

Department of Mechanical Engineering

A.Y. 2024-25 SEM-I

Report on Expert Talk on Vibration Analysis with FFT Analyzers: Tools and Techniques

- 1. Event Title** – Report on Expert Talk on Vibration Analysis with FFT Analyzers: Tools and Techniques
- 2. Event Date:** 16/10/2024
- 3. Event Conduction Duration:** 11:00 Am to 12:30 PM (1:30 Hours)
- 4. Event Venue:** CAD LAB
- 5. Event Resource Person /Guest Details:** Mr. K. U. Shinde
- 6. Event Coordinator:** Prof. K. P. Joshi & Dr. P.P. Kulkarni
- 7. Expected Audience:** BE Mechanical Engineering Students
- 8. Number of Participants:** 17
- 9. Event Objectives & Outcomes:**

Objectives:

- To provide a comprehensive understanding of the Fast Fourier Transform (FFT) Analyzer and its significance in vibration analysis.
- To familiarize students with the practical applications of FFT in mechanical systems, especially in diagnosing faults in rotating machinery.
- To enhance students' knowledge of modern tools and technologies used in mechanical engineering diagnostics and condition monitoring.

Outcomes:

- The participants gained practical insights into the functioning and applications of FFT analyzers in real-world engineering scenarios.
- Students were able to understand the process of frequency domain analysis and its use in identifying vibration-related issues in mechanical components.

- c. The session enhanced the technical skills of students by exposing them to advanced diagnostic tools, preparing them for challenges in industry-related mechanical engineering roles.

10. Event Summary:

The Expert Talk on FFT Analyzer, conducted on 16 October 2024, was an engaging and informative session aimed at providing B.E. Mechanical Engineering students with an in-depth understanding of the Fast Fourier Transform (FFT) Analyzer. The event commenced at 11:00 AM in the CAD Lab, with Mr. K. U. Shinde, an experienced professional in the field of vibration analysis, serving as the resource person.

During the session, Mr. Shinde explained the fundamental principles of the FFT analyzer and its importance in condition monitoring and vibration diagnostics in mechanical systems. He discussed how FFT is used to convert time-domain signals into frequency-domain data, making it easier to detect and analyze vibration issues.

The event was well received by the 17 participating students, who actively engaged in the discussion and raised insightful questions. Mr. Shinde also demonstrated the practical applications of the FFT analyzer, providing hands-on examples relevant to their course of study. This helped the students bridge the gap between theoretical knowledge and practical industry applications.

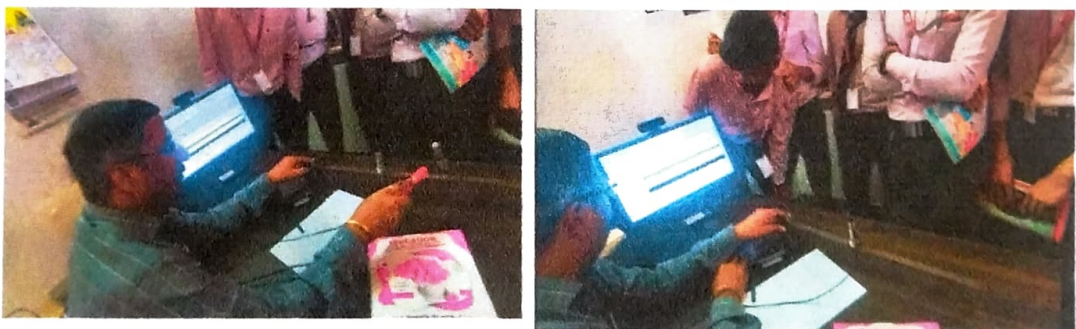
The coordinators, Prof. K. P. Joshi and Dr. P. P. Kulkarni, ensured smooth organization and execution of the event, contributing to its success. The expert talk concluded with a vote of thanks, and the students expressed their appreciation for the opportunity to learn from an industry expert.

Overall, the session proved to be a valuable learning experience, equipping the participants with practical knowledge and skills that are essential in the mechanical engineering industry.

