

Report

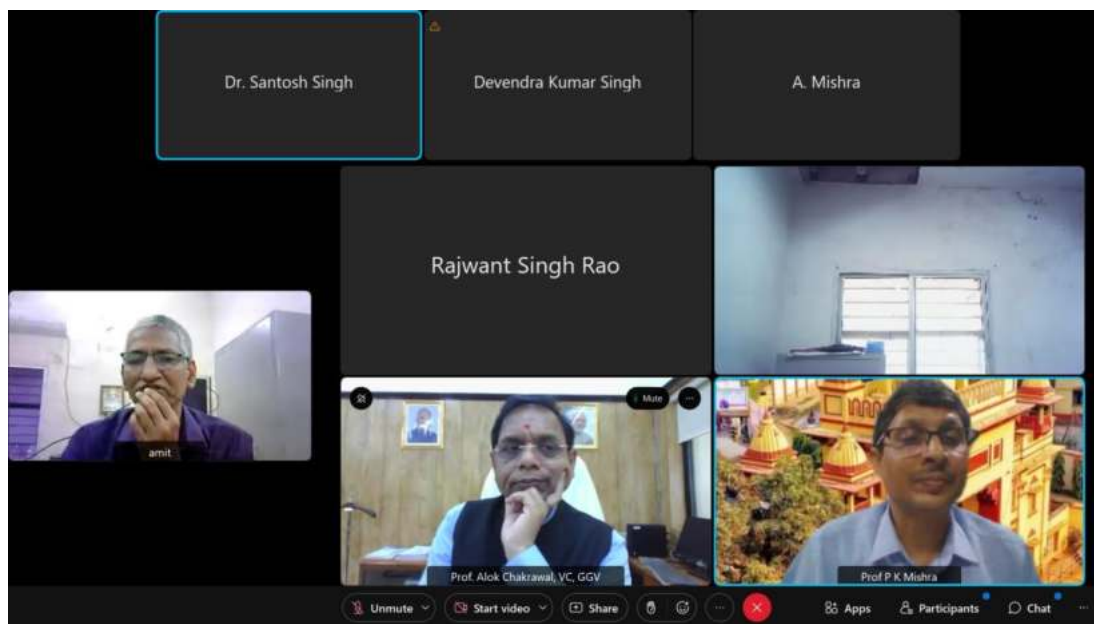
One Week (Online) Faculty Development Programme

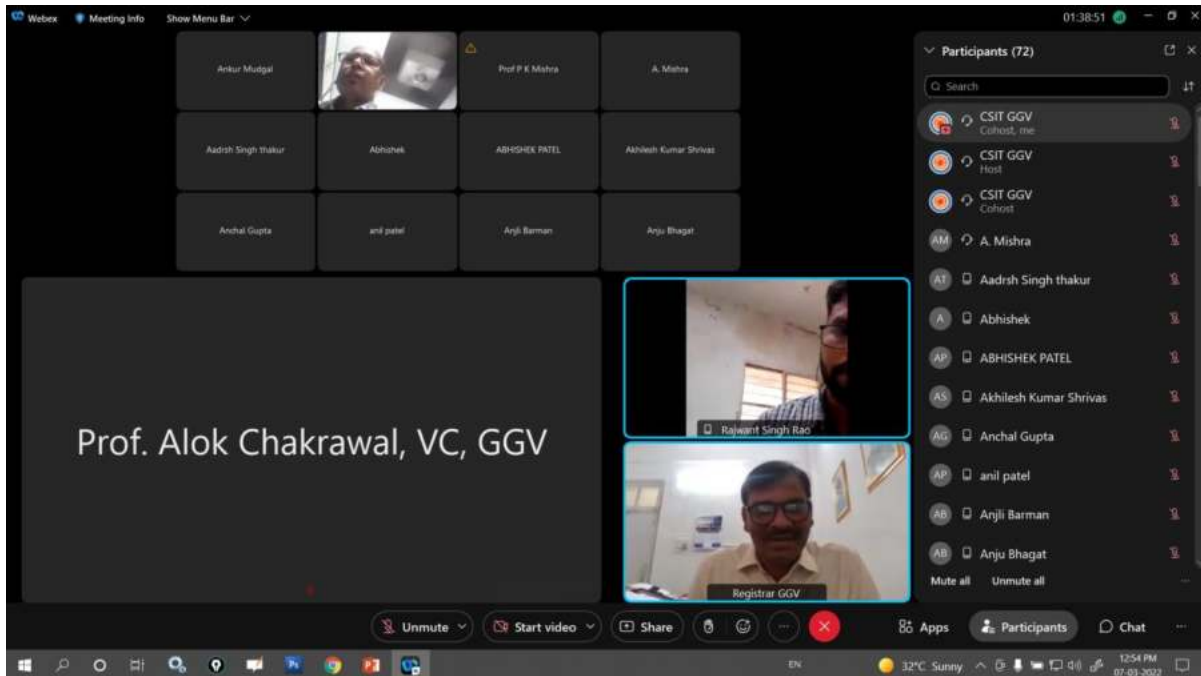
On

Emerging Trends in Machine Learning and Its Applications (7th-11th March, 2022)

