ZERONE
STUDENT ASSOCIATION

ANNUAL REPORT
Academic Year 2023-24

Office Bearers of ZERONE Association for the Year 2023-24

Designation	Name	USN	Year
Faculty Coordinator	Dr. Sreeja Rajesh, Associate Professor		
President	B SHIV KUMAR	4MT20IS058	IV Year
Vice-President	Mr. VINOD K S	4MT21IS060	III Year
Secretary	Ms. SINCHANA VENUGOPAL	4MT20IS041	IV Year
Joint Secretary	Ms. NAYANA S	4MT22IS023	II Year
Treasurer	Ms. SHREYA G BHAT	4MT21IS041	III Year
Technical Head	Mr. MAYUR S KARKERA	4MT20IS020	IV Year
Cultural Coordinator	Ms. ADITHI J RAO	4MT21IS002	III Year
Sports Coordinator	Mr. SAHIL FARAZ	4MT20IS034	IV Year
Placement Coordinator	Ms. VARUN RAJ	4MT20IS053	IV Year
Magazine Coordinator	Ms. ADITHI D SHETTY	4MT22IS001	III Year
Zerone student coordinator	Mr. SUJAY P	4MT22IS058	II Year

Department of Information Science & Engineering
Association Activities 23-24

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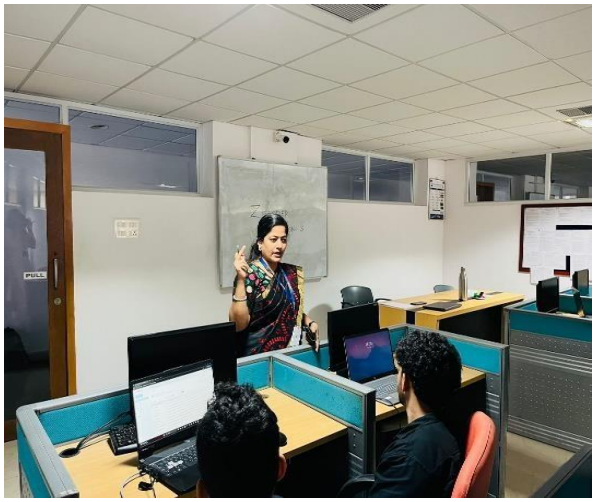
2	Logo design competition		11/07/2024
3	Two days Workshop on Empowering with Software Engineering Tools & Practices	Mr. Shivaprakash Rao, IT Consultant, Project Manager, Enterprise Automation Platform Dr. Mohit P Tahiliani, Associate Professor, Dept. of Computer Science and Engineering, NITK, Surathkal	21/06/2024 to 22/06/2024
4	Talk on Framework Artificial Intelligence and Cybersecurity: Threats and Future Technology	Mr. Satish Shetty, CEO and founder of Codeproof Technologies, USA	16/05/2024
5	Three Days Workshop on 'Applications of Internet of Things (IoT)'	Dr. Rashmi Laxmikanth Malghan, Senior Asst. Professor, Dept. Data Science, MIT, Manipal, Dr. Sreeja Rajesh, Associate Professor, Department of ISE, MITE and Dr. Shreekumar T, Associate Professor, Department of CSE, MITE	15/02/2024 to 17/02/2024
6	Exhibition "Circuit Symphony: Arduino and Tinkercad Expo "	Faculty co-ordinators Dr. Sreeja Rajesh and Dr. Ramananda Mallya K	01/02/2024
7	"Pixel Perfection" Automating Visual Enhancement Algorithms focusing Critical Thinking	Dr. Terence K. Johnson Professor, Dept. of ISE & Associate Dean Academics - MITE	29/01/2024 to 31/01/2024
8	Three Days Workshop on 'Arduino and Tinkercad'	Dr. Sreeja Rajesh and Dr. Ramananda Mallya K, Associate Professor, Department of ISE, MITE	22/01/2024 to 24/01/2024

