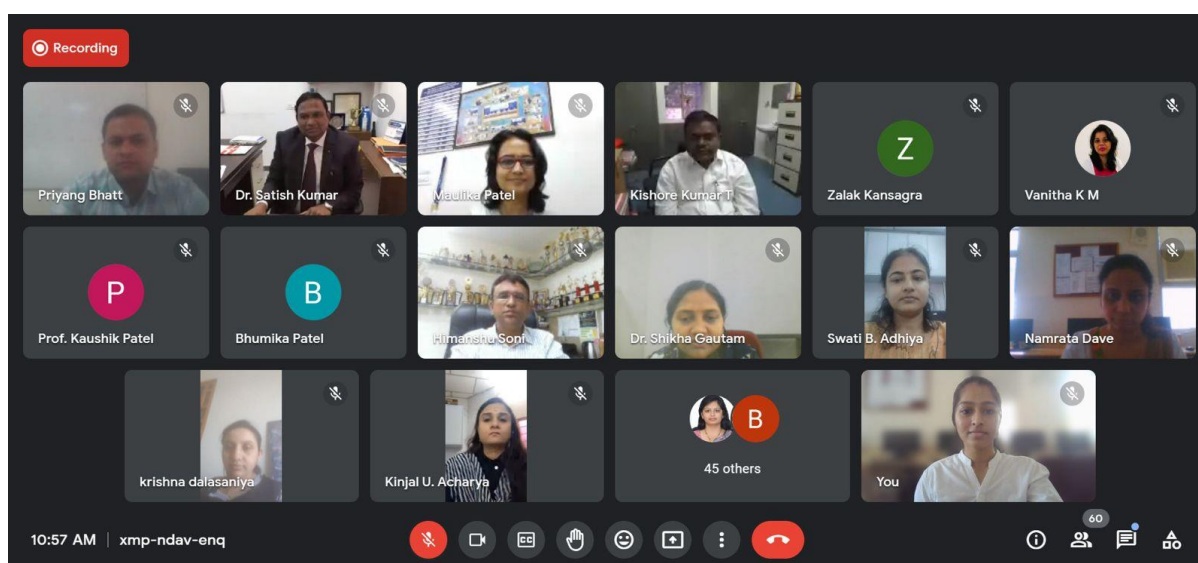# Report

## Online Faculty Development Program

### on

## Recent Research Trends and Applications of Artificial Intelligence and Machine Learning

### (20<sup>th</sup> – 27<sup>th</sup> February 2023)



Department of Computer Engineering, G H Patel College of Engineering & Technology, A constituent College of CVM University, organized an eight days National level Online Faculty Development Program on "Recent Research Trends and Applications of Artificial Intelligence and Machine Learning" during 20<sup>th</sup> to 27<sup>th</sup> February 2023 in association with E&ICT Academy, NIT Warangal. Dr. Maulika Patel, Professor & Head, and Dr. Namrata Dave, Assistant Professor, served as the Coordinators of the program.

The program was inaugurated on 20<sup>th</sup> February 2023. Dr. Satish Kumar, Sr. Principal Scientist and Professor, AcSIR, CSIR-CSIO graced the event as the Chief Guest. Dr. T. Kishore Kumar, Professor, Dept of ECE, NIT Warangal, was the Guest of Honour. Dr. Himanshu Soni, Dean of FET, CVM University and Principal, GCET, Heads of various departments, participants and department faculty members were present. 56 faculty members and Research scholars from various engineering colleges from across the country registered and benefited through the program.

Dr. Satish Kumar appreciated the initiative taken by the Institute and CVM University. Dr. T. Kishore Kumar briefed about role of EICT Academy in training teachers and gave a brief insight about the speakers, topics and the schedule of the FDP.

Principal Dr. Himanshu Soni appreciated the initiative taken by Department of Computer Engineering and congratulated all the participating faculty members and research scholars.

Dr. Maulika Patel, Professor & Head, Department of Computer Engineering and Coordinator of the event introduced the dignitaries and briefed about Institute and the faculty development program. Dr. Priyang Bhatt presented a vote of thanks.

