

Program Open Electives for 7th Semester (Odd semester) 2017-18

S. No.	Department	PE-I	PE-II	PE-III	Open
1.	Chemical	(i) CHT403 Modelling and Simulation; (ii) CHT405 Introduction to Plastic Materials	(i) CHT411, Polymer Science and Technology (ii) CHT413 Bioprocess Engineering		(i) CHT321 Petroleum, Petrochemicals & Natural Gas Engineering (ii) CHT 419 Fuel Cells
2.	Civil	(i) CET 409; 3 Credits; Traffic Engineering and Transport Planning (ii) CET 431; Introduction to Remote Sensing and GIS	(i) CET 411; 3 Credits; Construction Project Management (ii) CET 407; 3 Credits; Prestressed Concrete		(i) CET 432; Numerical Methods
3.	CSE	(i) CST445, 4, Natural Language Processing (ii) CST 461 Machine Learning	(ii) CST455, 4, Digital Image Processing (ii) 459 Topics in Computing		(i) CST203, Data Structures & Algorithms (ii) CST302, Operating Systems
4.	Electrical	(i) EET 409 : Computer Architecture and Organization (ii) EET 425: Intelligent Systems & Control	(i) EET 417: Power system planning and reliability (ii) EET 419: Computer-aided power system analysis	(i) EET 411: Advanced Electrical Machines (ii) EET 423: Power System Operation in Restructured Markets	(i) EET 307 Control systems Engineering (ii) EET 308: Modern Control Theory & Design Technique (iii) EET 421 Advanced Engineering Mathematics
5.	Electronics	(i) ECT413 Computer Networks (ii) ECT412 Adv. Microprocessors & Micro-controllers	(i) ECT456 Semiconductor Opto-Electronics (ii) ECT481: System Design using FPGAs	(i) ECT462 Artificial Intelligence & Expert System (ii) ECT614 VLSI Technology (Advance Elective)	(i) ECT302 Digital Signal Processing (excluding EE & CS students) (ii) ECT303 Digital Communication Systems (excluding EE students)
6.	Mechanical	(i) MET 411; Finite Element Methods; 4 (3-1-0) (ii) MET 406; Project Management; 4 (3-1-0)	(i) MET 408; Supply Chain Management; 4 (3-1-0) (ii) MET 413; Design of Mechanisms; 4 (3-1-0) (iii) MET 426; Mechatronics Design; 4 (3-1-0)		(i) MET 411; Finite Element Methods; 4 (3-1-0)
7.	Metallurgy	(i) MTT-401: Physical Metallurgy of Non Ferrous Metals & Alloys: 4 credit (3-1-0) (ii) MTT-415: Automotive	(ii) MTT-417: Surface Coatings: 4 credit (3-1-0) (ii) MTT-423: NDT & Quality Control: 4 credit (3-1-0)		(i) MTT-216: Introduction to Nano Materials & Technology (ii) MTT217 Material

		Materials: 4 credit (3-1-0)			Science & Technology
8.	Chemistry	NIL			
9.	Physics				(i) PHT- 401, Solar Energy and Physics of Photovoltaics (ii) PHT- 403, Introduction to theory of relativity and cosmology
10.	Maths	NIL			NIL
11.	Humanities				(i) HS-407 Indian Constitution and Polity (ii) HS-401 Introduction to Sociology (iii) HST 402 Industrial Economics (iv) HST-604 Indian Constitution, Democracy and World Affairs
12.	Management	nil			
	Centers				
13.	Centre for Energy				(i) CEE 601 Photovoltaic and Fuel Cell Systems (ii) CEE 603 Wind and Hydro energy Systems (iii) CEE604 Energy and Environmental Policies
14.	MRC				(i) MST 609, Electrical, optical, magnetic & thermal properties of materials (II) MST613 Structural characterization of materials (iii) MST603 Synthesis of Materials (iv) MST722 Design and Application of the Bionaterials
15.	NCDMM				

Advance Elective for ECE: ECT603 CAD Algorithms for Synthesis of Digital Systems and ECT670 Satellite Communication & Radar Engineering