ZERONE
STUDENT ASSOCIATION

ANNUAL REPORT
Academic Year 2024-25

Office Bearers of ZERONE Association for the Year 2024-25

Designation	Name	USN	Year
President	Mr. THRISHIK SHETTY	4MT21IS056	IV Year
Vice-President	Mr. SHETTY NEERAJ JEEVENDRA	4MT22IS050	III Year
Secretary	Ms. SHREYA SUDHAKARA NAYAK	4MT21IS042	IV Year
Joint Secretary	Mr. VARUN M S	4MT23IS020	II Year
Treasurer	Mr. CHINTAN KUMAR S SHETTY	4MT23IS026	II Year
Cultural Coordinator	Ms. SHREYA	4MT21IS040	IV Year
Sports Coordinator	Mr. HERAMBA R NAIK	4MT22IS018	III Year
Social Media Coordinator	Mr. ASTHIK B GOWDA	4MT21IS008	IV Year
Faculty Coordinator	Dr. SREEJA RAJESH, Associate Professor		

Department of Information Science & Engineering Association Activities 2024-25

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1	Talk on "Harnessing the Power of Technology to Build Enterprise Applications."	Mr. Mohsin Khan is the Chief Technology Officer (CTO), Niveus Solutions	24/10/2024
2	Talk on "Understanding the Structure and Functions of IT Departments."	Mr. Shridhar Purohit, Associate Director & Head of US Healthcare Offerings, Tietoevry	08/11/2024
3	Two days Workshop on "Arduino & Tinkercad"	Dr. Sreeja Rajesh, Associate Professor, Dept. of Information Science and Engineering, MITE, Moodabidri	15/11/2024 & 22/11/2024
4	One Day Workshop on 'BASICS OF API's AND POSTMAN'	Dr. Mohit P Tahiliani, Associate Professor, Dept. of Computer Science and Engineering, NITK, Surathkal	30/11/2024
5	Two Days Workshop on 'Unlocking Innovation: Essential Image & Video Processing Techniques in Product Development'	Dr. Terence K Johnson, Associate Dean (Academics) and Professor, Dept. of Information Science and Engineering, MITE, Moodabidri	12/03/2025 To 14/03/2025
6	Three days Workshop on "Innovative Embedded System Design and Simulation using Arduino & Tinkercad"	Dr. Sreeja Rajesh, Associate Professor, Dept. of Information Science and Engineering, MITE, Moodabidri	28/04/2025 To 30/04/2025
7	Three days Workshop on "Mobile App Development using Flutter & Dart"	H M Virupakshaiah, Technical Director, RSC Systems Pvt. Ltd, Bangalore	13/05/2025 To 15/05/2025

Talk on "Harnessing the Power of Technology to Build Enterprise Applications"

Date: 24ᵗʰ October 2024

A talk titled " Harnessing the Power of Technology to Build Enterprise Applications " was conducted on the 24th October 2024 for Information Science and Engineering students. The event featured distinguished resource person **Mr. Mohsin Khan, the Chief Technology Officer (CTO) and Co-founder of Niveus Solutions**, a leading cloud engineering services company headquartered in Karnataka, India. The session, held in Auditorium 3, attracted enthusiastic participation from students and faculty eager to learn about the dynamics of enterprise-grade application development.

Mr. Khan began by sharing his professional journey, from working in leading IT firms to co-founding Niveus Solutions, a company now recognized for delivering cutting-edge cloud engineering services. He introduced the concept of enterprise applications, highlighting their unique characteristics like scalability, security, reliability and maintainability that set them apart from regular applications.

He emphasized best practices such as selecting the right technology stack, adopting microservices architecture for flexibility, leveraging DevOps for faster deployment and embracing cloud-native technologies for scalability and efficiency. Real-world case studies, including Niveus' role in the successful launch of the Mahindra Scorpio N, illustrated how these principles are applied to solve large-scale challenges. In conclusion, Mr. Khan discussed the transformative role of emerging technologies like AI and machine learning in shaping future-ready enterprise solutions. The talk provided participants with valuable insights into the skills and mindset needed to thrive in today's rapidly evolving technology landscape.

Session by Mr. Mohsin Khan

Talk on "Understanding the Structure and Functions of IT Departments"

