

### List of Electives M.TECH.III Sem.

Sr. No.	Name of Branch	Elective-I	Elective-II
1.	<b>Structure Engineering</b>	*****	1.High Rise Structures. 2. Design Of Composites Construction. 3. New Engineering Materials & Technology.
5.	<b>Environmental Engineering</b>	*****	1. Environmental System Optimization. 2. Rural Water Supply & Sanitation.
6.	<b>I.D.C.</b>	*****	1. Process Control & Digital Instrumentation. 2.Mechatro 3. Management Information System.
7.	<b>VLSI</b>	*****	1. Mixed signal Processing. 2. Computer Communication Network. 3. Computer Graphics.
08.	<b>Mech. Engineering &amp; Design</b>	1. Mechanization In Food Processing. 2. Design Of Mech. Handing System. 3. Vibration Based Condition Monitoring 4. Design Of Hydraulic & Pneumatic Systems..	****
09.	<b>Electronics Engineering Communication</b>	****	1. Embedded System. 2. Micro Strip Integrated System. 3. Modem Radar System.
10	<b>Software System (C.B.S.)</b>	<b>Elective-V</b> 1. Windows Kernel Programming. 2. Linux Kernel Programming. 3. Optimization Techniques.	<b>Elective-VI</b> 1. Software Testing Methodologies. 2. Software Project Management. 3. Enterprise Resource Planning.
12.	<b>Heat Power Engineering</b>	****	1. Design Of Heat Exchangers. 2. Design Of I.C. Engine Components & Sub System.

13.	<b>Chemical Engineering</b>	<ol style="list-style-type: none"> <li>1. Enter &amp; Communication Skill.</li> <li>2. Neural Network &amp; Fuzzy System.</li> <li>3. Research Methodology.</li> <li>4. Advanced Mathematics.</li> </ol>	*****
15	<b>Industrial Engineering</b>	<ol style="list-style-type: none"> <li>1. Marketing Management</li> <li>2. Flexible Manufacturing System &amp; Robotics.</li> <li>3. Energy Management.</li> <li>4. Communication.</li> <li>5. System Design &amp; Engineering.</li> </ol>	<ol style="list-style-type: none"> <li>1. Mechatronics</li> <li>2. Materials Management.</li> <li>3. Value Engineering.</li> <li>4. Industrial Design.</li> <li>5. Information System In Engineering</li> <li>6. Reliability Engineering.</li> </ol>
16.	<b>Power Electronics &amp; Power System</b>	*****	<ol style="list-style-type: none"> <li>1. Digital signal Processing.</li> <li>2. Artificial Intelligence Based System.</li> <li>3. Microcontroller Application In Power Converters.</li> </ol>
17.	<b>Electronics Engineering</b>	*****	<ol style="list-style-type: none"> <li>1. Programmable Devices &amp; Testing.</li> <li>2. IP Core And RTOS.</li> <li>3. Mobile Communication.</li> </ol>

**List Of Electives. M.TECH. & M.E.III rd. Sem. (C.B.C.S)**

Sr. No	Name of Branch	Elective-IV (Open)
1	<i>Structure Engineering</i>	<ol style="list-style-type: none"> <li>1. <i>Transform Methods.</i></li> <li>2. <i>Theory of Probability &amp; Statistics.</i></li> <li>3. <i>Complex Analysis.</i></li> <li>4. <i>Mathematical Optimization Methods.</i></li> <li>5. <i>Non Destructive Testing.</i></li> <li>6. <i>Non-Conventional Energy System.</i></li> <li>7. <i>Basics of Remote Sensing.</i></li> <li>8. <i>Bio Physics.</i></li> <li>9. <i>Fuels &amp; Lubricant.</i></li> <li>10. <i>Environment &amp; Sustainable Development.</i></li> <li>11. <i>Advances on Renewable Energy Technology.</i></li> <li>12. <i>Advanced Engineering Materials.</i></li> <li>13. <i>Remote Sensing &amp; Geographical Information System.</i></li> <li>14. <i>Law, Technology &amp; Public Policy.</i></li> <li>15. <i>Economics of Research &amp; Development.</i></li> <li>16. <i>Ganddian Engineering.</i></li> <li>17. <i>Advanced Technical English Writing.</i></li> <li>18. <i>Green Building.</i></li> <li>19. <i>Product Design for Energy &amp; Environment.</i></li> <li>20. <i>Man. Environment &amp; Sustainability.</i></li> <li>21. <i>Machine Learning.</i></li> <li>22. <i>Ethical Hacking &amp; Digital Forensic.</i></li> </ol>
2.	<b><i>Computer Aided Design Manufacture &amp; Automation</i></b>	
3	<b><i>Computer Science &amp; Engineering</i></b>	
4.	<b><i>CAD/CAM</i></b>	
5	<b><i>M.E.[ Embedded System &amp; Comp.]</i></b>	
6	<b><i>Environmental Engineering</i></b>	
7.	<b><i>Chemical Technology (Food Technology.)</i></b>	
8	<b><i>Chemical Technology (Petrochemical Technology.)</i></b>	
9	<b><i>Chemical Technology (Oil Technology.)</i></b>	
10	<b><i>Chemical Technology (Paint Technology.)</i></b>	
11	<b><i>VLSI</i></b>	
12	<b><i>Mech. Engg. &amp; Design</i></b>	