Keynote speech was given by Dr. Satish Kumar on Edge Computing & Applications. He introduced about Edge Computing concepts very well followed by various applications in detail. Second Session was conducted by Dr. T. Kishore Kumar on Applications of AI & IoT followed by Hands on Session on Raspberry Pi architecture and Programming by M. Manoj Kumar, Junior Research Fellow, NIT Warangal.

Session on "Deep Learning for Computer Vision" was delivered by Dr I Earnest Paul, Department of CSE, NITW on 2nd day of FDP followed by two Hands on Session on Python Libraries by K. Sunil Kumar, Senior Research Fellow, NIT, Warangal. A very informative session on "AI for Defence Applications" was delivered by Dr G Mallikarjuna Rao, Scientist & Head, RFSD1 / DRFS1, Research Centre, Imarat, DRDO, Min. Of Defence.

On the third day of FDP, topics like "AI/ML in healthcare" and "Real Time embedded concepts in IoT" were conducted by Prof. T. Kishore Kumar and Dr. K. V. Sridhar, Associate Professor, Department of ECE, NIT, Warangal respectively.

A very enlightening session on "Biomedical Devices for Social Need: IOT" was delivered Dr Prakash Kodali, Assistant Professor Department of ECE, NITW on the 4th day FDP followed by a session on "Applications of AI and IOT in Healthcare" by Prof K. Ashok Reddy, Principal, KITS Warangal. Afternoon session on the topic "Gene & Protein structure prediction" was delivered by Dr. Perugu Shyam, Assistant Professor, Dept. of CSE, NIT Warangal.

Day 5 of FDP started with a very informative session on "Machine Learning for Proteomic Data Analysis" by Prof. Maulika Patel. Next session on "Data Pre-Processing in Machine Learning & Image Processing in Agriculture" was delivered by Dr. Surekha Reddy, Assistant Professor, Dept. of ECE & Dean of Outreach, Inclusivity and Extension Activities, Institute of Aeronautical Engineering. The last session of the day was on "Engineering IoT & its applications in agriculture "by Dr. S. Siva Priyanka, Assistant Professor, Department of ECE, CBIT.

FDP further progressed on day 6 with the session on "MLDLC: Machine Learning Development Life Cycle" by Dr. Priyang Bhatt, CP Dept., G H Patel College of Engineering & Technology, CVM University followed by a session on "Deep Neural Networks "delivered by Mr. Ravi Bolimera, Senior Research Fellow, NIT Warangal. In the afternoon session, Dr. Sibi Chakravarthy Sethuraman, Assoc. Prof., School of CSE, VIT, Andhra Pradesh delivered a session on "AI in Multi Objective IOT Systems " in which he also demonstrated projects developed in their laboratories.

On the 7th day of FDP Dr. Jyothi Prabha A., Department of CSE-N, KITSW delivered an informative session on "Facial Emotion Recognition using CNN and its architectures" followed by a session on "Supervised/Unsupervised learning" by Dr. Namrata Dave, CP Dept., G H Patel College of Engineering & Technology, CVM University.

Last day of FDP started with an enlightening session on "Concepts of IOT and its Architecture" by Dr. E. Suresh Babu, Assistant Professor, Department of CSE, NIT, Warangal followed by a session by Prof. G. Ram Mohana Reddy, Professor(HAG), Dept. of IT, NIT Surathkal on the topoic "Research Trends in IoT".

The faculty development program concluded with a Valedictory session. Prof. G. Ram Mohana Reddy, Professor(HAG), Dept. of IT, NIT Surathkal was the chief guest of the valedictory session. Dr. Maulika

Patel thanked all the speakers, participants, Dr Namrata Dave, College and University officials' for support and encouragement. Dr. T. Kishor Kumar congratulated the Department for taking the initiatives and also thanked the chief guest for his valuable time and presence for the session. Dr. Namrata Dave presented a vote of thanks.