

DTE Code : EN6315



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**SANJEEVAN**

**ENGINEERING & TECHNOLOGY INSTITUTE, PANHALA**

Somwar Knowledge City, Somwar Peth, Panhala, Dist. Kolhapur, Maharashtra  
Pin-416 01 (Maharashtra) Phone: 9149991500

Approved by AICTE, New Delhi & Recognized by Govt. of Maharashtra & HTE  
& Permanent Affiliation by Dr. Babasaheb Ambedkar Technological University, Raigad

## FACULTY DEVELOPMENT PROGRAMME

**Title of proposal:** Faculty Development program of Advanced Physics in Engineering.

### Abstract:

This FDP will give a path for developing research skills & better understanding of recent research. Enlighten with the most widely used advanced technologies in Physics.

### Specific objective:

- To empower the faculty members with the innovative ideas to create tool, systems & methods to achieve specific goals by use of knowledge of science.
- To develop the knowledge of thin films & its wide range of applications for engineering.
- To explore possible solutions to energy crisis using magnetic materials.
- To explore applications of Nano materials to reduce air pollution & generate electrical powers.
- To explore applications of Nanomagnetism in various engineering domain

### Expected outcome:

- Enhance the levels of thinking to apply scientific knowledge for making tasks easier & more efficient. This will help to enhance problem analysis skills. (PO-1, PO-2)
- Enlighten with the concepts of Physics which are most widely used in advanced engineering and technologies. This will help in research activities. (PO-1, PO-2, PO-3)
- Gain better understanding of recent development & research. (PO-1)

*Asana*

DP Co-ordinator

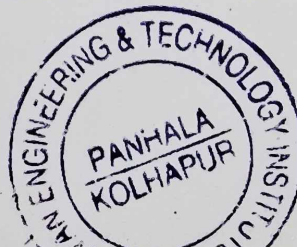
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H.O.D.

Department of  
Basic Sciences and Humanities

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ANCI Code : U-10105

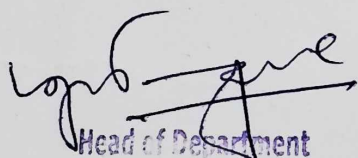
# SANJEEVAN

ENGINEERING & TECHNOLOGY INSTITUTE, PANCHALA  
Sanjeevan Knowledge City, Somwar Peth-416201, Panhala, Tal. Panhala, Dist. Kolhapur  
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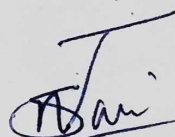
## FDP Schedule

Date	Name	Designation	Organization	Topic	Time
1 <sup>st</sup> March, 2024	Dr. R. S. Patil	Professor	D. Y. Patil, Engineering College, Kolhapur	Foundation of Science & Technology- Quest for Truth.	11:00AM to 01:00 PM
	Dr. B. R. Sankpal	Professor	VNIT, Nagpur	Nano embedded thin films: Synthesis to application	03:00 to 05:00PM
12 <sup>th</sup> March	Dr. R. S. Patil	Professor	D. Y. Patil, Engineering College, Kolhapur	Science of learning & quality Education-core premise	11:00AM to 01:00 PM
13 <sup>th</sup> March	Dr. Mrs. K.K.Patankar.	Assistant Professor	Ismail Yusuf College, Mumbai.	Physical properties of rare earth doped nano ferrites.	11:00AM to 01:00 PM
14 <sup>th</sup> March	Dr. P. B. Sarawade	Assistant Professor	Mumbai University, Mumbai.	Exploring nano materials by Electron Microscopy	11:00AM to 01:00 PM
15 <sup>th</sup> March	Dr. P. B. Patil.	Assistant Professor	The New College, Kolhapur	Nanomagnetism and Spintronics	11:00AM to 01:00 PM

  
Head of Department

Basic Sciences & Humanities(Degree)  
Sanjeevan Group of Institutions,  
Somwar Peth - Panhala, Dist-Kolhapur, 416201





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Faculty Development program  
On  
Advanced Physics in Engineering


Day 1 (11<sup>th</sup> March, 2024)

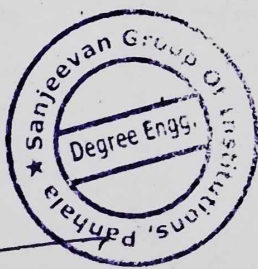
**Inaugural session**

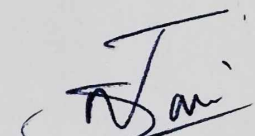
The course is intended to make the participants aware & able to on this emerging area. Around 68 participants attended this program to gain the knowledge. The program commenced on 11<sup>th</sup> march, 2024 on Google Meet app with introductory and motivational speech from following dignitaries:

1. Mr. S. P. Nangre. (HOD of BSH, SETI)
2. Dr. S. G. Sapate. (Vice-Principal, SETI)
3. Dr. S. N. Jain. (Principal, SETI)

Ms. Afsana Sayyad, Assistant Professor & coordinator of FDP, welcomed all & threw light on the main vision of FDP in her introductory speech. Mr. S. P. Nangre, HOD of Basic Science & Humanities, introduced about FDP. Dr. S. G. Sapate, Vice-Principal, encouraged the participants to utilize the opportunity to its maximum. Dr. S. N. Jain, Principal, congratulated and motivated the organizers for conducting FDP. Principal Dr. S. N. Jain highlighted the achievements institute. He also said that it is the best way to enhance the professional development.

