July-Sept 2022

CLAIRVOYANCE

E-NEWSLETTER
OF
IT DEPARTMENT

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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FDP/STC Attended (Outside the institute)

- **Dr. Pawan Dubey** has attended the two-week online faculty development programme on "**Smart Healthcare Technologies: Opportunities and Challenges**" endorsed by AICTE/UGC and jointly organized by Electronics & ICT Academies (MNIT Jaipur, NIT Patna & IIITDM Jabalpur), during 25th July to 05th August 2022.

Activities Organized (Workshop/Conference/FDP/STC)

- **Dr. Dhananjay Bisen, Dr. Bhagat Singh Raghuwanshi,** and **Prof. Mir Shahnawaz Ahmad** conducted in-house training for faculty members on "**Data Science**", during 11-16 July 2022, organized by the Department of Information Technology.

If you want to shine like a sun, first burn like a sun.
-A.P.J. Abdul Kalam

Book Chapter/Books Published with DOI number

- Tripti Arjariya, Akash Saxena, **Vikram Rajpoot**, " **Concepts of Cloud Computing**" Book Rivers Publication, August 2022. ISBN-10 : 9355153929 ISBN-13 : 978-9355153920

Extension Activity of the Institute

- **Dr. Pawan Dubey, Dr. Tej Singh, Dr. Dhananjay Bisen, Dr. Bhagat Singh Raghuwanshi, Prof. Saumil Maheshwari,** and **Prof. Rajeev K. Singh** have served as probationary officers for the election of the Municipal Corporation, Gwalior.
- **Dr. Pawan Dubey, Prof. Abhishek Dixit,** and **Prof. Vikram Rajoot** have served as Counting supervisors for the election result declaration of the Municipal Corporation, Gwalior.

Publications SCI/UGC/SCOPUS with DOI number

- Anshul Agarwal, Nitish Kumar, **Pawan Dubey**, Machine Learning Based Maximum Power Prediction for Photovoltaic System, Indian Journal of Pure & Applied Physics Vol. 60, pp. 892-898 with DOI: 10.56042/ijpap.v60i10.62197 on 15/09/2022. (SCI indexed)

- Abhishek Singh, Rathore Siddhartha Kumar, Arjaria Manish Gupta, Gyanendra Chaubey, Amit Kumar Mishra, **Vikram Rajpoot** "Erythemato-Squamous Diseases Prediction and Interpretation Using Explainable AI" IETE Journal of Research August 2022 (SCIE Indexed) (Scopus Indexed) (WoS Indexed) (Impact Factor: 1.87) https://doi.org/10.1080/03772063.2022.2114953

- Gupta M., **Rajpoot V**., Chaturvedi A., Agrawal R. "A Detailed Study of different Clustering Algorithms in Data Mining" 2nd International Conference on Intelligent Technologies (CONIT) 18 Aug 2022 (Scopus Indexed) DOI: 10.1109/CONIT55038.2022.9848233.

- **Pawan Dubey**, Vinita Kumari, Ajay Kumar Sharma, Gyanendra Sheoran. Quantitative Analysis of Transfer Learning in Plant Disease Classification. In: Sharma, H., Shrivastava, V., Kumari Bharti, K., Wang, L. (eds) Communication and Intelligent Systems . Lecture Notes in Networks and Systems, vol 461. Springer, Singapore. https://doi.org/10.1007/978-981-19-2130-8_71 (Scopus Indexed)

Latest Technogies

Datafication:

The word "Datafication" does not have a definition or rather it is not yet a word that has found a place in a dictionary. And yet it is a word we are hearing a lot these days. What it simply means is this- from our actions to our thoughts, everything is getting transformed into a numerically quantified format or "Data".

From sports to finance and from entertainment to healthcare everything around us is converting into data. For example, we create data every time we talk on the phone, SMS, tweet, email, use Facebook, watch a video, withdraw money from an ATM, use a credit card, or even walk past a security camera. The notion is different from digitization. In fact, datafication is far broader than digitization. This astronomical amount of data has information about our identity and our behavior. Datafication is helping us to understand the world in a way that was never done before. New technologies are now available to ingest, store, process and visualise that data. Organizations are using them to get benefits. For example marketers are analysing Facebook and Twitter data to determine and predict sales. Companies spanning from all sectors and sizes have started to realize the big benefits of data and its analytics. They are beginning to improve their capabilities to collect and analyse data.

Extended Reality:

Extended reality comprises all the technologies that simulate reality, from Virtual Reality, Augmented Reality to Mixed Reality and everything else in-between. It is a significant technology trend right now as all of us are craving to break away from the so-called real boundaries of the world. By creating a reality without any tangible presence, this technology is massively popular amongst gamers, medical specialists, and retail and modeling.To understand the technical aspect of Extended Reality (XR), we need to understand the technologies which are used to create Extended Reality (XR) :

1. Augmented Reality (AR): The concept of augmented reality is that virtual objects and imaginations are put up in the real world. Augmented reality does not put us into any virtual or computer-generated graphics, rather it just creates a sense of illusion in digital gadgets. The users still have access to the real world & they can fully interact in both dimensions.

2. Virtual Reality (VR): In virtual reality, the users are put into a fully virtual environment, where they can interact only in the virtual world. The graphics generated are mostly computer and artificial objects are designed to give a feel of being real. The users can feel every bit of virtual reality.

3. Mixed Reality (MR): Mixed reality is a combination of both AR & VR, where one can interact with the digital as well as the real world simultaneously. Users can visualize their surroundings in special MR devices. These MR devices are much more powerful than VR, and costly too! But these devices give you the power to interact with your surroundings digitally.

"It has become appallingly obvious that our technology has exceeded our humanity." — Albert Einstein.