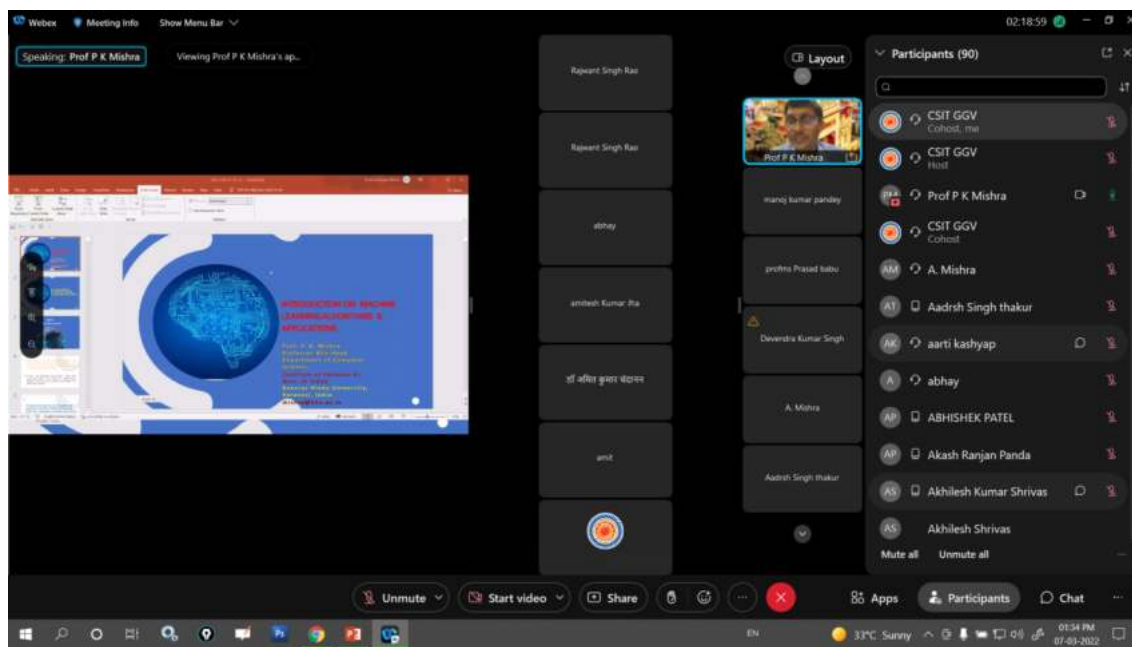
A five days FDP was organized by the department of CSIT during 7th March to 11th March, 2022 under the guidance of Prof. A. K. Saxena, Head of the department. There were 118 registered participants in the FDP from different departments and institutions of India.

The inauguration of the FDP was held on 7th March 2022 at 12.30 pm by the Honorable Vice Chancellor of GGV, Bilaspur Prof. Alok Kumar Chakrawal. Prof. P. K. Mishra from BHU, Varanasi was the special guest for the occasion. Prof. Shailendra Kumar, Registrar GGV and Prof. A. S. Ranadive, Dean School of Mathematical and Computational Sciences were also graced the occasion as guests of honour. The welcome address was given by the Convener, Prof. A. K. Saxena. Finally vote of thanks was given by Dr. Pushpalata Pujari. The whole inauguration session was coordinated by Dr. Rajwant Singh Rao.





There were ten brainstorming technical sessions in the FDP during these five days. The first technical session talk was delivered by Prof. P. K. Mishra of BHU, Varanasi. The topic was “Introduction on machine learning algorithms and applications”. He focused on different existing machine learning algorithms and their applications.




The afternoon session's speaker was Dr. Debi Prasad Das, Senior Scientist of CSIR-IMMT, Bhubaneswar. He delivered a talk on machine learning algorithms for Active noise control. Very nicely he discussed how we can suppress the noise generated in various industries, during journey in train, in aircraft and other situations using different adaptive filters and machine learning algorithms.

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Speaking: CSIT GGV (Cohost), Dr. Debi Prasad Das Viewing Dr. Debi Prasad Das...

04:24:34

Machine Learning Algorithms for Active Noise Control



Dr. Debi Prasad Das
Principal Scientist and Head
Process Engineering and Instrumentation
Department
CSIR-Institute of Minerals and Materials Technology
Bhubaneswar

CSIR-Institute of Minerals & Materials Technology
Bhubaneswar, INDIA

Participants (66)

- Dr. Debi Prasad Das
- CSIT GGV Cohost
- Aadrsh Singh thakur
- aarti kashyap
- Abhishek Patel
- ABHISHEK PATEL
- Akhilesh Kumar Shrivastava
- Amita Joshi
- amitesh Kumar Jha
- anshi
- bharat lal
- Damodar Patel

