

Program Structure

Master of Technology in Defence Technology (Communication Systems & Sensors)

Duration: 2 Years

Eligibility: B.E./B.Tech. in ECE, EEE, Telecommunication, Instrumentation, or related branches with minimum qualifying marks.

Program Overview

This program focuses on advanced communication theory, sensor technologies, radar processing, and defence applications, with strong emphasis on research and project-based learning.

Semester-wise Structure

Semester I

Course Code	Course Title	Credits
XXXX	Advanced Mathematics for Communication Systems	3
XXXX	Digital Communication Theory	4
XXXX	Microwave and RF Circuit Design	4
XXXX	Sensor Technology and Instrumentation	4
XXXX	Research Methodology and Scientific Writing	2

Semester II

Course Code	Course Title	Credits
XXXX	Adaptive Signal Processing	4
XXXX	Advanced Wireless Communication	4
XXXX	Radar Signal and Image Processing	4
XXXX	Defence Sensor Networks	3
XXXX	Elective I	3

Semester III

Course Code	Course Title	Credits
XXXX	Software Defined Radio and Cognitive Radio	4
XXXX	Electronic Warfare and Countermeasure Systems	4
XXXX	Satellite Communication and Remote Sensing	3
XXXX	Elective II	3
XXXX	Project and Thesis I	12

Semester IV

Course Code	Course Title	Credits
XXXX	Secure and Reliable Communication Systems	3
XXXX	Elective III	3
XXXX	Project and Thesis II	12
XXXX	Dissertation Defence and Seminar	3

Elective Basket

1. Advanced Antenna Design
2. Array Signal Processing
3. Sensor Fusion and Tracking
4. Cognitive Radar
5. Propagation for Tactical Networks
6. AI/ML for Signal and Sensor Analytics
7. Quantum Communication Basics

8. Underwater and Under-Ice Communication Systems

Total Credits

Suggested total: 72 credits including advanced theory, electives, thesis, and dissertation defence.