



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute, Affiliated to
R.G.P.V, Bhopal)



**Editorial Board:
Faculty Members**

- Dr. Vandana Vikas Thakare
HOD
- Dr. Shubhi Kansal

Student Members
Prayansh Shrivastava
(EC-4th year)

Contact:
electronicsnewsletter@gmail.com

DEPARTMENT OF ELECTRONICS ENGINEERING

NEWSLETTER

January-March 2024/Issue-1

Department Vision

- To Prepare Globally Competent Electronics Engineers for Industrial Challenges and Societal needs.

Department Mission

- To provide quality education through need based curriculum and effective teaching learning process.
- To imbibe professional ethics, leadership and entrepreneur skills with a passion for lifelong learning
- Strengthening of employability skills through multidisciplinary projects and internships
- To inculcate the spirit of innovation and research to serve the needs of the society and industry

Programme Educational Objectives (PEOs)

PEO-1

Graduates of the program will be successful global collaborators with thriving technical and professional careers in the field of Electronics Engineering.

PEO-2

Graduates will have the ability to adapt latest technologies to contribute for sustainable development of society with effective research and entrepreneurship attitude.

PEO-3

Graduates will have the teamwork, professional excellence, communication, and interpersonal skills to enable them to work effectively with interdisciplinary teams in Industry, Government, and Academia



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Content

- 1. FDP/STC Attended(Outside/Inside) the Institute.**
- 2. Activities Organized(Workshop/Conference/FDP) at Institute Level.**
- 3. NPTEL/ATAL/Coursera/Internshala attended by faculty.**
- 4. Publication SCI/Scopus/UGC with DOI number.**
- 5. Student Club Activities Organized.**
- 6. Departmental Activities.**
- 7. Student's Achievement**

DEPARTMENT OF ELECTRONICS ENGINEERING



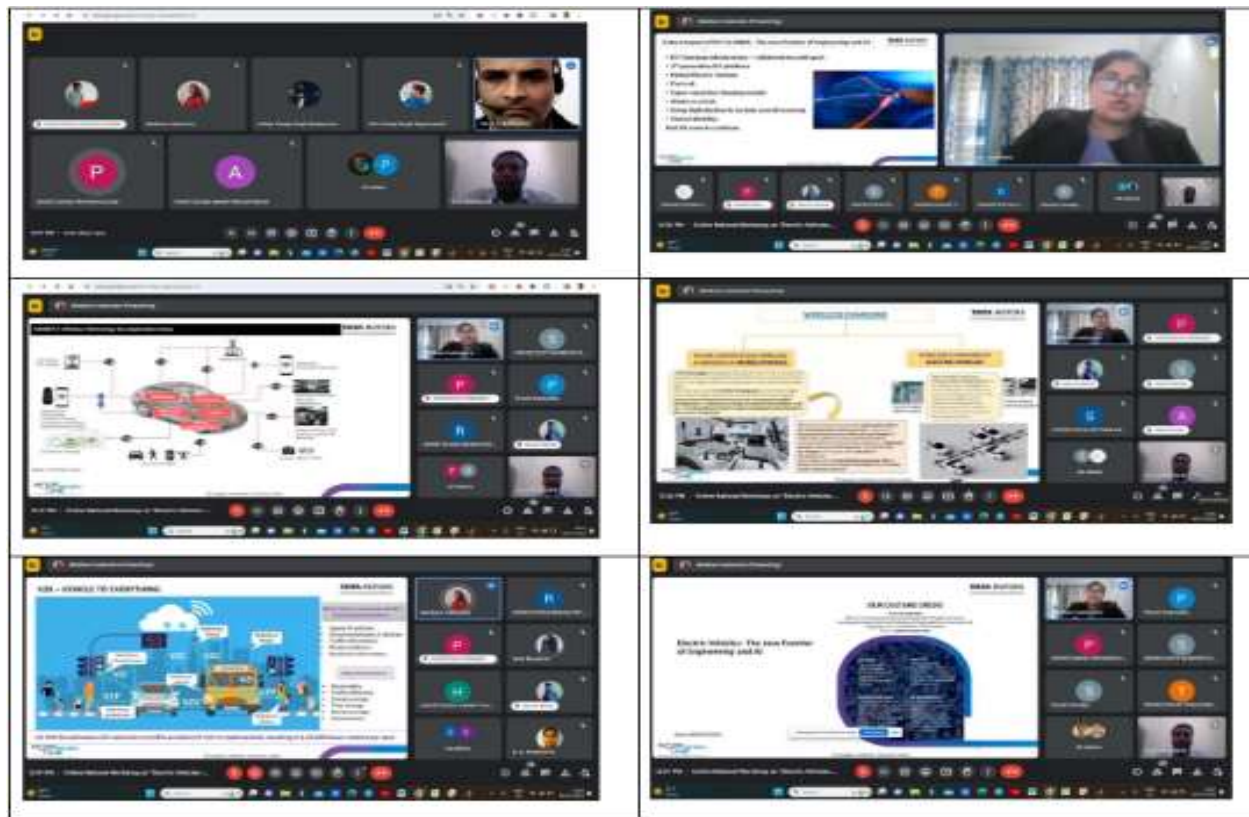
1.FDP/STC Attended(Outside/Inside) the Institute.