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Dr. Debi Prasad Das

amitesh Kumar Jha



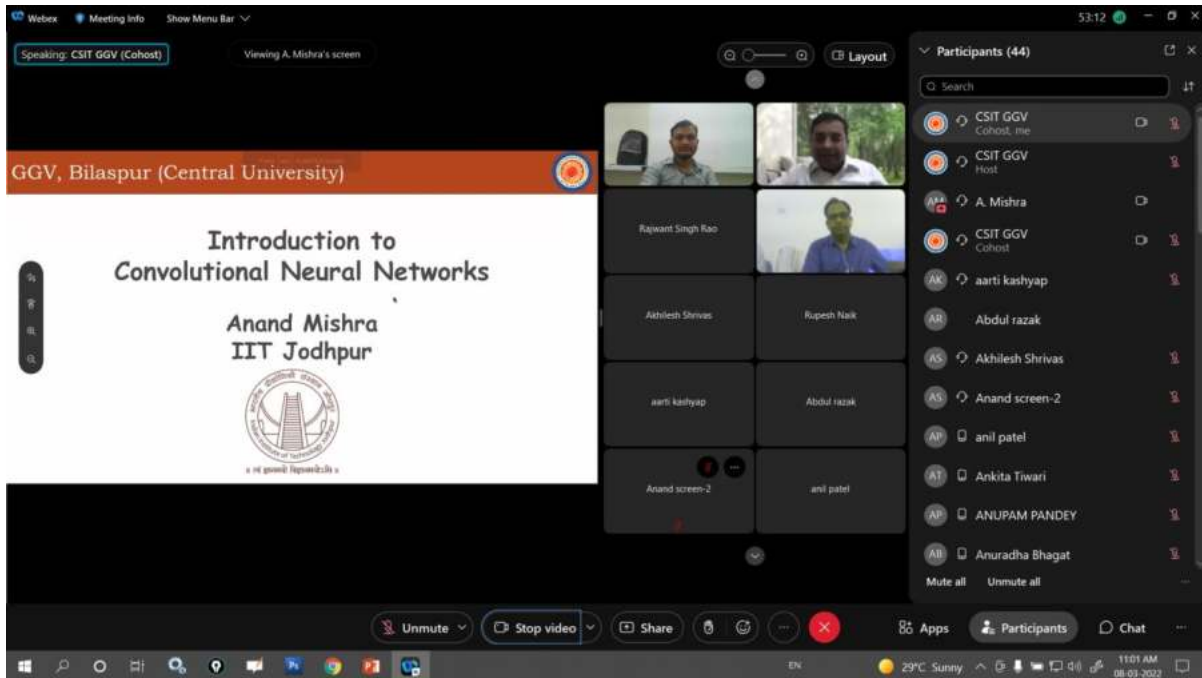
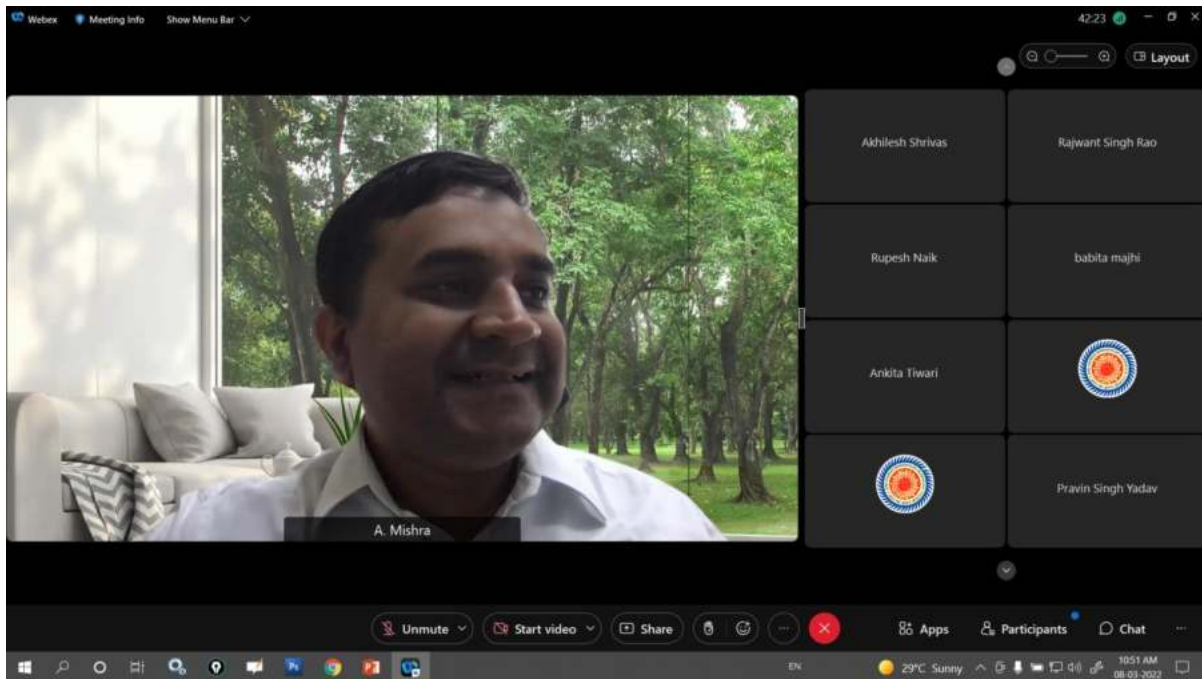
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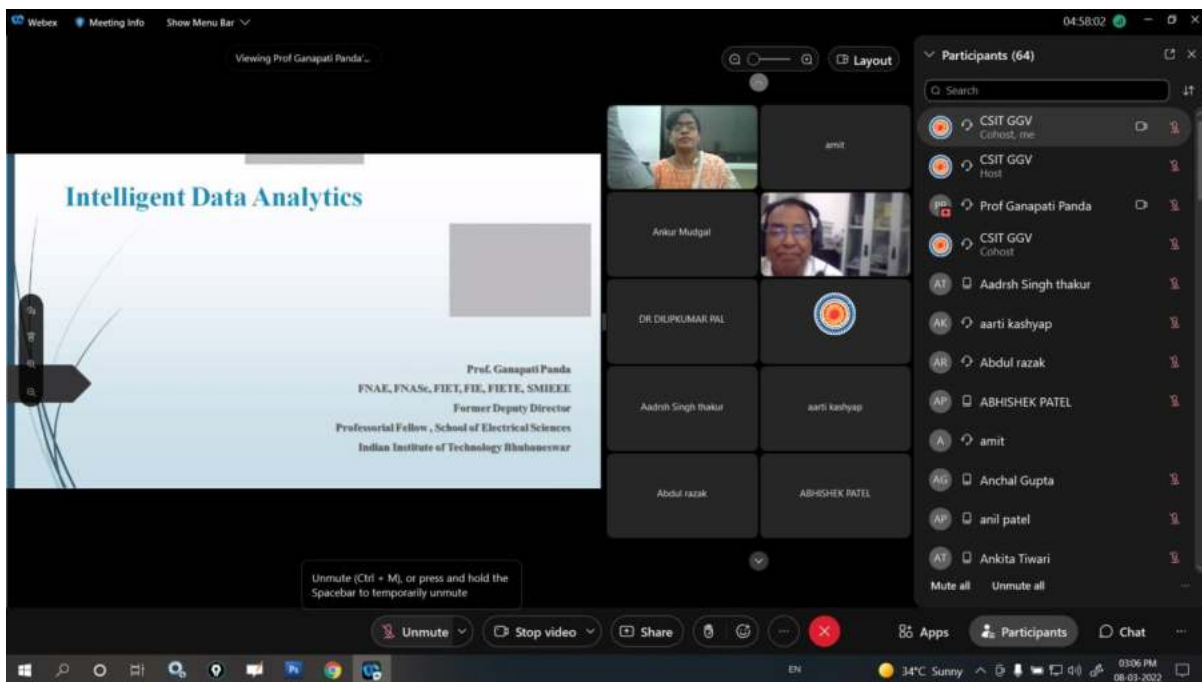
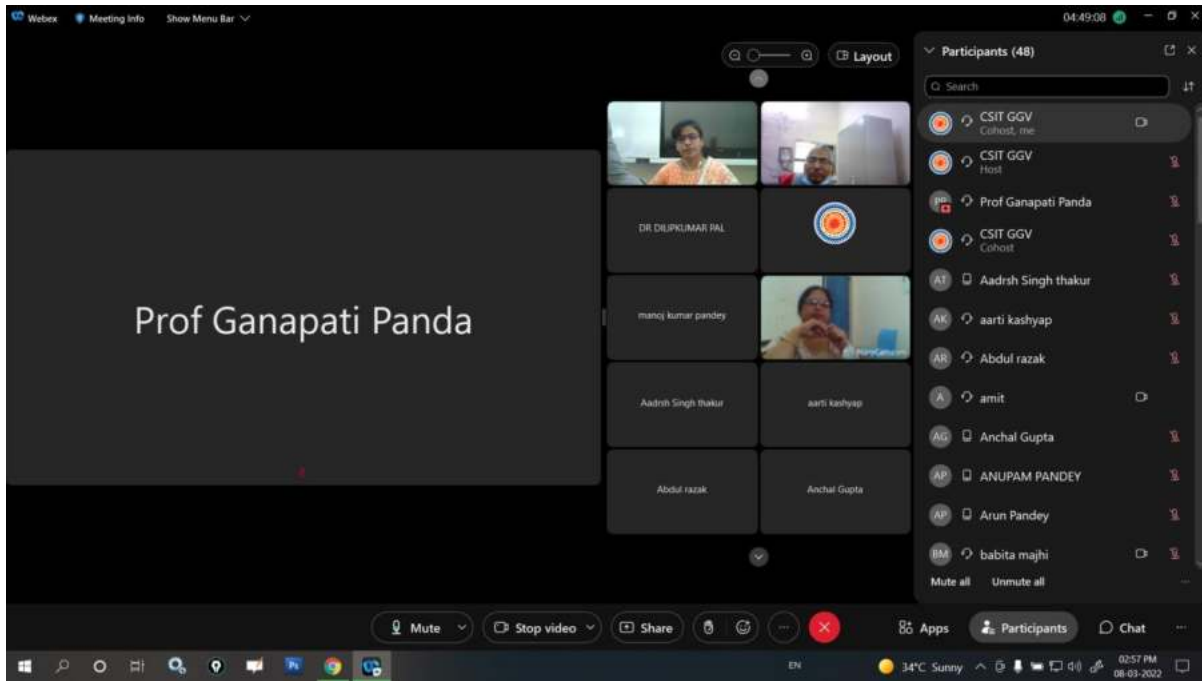
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On 2nd day of the FDP, the morning session's guest was by Dr. Anand Mishra, IIT Jodhpur. He explained the fundamentals of neural networks and brief about convolution neural network model.



