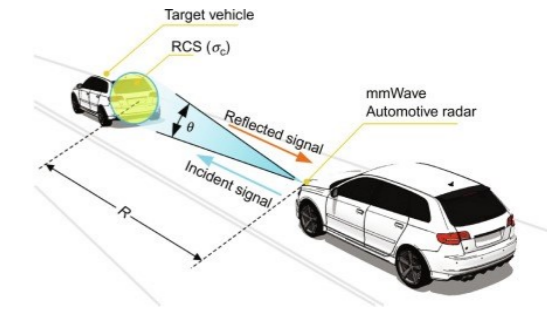




# School of Electronics Engineering

## Department of Communication Engineering

### Value Added Course



## Millimeter Wave Radar and its Applications (VAC2413)

### OFFLINE Class (9:00 AM—5:00 PM)

#### Day 1 (09/02/25):7 Hours

- ◆ Introduction to Radar Systems
- ◆ Radar waveforms and Range equation
- ◆ Target Detection in the presents of Noise
- ◆ Radar simulation Demo

#### Day 2 (11/02/25):7 Hours

- ◆ Introduction to Millimeter wave Sensing: FMCW Radar
- ◆ Estimating parameters to detect and track the targets with millimeter wave Radar
- ◆ Biomedical Applications
- ◆ Role of Radar in Automotive Vehicles

#### Day 3 (16/02/25):7 Hours

- ◆ Heart Rate and Breathing Signal detection using mm wave Radar
- ◆ Heart Rate and Breathing Signal Analysis
- ◆ TI Radar Applications
- ◆ Demo on Real time mm wave Radar applications

**MANDATORY**

- ◆ Minimum 50% Marks in Test
- ◆ Minimum 75% attendance



#### Day 4 (02/03/25): 7 Hours

- ◆ Millimeter wave Radar real time data processing -Lab session
- ◆ AI in Radar Data Processing
- ◆ Microcontrollers for Automotive Radars
- ◆ Demo Session

#### Day 5 (09/03/25): 7 Hours

- ◆ Proposed projects using millimeter wave Radar
- ◆ Industrial Applications of Unmanned Ground Rovers-Eye- opening for Radar Application
- ◆ Demo on Unmanned Ground Rovers
- ◆ Quiz

Eligible Attendees: UG, PG, and PhD Scholars

Starting from 9<sup>th</sup> February, 2025 (Sunday)

Registration fee: **Rs. 500/-** Inclusive of 18% GST

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

#### Coordinators

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Interesting Demo and Interactive Hands On Sessions