9	Talk on 'Demand and Supply Planning with Data Integration'	Mr. Ramadasa Hegde, Consultant, Arkieva	29/12/2023
10	Talk on 'Stress management'	Mrs. Vedha Upadya	20/11/2023
11	Talk on ' Artificial Intelligence- Its Real Time Use Cases'	Dr Yogeesha C B, Sr. Cloud Engineer QA(Software Quality Analyst) CISCO Systems India Pvt. Ltd., Bangalore and Mr. Amogha C J, Manager- Data Analytics B-Informative IT Services Pvt. Ltd., Bangalore	13/09/2023
12	One Day Workshop on "Ideation and Design Thinking"	Department of ISE, ECE, CSE(IoT), Mech & NAIN-MITE in association with District Institute of Education & Training DIET Mangalore	02/09/2023
13	Talk on 'Augmented Reality and Virtual Reality'	Ms. Deeksha Suvarna, Senior Software Engineer-ABSYZ, Bangalore	26/08/2023

ZECODER - Season 3

Date: 15/07/2024

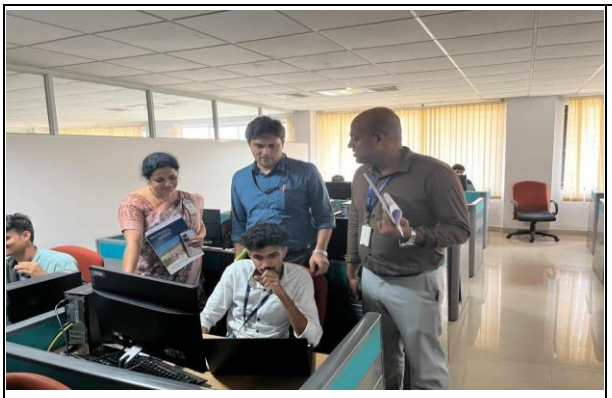
The Department of Information Science & Engineering (ISE) organized the third season of its prestigious Zecoder coding contest on July 15, 2024,. The event was held in the ISE lab and had participation from 28 teams, challenging students to test their coding and debugging skills through a two-round format. The contest began with Round1: Quiz which was designed to assess participants' theoretical knowledge in domains such as algorithms, data structures, and programming languages. Out of the 28 teams, 18 were eliminated after this round. The quiz, crafted by experienced faculty, tested the quick-thinking abilities and depth of understanding of the contestants. Round 2 was Coding and Debugging where participants tackled both coding and debugging challenges. One team member focused on coding while the other handled debugging. The unique aspect of this round was the separation and swapping of roles in the final 20 minutes, requiring effective communication and adaptability between team members. Participants were tasked with solving complex coding problems and fixing errors in pre-written code, testing their algorithmic thinking and debugging proficiency. The event concluded with a prize distribution ceremony led by the Head of the Department, Prof. Manjunath H. The top two teams received certificates and cash prizes, while special recognition was given to those who excelled in coding and debugging. Zecoder Season 3 was a resounding success, fostering competitive spirit, teamwork, and technical excellence among the students.



Logo design competition

Date: 11/07/2024

The Department of Information Science and Engineering (ISE) organized a logo design competition on July 11, 2024, aimed at promoting creativity and artistic expression among students. This event, unlike typical technical competitions, focused on visual design and conceptual thinking, providing a platform for participants to explore their artistic skills. Held at 1:30 pm in the ISE lab, the competition saw 22 students individually competing to create original logos based on a topic and rules provided on the spot. This format ensured that all designs were spontaneous, unique, and reflected the participants' creative responses to the theme. Participants could use any tools or design methods, but pre-made templates were prohibited, highlighting their true creative potential. A diverse panel of judges from various departments, including Mrs. Rashmi Praveen (Mathematics), Mr. Aveen K.P. (Mechanical Engineering), and Mr. Avinash NJ (Electronics and Communication), assessed the logos. Judging criteria included originality, concept clarity, aesthetic appeal, technical execution, and the participant's presentation explaining the design's purpose and meaning. The event concluded with a prize distribution ceremony, where two outstanding participants were recognized with certificates and cash rewards, presented by Prof. Manjunath H. and Dr. Sreeja Rajesh. The competition was a resounding success, providing a platform for students to express their creativity and enhancing their understanding of design. The department looks forward to hosting more such events to foster innovation and creativity among students.



