MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

(Formerly West Bengal University of Technology)

Master of Technology- Electronics and Telecommunication

Specialization: Communications

(Effective from 2018-2019 Admission Session)

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	Wireless and Mobile Communication	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
	Total Theory			**16**	**0**	**0**	**14**
Practical							
1	Laboratory I	MCE 191	Advanced Communication Networks Lab	0	0	4	2
2	Laboratory II	MCE 192	Wireless and Mobile Communication Lab	0	0	4	2
	Total Practical			**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	Advanced Digital 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
	Total Theory			**14**	**0**	**0**	**12**
Practical							
1	Laboratory III	MCE 291	Antennas and Radiating Systems lab	0	0	4	2
2	Laboratory IV	MCE 292	Advanced Digital Signal Processing Lab	0	0	4	2
	Total Practical			**0**	**0**	**8**	**4**
Sessional							
1	Mini Project	MCE 281	Mini Project with Seminar	**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
	Total Theory			**6**	**0**	**0**	**6**
Sessional							
1	Major Project	MCE 381	Dissertation –I	**0**	**0**	**20**	**10**
			Total of Semester-III	**6**	**0**	**0**	**16**
Semester-IV							
Sessional							
1	Major Project	MCE 481	Dissertation -II	**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 Sensor Networks
  B. Optical Networks
  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. 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. Programmable Networks –SDN, NFV
- **Program Elective – V MCE 301**
  A. High Performance Networks
  B. Pattern Recognition and Machine Learning
  C. Remote Sensing

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

Program Outcomes (POs):

Students are expected to demonstrate

a. Ability to apply the knowledge of science, mathematics, and engineering principles for developing problem solving attitude

b. Ability to identify, formulate and solve engineering problems in the broad areas like Systems Design using communication and networking platforms and tools. Explore recent developments in areas like optical communication, satellite communication, wireless communication, networking, RF-microwave, antennas, measurements and standards in communication.

c. Ability to understand and use different software tools for Design, Analysis and Verification in the domain of communication and networking. System results are obtained through progressive steps such as Design entry, Synthesis, Functional and Timing Simulation.

d. Ability to design and conduct experiments, analyze and interpret data, imbibe programming skills for development of simulation experiments.

e. Ability to function as a member of a multidisciplinary team with sense of ethics, integrity and social responsibility.