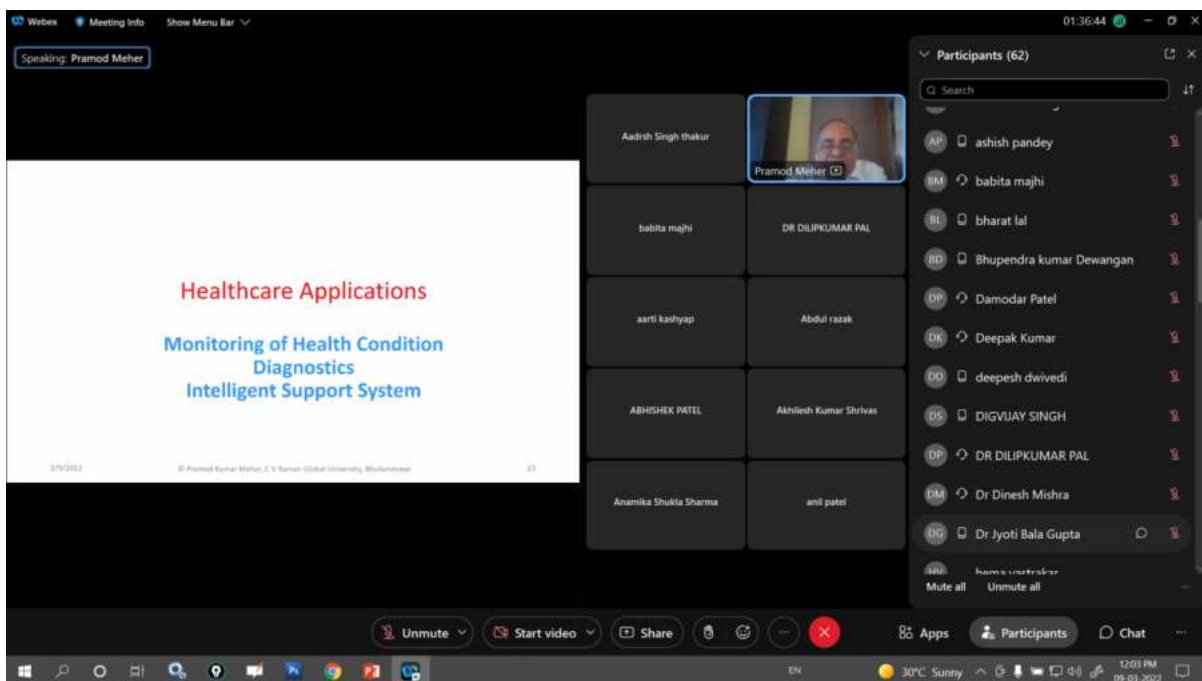
Intelligent data analytics and Convolution neural network fundamentals was the topic in the afternoon session on 8th March 2022 and delivered by Prof. Ganapati Panda, Ex-Deputy Director, IIT Bhubaneswar. He discussed how to do analysis of the real time data using different

machine learning and data mining tools. Also he focused on convolution neural network model, a very popular deep learning technique widely used now days in many real life applications.





