



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

M.TECH, M.E., M.DES, M.ARCH. SECOND SEMESTER (C.B.C.S.) EXAMINATION OF WINTER 2018

PROGRAMME (WRITTEN) # M.Tech,M.E,M.Des,M.Arch SECOND SEMESTER(C.B.C.S.) WINTER-2018
(426 To 447)

Time: 02.00 P.M. To 05.00 P.M.

Sr. No.	Name of Branch	Day	Tuesday	Saturday	Wednesday	Friday	Tuesday
		Date	04-12-2018	08-12-2018	12-12-2018	14-12-2018	18-12-2018
1	Structure Engineering		Finite Element Method	Theory of Plates & Shell	Foundation Design	Research Methodology	Elective –III
2	Computer Aided Design Manufacture & Automation		Advance FEM	Product Design & Development	Mechatronics	Foundation Course-I	Elective –III
3	Computer Science & Engineering		Advances in Algorithms	Advance Computer Network and Security	Advance Digital Image Processing	Foundation Course-I	Elective –III
4	CAD/CAM		Advance FEM	Product Design & Development	Mechatronics	Foundation Course-1	Elective –III
5	M.E.[Embedded System & Comp.]		Embedded System Programming	Real Time Operating System for Embedded System	Advance Digital Image Processing	Foundation Course-I	Elective-III
6	Environmental Engineering		Industrial Waste Water Treatment and Disposal	Air Quality Management	Municipal Solid Waste Management	Research Methodology	Elective-III
7	Chemical Tech. (Food Tech.)		Advances in Food Science & Technology	Food Biotechnology	Food Safety & Food Regulations	Research Methodology	Elective-III
8	Chemical Tech. (Petro. Tech.)		Multi component Distillation	Process Equipment and Piping Design	Petroleum Specialty Products	Research Methodology	Elective-III
9	Chemical Tech. (Oil. Tech.)		Technology of Soaps, Detergents & Surfactants	Technological Advancement of Cosmetics and Allied Products	Modification of Oil and Fat Products including Surface Coatings	Research Methodology	Elective-III
10	Chemical Tech. (Paint Tech.)		Manufacturing Methods machinery & Planning	Processing, Application & Technology of Inks	Application, Evaluation of Surface Coating & Industrial Waste Treatment	Research Methodology	Elective-III
11	VLSI		Analog VLSI Design	VLSI Testing	Modeling of Digital System and Testing	Foundation Courses - I	Elective-III

12	Mech. Engg. & Design	Advanced Mechanical Drives	Stress Analysis	Design of Mechanical Handling System	Foundation Courses - I	Elective –III
13	Electronics Engg. Communication	Smart Antenna System	High Performance Communication and Networks	Wireless Communication and Networks	Foundation Courses –I	Elective –III
14	Software System	Automata and Advanced Computability	Software Design and Construction	Device Driver Design and Development	Foundation Courses - I	Elective –III
15	Integrated Power System	HVDC and FACTS	Power Quality	Power System Protection	Research Methodology	Elective –III
16	Heat Power Engineering	Refrigeration & Air Conditioning Technologies	Thermal Engineering	Advanced Fluid Mechanics	Foundation Courses – I	Elective –III
17	Chemical Engineering	Advanced Separation Processes	Advanced Process Dynamics & Control	Advanced Biochemical Engineering	Research Methodology	Elective –III
18	Industrial Engineering	Automation in Production	Work Study and Ergonomics	Manufacturing Economics and Analysis	Foundation Courses - I	Elective –III
19	M.E. [Wireless Comm. & Comp.]	Advanced Data Structure and Algorithms	Network Security and Cryptography	Advance Digital Image Processing	Foundation Courses - I	Elective –III
20	Power Elect. & Power System	HVDC and FACTS	Power Quality	Advanced Electrical Drivers	Research Methodology	Elective –III
21	Electronics Engineering	Digital System Modeling and Simulation	High Performance Communication Networks	Advanced System Design	Foundation Courses –I	Elective –III
22	Industrial Drives & Control*	Drivers System Design	AC Drivers	Electrical Transportation	Research Methodology	Elective –III
23	M.Des[Industrial Design]*	Product Development	Product Planning and Marketing	Human Factor Design	Foundation Courses –I	*****
24	M. Arch. (In Arch. Education)	Introduction to Learning Methods –II	History of Architecture Education	Behaviour and Expression Of Structures	Foundation Courses –I	*****
25	M. Arch. (Environment Architecture)	Environmental Laws and Legislation	Renewable Energy Systems and Technology	Environmental Impact Assessment and Mitigation	Foundation Courses –I	*****