  
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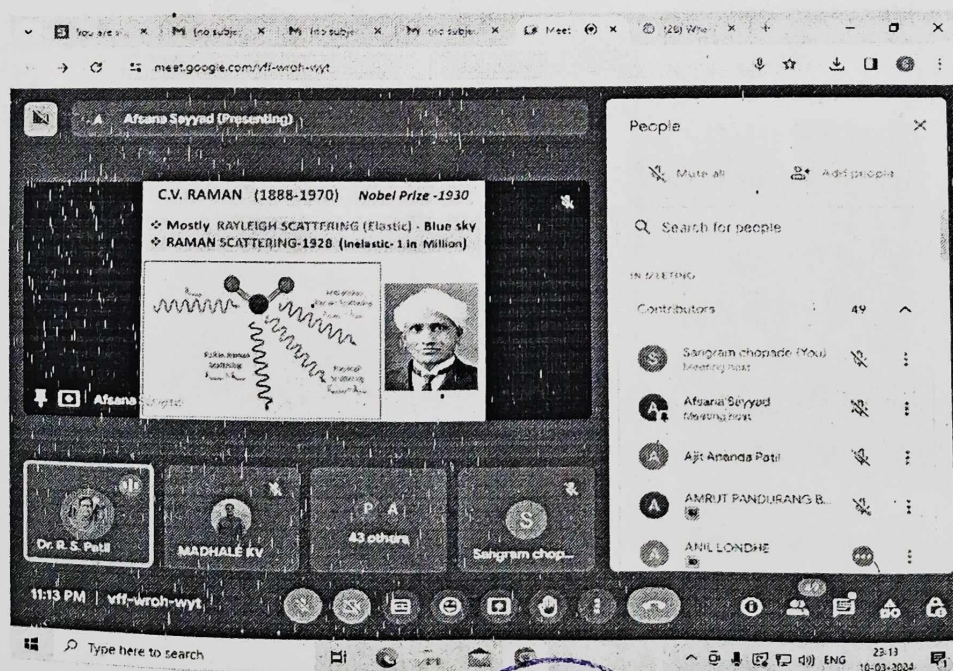
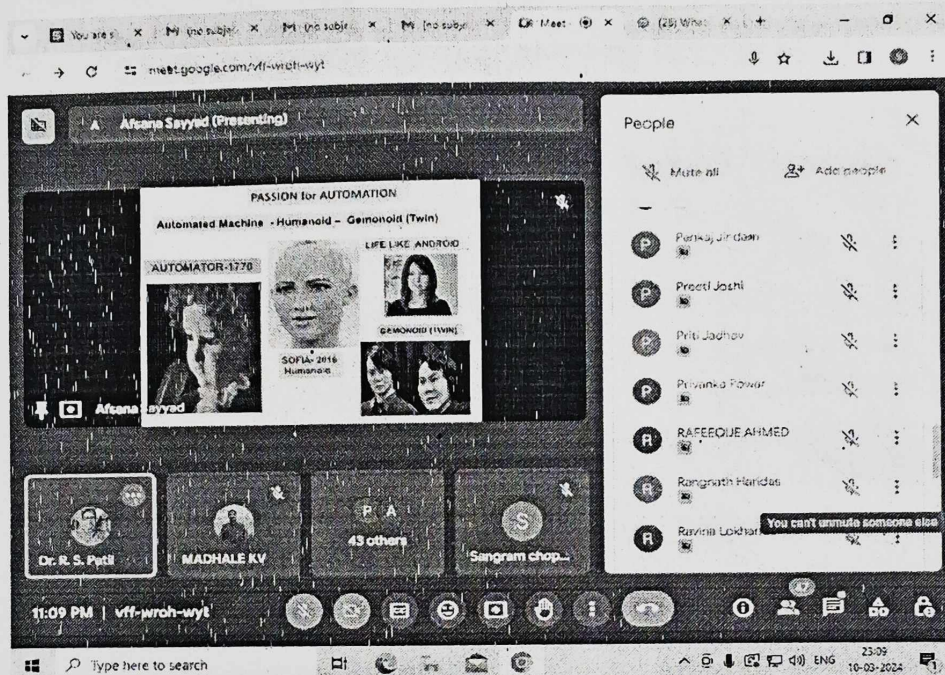


  
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## Session I (11:20am to 1:00pm)

In this session, lecture was taken by the Dr. R. S. Patil delivered the talk on **Foundation of Science & Technology - Quest for Truth**. He explained that science is essentially knowledge it is concerned with human understanding of real world around with various examples. He concluded Science & technology have reduced the complexities and improved our living standards. The main issue lies in using these technologies in a negative way which may lead to destruction of the world. The best use of it will surely be a blessing for human race and development.