3rd Day's sessions speakers were Prof. P. K. Meher, CVRG University, Bhubaneswar and Dr. Neeraj Rathore, IGNTU Amarkantak. Prof. Meher's talk was focused on "AI & ML applications at IOT Edge". He discussed many burning research problems and their implementation using IOT. Dr. Rathore taught python programming in the afternoon session which is very much helpful for the beginners in CS and also for participants from other interdisciplinary departments.



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CSIT GGV (Cohost)

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Participants (58)

- CSIT GGV Cohost, me
- CSIT GGV Host
- Pramod Meher
- CSIT GGV Cohost
- Aadrsh Singh thakur
- aarti
- Abdul razak
- ABHISHEK PATEL
- Abhishek Patel
- anil patel

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Chat

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Dr. NEERAJ RATHORE

Rajwant Singh Rao

Participants (47)

- CSIT GGV Cohost, me
- CSIT GGV Host
- Dr. NEERAJ RATHORE
- CSIT GGV Cohost
- aarti
- Akhilesh Shrivastava
- Anchal Gupta
- anil patel
- ANUPAM PANDEY
- babita majhi
- bharat lal
- Bhupendra kumar Dewangan

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Chat

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Python 3.10.0 (tags/v3.10.0:2020-10-14) [AMD64] on win32

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INTRODUCTION DATA, EXPRESSIONS, STATEMENTS

Introduction to Python and installation, data types: int, float, Boolean, string, and list, variables, expressions, statements, precedence of operators, comments, modules, functions - function and its use, flow of execution, parameters and arguments.

Introduction to Python and installation:

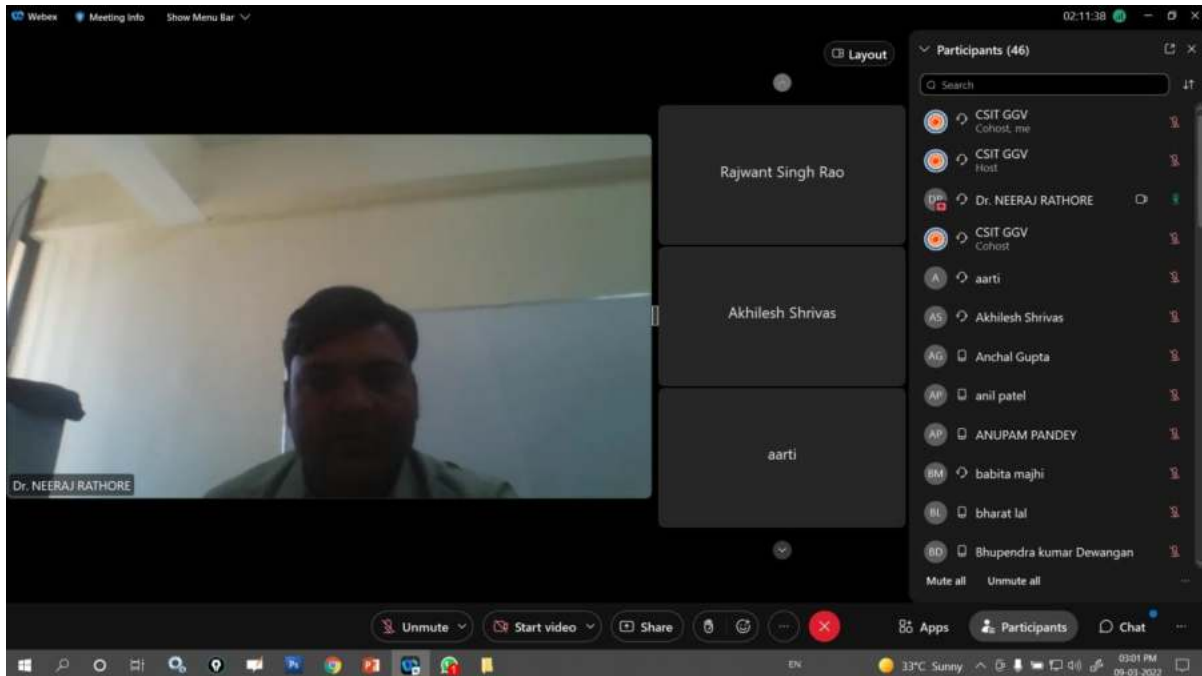
Python is a widely used general-purpose, high level programming language. It was initially designed by **Guido van Rossum in 1991** and developed by Python Software Foundation. It was mainly developed for emphasis on code readability, and its syntax allows programmers to express concepts in fewer lines of code.

Python is a programming language that lets you work quickly and integrate systems more efficiently.