1. Mr. D.K. Parsediya successfully completed one-week workshop on "Future Communications Technologies: 5G & Beyond" during January 29-Feb. 3, 2024 organized by NIT Uttarakhand
2. Mr. Prateek Bhadauria Attended One Week Short Term Course on cutting edge advancements in biomedical engineering (CABE-2024) lab to Industry at NIT Jalandhar (Punjab) during 08-12 January 2024.
3. Dr. Sushmita Chaudhari successfully completed one-week FDP on Surface Engineering of Nanomaterials conducted by SWAYAM NPTEL during Jan-March 2024.
4. Dr. Vikas Mahor successfully completed one-week FDP on Neuroevolution based advanced semiconductor devices conducted by BITS Mesra from 7-11 March 2024.
5. Mr. Rachit Jain completed Five day FDP on "Future Challenges in 6G", 04.03.2024- 08.03.2024, Organized by Department of Wireless communication, SIMATS Engineering , Thandalam, Chennai, Tamil Naidu, India.



2. ACTIVITIES ORGANIZED AT INSTITUTE LEVEL

1. An Ethics Workshop was organized on “Anxiety and Peer Pressure for Goal setting” on 5th Feb 2024. Dr. Sapna Kumari delivered the lecture.
2. A national level workshop on 5G enabling technologies and applications was organized on 16th Feb 2024. Mr. Karthikeyan Sundaram, IIT Madras, Chennai and Mr. Vikram Singh, Gigayasa Wireless, Chennai. Delivered the talk.
3. An online workshop was organized on Electric vehicles- The new frontier of Engineering and AI on 9th March 2024. Ms. Medhavi Mahendra, Senior Manager, Tata Motors, Ms Sudha Ganugapenta, PGET, Tata Motors delivered the talk.







3. NPTEL/ATAL/Coursera/Internshala attended by faculty.

1. Dr. Sushmita Chaudhari successfully completed a 8 week NPTEL course on Surface Engineering of Nanomaterials in elite category from Jan-March 2024.
2. Dr. Jenkin Suji successfully completed a 8 week NPTEL course on “ Introduction to Machine learning” in elite category from Jan-March 2024.
3. Dr. Deepak Batham successfully completed a 8 week NPTEL course on “ Fuzzy logic and neural networks from Jan-March 2024.
4. Dr. Shubhi kansal successfully completed 8 week course on “ Creative Problem solving” conducted by NITTT.
5. Dr. Sushmita Chaudhari successfully completed a 8 week course on “ Creative Problem solving” and “Technology enabled learning” conducted by NITTT.