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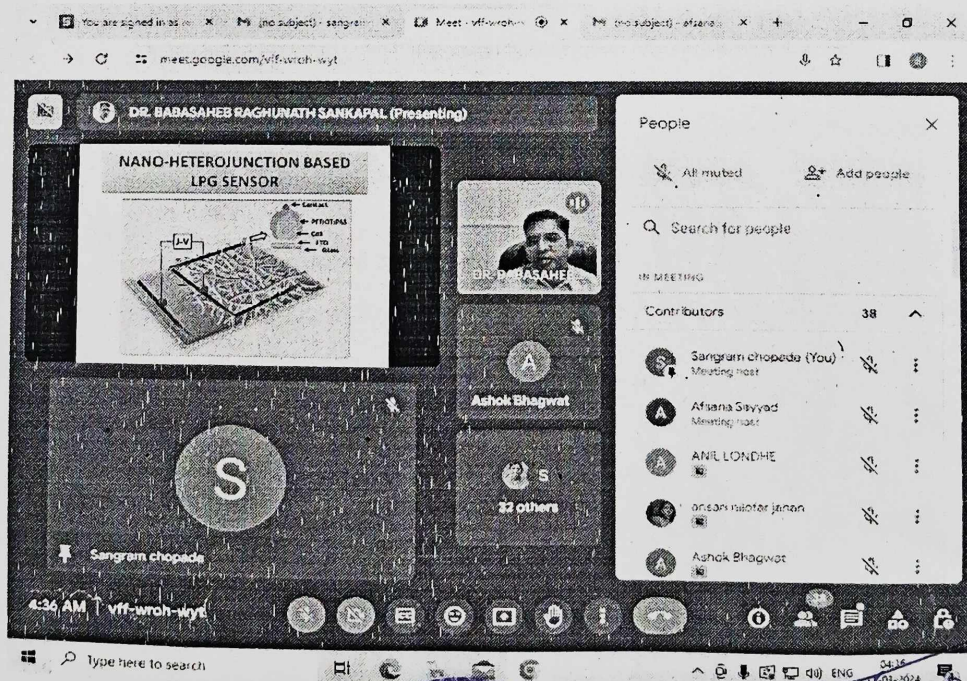
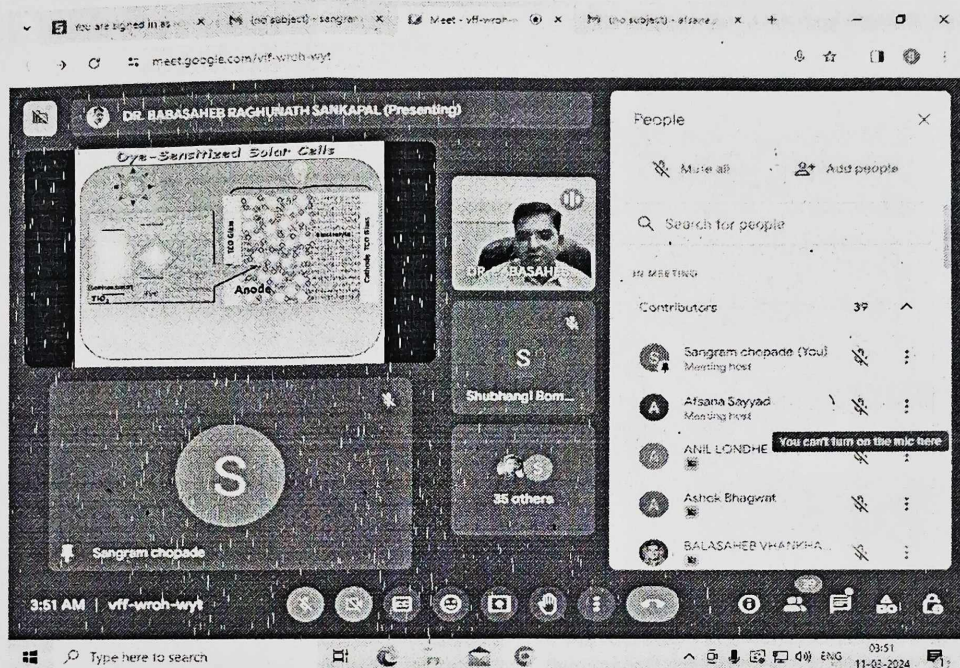
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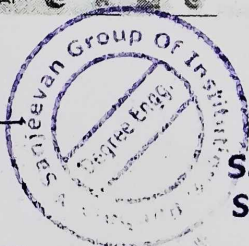


## Session II (3:00pm to 5:00pm)

In this the speaker was Dr. B. R. Sankapal delivered the lecture on the **Nano embedded thin films: Synthesis to application**. He developed the knowledge of thin films & its wide range of applications for engineering. He presented various method of synthesis of thin film in his presentation. He enlightened the participants with his great research work.