Date: 8ᵗʰ November 2024

On November 8, 2024, Information Science and Engineering department in association with ZERONE student Association, hosted an insightful session by **Mr. Shridhar Purohit, Associate Director and Head of US Healthcare Offerings at Tietoevry**, on the topic *"Understanding the Structure and Functions of IT Departments."* With over two decades of experience in the US healthcare industry, Mr. Purohit shared his professional journey and expertise, offering students and faculty a comprehensive understanding of the vital role IT departments play in organizations. He explained how IT departments are structured across various domains, including Software Development and Engineering, Project Management, Business Analysis, Quality Assurance and Testing, IT Operations, Data and Analytics, Sales and Marketing, Human Resources, and Financial Legal functions. Special emphasis was given to Agile practices, highlighting the roles of Scrum Masters and Product Owners in driving efficiency and innovation. Through practical insights, Mr. Purohit demonstrated how each function contributes to operational success, digital transformation, and long-term growth. The session highlighted the increasing demand for skilled professionals in areas such as software development, data-driven decision-making, and project leadership. Participants gained valuable clarity on career pathways within IT and its evolving impact on business strategy. The talk was highly engaging and left students inspired to align their skills with industry needs.
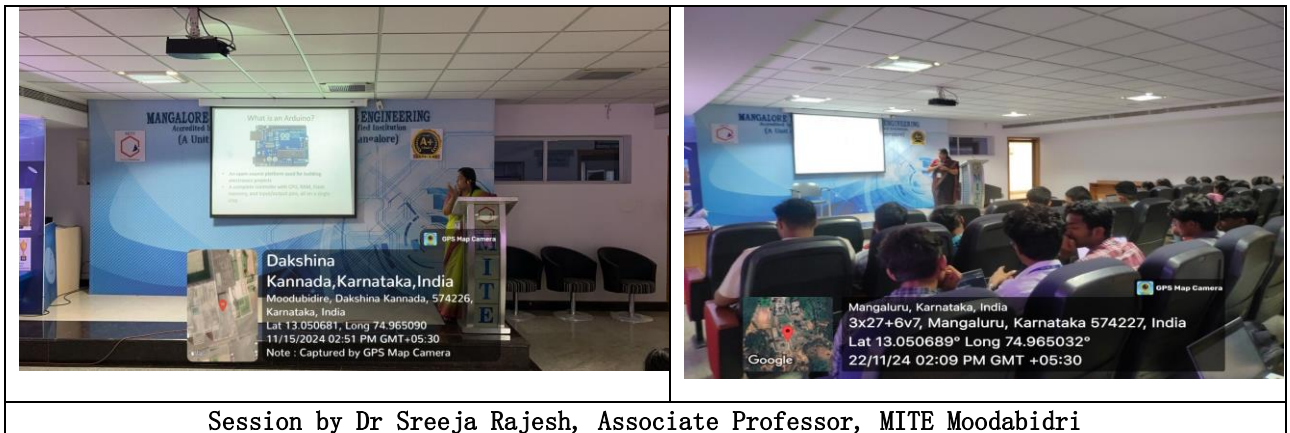

Talk by Mr. Shridhar Purohit, Associate Director & Head of US Healthcare Offerings, Tietoevry

Three Days workshop on "Arduino and Tinkercad"

Date: 15th November 2024 and 22nd November 2024

A comprehensive two-day workshop on *"Arduino and Tinkercad"* was conducted for 2nd-year Information Science and Engineering students, held on November 15 and 22, 2024. The session was conducted by **Dr. Sreeja Rajesh, Associate Professor, ISE, MITE, Moodabidri**, with the primary objective of equipping students with a strong foundation in circuit design and programming through theory and practical application. The workshop bridged classroom concepts with real-world applications, providing students with valuable exposure to simulation tools and physical hardware implementation. Day 1 introduced students to the fundamentals of Arduino and the Tinkercad simulation platform. Essential topics such as circuit components, simulation tools, and Arduino applications were discussed. The session included practical demonstrations, ranging from simple LED control to an advanced project using an ultrasonic sensor, enabling students to understand both basic and complex circuit design. Students were encouraged to ask questions, making the session highly interactive. Day 2 focused on hands-on implementation. Students replicated their Tinkercad designs on breadboards using Arduino boards, writing and uploading code to test their projects. This gave them invaluable exposure to debugging, wiring, and real-world problem solving. Volunteers assisted each group, ensuring personalized support and effective learning.

The workshop concluded with a review session where students shared experiences and gained further insights. Overall, the program was a resounding success, sparking innovation and enhancing technical competence among participants.

Session by Dr Sreeja Rajesh, Associate Professor, MITE Moodabidri

One Day Workshop on 'BASICS OF API's AND POSTMAN'

Date: 30th November 2024

The Department of Computer Science and Engineering at MITE organized a one-day workshop on *"Basics of APIs and Postman"* on November 30, 2024, at 10:00 AM. The session was conducted by **Dr. Mohit P. Tahiliani, Associate Professor at NITK Surathkal**, an eminent researcher and Google Summer of Code (GSoC) administrator, known for his contributions to Internet Traffic Engineering, TCP optimizations, and collaborations with leading global technology organizations. The workshop began with an insightful introduction to Application Programming Interfaces (APIs), explaining their role in enabling seamless communication between different software systems. Participants explored key concepts such as endpoints, HTTP methods (GET, POST, PUT, DELETE), headers, parameters, and status codes, gaining a strong theoretical foundation in modern API usage.

The second half of the workshop transitioned into an intensive hands-on session with Postman, a widely used platform for API development and testing. Students learned to create and organize API requests, manage environments and variables, test and debug responses, and automate workflows. They also completed the Postman API Fundamentals Student Expert course, reinforcing their practical skills.

Supported by dedicated volunteers, the workshop provided a smooth and engaging learning experience. It concluded successfully, empowering participants with the ability to confidently apply API concepts and Postman tools in real-world software development scenarios.

