



# MADHAV INSTITUTE of TECHNOLOGY & SCIENCE

## “TECH SAGA”

A News Letter of CSE & IT Department



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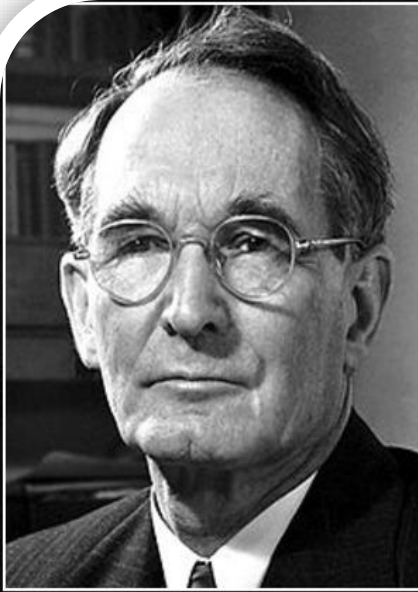
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### EDITORIAL BOARD:

- Dr. Akhilesh Tiwari, Prof. & Head (Chairman)
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- Prof. Amit Kumar Manjhar
- Aishwarya
- Pooja Agrawal



Science is what scientists do, and  
there are as many scientific methods  
as there are individual scientists.

— *Percy Williams Bridgman* —

AZ QUOTES

## PUBLICATIONS IN JOURNALS

1. Priyanka Tripathi and **Rajni Ranjan Singh Makwana**, " An ensemble classification approach with selective under and over sampling of imbalance intrusion detection dataset" International journal of security and its application(IJSIA), ISSN: 1738-9976(print), ISSN:2207-9629(Online),Vol-13,No-4,pp 41-50 , 31/12/2019, E-SCI, Web of Science indexed.
2. Priyanka Patsariya, **Rajni Ranjan Singh**, "Classifier Rank Identification using Multi Criteria Decision Making Method for Intrusion Detection Dataset " International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-1, November 2019, pp- 1732-1738, SCOPUS Indexed
3. Priyanka Tripathi , **Rajni Ranjan Singh Makwana**, " An Approach to Improve the Detection rate using Sampling of Imbalanced Data", International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653;, Volume 7, Issue X, Oct 2019, pp 290-293.
4. Anvesh Parashar, **Abhilash Sonker** "Application Of Hyper parameter Optimized Deep Learning Neural Network For Classification Of Air Quality Data" Volume 8,Issue 11,Nov 2019 in International Journal of Scientific & Technology Research ,ISSN No. 2277-8616.

5. Anjali Agrawal, **Mahesh Parmar**: Multilevel Fraud Detection System using Voting Techniques. International Journal of Innovative Technology and Exploring Engineering (IJITEE). October 2019, Volume-8 Issue-12, PP. 1805-1811, ISSN: 2278-3075, DOI: 10.35940/ijitee.L2825.1081219. ELSEVIER Scopus Index) (Impact Factor 5.54)
6. Monika Dandotiya, **Mahesh Parmar**: Optimal Hesitation Rule Mining using weighted Apriori with Genetic Algorithm. International Journal of Innovative Technology and Exploring Engineering (IJITEE). October 2019, Volume-8 Issue-12, PP. 3321-3328, ISSN: 2278-3075, DOI: 10.35940/ijitee.L2825.1081219. (ELSEVIER Scopus Index) (Impact Factor 5.54)
7. Shraddha Pandit, Piyush kumar Shukla, **Akhilesh Tiwari** and Prashant Shukla, “Review Of Different Video Compression Methods Based On Fractal Transform”, International Journal of Scientific & Technology Research Volume 8, Issue 11, pp.3687- 3689, November 2019[Scopus Indexed]
8. **Parul Saxena**, “An Effective Approach For Forest Fire Detection in Surveillance Video using Rule-Based and Temporal Variations”, International Journal of Scientific & Technology Research, Vol. 8, Issue 09, Sept. 2019..
9. **Hemlata Arya**, “survey on various routing protocol and mobility models used in Mobile Ad Hoc Network”, UGC Approved Journal of “Current Trends in Information Technology” vol 9, issue3, December 2019.(communicated)