Elite NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
R JENKIN SUJI
for successfully completing the course

Introduction to Machine Learning (Tamil)

with a consolidated score of **63** %

Online Assignments	22.54/25	Proctored Exam	40.13/75
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Total number of candidates certified in this course: **197**

Devendra Jalihal

Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jan-Mar 2024
(8 week course)

Prof. Andrew Thangaraj

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL24CS36S549000227

To verify the certificate



No. of credits recommended: 2 or 3



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to
DEEPAK BATHAM
for successfully completing the course
Fuzzy Logic and Neural Networks
with a consolidated score of **46** %

Prof. Andrew Thangaraj

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Jan-Mar 2024)

Roll No: NPTEL24GE17S649300045

Duration of NPTEL course : 8 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 18th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023



Elite NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to
SUSHMITA CHAUDHARI
for successfully completing the course

Surface Engineering of Nanomaterials

with a consolidated score of **71** %

Online Assignments	18.75/25	Proctored Exam	52.5/75
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Total number of candidates certified in this course: **157**

Prof. Kaushik Ghosh

Prof. Kaushik Ghosh
Professor (Chemistry)
Coordinator CEC

Jan-Mar 2024
(8 week course)

Prof. Ranjana Pathania

Prof. Ranjana Pathania
Professor (RSBE)
Coordinator (NPTEL)



Indian Institute of Technology Roorkee



Roll No: NPTEL24ME20S549000229

To verify the certificate



No. of credits recommended: 2 or 3



4. Publication SCI/Scopus/UGC with DOI number.

1. **Deepak Batham, Vandana Vikas Thakare**, “An improved cost function-based class of service provisioning scheme for elastic optical networks,” Computer Networks, Volume 243, pp-110283, 2024. ISSN 1389-1286, DOI: <https://doi.org/10.1016/j.comnet.2024.110283>.
2. Bhupendra Dhakad and **Laxmi Shrivastava**, “Machine Learning-Based Risk-Aware Congestion Control Scheme for Minimization of Information Loss in Dense VANET Environment”, Journal of Circuits, Systems, and Computers (2024) 2450165 (27 pages) (SCI) DOI:10.1142/S0218126624501652
3. **Madhav Singh** and **Laxmi Shrivastava**, “Multi-objective optimized multi-path and multi-hop routing based on hybrid optimization algorithm in wireless sensor networks” Wireless Networks, March 2024. (SCI) DOI: <https://doi.org/10.1007/s11276-024-03686-5>
4. Singh, Prachi, and **Vikas Mahor**. "Prediction of Groundwater Contamination in an Open Landfill Area Using a Novel Hybrid Clustering Based AI Model." Environment Protection Engineering, Vol. 50(1), pp 172-190. DOI: <http://dx.doi.org/10.1080/15275922.2024.2330027> .
5. Prachi Singh, **Vikas Mahor** & Raj Mohan Singh (2024) A Novel Approach to Pollution Source Identification in Groundwater Using Hybrid Ensemble of Wavelet Neural Network (WNN) and ARIMA, Environmental Forensics, Taylor & Francis, (online first) DOI: 10.1080/15275922.2024.2330027



6. **R. Jain, V. V. Thakare, and P. K. Singhal**, "Design and Comparative Analysis of THz Antenna through Machine Learning for 6G Connectivity," IEEE Latin America Transactions, vol. 22, no. 2, pp. 82-91, 2024
7. R. Ramasamy, V. Rajavel, D. Ghoshal, **R. Jain**, R. Nanmaran, and S. Srimathi, "An Intelligent Antenna Optimization Using Machine Learning Algorithm for 5G Applications," in Advances in Data-Driven Computing and Intelligent Systems: Selected Papers from ADCIS 2023, Volume 3, 2024
8. **R. Jain, V. V. Thakare, P. K. Singhal**, R. Radhakrishnan, S. Gupta "Advancing the Frontiers of Connectivity: A Comprehensive Overview of 6G Communication Networks," for the upcoming book, "6G Communication Network: Architecture, Security, and Applications," published by CRC Press, Taylor & Francis Group, USA.
9. **Atul Sharma, Vandana Thakare, Pramod Singhal and Rachit Jain** , “Dual-Band Rectenna for Optimal RF Energy Harvesting in Wireless Applications”In 2024 IEEE Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI), ABV-IIITM Gwalior.
10. Shailendra Singh Ojha, **Vandana Vikas Thakare**, and **P. K. Singhal**. "Ultra-wideband rectenna with the dual ground plane for wide dynamic input power and load range." International Journal of Electronics (2024) pp 1-25.