GENERAL INSTRUCTION S FOR SEATING ARRANGEMENT

The name of the College Centre is already printed on the Admission Card of each Candidate. However, it is notified for general information of the Candidates that: -

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NAGPUR:

Director, Board of Examinations & Evaluation
Rashtrasant Tukadoji Maharaj Nagpur University

P. T. O. (List of Electives)

List of Electives. M.TECH. & M.E. Second Sem.(C.B.C.S)

Sr. No	Name of Branch	Elective-III	
1	Structure Engineering	1 High Rise Structures. 2 Designs Of Composite Construction. 3 New Engineering Materials & Technology.	*****
2.	Computer Aided Design Manufacture & Automation	1 Computer Aided Tool Design. 2 Plastics and Composites. 3 Concurrent Engineering.	*****
3	Computer Science & Engineering	1. Advance Multimedia System. 2. Internet Of Things.	*****
4.	CAD/CAM	1 Computer Aided Tool Design. 2 Plastics & Composites. 3 Concurrent Engineering.	*****
5	M.E.[Embedded System & Comp.]	1 Intelligent Embedded System. 2 Principles Of Embedded Networked System Design.	*****
6	Environmental Engineering	1. Rural Water Supply & Sanitation. 2. Environmental Biotechnology. 3. Environmental Engineering System & Optimization.	*****
7.	Chemical Technology (Food Tech.)	1. Food Industry Waste Management. 2. Enzyme Technology.	*****
8	Chemical Technology (Petro. Tech.)	1. Advanced Separation Processes. 2. Advanced Process Dynamics & Control. 3. Advanced Chemical Reaction Engineering. 4. Environment, Health & Safety Industries.	*****
9	Chemical Technology (Oil. Tech.)	1. Environmental Aspects Of Oil & Allied Industries. 2. Polymeric Surfactants.	*****
10	Chemical Technology (Paint Tech.)	1.Functional Coatings (Super Hydrophobic & Self-Healing Coatings) 2. Chemistry & Technology Of Nano-Pigments.	*****
11	VLSI	1. System On Chip. 2. Micro Electro Mechanical Switches. 3. High Speed Semiconductor Devices & Circuits.	*****
12	Mech. Engg. & Design	1. Tribology & Bearing Design. 2. Design Of Hydraulic & Pneumatic System.	*****
13	Electronics Engineering Communication	1. Advanced Communication Technologies. 2. Mobile Communication.	*****
14	Software System	1) System Performance & Evaluation. 2) Organization Theory & Behavior.	*****

