

Dr. B. C. Roy Engineering College, Durgapur
Proposed Syllabus for M. Tech in Electronics & Communication Engineering
Applicable from the academic session 2024-25

Curriculum Structure							
Semester-I							
Sl No.	Category	Subject Code	Subject Name	Total Number of contact hours			Credits
				L	T	P	
Theory							
1	Program Core I	MCE101	Advanced Communication Networks	3	0	0	3
2	Program Core II	MCE 102	Advanced Digital Signal Processing	3	0	0	3
3	Program Elective-I	MCE 103	Program Elective-I	3	0	0	3
4	Program Elective-II	MCE 104	Program Elective-II	3	0	0	3
5	Mandatory Learning Course	MCE105	Research Methodology and IPR	2	0	0	2
6	Audit Course 1	MCE 106	Audit Course 1	2	0	0	0
<i>Total Theory</i>				16	0	0	14
Practical							
1	Laboratory I	MCE 191	Advanced Communication Lab	0	0	4	2
2	Laboratory II	MCE 192	Advanced Digital Signal Processing Lab	0	0	4	2
<i>Total Practical</i>				0	0	8	4
Total of Semester-I				16	0	8	18
Semester-II							
Theory							
1	Program Core III	MCE 201	Antennas and Radiating Systems	3	0	0	3
2	Program Core IV	MCE 202	Adaptive Signal Processing	3	0	0	3
3	Program Elective-III	MCE 203	Program Elective-III	3	0	0	3
4	Program Elective-IV	MCE 204	Program Elective-IV	3	0	0	3
5	Audit Course 2	MCE 205	Audit Course 2	2	0	0	0
<i>Total Theory</i>				14	0	0	12
Practical							
1	Laboratory III	MCE 291	Antennas and Radiating Systems lab	0	0	4	2
2	Laboratory IV	MCE 292	Adaptive Signal Processing Lab	0	0	4	2
<i>Total Practical</i>				0	0	8	4
Sessional							
1	Project -I	MCE 281	Dissertation –I	0	0	3	2
Total of Semester-II				14	0	11	18
Semester-III							
Theory*							
1	Program Elective-V	MCE 301	Program Elective-V	3	0	0	3
2	Open Elective	MCE 302	Open Elective	3	0	0	3
<i>Total Theory</i>				6	0	0	6
Sessional							
1	Project-II	MCE 381	Dissertation –II	0	0	20	10
Total of Semester-III				6	0	0	16
Semester-IV							
Sessional							
1	Project-III	MCE 481	Dissertation -III	0	0	32	16
Total of Semester-IV				0	0	32	16
Total Credits for the programme							68

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List of Program Electives

- ❖ **Program Elective – I MCE 103**
 - A. Wireless and Mobile Communication
 - B. Optical Fiber Communication
 - C. Statistical Information Processing
- ❖ **Program Elective – II MCE 104**
 - A. Cognitive Radio
 - B. RF and Microwave Circuit Design
 - C. DSP Architecture
- ❖ **Program Elective – III MCE 203**
 - A. GIS & Satellite Communication
 - B. Internet of Things
 - C. Voice and data networks
- ❖ **Program Elective – IV MCE 204**
 - A. Markov Chain and Queuing System
 - B. MIMO System
 - C. Remote Sensing & Radar Technology
 - D. VLSI DSP
- ❖ **Program Elective – V MCE 301**
 - A. Computational Electromagnetic
 - B. Pattern Recognition and Machine Learning
 - C. VLSI for Secure Communication

List of Open Electives (as per AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology- January 2018) **MCE 302**

- A. Business Analytics
- B. Operations Research
- C. Cost Management of Engineering Projects
- D. Industrial Safety
- E. Composite Materials
- F. Waste to Energy

Audit course 1 & 2 (as per AICTE Model Curriculum for Postgraduate Degree Courses in Engineering & Technology-January 2018)

MCE 106

- A. English for Research Paper Writing
- B. Pedagogy Studies
- C. Value Education
- D. Stress Management by Yoga

MCE 205

- A. Personality Development through Life Enlightenment Skills.
- B. Sanskrit for Technical Knowledge
- C. Constitution of India
- D. Disaster Management