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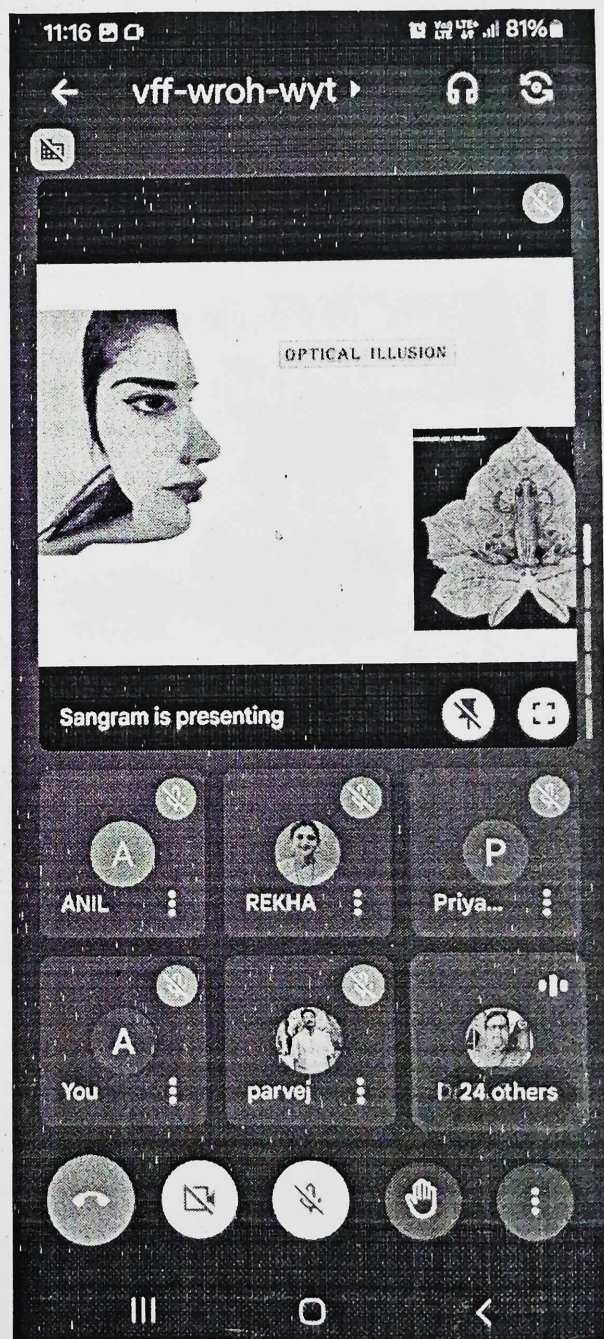
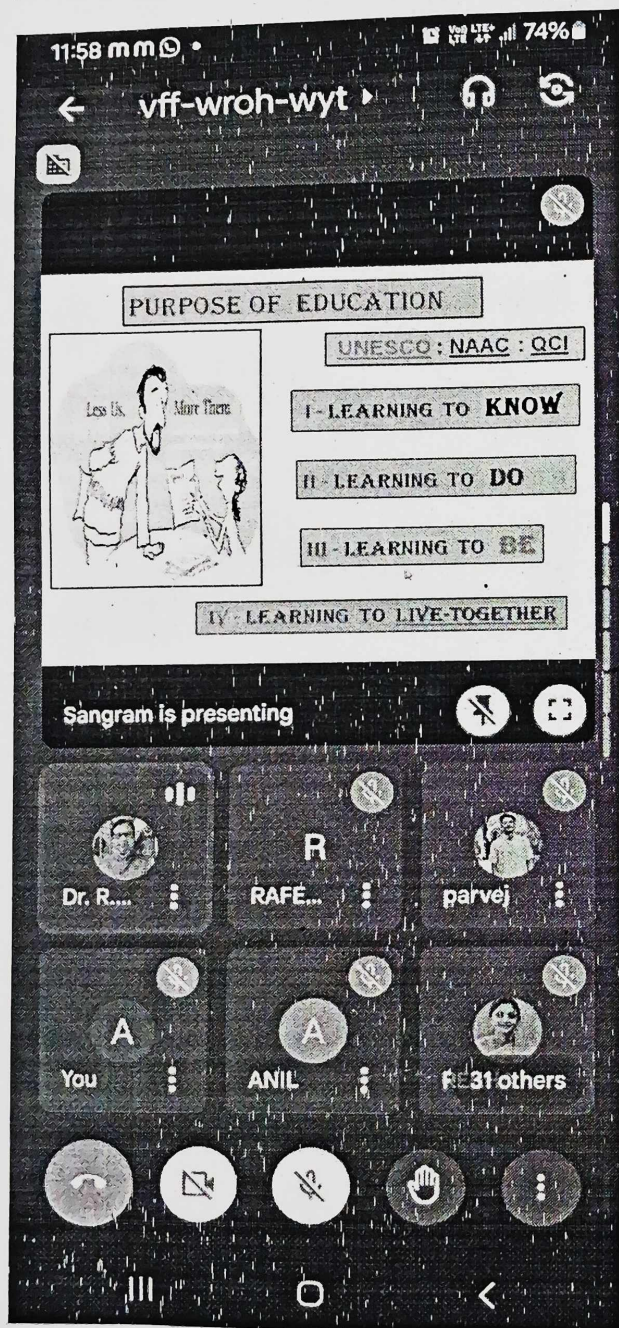



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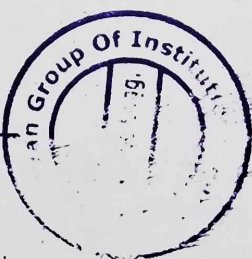


Day 2 (12<sup>th</sup> March, 2024)

On 2<sup>nd</sup> day the session was taken by Dr. R. S. Patil on Science of learning & quality Education-core premise. He explained the purpose of education, science learning by showing interesting videos of optical illusion. Also he showed slide of automated Machine, humanoid (SOFIA-2016), Gemonoid (Twin) in his presentation. He gave some task to all participants in the form of puzzles, optical illusion.