15	Integrated Power System	<ul style="list-style-type: none"> 1. Energy Audit & Management. 2. Converter For Non Conventional Energy Sources. 3. Power System Planning. 	*****
16	Heat Power Engineering	<ul style="list-style-type: none"> 1. Heat Exchange Analysis & Design. 2. Computational Fluid Dynamics. 3. Thermal Storage System.. 	*****
17	Chemical Engineering.	<ul style="list-style-type: none"> 1. Energy Conservation & Planning. 2. Artificial Neural Network & Evolutionary Algorithms. 3. Multiphase Flow. 4. Fuel Cell Technology. 	*****
18	Industrial Engineering	<ul style="list-style-type: none"> 1. Materials Management. 2. Mechatronics. 3. Value Engineering. 4. Project Evaluation & Management. 5. Maintenance Engineering. 	*****
19	M.E. Wireless Comm. & Comp.	<ul style="list-style-type: none"> 1.Signal Processing & Smart Antennas For Wireless Communication. 2. Satellite Communication. 	*****
20	Power Electronics & Power System	<ul style="list-style-type: none"> 1. Energy Audit & Management. 2. Converter For Non Conventional Energy Sources. 3. Power System Planning. 	*****
21	Electronics Engineering	<ul style="list-style-type: none"> 1. Fault Tolerance In Digital Circuits. 2. Mobile communication. 3. Advanced Digital Image Processing. 4. Advanced Communication Technologies. 	*****
22	Industrial Drives & Control	<ul style="list-style-type: none"> 1. Energy Audit & Management. 2. Converter For Non Conventional Energy Sources. 3. Process Control & Instrumentation. 	*****
23	M.Des[Industrial Design]	*****	*****
24	M. Arch. (In Arch. Education)	*****	*****
25	M. Arch. (Environment Architecture)	*****	*****



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M.TECH, M.E., M.DES, M.ARCH. SECOND SEMESTER EXAMINATION OF WINTER 2018

PROGRAMME (WRITTEN) # M.Tech., M.E., M. Des., M.Arch. SECOND SEMESTER. WINTER2018
(404 To 425)

Time: 09.30 A.M. To 12.30 P.M.

Sr. No	Name of Branch	Day	Tuesday	Saturday	Wednesday	Friday	Tuesday
		Date	04-12-2018	08-12-2018	12-12-2018	14-12-2018	18-12-2018
1	Structure Engineering		Theory of Plates & Shell	Finite Element Method	Foundation Design	Structural Dynamics	Elective-I
2	Computer Aided Design Manufacture & Automation		Hydraulics & Pneumatic System	Modeling & Simulation	Mechatronic for Automation	FEM	Elective-II
3	Computer Science Engineering		Advanced in Algorithm	Tcp/ip & Internet	Advanced Digital Image Processing	Elective-III	Elective-IV
4	CAD/CAM		Artificial Intelligence	Modeling of Simulation	Product Data Management	FEM	Elective-II
5	M.E.[Embedded System & Comp.]		Advanced in Algorithms	Embedded Software Design	Real Time – Operating System for Embedded System	Elective-III	Elective-IV
6	Environmental Engineering		Industrial Waste Water Treatment and Disposal	Environment Management	Air Quality Management	Municipal Solid Waste Management	Elective-I
7	Chemical Technology		Bio-technology / Industrial Fermentation (Oil, Food, Paint, Petro,)	Environmental Engineering (Oil, Food, Paint, Petro,)	Special Technology – IV (Oil, Food, Paint, Petro,)	Special Technology – V (Oil, Food, Paint, Petro,)	Special Technology – VI (Oil, Food, Paint, Petro,)
8	I.D.C.		Digital Control System	Artificial Neural Network & Fuzzy Logic	A.C. Drives	Digital Signal Processing	Elective-I
9	VLSI		Analog VLSI Design	Modeling of Digital System – II	VLSI Signal Processing	Digital Image Processing	Elective-I
10	Mech. Engineering & Design		Advanced Mechanical Drives	Optimization in Engg. Design	Robotic	Stress Analysis	Finite Elements Analysis
11	Electronics Engineering Communication		Advanced Digital Satellite Communication	Digital System Design	Digital Image Processing	Advanced Communication System	Elective-I