		23. <i>Advanced Petroleum Refining.</i>	48. <i>Advanced Engineering.</i>
<b>13</b>	<b><i>Electronics Engineering Communication</i></b>	24. <i>Nanotechnology.</i>	49. <i>Software Testing Methodologies.</i>
<b>14</b>	<b><i>Software System</i></b>	25. <i>Security Analysis of Software.</i>	50. <i>Optimization Techniques.</i>
<b>15</b>	<b><i>Integrated Power System</i></b>	26. <i>Advance Databases.</i>	51. <i>Wireless Communication &amp; Network.</i>
<b>16</b>	<b><i>Heat Power Engineering</i></b>	27. <i>PLC &amp; SCADA</i>	52. <i>Mobile application Development.</i>
<b>17</b>	<b><i>Chemical Engineering.</i></b>	28. <i>Digital Control System.</i>	53. <i>Disaster Management &amp; Mitigation.</i>
<b>18</b>	<b><i>Industrial Engineering</i></b>	29. <i>Wireless Sensor Network.</i>	54. <i>Water Resources Management.</i>
<b>19</b>	<b><i>M.E. Wireless Comm. &amp; Comp.</i></b>	30. <i>Bio-Informatics.</i>	
<b>20</b>	<b><i>Power Electronics &amp; Power System</i></b>	31. <i>Artificial Intelligence &amp; Robotics.</i>	
<b>21</b>	<b><i>Electronics Engineering</i></b>	32. <i>Designing Embedded Communication Software.</i>	
<b>22</b>	<b><i>Industrial Drives &amp; Control</i></b>	33. <i>Embedded System Testing &amp; Verification.</i>	
<b>23</b>	<b><i>M.Des[Industrial Design]</i></b>	34. <i>Product Design &amp; Intellectual Property Rights.</i>	
<b>24</b>	<b><i>M. Arch. (In Arch. Education)</i></b>	35. <i>Reliability Engineering.</i>	
<b>25</b>	<b><i>M. Arch. (Environment Architecture)</i></b>	36. <i>Communication Skills.</i>	
		37. <i>Manufacturing System Integration &amp; Management.</i>	
		38. <i>Modeling &amp; Simulation.</i>	
		39. <i>Production &amp; Operations Management.</i>	
		40. <i>Design Optimization Techniques.</i>	
		41. <i>Data Communication in CADMA.</i>	
		42. <i>Modeling &amp; Simulation.</i>	
		43. <i>Mechatronics.</i>	
		44. <i>Environmental Pollution &amp; Control.</i>	
		45. <i>Optimization Methods in Engineering.</i>	
		46. <i>Finite Element Analysis.</i>	
		47. <i>Optimization in Engg. Design.</i>	



**RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY**

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

# PROGRAMME (WRITTEN) # M.Tech,M.E,M.Des,M.Arch THIRD SEMESTER. WINTER 2018

(713 To 733)

**Time: 9.30 A.M. To 12.30 P.M.**

Sr. No	Name of Branch	Day >	Wednesday	Monday	Saturday
		Date >	05-12-2018	10-12-2018	15-12-2018
1	<b>Structure Engineering</b>		Advanced Concrete Structure	<b>Elective-II</b>	*****
2	<b>Computer Aided Design Manufacture &amp; Automation</b>		Production Design & Development	Flexible Manufacturing System	*****
3	<b>CAD/CAM</b>		Manufacturing System Integration & Management	Product Design & Development	*****
4	<b>M.E. [Embedded System &amp;Comp.]</b>		Designing Embedded Communication Software	Distributed Embedded System & Computing	*****
5	<b>Environmental Engineering</b>		<b>Elective-II</b>	*****	*****
6	<b>I.D.C.</b>		Advanced Drives	<b>Elective-II</b>	*****
7	<b>VLSI</b>		VLSI Testing	<b>Elective-II</b>	*****
8	<b>Mech. Engineering &amp; Design</b>		Ratability Maintainability & Wear	<b>Elective-I</b>	*****
9	<b>Electronics Engineering (Communication)</b>		Signal Processing & Smart Antenna For Wireless Communication	<b>Elective-II</b>	*****
10	<b>Software System (C.B.S.)</b>		<b>Elective-V</b>	<b>Elective-VI</b>	*****