  
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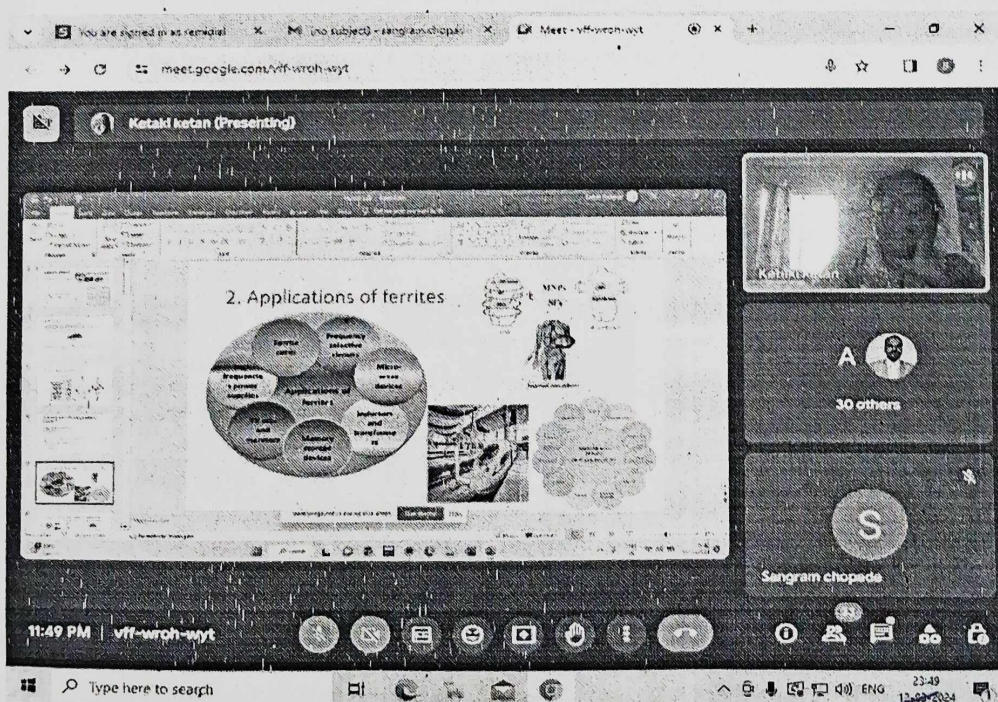
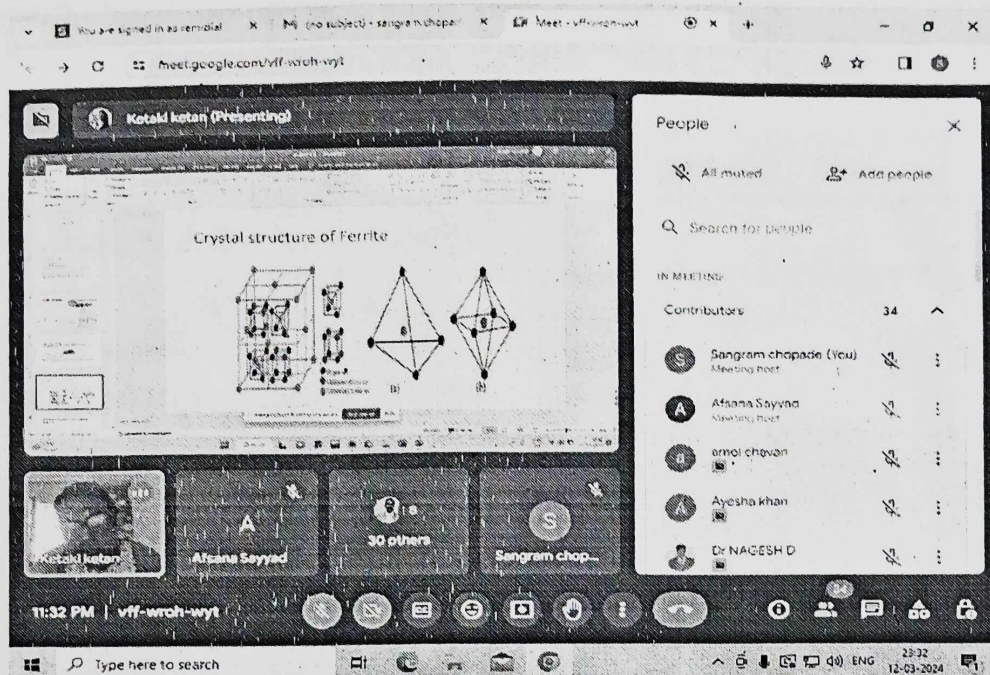


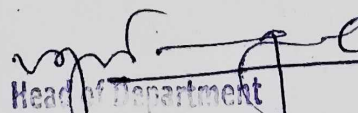
  
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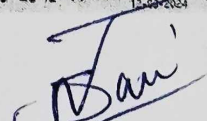
Day 3 (13<sup>th</sup> March, 2024)

On 3<sup>rd</sup> day, session was taken by Dr. Mrs. K. K. Patankar on **Physical properties of rare earth doped nano ferrites**. In her session she started with basic knowledge of magnetic materials & their properties. Then she explored possible solutions to energy crisis using magnetic materials in her intellectual talk. Also she represented her research work in her presentation.