12	Software System (C.B.S.)	Automata & Advanced Computability	Software Design & Construction	Device Driver Design & Development	Elective- III	Elective- IV
13	Integrated Power System	Processor Applications to Power System	Advanced Electrical Drives of Controls	Special Topics in Power System	Energy System Management	-----
14	Heat Power Engineering	Fluid Dynamics	Heat Transfer – II	Refrigeration & Conditioning Technology	Thermal Engineering – II	Elective-I
15	Chemical Engineering	Bio Technology	Environmental Engineering	Mass Transfer	Optimization and Mathematical Modeling	Process Dynamics Control
16	M.E.[Wireless Comm. & Comp.]	Advance in Algorithms	Network Security & Cryptography	Real-time Operating System for Embedded System	Elective-III	Elective-IV
17	Industrial Engineering	Automation In Production	Methods Engineering And Ergonomics	Manufacturing Economics And Analysis	Project Evaluation And Management	Maintenance Engineering
18	Power Electronics & Power System	Advanced Power Electronics Drives	Advanced Control Theory	Power Electronics Applications to Power System	Energy Management System	Elective-I
19	Electronics Engineering	Digital Systems Design	Digital Image Processing	Data Communication	Microcontroller & Their Application	Elective-I
20	M.Des.[Industrial Design]	Product Development	Human Factor Design	-----	-----	-----
21	M. Arch. (In Arch. Education)	Research Methodology	Appreciation & Criticism	History of Contemporary Architecture Education	-----	-----
22	M. Arch. (Environment Architecture)	Environmental Law & Legislations.	Environmental Management & Ecological Planning.	Sustainable Building Materials & Technologies	*****	*****

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P. T. O. (List of Electives)

List of Electives. M.TECH.& M.E.II Sem.

Sr. No.	Name of Branch	Elective-I	Elective-II	Elective-III	Elective-IV
1.	Structure Engineering	1.Advanced Steen Design 2.Design of Earthquake Resistant Structures 3.Design Environmental Structures	*****	*****	*****
2.	Computer Aided Design Manufacture & Automation	*****	1.Data Communications in Cad/cam 2.Design Optimization Techniques 3.Micro Electro Mechanical System	*****	*****
3.	Computer Science Engineering	*****	*****	1.Dist. System 2.Software Engg. 3.Pattern Recognition	1.Embedded System 2,Cryptography & Network Security 3.Multimedia System
4.	CAD/CAM	*****	1.Mechatronics 2.Comp. aided Toll Design 3.Plastics & Composites 4.Cfd	*****	*****
5.	M.E. Embedded System & Comp.	*****	*****	1.Wireless Communication & Networks 2.Intelligent Embedded Systems 3.Principles of Embedded Network System Design	1.Tct/ip & Internet 2.Satellite Communication 3.Network Security & Cryptography
6.	Environmental Engineering	1.Hazardous Water Management System Optimization 2.Water Resource Management Sanitation 3.Applied Structure	*****	*****	*****
8.	I.D.C.	1.Drives System Design & Simulation 2.Distributed Control System 3.Software Engineering	*****	*****	*****

9.	VLSI	1.Adv. com. Archtr 2.Low Power VLSI Design 3.Embedded System II	*****	*****	*****
11.	Electronics Engineering Communication	1.Fuzzy & Neural Network 2.Multimedia Communication System 3.Dsp Processor & Architecture	****	****	****
12	Software System (C.B.S.)	****	****	1. Mobil Application Development. 2. System Performance & Evaluation. 3.Cyber Forensic & Computer Crimes	1. Software Engineering. 2. Operation Research. 3. Organization Theory & Behavior.
14.	Heat Power Engineering	1.Energy Conservation & Management 2.Advance Cryogenics System	*****	*****	*****
16.	M.E. Wireless Comm. & Comp.	*****	*****	1.Dsp Processors & Architecture 2.Signal Processing & Smart Antennas for Wireless Connection 3.Principles of Embedded Network System Design	1.Embedded Software Design 2.Satellite Communication 3.Digital Image Processing
18.	Power Electronics & Power System	1.Power Quality 2.Advanced Power System Protection 3.Renewable Power Generation Sources	*****	*****	*****
19.	Electronics Engineering	1.Pattern Recognition 2.Analog VLSI Design 3.Computer Graphic	*****	*****	*****