11	<b>Integrated Power System</b>	Power System Stability	Power System Planning	*****
12	<b>Heat Power Engineering</b>	Thermal Storage System	<b>Elective-II</b>	*****
13	<b>Chemical Engineering</b>	<b>Elective-I</b>	*****	*****
14	<b>M.E. [Wireless Comm. &amp; Comp.]</b>	Mobile Computing	Ad Hoc Wireless Network	*****
15	<b>Industrial Engineering</b>	<b>Elective-I</b>	<b>Elective-II</b>	*****
16	<b>Power Electronics &amp; Power System</b>	Power System Dynamics and Control	<b>Elective-II</b>	*****
17	<b>Electronics Engineering</b>	Parallel Processing & Algorithm	<b>Elective-II</b>	*****
18	<b>M.Des. [Industrial Design]</b>	Product Planning and Marketing	*****	*****
19	<b>M. Arch. (In Arch. Education)</b>	Design Philosophy & Learning Methods	Construction Principles & Methods	Behavior & Expression Of Structures
20	<b>M. Arch.(Environment Architecture)</b>	Renewable Energy Systems & Environmental Technologies.	Energy Efficient Building Services & Management.	*****

### GENERAL INSTRUCTIONS 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: -

The seating arrangement for the Centre will be notified separately seven days prior to the Commencement of the written examination at the respective College / Centre, The Candidates concerned will also be able to get the necessary information from that chart of seating arrangement sent to the concerned College by University.

NAGPUR:

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

P. T. O. (List of Electives)



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

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

# PROGRAMME (WRITTEN) # M.Tech,M.E,M.Des,M.Arch THIRD SEMESTER.(C.B.C.S) **WINTER 2018**  
(734 To 755)

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

Sr. No.	Name of Branch	Day >	Wednesday	Monday
		Date >	05-12-2018	10-12-2018
1	Structure Engineering		Foundation Courses -II	Elective-IV (Open)
2	Computer Aided Design Manufacture & Automation		Foundation Courses -II	Elective-IV (Open)
3	Computer Science Engineering		Foundation Courses -II	Elective-IV (Open)
4	CAD/CAM		Foundation Courses -II	Elective-IV (Open)
5	M.E. [Embedded System &Comp.]		Foundation Courses -II	Elective-IV (Open)
6	Environmental Engineering		Foundation Courses -II	Elective-IV (Open)
7	<i>Chemical Tech. (Food Technology.)</i>		Foundation Courses -II	Elective-IV (Open)
8	<i>Chemical Tech. (Petrochemical Technology.)</i>		Foundation Courses -II	Elective-IV (Open)
9	<i>Chemical Tech. (Oil Technology.)</i>		Foundation Courses -II	Elective-IV (Open)
10	<i>Chemical Tech. (Paint Technology.)</i>		Foundation Courses -II	Elective-IV (Open)
11	Industrial Drives & Control.		Foundation Courses -II	Elective-IV (Open)
12	VLSI		Foundation Courses -II	Elective-IV (Open)

<b>13</b>	<b>Mech. Engineering &amp; Design</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>14</b>	<b>Electronics Engineering (Communication)</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>15</b>	<b>Software System</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>16</b>	<b>Integrated Power System</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>17</b>	<b>Heat Power Engineering</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>18</b>	<b>Chemical Engineering</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>19</b>	<b>M.E. [Wireless Comm. &amp; Comp.]</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>20</b>	<b>Industrial Engineering</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>21</b>	<b>Power Electronics &amp; Power System</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>22</b>	<b>Electronics Engineering</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>23</b>	<b>M.Des. [Industrial Design]</b>	<b>#####</b>	<b>Elective-IV (Open)</b>
<b>24</b>	<b>M. Arch. ( Architecture Education)</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>
<b>25</b>	<b>M. Arch.(Environment Architecture)</b>	Foundation Courses -II	<b>Elective-IV (Open)</b>

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