## PUBLICATIONS IN CONFERENCES

1. **Abhishek Dixit** presented paper “Investigating Multilevel Hesitated Patterns Using Vague Set Theory” in International Conference on Soft Computing: Theories and Applications 2019 (SoCTA 2019) [Springer] held at NIT Patna, Bihar during 27th – 29th December 2019.
2. Chandrika Dabariya, **Rajeev Kumar Singh**, “Development of Framework for Greenness Identification” presented paper in the International Conference ICSISCET- 2019 at MITS, Gwalior (M.P.) during 2-3 November 2019.
3. **Punit Kumar Johari**, “Retrieval of content-based images by fuzzified HSV and local textural pattern” presented paper in the International Conference ICSISCET- 2019 at MITS, Gwalior (M.P.) during 2-3 November 2019.

## FACULTY ACHIEVEMENTS

- **Dr. Akhilesh Tiwari**, Professor & Head, Department of CSE & IT has worked as **Member of organizing committee** in the **AICTE sponsored International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2019)**, organized by Madhav Institute of Technology & Science, Gwalior, Madhya Pradesh, India during November 02-03, 2019.
- **Prof. Punit Kumar Johari**, Assistant Professor, Department of CSE & IT has worked as **Member of Session Conduction Team** in the **AICTE sponsored International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2019)**, organized by Madhav Institute of Technology & Science, Gwalior, Madhya Pradesh, India during November 02-03, 2019.
- **Dr. Akhilesh Tiwari**, Professor & Head, Department of CSE & IT has worked as **Organizing Committee Member** for **Second International Symposium on “Sustainable Development Research in the Asia-Pacific”** organized by MITS Gwalior, India and RMIT University, Melbourne, Australia in Partnership with the United Nation’s Environment One Planet’s Sustainable buildings and Construction (SBC) programme on 19<sup>th</sup>- 21<sup>st</sup> December, 2019.
- **Prof. Jamvant Singh Kumare**, Assistant Professor, Department of CSE & IT has worked as **Organizing Committee Member** for **Second International Symposium on “Sustainable Development Research in the Asia-Pacific”** organized by MITS Gwalior, India and RMIT University, Melbourne, Australia in Partnership with the United Nation’s Environment One Planet’s Sustainable buildings and Construction (SBC) programme on 19<sup>th</sup>- 21<sup>st</sup> December, 2019
- **Dr. Akhilesh Tiwari**, Professor & Head, Department of CSE & IT has worked as **Reviewer** in the AICTE sponsored **International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2019)**, organized by Madhav Institute of Technology & Science, Gwalior, Madhya Pradesh, India during November 02-03, 2019.
- **Prof. Punit Kumar Johari**, Assistant Professor, Department of CSE & IT has worked as **Reviewer** in the AICTE sponsored **International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2019)**, organized by Madhav Institute of Technology & Science, Gwalior, Madhya Pradesh, India during November 02-03, 2019.
- **Dr. Akhilesh Tiwari**, Professor & Head, Department of CSE & IT has **Chaired a paper presentation Session** in the **AICTE sponsored**

**International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2019)**, organized by Madhav Institute of Technology & Science, Gwalior, Madhya Pradesh, India during November 02-03, 2019.

## PHD AWARDED

- Ms. Shraddha VirajPandit has been declared eligible (vide notification no. RGPV/Acad./Ph.D./190/2030 dated 24/10/19) for the award of the degree of Doctor of Philosophy (Ph.D.) in Computer Science & Engineering from RGPV Bhopal under the supervision of **Dr.Akhilesh Tiwari, Professor & Head, Department of CSE & IT.**

## STUDENT ACTIVITIES/ACHIEVEMENTS

- **Dance Club Organizes 16<sup>th</sup>UdbhavUtsav International Dance Festival** was held from 30th October – 4th November 2019 at Gwalior, MITS students got second position.