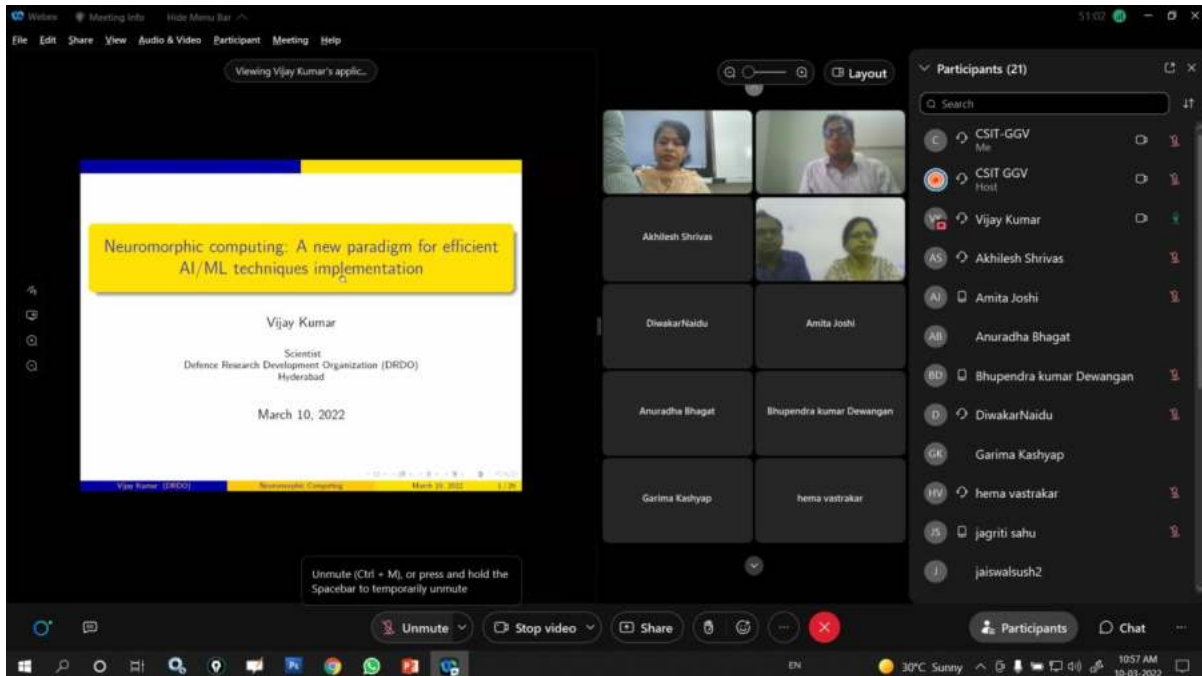
There are two major Python versions- **Python 2 and Python 3**.

- On 16 October 2000, Python 2.0 was released with many new features.
- On 3rd December 2008, Python 3.0 was released with more testing and includes new features.

