter Physics (PH409)
25. Introduction to Photonics (EP421)
26. Quantum Electronics (PH504)
27. Physics of Nanostructures & Nanoscale Devices (EP432)