

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
**Deemed to be University**  
(Declared under Distinct Category by Ministry of Education, Government of India)  
**NAAC ACCREDITED WITH A++ GRADE**

# AI Insights

**Centre For Artificial Intelligence**



**Departmental Newsletter: Jan to March 2024**

## **Editorial Members:**

- **Prof. Dr. Manjaree Pandit, Professor In-Charge, Centre for Artificial Intelligence**
- **Dr. Rajni Ranjan Singh Makwana, Coordinator, Centre for Artificial Intelligence**

## **Faculty Coordinator's:**

- **Dr. Tej Singh, Assistant Professor, Centre for Artificial Intelligence**
- **Dr. Pawan Dubey, Assistant Professor, Centre for Artificial Intelligence**

# Contents:

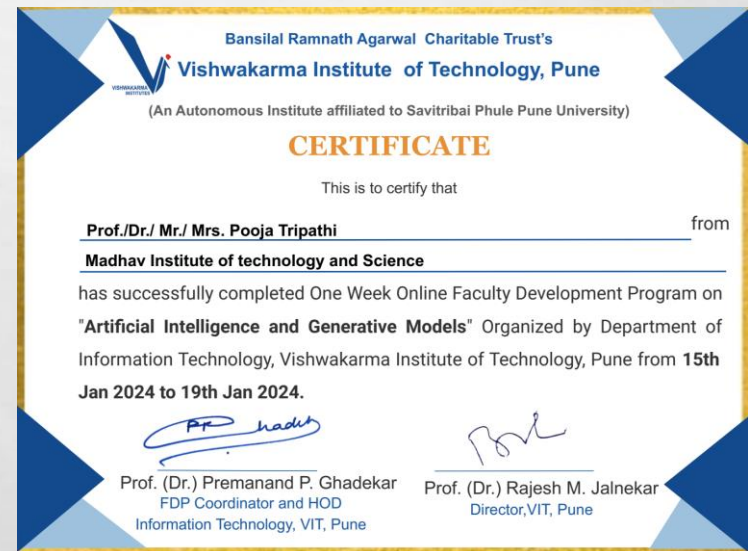
1. Award/Prize/ Recognition by Faculty Members
2. FDP/STC attended (Outside the institute)
3. Activities Organized (Workshop/Conference/FDP/STC) at the Institute level
4. NPTEL/ATAL/COURSERA/INTERNSHALA Course Attended by the Faculty
5. Patent file/Published
6. Publications SCI/UGC/SCOPUS with DOI number
7. Student Club Activities organized
8. Student chapter activities organized

# 1. Award/Prize/ Recognition by Faculty Members

- **Dr. Vibha Tiwari** received the certificate of appreciation in recognition for being a reviewer in the IEEE international conference on Big Data and Machine Learning organized by IES College of Technology, Bhopal on 24th -25th February 2024.

## 2. FDP/STC attended (Outside the institute)

- **Dr. Vibha Tiwari** participated in a day online Webinar on Signal and Image Processing conducted on 28/02/2024 by Ark Info Solutions and MathWorks.
- **Ms. Pooja Tripathi** attended the One Week Online Faculty Development Program on "Artificial Intelligence and Generative Models" Organized by the Department of Information Technology, Vishwakarma Institute of Technology, Pune from 15th Jan 2024 to 19th Jan 2024.



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### 3. Activities Organized (Workshop/Conference/FDP/STC) at the Institute level

- A one-day in-house workshop on “**Computer Hardware and Networking**”, organized by **Prof. Ravi Kumar Jain and Dr. Vibha Tiwari** on **25/01/2024**.
- One-week Peer-Learning Training Program on “ **Artificial Intelligence and Machine Learning-Basics**” was organized from 8th January 2024 to 12th January 2024 by **Dr. Vibha Tiwari and Dr. Sunil Kumar Shukla**
- **InnoVision: Deep Learning and Image Processing Summit** was organized by **Dr. Vibha Tiwari & Mrs. Shubha Mishra** on **6/03/2024**
- **Boosting AI Quiz** was organized by **Dr. Vibha Tiwari & Mrs. Shubha Mishra** on **7/03/2024**



