



**A ONE-DAY NATIONAL WORKSHOP
(HANDS-ON)**

**FROM RADAR
WAVEFORM GENERATION
TO TARGET DETECTION:
RADAR SIGNAL PROCESSING
CHAIN WITH MATLAB**

**END TO END RADAR SIGNAL PROCESSING
FOR AVIONICS APPLICATION**



**TARGET
DETECTED**
RANGE : 18.3 km
VELOCITY : 235 m/s
AZIMUTH : 12.6°



DATE
7th September 2026
(Monday)



TIME
10.00 AM
to 5.00 PM



VENUE
TT 232



**HANDS-ON
MATLAB SESSIONS**

COURSE CONTENT / HIGHLIGHTS

- Introduction to Radar Signal Processing**
Overview of radar systems and signal chain
- Transmitter Signal Analysis**
LFM waveform generation and analysis in time & frequency domains
- Receiver Noise Floor & Sensitivity Analysis**
Noise modeling, SNR, receiver noise floor and minimum detectable signal
- LFM Radar Signal Processing using MATLAB**
Signal simulation and processing workflow
- Matched Filtering for LFM Radar**
Pulse compression and processing gain
- Target Detection and Analysis**
Range profile generation, target detection and parameter estimation
- Hands-on Mini Project**
End-to-end radar signal processing and target detection



- ✓ Hands-on MATLAB based practical training
- ✓ Real-world Avionics Applications
- ✓ Enhance your skills in modern Radar Systems
- ✓ Certificate will be provided to all participants

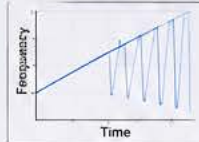


RESOURCE PERSON
Dr. Rohit Kumar
Ducom Aerospace

**LIMITED SEATS!
REGISTER EARLY**

WORKSHOP SNAPSHOT

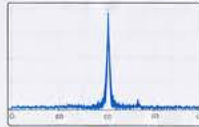
LFM CHIRP GENERATION



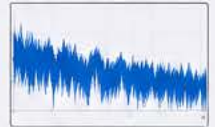
NOISE FLOOR & SNR



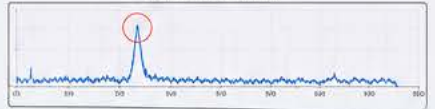
MATCHED FILTER OUTPUT



RANGE PROFILE (dB)



TARGET DETECTED



REGISTRATION FEE:

UG/PG/Research Scholars: Rs. 300 + GST

A certificate will be issued to all the registered participants.

REGISTER & PAY ONLINE:

<https://events.vit.ac.in/>



ABOUT SENSE

SENSE at VIT was established for imparting state-of-the art knowledge in Electronics and Communication Engineering and allied areas. The school has set up laboratories with excellent infrastructure in the areas of Electronics, Communication, VLSI, Embedded, Sensors and Nanotechnology. Faculties are actively involved in R&D activities and are working on research projects funded by government organizations like DRDO, ISRO (RESPOND), and DST.

ADVISORY COMMITTEE

Dr. Jasmine Pemeena Priyadarisini
Professor and Dean,
School of Electronics Engineering
(SENSE), Vellore Institute of Technology,
Vellore, India.

Dr. Kannadassan D
Professor & Head,
Department of Communication
Engineering, School of Electronics
Engineering (SENSE), Vellore
Institute of Technology, Vellore, India.

COORDINATORS

Dr. Rohit Mathur
Dr. Avinash Chandra
Dr. Dilip Kumar Choudhary

School of Electronics Engineering
(SENSE),
Vellore Institute of Technology,
Vellore - 632 014.