## ACTIVITIES ORGANIZED

- Department of CSE & IT celebrated 150th Birth Celebration of Mahatma Gandhi as “**Traffic Road Safety Awareness Program**” on 2nd October 2019 under extension activity. On this occasion, faculty members and students of the department give the tribute with flower on the picture of Mahatma Gandhi and recall the stories related to Bapu. After the celebration at department, Road safety awareness program was conducted successfully at Gole ka Mandir Chauraha, Gwalior.



## FACULTY NPTEL COURSES

- Prof. Parul Saxena Successfully completing the 8 week course “Introduction to Programming in C” with a consolidated score of 70% (Elite).
- Prof. Parul Saxena Successfully completing the 12 week course “Introduction to Internet of Things” with a consolidated score of 69% (Elite).
- Dr. Anshu Chaturvedi successfully completed 8 week course on “cloud computing “with a consolidated score of 69%(Elite) Prof. Parul Saxena Successfully completing the 8 week course “Introduction to Programming in C” with a consolidated score of 70% (Elite).
- Prof. Parul Saxena Successfully completing the 12 week course “Introduction to Internet of Things” with a consolidated score of 69% (Elite).
- Dr. Anshu Chaturvedi successfully completed 8 week course on “cloud computing “with a consolidated score of 69% (Elite).
- Julie Kumar Successfully completing the 12 week course “Switching Circuits and logic design”.
- Sneha Garg Successfully completing the 12 week course “Switching Circuits and logic design”.
- Namrata Agrawal Successfully completed the 12 week course “Problem Solving through programming in C”.
- Sneha Garg successfully completing the 8 week course “Programming and Data Structure using Python”.
- Shweta Patel successfully completing the 8 week course “Programming and Data Structure using Python”.
- Santosh Sahu Successfully completing the 8 week course “Cloud Computing”.
- Aishwarya Successfully completing the 8 week course “Cloud Computing”.
- Aishwarya Successfully completing the 12 week course “Internet of Things”.

## TECHNICAL INTERNSHIP DRIVE

- The technical Internship Drive was carried by Praedico Global Research Pvt. Ltd. New Delhi, on 30 Nov., 2019 in the department, in which 15 students from CSE and 4 students from IT branch were selected for the internship programme.



## LATEST TECHNOLOGIES

- **Anti-Money Laundering Software Market Latest Technology**

Anti-money laundering software is used by companies to detect suspicious activities by persons or organizations who are trying to generate income through illegal actions. This software is used by compliance professionals to comply with regulations such as the Bank Secrecy Act and with corporate policies regarding financial fraud anti-money laundering software market is used by banks and financial institutions to detect suspicious and fraudulent activities that may impact their profitability and damage their reputation.



- **Researchers Developed Robonet for Easy Capture of Diverse Data**

Motivated by the success of large-scale data-driven learning, the researchers created RoboNet, an extensible and diverse dataset of robot interaction collected across four different research labs. The collaborative nature of this work allows them to easily capture diverse data in various lab settings across a wide variety of objects, robotic hardware, and camera viewpoints. According to BAIR (Berkeley Artificial Intelligence Research), the RoboNet consists of 15 million video frames, collected by different robots interacting with different objects in a table-top setting. Every frame includes the image recorded by the robot's camera, arm pose, force

sensor readings, and gripper state.

- **QUANTUM CHIPS FOR COMPUTATION**

Quantum chips perform computations using quantum bits, called “qubits,” that can represent the two states corresponding to classic binary bits — a 0 or 1 — or “quantum superposition” of both states simultaneously. The unique superposition state can enable quantum computers to solve problems that are practically impossible for classical computers, potentially spurring breakthroughs in material design, drug discovery, and machine learning, among other applications. Full-scale quantum computers will require millions of qubits, which isn’t yet feasible. In the past few years, researchers have started developing “**Noisy Intermediate Scale Quantum**” (NISQ) chips, which contain around 50 to 100 qubits. That’s just enough to demonstrate “quantum advantage,” meaning the NISQ chip can solve certain algorithms that are intractable for classical computers. Verifying that the chips performed operations as expected, however, can be very inefficient. The chip’s outputs can look entirely random, so it takes a long time to simulate steps to determine if everything went according to plan.