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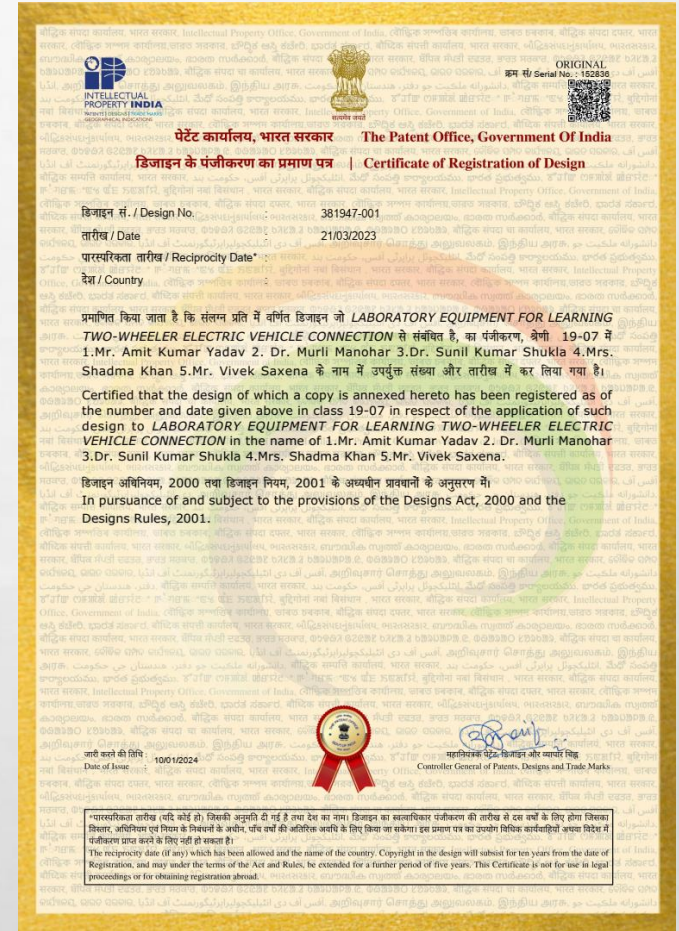
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#### 4. NPTEL/ATAL/COURSERA/INTERNSHALA Course Attended

- **Mrs. Shubha Mishra** attended two 8-week NPTEL courses on “Edge Computing” and “User Centric Computing for Human-Computer Interaction” during January-March 2024.

# 5. Patent file/Published

- **Dr. Sunil Kumar Shukla et al.** published, granted design patent titled, “LABORATORY EQUIPMENT FOR LEARNING TWO-WHEELER ELECTRIC VEHICLE CONNECTION”, Intellectual Property, India, Publication Date 10/01/2024, Patents Application No.: 381947-001.





## 6. Publications SCI/UGC/SCOPUS with DOI number

- **Mir Shahnawaz Ahmad et al.** "A lightweight mini-batch federated learning approach for attack detection in IoT", in Internet of Things, Elsevier (2024): 101088. DOI: 10.1016/j.iot.2024.101088 (SCIE).
- **Vibha Tiwari et al.** "Data analysis algorithm for the internet of things based on federated learning with optical technology", in Optical and Quantum Electronics (2024) 56:572 <https://doi.org/10.1007/s11082-023-05972-6> published online 30 January 2024 | PP572-1-13 (SCI/Q2)
- **Vibha Tiwari et al.** "Assessing Medicinal Plant Extracts in Strengthening Anti-Dandruff Shampoo: An Analysis Using Multi-Criteria Decision-Making Techniques", International Journal of Pharmaceutical Quality Assurance, ISSN: 0975 9506 | DOI: 10.25258/ijppqa.14.4.48, 2023;14(4) |, pp 1136-1143 (Scopus)
- **Kritika Bansal et al.** "Solar Tracker with Obstacle Detection Vehicle," 2023 International Conference on Electrical, Electronics, Communication and Computers (ELEXCOM), IEEE IIT Roorkee, doi: 10.1109/ELEXCOM58812.2023.10370515. (Scopus)
- **M.Dandotiya, & R. R. S. Makwana,** "An Experimental Study on Assessing the Efficacy of Feature-Based Methods in Identifying DDoS Attacks Against SDN Controllers. International Journal of Intelligent Systems and Applications in Engineering, 12(20s), 47-60.(2024).