CONTACT US

+91-9929240907
E-Mail: rohit.mathur@vit.ac.in

+91-9572373184
E-Mail: avinash.chandra@vit.ac.in



About SENSE:

SENSE at VIT was established for imparting state-of-the-art knowledge in Electronics and Communication Engineering and allied areas. The school has set up laboratories with excellent infrastructure in the areas of Electronics, Communication, VLSI, Embedded, Sensors and Nanotechnology. Faculties are actively involved in R&D activities and are working on research projects funded by government organizations like DRDO, ISRO (RESPOND), and DST .

Course Content:

- Introduction to Radar Signal Processing
- Transmitter Signal Analysis
- Receiver Noise Floor & Sensitivity Analysis
- LFM Radar Signal Processing using MATLAB
- Target Detection and Analysis
- hands-on Mini Project

Resource Person:

Dr. Rohit Kumar
Ducom Aerospace

Date: 7th September 2026

Venue: TT 232

Time: 10.00 AM to 5.00 PM

Registration Fee:

UG/PG/Research Scholars: **Rs. 300 +GST**

A certificate will be issued to all the registered participants. Use following link to make online payment.

<https://events.vit.ac.in/>

Advisory Committee:

Dr. Jasmine Pemeena Priyadarisini

Professor and Dean,
School of Electronics Engineering
(SENSE), Vellore Institute of Technology,
Vellore, India.

Dr. Kannadassan D

Professor & Head,
Department of Communication
Engineering, School of Electronics
Engineering (SENSE), Vellore
Institute of Technology, Vellore,
India.

Coordinators

Dr. Rohit Mathur

Dr. Avinash Chandra

Dr. Dilip Kumar Choudhary

School of Electronics Engineering
(SENSE), Vellore Institute of Technology,
Vellore – 632 014.

Contact Numbers:

+91-9929240907

E-Mail: rohit.mathur@vit.ac.in

+91-9572373184

E-Mail: avinash.chandra@vit.ac.in

+91-9973979622

E-Mail: dilipkumar.choudhary@vit.ac.in



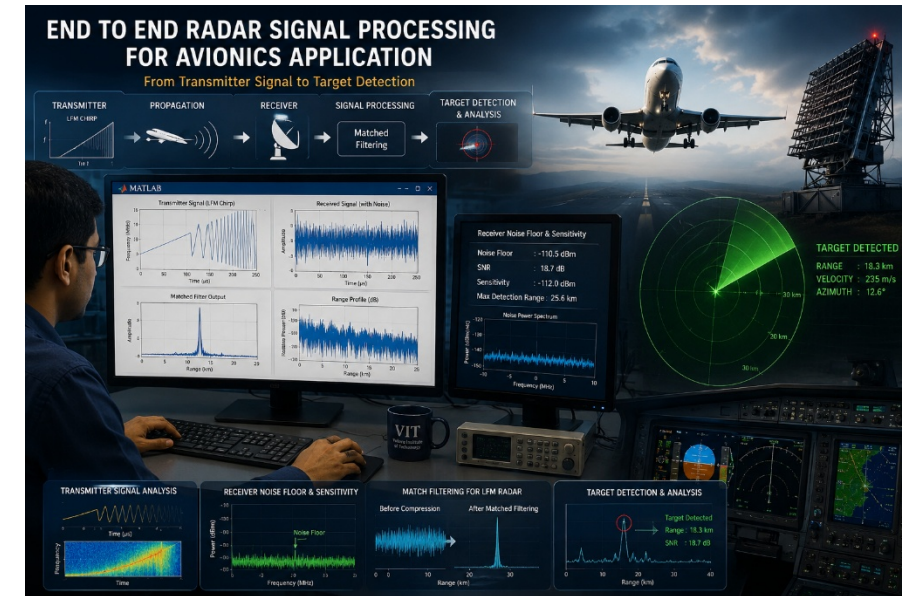
VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)



Industry-Academia Conclave 2026

A One-day National Workshop

From Radar Waveform Generation to Target Detection: Radar Signal Processing using MATLAB



Organized By
Department of
Communication Engineering
School of Electronics
Engineering, VIT