Two Days workshop on "Empowering with Software Engineering Tools & Practices"

Date: 21/06/2024 to 22/06/2024

A two-day workshop titled "Empowering with Software Engineering Tools & Practices" was conducted on the 21st and 22nd of June 2024 for third-year Information Science and Engineering students. The event featured two distinguished resource persons: Mr. Shivaprakash Rao, an IT Consultant and Project Manager with expertise in Enterprise Automation Platforms, and Dr. Mohit P. Tahiliani, an Associate Professor at the National Institute of Technology Karnataka (NITK), Surathkal. Mr. Rao's sessions focused on agility within Software Engineering, particularly Agile methodologies such as Scrum, Kanban, and user story mapping. He provided hands-on training on creating and managing user stories using JIRA, equipping participants with essential tools for contemporary software development. Dr. Tahiliani's sessions delved into software development using APIs, emphasizing Web APIs and Postman. He provided a comprehensive overview of API usage and testing, including making API calls, validating responses, and troubleshooting issues. The Postman Classroom Program was also introduced, offering participants the opportunity to pursue industry-recognized certifications through specialized courses. In addition to the technical sessions, an exhibition was arranged where students showcased their projects, demonstrating the practical application of the skills they had acquired during the workshop. This event not only enhanced the students' understanding of software engineering tools and practices but also provided them with valuable industry-relevant skills and certifications.

Fig 2: Session by Mr. Shivaprakash Rao

Fig 2: Session by Dr. Mohit P. Tahiliani

Fig 3: Demonstration of project during Exhibition

Talk on 'Framework Artificial Intelligence and Cybersecurity: Threats and Future Technology '
by Mr. Satish Shetty, CEO and founder of Codeproof Technologies, USA

Date: 16th May 2024

The Department of Information Science & Engineering and Department of Computer Science and Engineering with IoT jointly organized a talk titled "Artificial Intelligence and Cybersecurity: Threats and Future Technology," on 16th May 2024 at 11AM, MITE. The resource person for the event was Mr. Satish Shetty, CEO and founder of Codeproof Technologies, USA. Mr. Shetty, a seasoned expert with over 28 years of experience in cybersecurity and enterprise software, began by explaining the fundamental concepts of cybersecurity and its importance in protecting data and systems from malicious attacks. He elaborated on various cyber threats, focusing on phishing attacks, and provided practical demonstrations of how phishing scams operate, including email frauds, QR code scams, and OTP scams. He then discussed strategies to enhance cybersecurity, emphasizing the use of strong passwords, two-factor authentication, regular software updates, and vigilance against suspicious emails. Mr. Shetty also highlighted the role of AI in cybersecurity, explaining how machine learning and deep learning technologies can detect and respond to threats in real-time. The talk concluded with an overview of job opportunities in cybersecurity, recommendations for learning resources, and a Q&A session. Students praised the practical insights and real-world applications discussed, making the session a valuable experience for those aspiring to pursue careers in cybersecurity.

	
Talk by Mr. Satish Shetty, CEO and founder of Codeproof Technologies,USA	Felicitating the resource person

Three Days Workshop on 'Applications of Internet of Things (IoT)'

Date: 15/02/2024 to 17/02/2024

The Departments of Information Science & Engineering and Computer Science & Engineering organized a three-day workshop on 'Applications of Internet of Things (IoT)' from 15th to 17th February 2024. The workshop aimed to provide participants with hands-on experience and foundational knowledge of IoT technologies. On 15th February, Dr. Sreeja Rajesh introduced Arduino concepts, covering its architecture, programming, and applications, followed by hands-on sessions involving sensors and actuators. The second day focused on Tinkercad, where participants designed and simulated Arduino circuits under Dr. Rajesh's guidance, completing short IoT projects. The final day featured Dr. Shreekumar's session on the basics of IoT, covering networks, protocols, and data management. Dr. Rashmi Laxmikant Malghan from MIT Manipal discussed IoT applications in fields like healthcare and agriculture, offering practical insights. The workshop concluded with positive feedback, highlighting the balance between theory and practice.

