January-March 2024

TECH TERRAIN TRIBUNE

DEPARTMENT OF INFORMATION TECHNOLOGY

E-NEWSLETTER

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Editorial Board

Contents

FDP/STC Attended (Outside the Institute)

- **Dr. Vikram Rajpoot** has participated in the Faculty Development Programme on “Cyber Security and Digital Forensic” organized by GH Raisoni College Nagpur from 30.01.2024 to 03.02.2024.
- **Dr. Saumil Maheshwari** has participated in the Faculty Development Programme on “Cyber Security and Digital Forensic” organized by GH Raisoni College Nagpur from 30.01.2024 to 03.02.2024.
- **Dr. Abhishek Dixit** has participated in the Faculty Development Programme on “Cyber Security and Digital Forensic” organized by GH Raisoni College Nagpur from 30.01.2024 to 03.02.2024.
- **Ms. Bulbul Agrawal** has participated in the International Faculty Development Programme on “Emerging Technologies in Computer Science” organized by EASWARI Engineering College from 22.01.2024 to 27.01.2024.

RAISONI GROUP

G H RAISONI INSTITUTE OF ENGINEERING AND TECHNOLOGY NAGPUR

(Approved by AICTE, New Delhi and Recognized by DTE, Maharashtra) An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur
Accredited by NAAC with A+ Grade

DEPT. OF COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)

Organizing

Certificate of Participation

To Mr/Ms/Dr Dr Saumil Maheshwari

of MITS Gwalior for his/her active participation and successful completion of Online One-Week National Level Faculty Development Program on "Cyber Security and Digital Forensic" from 30th Jan, 2024 – 3rd Feb, 2024 organized by Department of Computer Science & Engineering(Cyber Security) is association by AMBE TECHNOLOGIES, Nagpur.

Dr. Pravin Kulurkar
Co-convenor

Dr. Praveen Kumar Mannepalli
Convenor

Dr. Vivek Kapur
Director, GHRIETN

Engineering Management Law Schools Other Courses

RAISONI GROUP OF INSTITUTIONS

“The man who does not read books has no advantage over the one who cannot read them.”-Mark Twain

PhD awarded in the year between January-March 2024

- PhD awarded to Mr. Krishna Kant Yadav under the supervision of **Dr. Sanjiv Sharma** on 13/1/2024 from Amity University Gwalior.

Publications Conference

- **Abhishek Dixit, Saumil Maheshwari and Vikram Rajpoot** et.al have published a paper Paper titled “Leveraging Transfer Learning for Enhanced Plant Leaf Disease Detection” in scopus indexing International Conference on Automation & Computation (Autocom 2024) held on 14-15 march 2024.

Student Club Activities organized

- Digital Learning Group organized a one day webinar on “Social Fiesta for Social Preneurs” delivered by Shridhar Mankar Founder 5 MinutesEngineering on 17th March 2024 at 4:00 PM under faculty mentor **Dr. Punit Kumar Johari.**
- Digital Learning Group organized “TECHXPO” delivered by Miss Sneha Shrivastava - SDE intern @Amazon”, on 07th March 2024 in Seminar Hall 5 at 5:00 PM under faculty mentor **Dr. Punit Kumar Johari.**

Student Chapters Activities organized

- BGMI Death Arena, Gaming Event was held on 27-28th January 2024 under the coordinatorship of Neha Bhardwaj conducted by SkyRoads Club. The 'DEATH ARENA' BGMI event featured an exciting prize pool of 800 rupees, rewarding the top 3 teams with cash prizes — 400 rupees for the winners, 240 for the second and 160 rupees for the third. Total 45 students was participated, including other Institutes.

- **EMAKING FRIENDS WITH ML**, Event was held on 21th February 2024 under the coordinatorship of Neha Bhardwaj conducted by Alumni Community and ACM Chapter. Event Speaker was Mr. Samar Jain & Mr. Sarthak Mangalmurti.

- **Gaming Trivia,** Gaming Event was held on01/02/2024 under the coordinatorship of Neha Bhardwaj conducted by SkyRoads Club. The competition was intense as students battled it out in Quizizz with their knowledge about Gaming. The participants displayed exceptional skills and demonstrated their passion for gaming, making the event a huge success. As a recognition of their efforts, we awarded Certificates to the Winner students [TOP 3] who emerged as winners in the competition. Piyush Ojha was the Winner. Total 75 students participated. It was an Inter-college Event.

- **Codm Extravaganza,** Gaming Event was held on 4th February 2024 under the coordinatorship of Neha Bhardwaj conducted by SkyRoads Club. The competition was intense as students battled it out in CALL OF DUTY MOBILE, a popular mobile game. The participants displayed exceptional skills and proved their passion for gaming, making the event a huge success. Ranjan Kumar;Dhanesh Dubey;Prince Kumar;Devansh Chourasia;Sanchit Jain were the winners. We're thrilled to announce that the 'CODM EXTRAVAGANZA' CODM event's YouTube livestream drew an impressive audience, with over 130 viewers tuning in to witness the intense battles and nail-biting moments live!

Latest Technogies

Edge Computing: Empowering the Next Wave of Digital Transformation

- **Description:** In the landscape of modern technology, edge computing has emerged as a pivotal innovation poised to revolutionize how data is processed, analyzed, and utilized. At its core, edge computing involves moving computational tasks closer to the source of data generation, reducing latency, enhancing privacy, and unlocking new possibilities for real-time decision-making and efficiency gains.

- **Decentralized Processing Power:** Edge computing decentralizes computing power by distributing it across a network of devices located closer to the data source, whether it be IoT (Internet of Things) sensors, connected vehicles, or mobile devices. By processing data locally instead of relying solely on centralized data centers or cloud services, edge computing minimizes latency and bandwidth usage, enabling faster response times and improved performance for critical applications.

- **Real-Time Insights and Decision-Making:** One of the primary benefits of edge computing is its ability to deliver real-time insights and facilitate instantaneous decision-making. By analyzing data at the edge of the network, organizations can respond swiftly to changing conditions, optimize processes, and capitalize on time-sensitive opportunities. This capability is particularly valuable in industries such as manufacturing, healthcare, and autonomous vehicles, where split-second decisions can have significant implications.

- **Enhanced Privacy and Security:** Edge computing offers inherent advantages in terms of privacy and security. By processing data locally, sensitive information can remain within the confines of the edge devices, reducing the risk of data breaches and unauthorized access. Additionally, edge computing enables data to be anonymized or aggregated before transmission to central servers, further safeguarding individual privacy rights and regulatory compliance.

- **Scalability and Flexibility:** Another hallmark of edge computing is its scalability and flexibility. Edge nodes can be deployed in diverse environments, ranging from remote industrial sites to bustling urban centers, adapting to the unique requirements of each scenario. This flexibility enables organizations to tailor their edge computing infrastructure to suit specific use cases, whether it involves real-time monitoring of equipment, predictive maintenance, or personalized customer experiences.

- **Future Directions and Challenges:** As edge computing continues to evolve, researchers and industry stakeholders are exploring ways to address remaining challenges and unlock its full potential. This includes optimizing edge device capabilities, developing interoperability standards, and ensuring seamless integration with existing IT infrastructure. Moreover, advancements in edge computing technologies, such as AI-driven edge analytics and decentralized edge-to-edge communication, are poised to further accelerate innovation and drive the next wave of digital transformation.