- **Kritika Bansal et al.** "Control of Two-wheel Self-balancing Robot: LQR and MPC Performance Analysis," presented in IEEE International Students' Conference on Electrical, Electronics and Computer Science, MANIT Bhopal. (Scopus)
- **Shubha Mishra et al.** "Design Partition in an Active to Imbalanced Excitation/Inhibition Hippocampus Neural Arrange", 2023 IEEE International Conference on ICT in Business Industry & Government , doi: 10.1109/ICTBIG59752.2023.10456052 (Scopus)
- **Shubha Mishra et al.** "Cyber Attack Detection Using Machine Learning Techniques", 2023 IEEE International Conference on ICT in Business Industry & Government, doi: 10.1109/ICTBIG59752.2023.10456080 (Scopus)
- **Sunil Kumar Shukla et al.** "An intelligent protection scheme for DC microgrid using Hilbert-Huang transform with robustness against PV intermittency and DER outage" has been accepted for publication in Electrical Engineering, Springer (SCI Journal).
- **Tej Singh et al.** "Safety Measures in Smart Car Using IoT", in 1st International Conference. n Sensors and Microsystems (ICSM-2024), March 2024.
- **Tej Singh et al.**, "Speech Emotion Recognition using CNN-TRANSFORMER Architecture", in 2nd 2024 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI), Gwalior, India March 2024.



2<sup>nd</sup> IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024)

### CERTIFICATE OF APPRECIATION

This is to certify that Paper Titled

*DDoS Attack Detection and Mitigation in SDN Environment: A Deep Learning Perspective*

Submitted by Authors

*Monika Dandotiya and Dr.Rajni Ranjan Singh Makwana*

is accepted in IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024), organized by IEEE MP Section and ABV-IIITM Gwalior, India on

14-16 March 2024.

Dr. Pinku Ranjan  
Organizing Chair,  
IATMSI-2024

Prof. G. S. Tomar  
General Chair, IATMSI-2024

Dr. Somesh Kumar  
Conference Chair,  
IATMSI-2024



2<sup>nd</sup> IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024)

### CERTIFICATE OF APPRECIATION

This is to certify that Paper Titled

*Enhancing Web Security: Hybrid Deep Learning Model for Robust URL Phishing Detection*

Submitted by Authors

*Madhukar Dubey and Dr.Rajni Ranjan Singh Makwana*

is accepted in IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024), organized by IEEE MP Section and ABV-IIITM Gwalior, India on

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2<sup>nd</sup> IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024)

## CERTIFICATE OF APPRECIATION

This is to certify that Paper Titled

*Speech Emotion Recognition using CNN-TRANSFORMER Architecture*

Submitted by Authors

*Tej Singh, Sarthak Mangalmurti and Ojshav Saxena*

is accepted in IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI-2024), organized by IEEE MP Section and ABV-IIITM Gwalior, India on

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## 7. Student Club Activities organized

- **A musical event:** Notes and Harmony 2.0 organized by Bandish: The Music Club of MITS on 14th March 2024, coordinated by **Mr. Arun Kumar** and **Dr. Mir Shahnawaz Ahmad**.
- **Tech Fiesta:** The FunTech Club organized an event on 17 February 2024, coordinated by **Dr. Tej Singh**, and **Dr. Priyanka Garg**.

## 8. Student chapter activities organized

1. Tech Fusion: A Mock Placement Drive organized by the Geeksforgeeks student chapter from 4 - 7 March 2024, coordinated by **Dr. Mir Shahnawaz Ahmad** and Dr. Kuldeep Narayan Tripathi.