  
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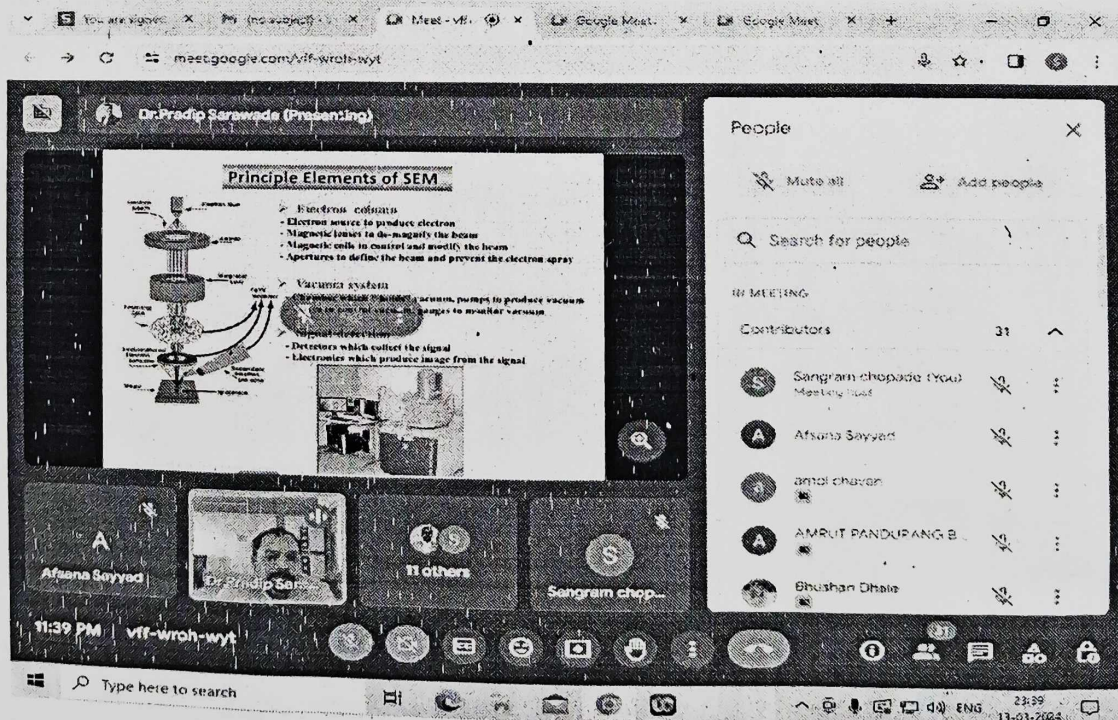
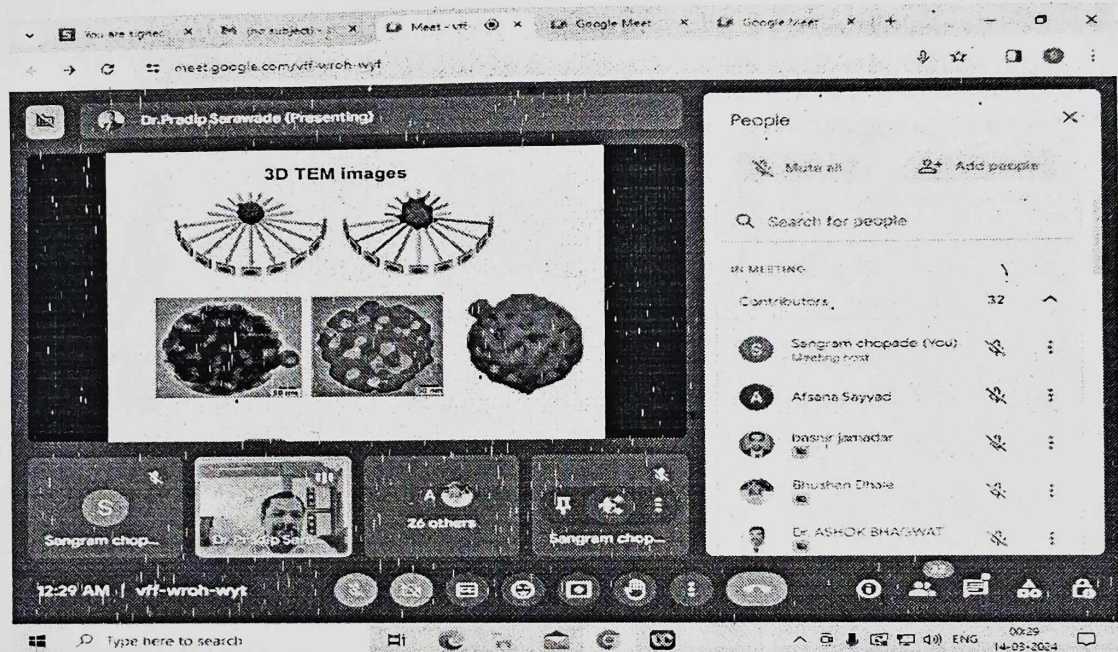


  
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Day 4 (14<sup>th</sup> March, 2024)

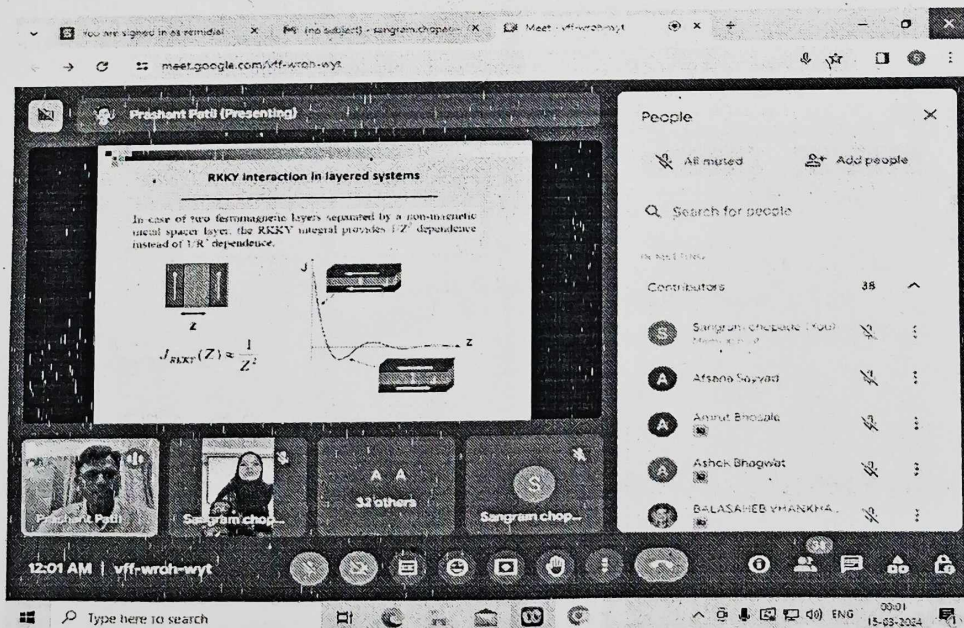
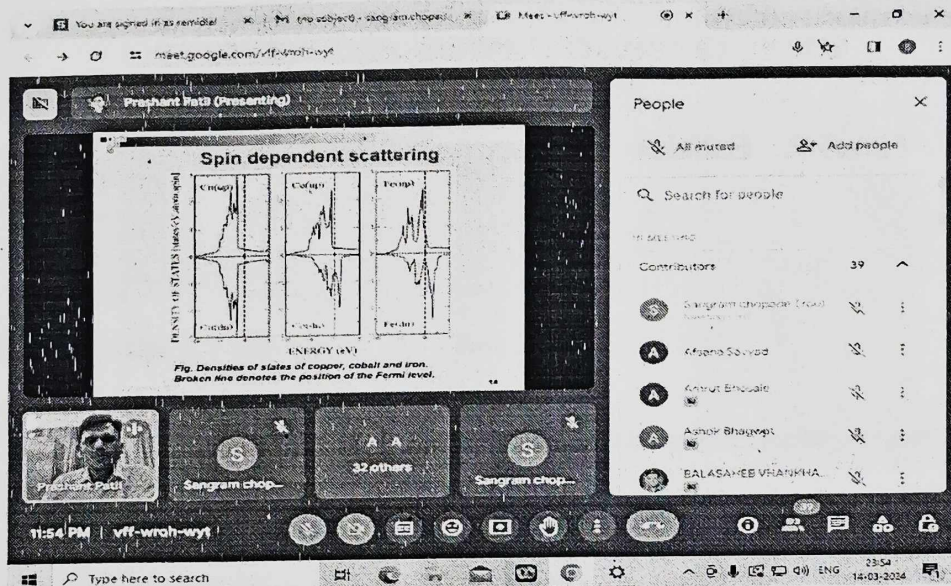
On 4<sup>th</sup> day, lecture was delivered by speaker Dr. P. B. Sarawade on Exploring nano materials by Electron Microscopy. He explored applications of Nano materials to reduce air pollution, generate electrical powers. He explained details of different types of microscopy to study the materials on lower scales. He showed that as changing the size of materials to lower scales will give many applications to advances the technology.





