



GTU – Graduate School of Engineering and Technology

Online Seminar on “Fiber Bragg Grating (FBG) based Signal Processing in Railways Applications” Under Skill Enhancement Program

Coordinated By: Prof. Gautam D. Makwana

Date & Day: 3rd July, 2021, Saturday

Time: 11:00 AM to 12:30 PM

Expert Profile:



Ashlin Jose is working as a CTO in Lab To Market Innovations Private Limited. He has a Bachelor of Technology degree in Electronics and Communications from Mahatma Gandhi University Kottayam and a Master of Technology degree in Electrical and Communications from NIT Delhi. He was working in Microwave Laboratory in ECE Department, IISc as Project Associate for 1.5 yrs. During his tenure in IISc, he has worked in an ADA sponsored project “Feasibility Studies to Reduce Wiring Requirements for Telemetry in Aircrafts during Flight Tests”. He has designed wireless sensor module for sensing and transmitting aircraft pressure and strain data during flight testing. He is having

experience in Embedded System Designing and PCB Layout His current areas of interests are in -Low power Internet of Things (IoT) ,RF Embedded Systems and Cyber Physical Systems.

About the Webinar:

GTU – Graduate School of Engineering and Technology organizes skill enhancement program by renowned experts on every Saturday. The purposes of this session are to explore research domain, research opportunities in the subject of Advanced Digital Signal Processing. The session is organized on “**Fiber Bragg Grating (FBG) based Signal Processing in Railways Applications**” is organized for the PG students of 2nd Sem, M.E. – EC (Mobile Communication and Network Technology). The session is given by Ashlin Jose, CTO, Lab to Market Innovation Pvt. Ltd, Bangaluru.

Objective of the Session:

- Practical aspects of signal processing used in the industries for development of various solutions in communication and IoT systems. The session includes various signal processing solutions from sensing to processing of various signals generated by various analog sensors.
- The session include sensor developed based on Fiber Bragg Grating and practical aspects such as generation, conversion, conditioning, and processing used in the Indian railway.

Glimpse of the Session

A screenshot of a Zoom meeting. The main window displays a presentation slide with the IISc logo in the top left and 'lab2market' in the top right. The slide title is 'Fiber Bragg Grating Based Signal Processing In Railway Applications'. Below the title is a photograph of a large, classical-style building with a central tower. Text on the slide identifies the presenter as 'Ashlin Jose, Lab To Market Innovations Pvt Ltd, An IISc Startup, Bengaluru'. A small video inset of the presenter is visible in the bottom right corner of the slide. To the right of the slide is a 'People' sidebar showing a list of participants: DR. GAUTAM MAK... (You), Ashlin Jose, Ashlin Jose Presentation, Dhruvang Patil, grishma jani, Hiral Balsane, and Punit Acharya.

A screenshot of a Zoom meeting. The main window displays a presentation slide titled 'Locomotive vs Coach'. The slide features two side-by-side plots of 'Wave Amplitude (Arbitrary Units)' versus 'Sample Number'. The left plot, labeled 'Locomotive', shows a signal with several sharp, high-amplitude peaks. The right plot, labeled 'Coach', shows a signal with lower-amplitude peaks. A grid is overlaid on both plots. The y-axis ranges from -100 to 500, and the x-axis ranges from 0 to 2500. The 'People' sidebar on the right shows a grid of 16 participants: Ashlin Jose, roshni parmar, Shreya Patel, Purna Sheth, Hiral Balsane, Punit Acharya, Narendra Praja..., grishma jani, Rahul Savaliya, Sadanand Sahu, Priyanshi Mehta, Tojas Natoo, nidhi bhelose, PATEL SHIVANI, urmila pariya, and You.