Session by Dr. Mohit P. Tahiliani

MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING

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Department of Information Science & Engineering
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Two Days Workshop on 'Unlocking Innovation: Essential Image & Video Processing Techniques in Product Development

Date: 29th December 2023

The Department of Information Science and Engineering, MITE, organized a three-day hands-on workshop titled "Unlocking Innovation: Essential Image & Video Processing Techniques in Product Development" from 12th to 14th March 2025, led by **Dr. Terence K. Johnson, Associate Dean (Academics) and Professor** at MITE. With over 19 years of expertise in Data Mining and Image Processing, Dr. Johnson brought valuable academic and research insights to the sessions.

The workshop, designed for sixth-semester ISE students, provided a strong foundation in image and video processing, combining theory with practical application. Participants explored digital image representation, basic operations like cropping, resizing, and color conversions, along with intensity transformations and histogram-based contrast enhancement. Advanced topics such as convolution, spatial filtering, and edge detection using Prewitt, Sobel, and Canny filters were demonstrated through live coding sessions.

The workshop further introduced video processing techniques, including frame extraction, motion detection, and object tracking. The final session emphasized mini-projects, where students applied their learning to real-world scenarios, reinforcing problem-solving and innovation skills. Through the highly interactive sessions, participants gained enhanced technical competence, practical exposure, and research-oriented insights. The workshop was a resounding success, equipping students with industry-relevant skills in image and video processing while fostering creativity and innovation.
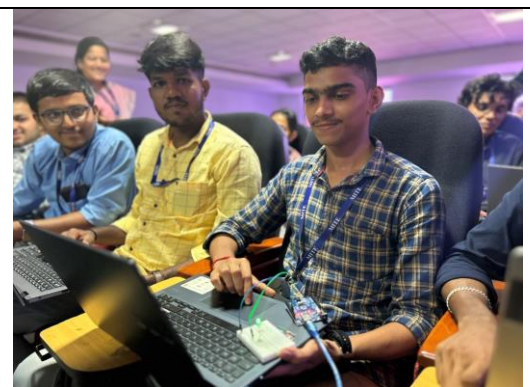

Session by Dr. Terence K. Johnson, Associate Dean (Academics) and Professor, MITE Moodabidri

Three days Workshop on "Innovative Embedded System Design and Simulation using Arduino & Tinkercad"

Date: 29th December 2023

A three-day hands-on workshop on *"Innovative Embedded System Design and Simulation using Arduino & Tinkercad"* was conducted by **Dr. Sreeja Rajesh**, Associate Professor at Mangalore Institute of Technology & Engineering, Mangalore. With over 23 years of academic experience, Dr. Sreeja has authored 17 SCI/Scopus-indexed papers, two books, nine conference papers, and holds seven patents, earning accolades such as the INSC Best Teacher Award (2022) and Outstanding Women Researcher Awards (2024, 2025). Her expertise spans embedded systems, image processing, machine learning, and data security. The workshop aimed to empower participants with skills in embedded system design through both simulation and hardware programming. Sessions were interactive and project-driven, ensuring experiential learning. Day 1 introduced embedded systems and Arduino basics, with practical exercises on circuit design and I/O programming. Day 2 focused on Tinkercad simulations, enabling participants to virtually assemble hardware, integrate code, and implement sensor-based mini projects. Day 3 emphasized real-time applications with Arduino, sensor interfacing, project design, debugging, and final demonstrations. Participants successfully developed and presented five innovative projects, enhancing their technical knowledge, teamwork, and creativity. The workshop not only strengthened practical skills but also motivated students towards innovative problem-solving in embedded systems.

Session by Dr Sreeja Rajesh, Associate Professor, MITE Moodabidri

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Three days Workshop on "Mobile App Development using Flutter & Dart"

Date: 13th May 2025 to 15th May 2025

A three-day hands-on workshop on "Mobile App Development using Flutter & Dart" was conducted from 13th to 15th April 2025, between 1:45 PM and 4:30 PM. The sessions were delivered by Mr. H. M. Virupakshaiah, Technical Director, RSC Systems Pvt. Ltd., Bangalore, a seasoned technology leader with over two decades of expertise in embedded systems, IoT solutions, and mobile app engineering. He has served in leadership roles at Samsung R&D, MindTree, and Philips Software Centre, and is a co-inventor of multiple U.S. patents. His industry accolades and rich technical experience added immense value to the workshop. The workshop was designed to provide students with practical exposure to building modern, cross-platform mobile applications using Flutter and Dart. On Day 1, participants explored Flutter basics, widgets, and UI development. Day 2 focused on navigation, forms, state management, and REST API fundamentals. On Day 3, students developed a complete app, such as a To-Do or Weather App, with API integration. The workshop concluded with an exhibition, where participants showcased their projects before a panel of judges. By the end, students gained hands-on expertise in UI design, app architecture, and REST API integration, boosting their technical competencies and inspiring interest in mobile app development careers.

Session by Mr. H. M. Virupakshaiah, Technical Director, RSC Systems Pvt. Ltd.