

**THREE-DAY WORKSHOP**  
**ON**  
**Time-Frequency Signal Processing and**  
**Applications**  
**(13-15 January 2023)**



**Indian Institute of Technology Indore**

**Coordinator**

**Prof. Ram Bilas Pachori**  
**Department of Electrical Engineering**  
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**About this Course**

In real life, signals can be classified as stationary and non-stationary signals. The frequency domain based methods for signal analysis are suitable for stationary signals. In order to have meaningful analysis of non-stationary signals, time-frequency analysis based methods have been proposed in the literature. Such methods include techniques like short-time Fourier transform (STFT), wavelet transform, Wigner-Ville distribution, Hilbert-Huang transform (HHT), Fourier-Bessel series expansion based empirical wavelet transform (FBSE-EWT), etc. In this workshop, the fundamentals related to time-frequency analysis will be provided. The working principles of various time-frequency analysis techniques will be explained. The various applications of these time-frequency analysis techniques in the areas of biomedical signal processing, speech signal processing, and communication will be provided. The workshop will also discuss about the implementation of

these time-frequency techniques in MATLAB.

**Who Should Attend?**

- Professionals working in R&D organizations and industries
- Faculty from Engineering/Polytechnic colleges
- Research scholars, post graduate, and undergraduate students

**Course Fees:**

- Rs. 10,000 (for industry personnel)
- Rs. 8,000 (for government funded R&D organizations)
- Rs. 6,000 (for faculty members)
- Rs. 3,000 (for students)

The course fee includes GST, study material, breakfast, lunch, and tea for the entire course duration.

**Mode of payment:** Through demand draft drawn in favor of **Registrar, IIT Indore** or through online payment/ bank transfer.

**For Online payment/ Bank Transfer**

Bank Name: State Bank of India  
Branch: Khandwa Road, Indore  
Account number: 31702151577  
IFS Code: SBIN0011779

**Registration:** Please fill the Google form:  
<https://forms.gle/vWr1u7PzjAriYLfFA>.

**Number of seats:** Limited

**Important dates:**

Last date of registration is **12<sup>th</sup> January 2023**.

**Address for correspondence**

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