5. S TUDENTS CLUB ACTIVITIES

1. A poetry competition 'Shame ulfat' was organized by Hindi club on 14th Feb 2024. Total 43 students participated in it.
2. An activity was organized by 'Prakriti club' on 13th March 2024.
3. 'Rashtraay club' performed a street play in DD mall on 13th Feb 2024.



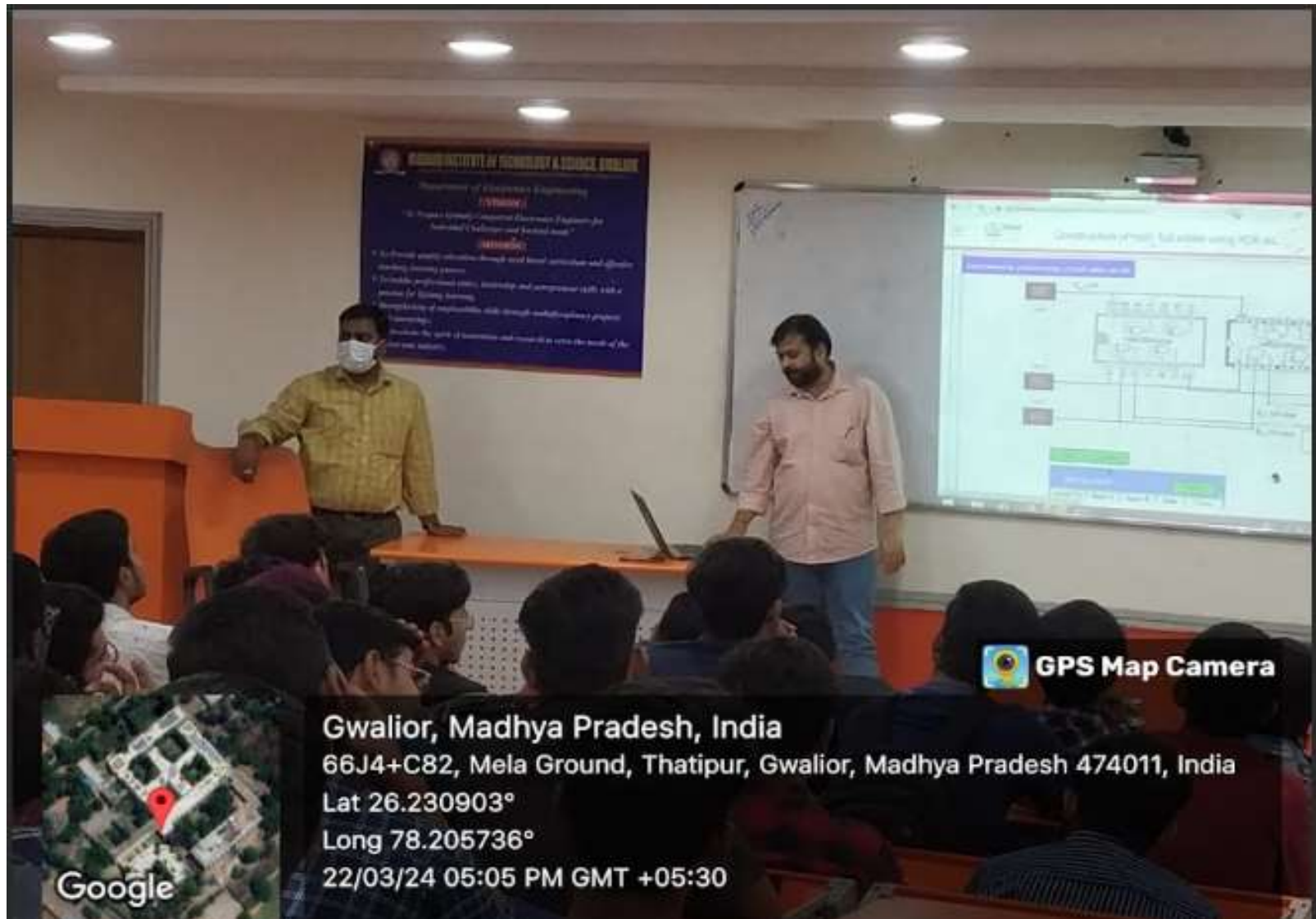






6. DEPARTMENTAL ACTIVITIES

1. Orientation program of 3 and 4th year was organized on 1 Jan 2024.
2. Orientation program of 2nd year was organized on 11 Jan 2024.
3. Orientation program of 1st year was organized on 25 Jan 2024.
4. Department organized an expert lecture on “the future of 5G communication” on 29th Jan 2024. Mr. Rachit Jain delivered the lecture
5. A webinar on “Campus to corporate in VLSI Design” was organized on 9th Feb 2024. Ms. Apurva Gupta, Senior VLSI Engineer, Microsoft, India delivered the talk.
6. Industrial visit was organized on 16th March 2024 by dept. for 2nd and 3rd year students to Smart controls Pvt Ltd, Malanpur. Dr. Deepak Batham and Dr. Hemant Chaubey coordinated the event.
7. An Online Panel discussion and interaction of Expert-Alumni on “Industrial demand and current adopted technologies in the field of Electronics was organized on 16th March 2024



GOVERNMENT OF MADHYA PRADESH
Department of Engineering Education
(GATEWAY)
"To provide a strong technical education platform for
technical education and technical staff"
(MISSION)
• To provide quality education through world class institutions and facilities
• To provide quality education
• To provide quality education, knowledge and experience (GATEWAY) for
the students of the state
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GPS Map Camera