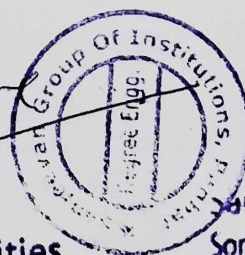
Day 5 (15<sup>th</sup> March, 2024)

On the last day of FDP, the lecture was delivered by Dr. P. B. Patil on **Nanomagnetism and Spintronics**. He talked on applications of Nanomagnetism in various engineering domain. He said that a fundamental understanding of nanomagnetism can be exploited system and architecture that possess new functionalities. He explained that how spintronics devices are used in the field of mass storage devices to compress massive amount of data into a small area.



Arsana  
P Co-ordinator

H.O.D.  
Department of  
Basic Sciences and Humanities



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## Valedictory

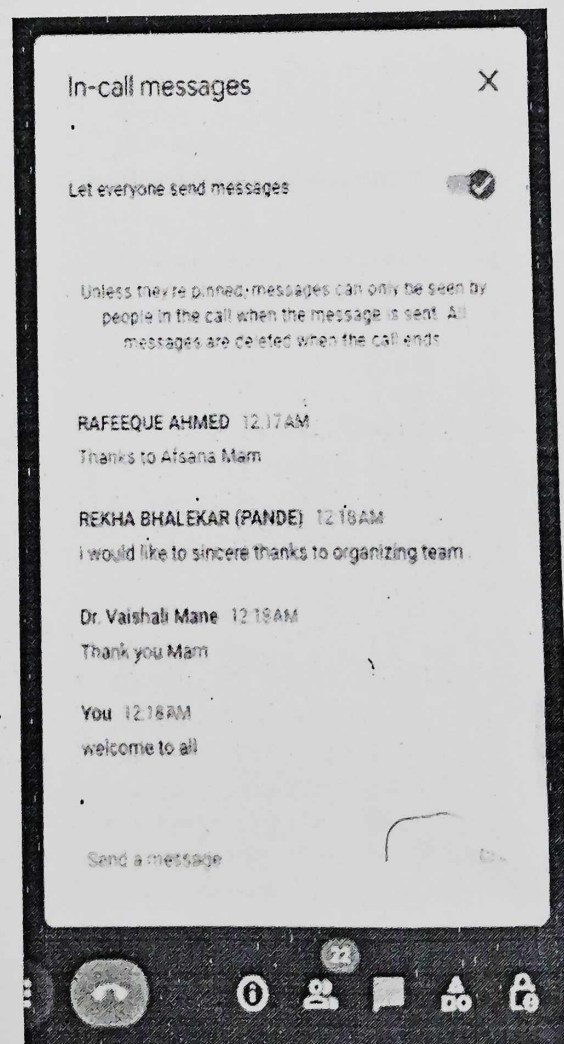
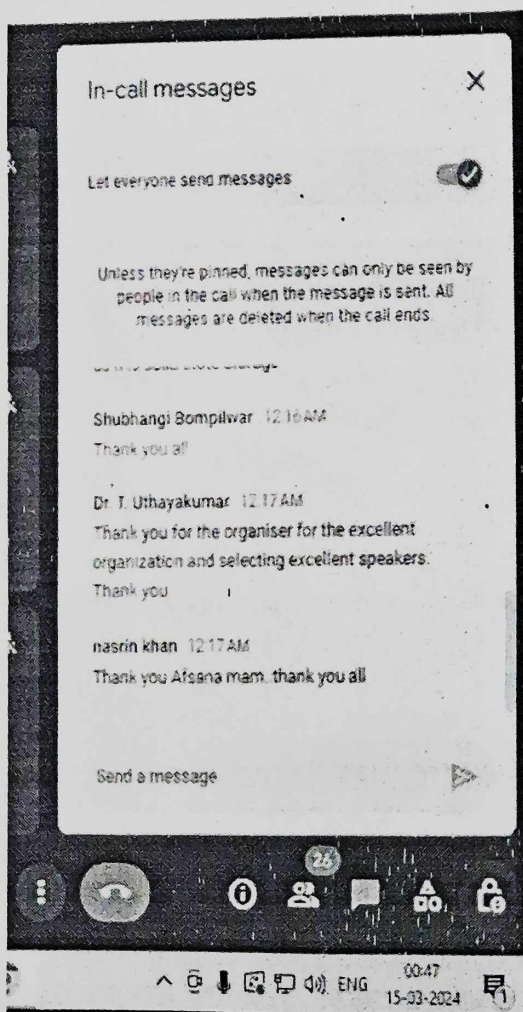
On last day of FDP, after the session of Dr. P. B. Patil, Mr. S. P. Nangre, HOD of BSH, thanked all the speakers for accepting invitation to deliver session in FDP. He also thanked all participants for their participation & cooperation. He also thanked Chairman, Joint Secretary, Principal & vice Principal for their support to conduct faculty development program. He also thanked the coordinator & technical staff who made the FDP successful.