11. Photos



Prof. K. P. Joshi presenting a token of appreciation to Mr. K. U. Shinde during the felicitation ceremony.



Students engaging in practical experimentation under the guidance of Mr. K. U. Shinde.

12. Attendance:



Sandip Foundation's
Sandip Institute of Engineering and Management.

At & Po - Mahiravani, Trimbak Road, Nashik-422213

Phone (02594) 222 581 82 83 84, Fax (02594) 222 585

<http://www.sandipfoundation.org> / info@siem.org.in

Approved by AICTE, New Delhi & Gov. of Maharashtra

Affiliated to Savitribai Phule Pune University, Pune

Accredited with "A" grade by NAAC With CGPA Score of 3.10



Expert Talk

Student Attendance Sheet

Date- 16/10/2024

Sr. No.	Name of Session - FFT analyzer	Student Name	Branch	Class	Roll No	Division	Signature
1		Manisha Arun Jadhav	mecH	BC	06		[Signature]
2		Ashay Padat	mecH	BE	12		[Signature]
3		Nakul Mahale	mecH	BE	03		[Signature]
4		Swaraj Dhumale	mecH	BE	20		[Signature]
5		Kemant Thakare	mecH	BE	15		[Signature]
6		Ganraj Shinde	mecH	BE	13		[Signature]
7		Aniruddha Ashok Thakare	mecH	B.E	14		[Signature]
8		Pratapsingh Sabil Ravindray	mecH	B.E	11		[Signature]
9		Ushadane Pawan Sunil	mecH	BE	02		[Signature]
10		Manishbade Sahil Mahendra	Mech	BE	16		[Signature]
11		Kunbhade Vibhava Pradip	mecH	BE	32		[Signature]
12		Mali Ritesh Umesh	Mech	BE	10		[Signature]
13		Om Umesh Ganraj	Mech	BE	5		[Signature]
14		Arjun Ashok Ganraj	Mech	B.E	28		[Signature]
15		Dhirenharanraj Wavare	Mech	BE	17		[Signature]
16		Aparna Jaywant Patil	Mech	B.E	25		[Signature]
17		Saham Haribhav Badakh	Mech	B.E	01		[Signature]
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

P.P. Kur
Event Coordinator

[Signature]
Dr. A. S. Dube
HOD



[Signature]
Dr. D. P. Patil
Principal
PRINCIPAL



**Sandip Foundation's
Sandip Institute of Engineering and Management,**

At & Po –Mahiravani, Trimbak Road, Nashik-422213

Phone: (02594) 222 581/82/83/84. Fax (02594) 222 585

<http://www.sandipfoundation.org> info@siem.org.in

Approved by AICTE, New Delhi & Gov. of Maharashtra

Affiliated to Savitribai Phule Pune University, Pune

Accredited with "A" grade by NAAC With CGPA Score of 3.10



**SANDIP
FOUNDATION**

Department of Mechanical Engineering

Date: 16 October 2024

Letter of Thanks for Expert Lecture on FFT Analyzer

Dear Mr. K.U. Shinde,

Greetings of the Day!

On behalf of the **Mechanical Engineering Department** at **Sandip Institute of Engineering and Management (SIEM)**, we would like to extend our heartfelt thanks for delivering an insightful and engaging lecture on **FFT Analyzer** on **16 October 2024**.

Your expertise in the subject, coupled with the clarity and depth of your presentation, made complex concepts both accessible and comprehensible to our students. The session, which took place from **11:00 AM to 12:15 PM**, provided invaluable practical insights, significantly enhancing their understanding of the real-world applications of FFT analysis in mechanical engineering design.

We sincerely appreciate the time and effort you invested in making the session both informative and impactful. Your contribution has greatly inspired our students to explore this critical area of engineering further. We look forward to future opportunities for collaboration.

Once again, thank you for your valuable contribution to the success of this academic event.

Warm regards,

Dr. P. P. Kulkarni
Expert Talk Coordinator

Dr. A. S. Dube
Head, Mechanical Engineering Department
Sandip Institute of Engineering and Management

Rec'd

16/10/2024