Gwalior, Madhya Pradesh, India

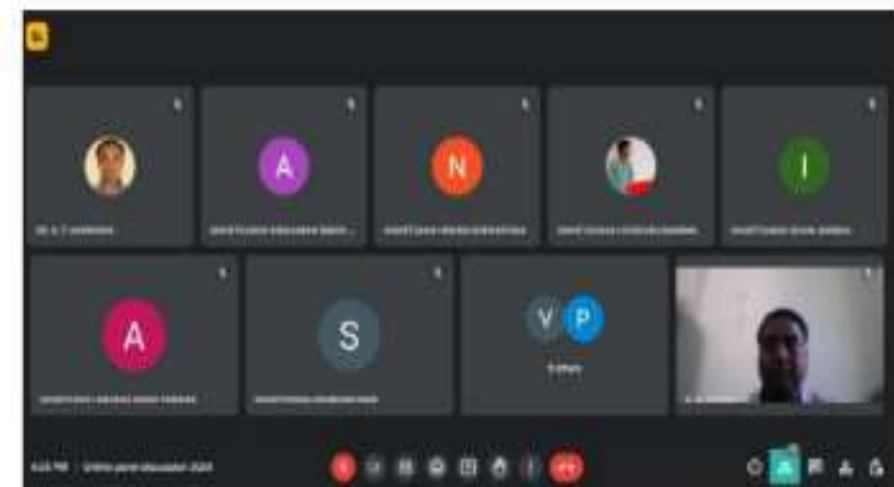
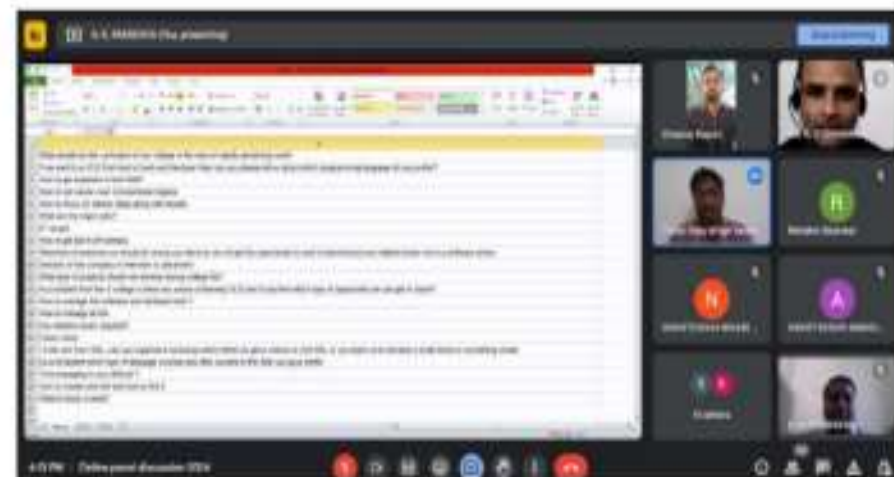
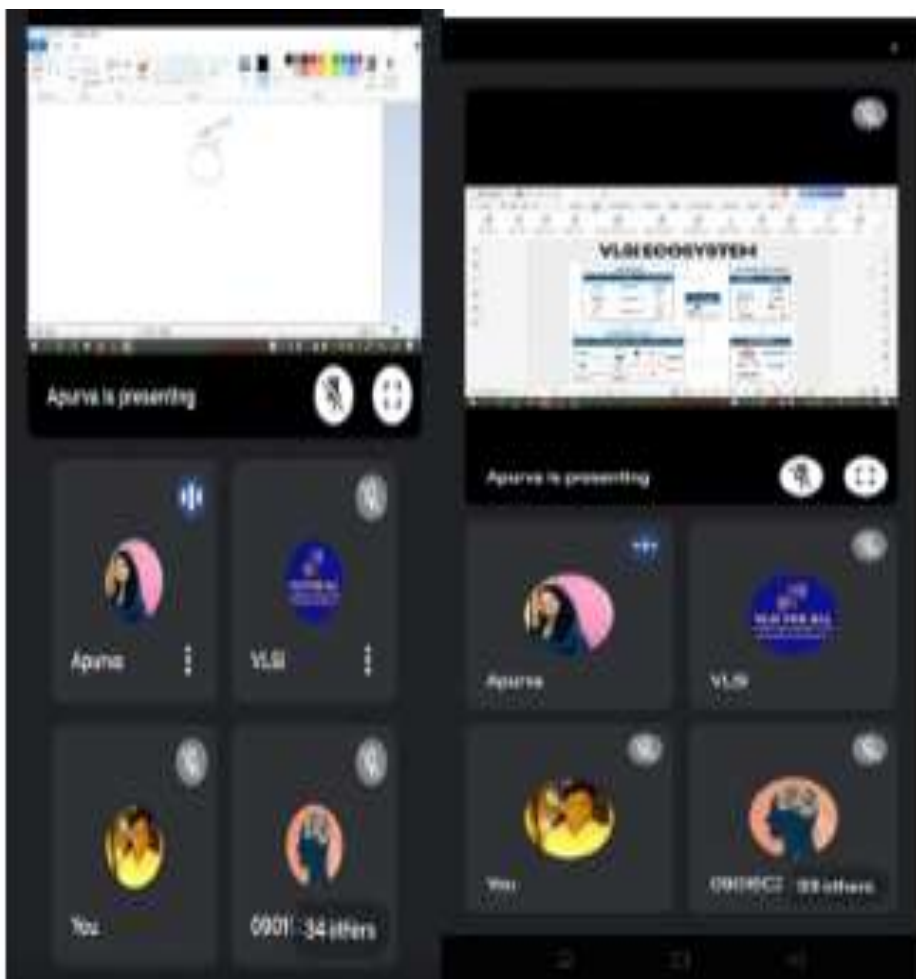
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22/03/24 05:05 PM GMT +05:30

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7. Student's Achievement

1. Total 25 student's cleared the GATE examination conducted in Feb 2024.
2. Shruti Jain EC final year student secured 75 AIR in GATE 2024.
3. Aditya Verma EC Third year student secured 410 AIR in GATE 2024.