Python 3.10.0 (tags/v3.10.0:2020-10-14) [AMD64] on win32

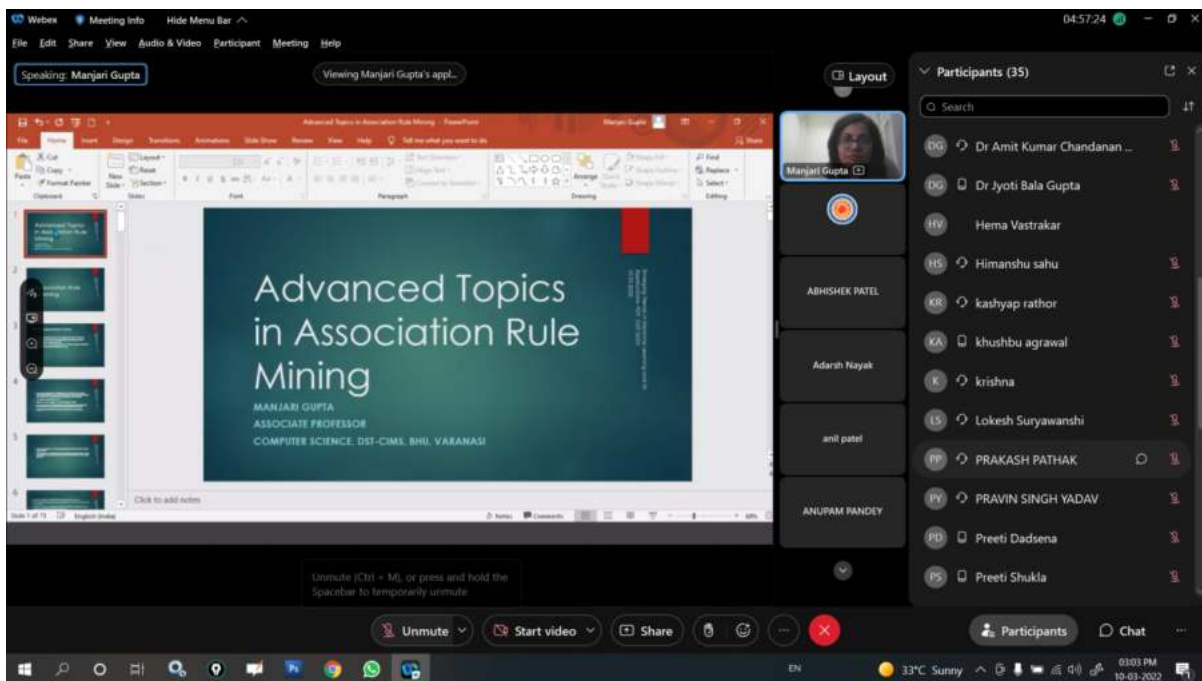


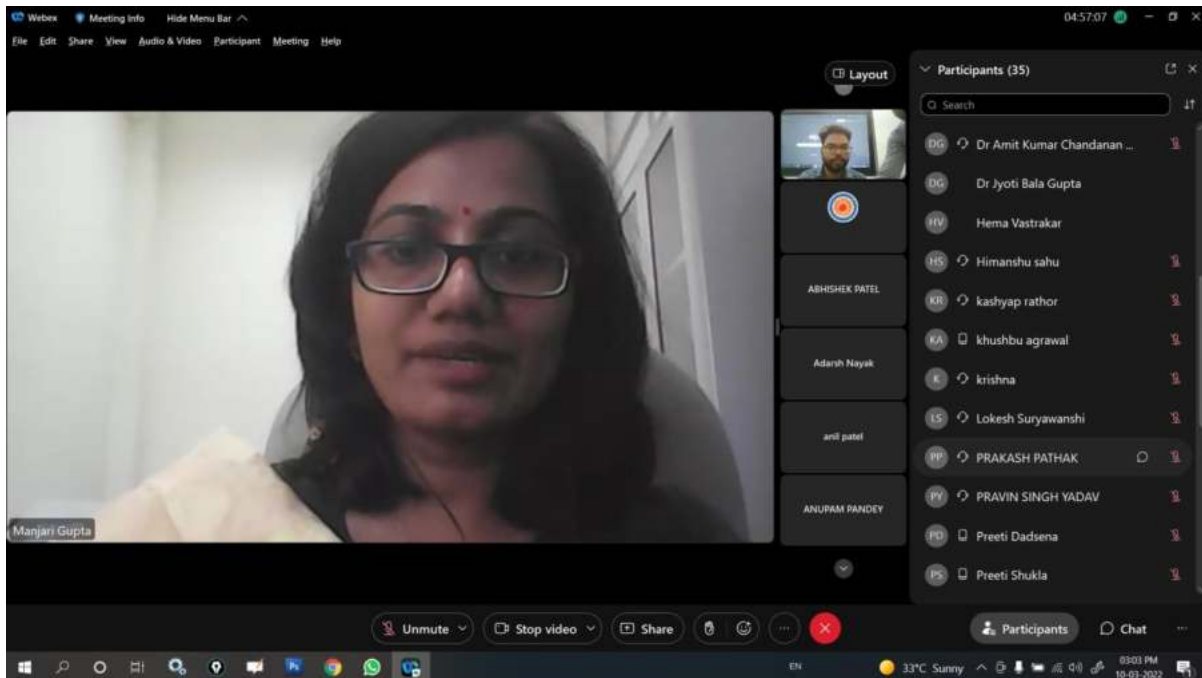
4th Day's Session was started by Vijay Kumar, Scientist-D, DRDO Hyderabad. He detailed about neuromorphic computing, specifically on spike neural network. The session was very interactive and informative. It was mainly focused on hardware implementation of AI and ML techniques.