After this, feedback and assignment link were provided to all participants.

Assignment link: <https://forms.gle/exHRfBAgymuxYpk16>

Feedback link: <https://forms.gle/Fbo5hXSDpdfgmGP27>

### Feedback (In-call Messages)

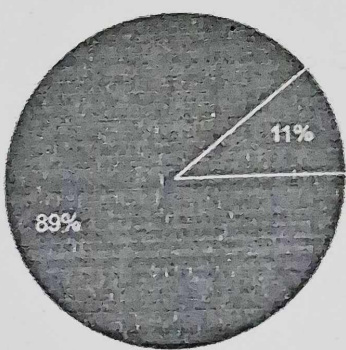




Summary of Feedback form

The content of FDP was informative and beneficial.

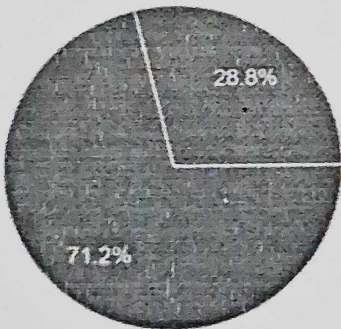
73 responses



- Excellent
- Very Good
- Good
- Average
- Poor

How would you rate session of Dr. R. S. Patil ?

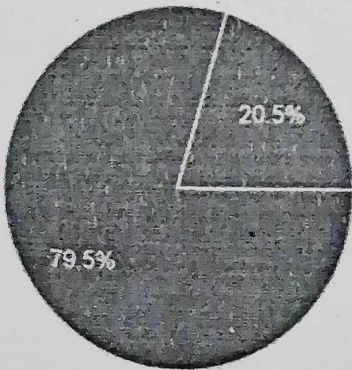
73 responses



- Excellent
- Very Good
- Good
- Average
- Poor

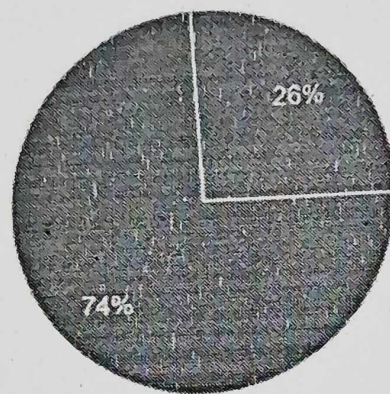
How would you rate session of Dr. B. R. Sankapal ?

73 responses



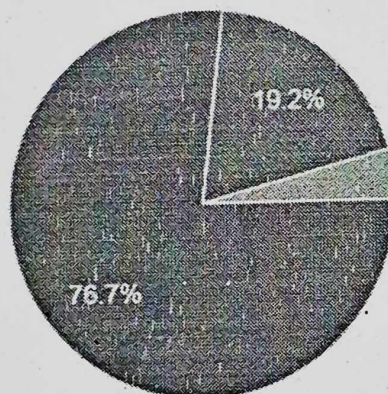
- Excellent
- Very Good
- Good
- Average
- Poor

How would you rate session of Dr. Mrs. K. K. Patankar ?  
73 responses



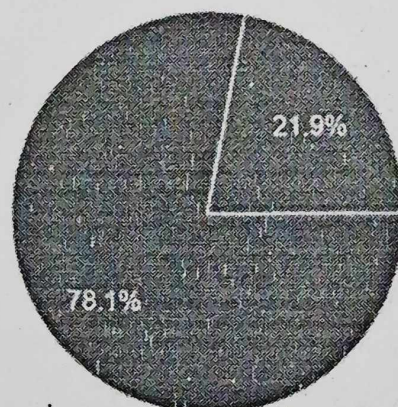
- Excellent
- Very Good
- Good
- Average
- Poor

How would you rate session of Dr. P. B. Sarawade ?  
73 responses



- Excellent
- Very Good
- Good
- Average
- Poor

How would you rate session of Dr. P. B. Patil ?  
73 responses

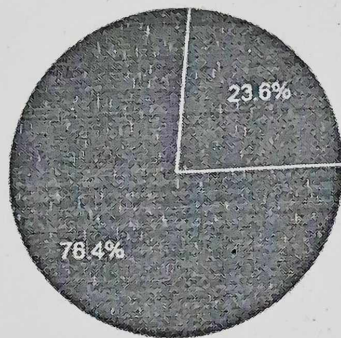


- Excellent
- Very Good
- Good
- Average
- Poor



### Selection of topics.

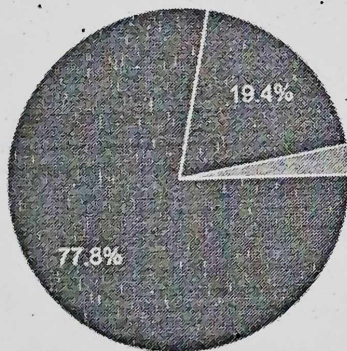
72 responses



- Excellent
- Very Good
- Good
- Average
- Poor

### FDP Organization.

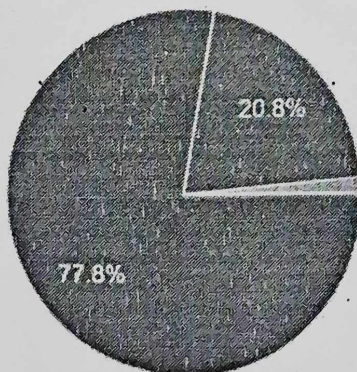
72 responses



- Excellent
- Very Good
- Good
- Average
- Poor

### Overall Feedback of the FDP.

72 responses



- Excellent
- Very Good
- Good
- Average
- Poor