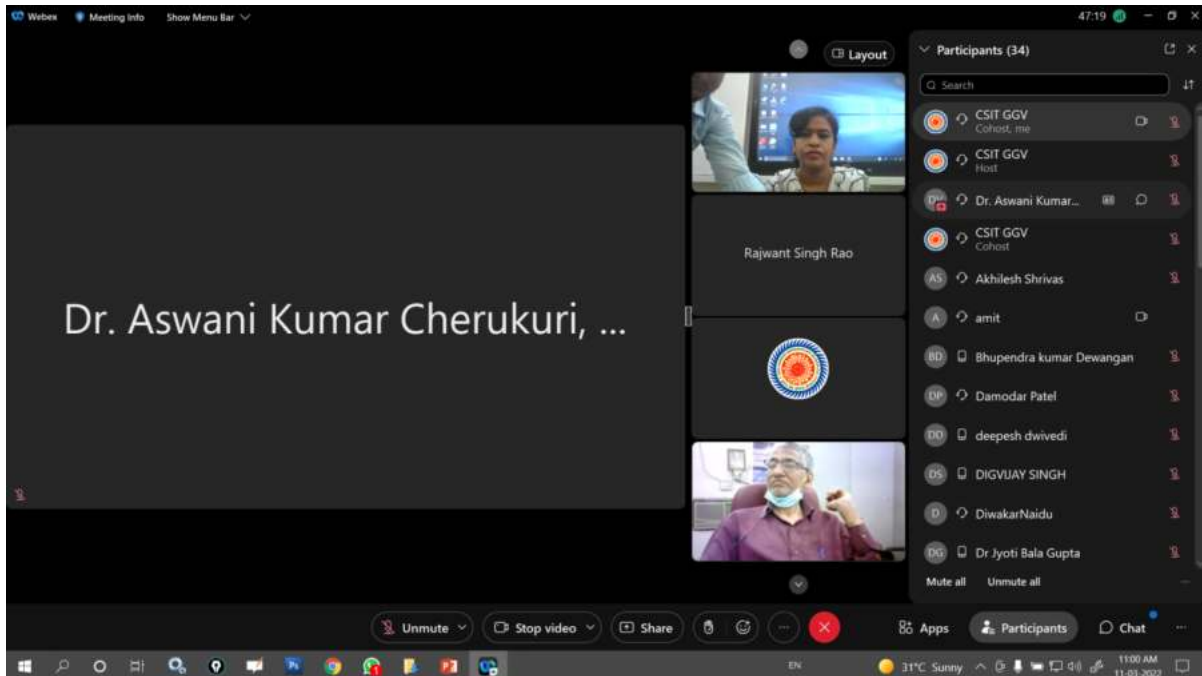


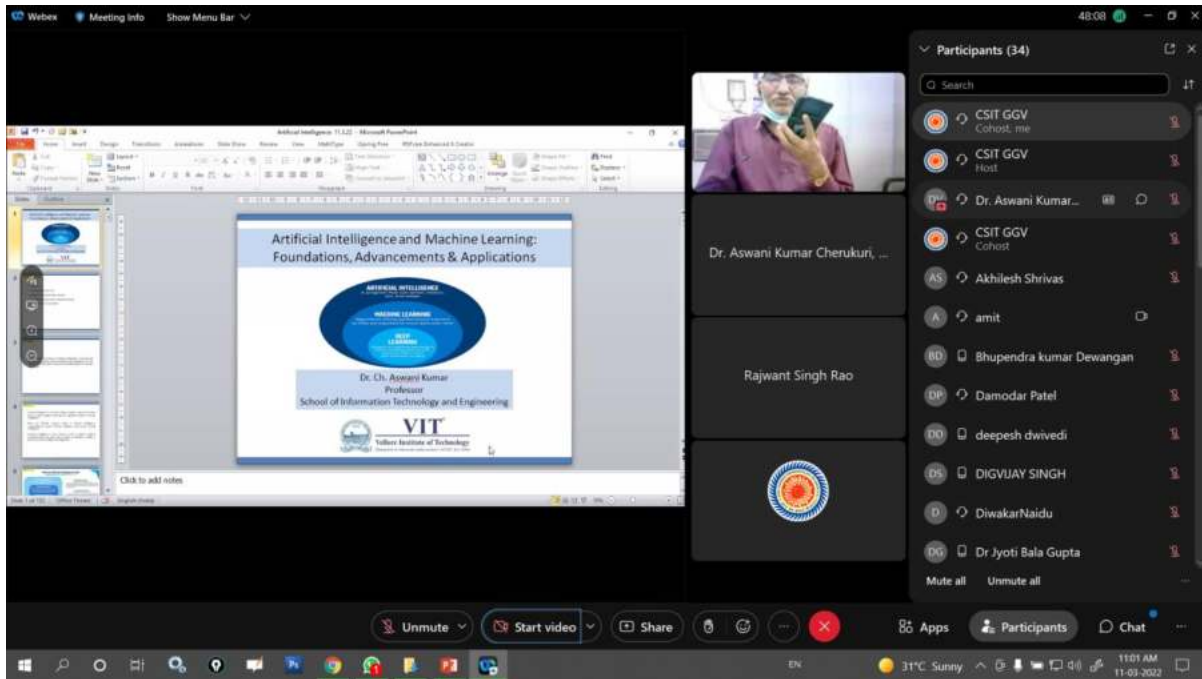
Second session of the day was carried out by Dr. Manjari Gupta, Associate Professor, BHU Varanasi. The topic of her talk was “advance association rule mining”. She discussed the importance and applications of association rule mining in different real life problems very clearly.



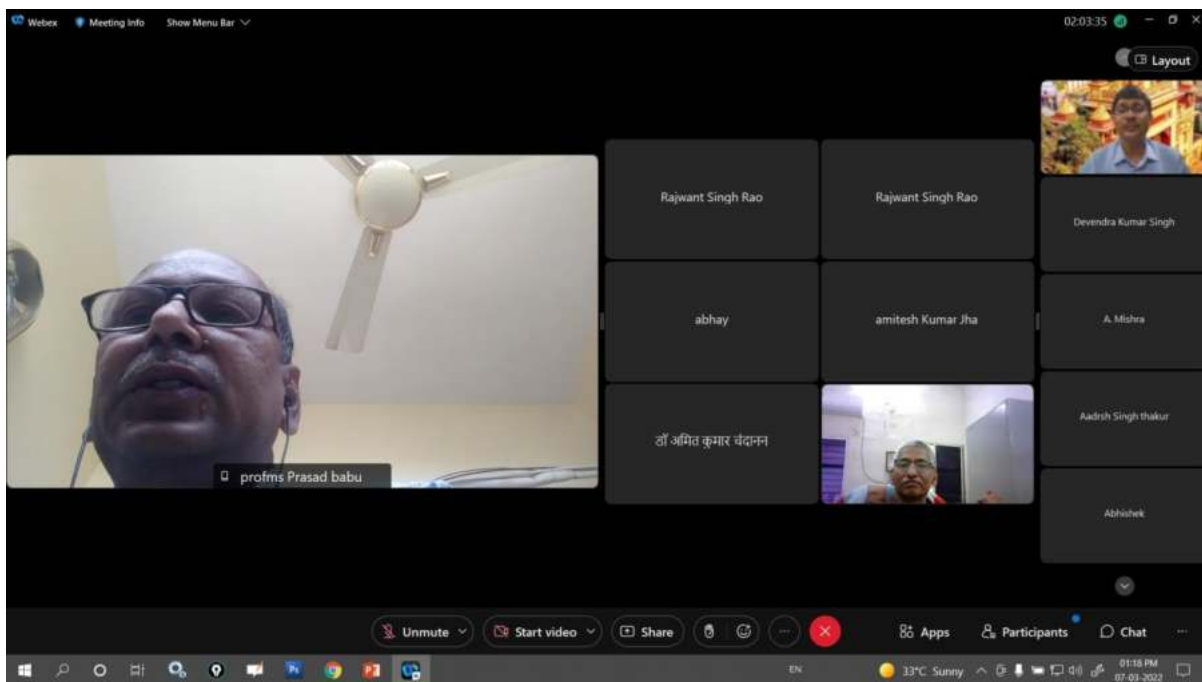


5th Day Sessions : Prof. A. K. Cherukuri, VIT Vellore delivered his talk on “AL & ML: foundations, advancement and applications. He deeply insights on different AI and ML techniques and their applications.





Afternoon session was chaired by Prof. M. Surendra Prasad Babu, Ex-professor of Andhra University, Vishakhapatnam. The title of his talk was “Recent strides in AI and Advance ML”.



Valedictory function of the FDP was held on 11th March 2022 during 4.30pm to 5pm with thanks to all experts for accepting the invitations, sparing their valuable time to enlighten the participants with their expertise and knowledge. The organizing team also thanked all the participants for joining the program, attending it seriously, consistently and patience fully. Not

only they attended and listen to the eminent speakers from different corners of India at the comfort of their own places, but also they got opportunities to discuss with the speakers. The whole team under the leadership of Prof. A. K. Saxena thanked to the administration of GGV, Bilaspur for their help and support during the program. Special thanks to Mr. Amitesh Jha, OSD Store for his timely help in providing the CISCO WEBEX platform to conduct the online sessions. Thanks to all coordinators, members of technical team and organizing team of the FDP for making the program a grand success.