	
Felicitating the resource person	Talk by Dr. Rashmi Laxmikant Mlghan, Senior Asst. Profesor, Dept of Data Science, MIT Manipal

Circuit Symphony: Adruino and Tinkercad Expo

Date: 01/02/2024

A three-day workshop on Arduino and Tinkercad was conducted from 22/01/2024 to 24/01/2024 for second-year Information Science & Engineering students. As an outcome of the workshop, a project exhibition titled "Circuit Symphony: Arduino and Tinkercad Expo" was held on 01/02/2024, showcasing the projects developed by the participants. Dr. Sreeja Rajesh and Dr. Ramananda Mallya K were the faculty co-ordinators. The exhibition featured innovative projects, with enthusiastic participation from students. Attendees included students and professors from various branches, fostering a cross-disciplinary knowledge exchange. Each group had the opportunity to explain their project's design and functionality, enhancing both their technical and communication skills. This interaction with a diverse audience, including instructors from different fields, encouraged participants to explore further applications of Arduino technology. The event concluded with an award ceremony, where two teams were recognized for their outstanding projects. The exhibition reflected the culmination of the workshop, showcasing the endless possibilities of Arduino in areas such as robotics, IoT, and automation. Overall, "Circuit Symphony" provided a platform for creativity, collaboration, and innovation, inspiring participants to continue their exploration of IoT and programming through Arduino.

Three Days workshop on "Pixel Perfection - Automating Visual Enhancement Algorithms focusing Critical Thinking"

Date: 29th January 2024 to 31st January 2024

A three days' workshop titled "Pixel Perfection in Digital Image Processing" was held from January 29th to 31st, 2024, by resource person Dr. Terence K. Johnson, Professor of the Department of Information Science and Engineering (ISE) and Associate Dean of Academics at MITE. The workshop focused on automating visual enhancement algorithms to achieve the highest quality and accuracy at the pixel level in digital images. "Pixel Perfection" involves using advanced algorithms to enhance various aspects of images, such as color balance, contrast, and sharpness, through automated processes. The workshop covered key attributes of pixel perfection, including automated image enhancement, precision at the pixel level, and the application of visual enhancement algorithms like histogram equalization, noise reduction, and edge enhancement. Additionally, the importance of real-time processing for applications like video streaming and iterative improvement of algorithms was discussed. The agenda included detailed sessions spread across three days. Day 1, focused on unlocking image potential, including image reading, writing, and pixel precision techniques. Day 2 delved into transforming image intensities through various techniques and a deep dive into image convolution. On Day 3, the workshop explored edge detection with filters such as Prewitt, Sobel, and Canny, and concluded with insightful discussions. Overall, the workshop highlighted the significance of "Pixel Perfection" in digital image processing, emphasizing the continuous pursuit of excellence through advanced algorithms, machine learning, and iterative improvements.

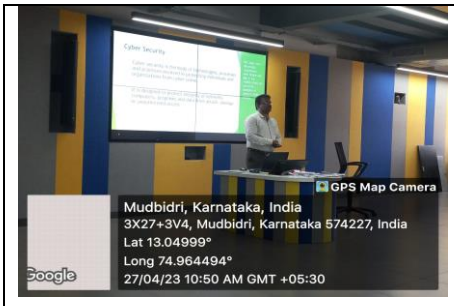
Session by Dr Terence K Johnson

Three Days workshop on "Arduino and Tinkercad"

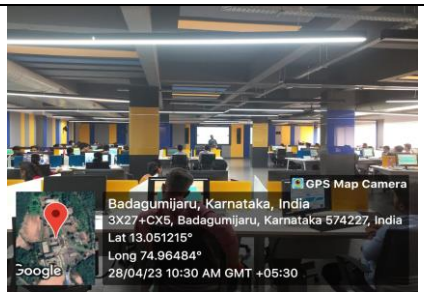
Date: 22nd January 2024 to 24th January 2024

The Department of Information Science & Engineering at MITE organized a three-day workshop on "Arduino and Tinkercad" for IIyear ISE students from January 22nd to 24th, 2024, in the ISE Lab. The resource persons for the event were Dr. Sreeja Rajesh and Dr. Ramananda Mallya from the Department of IS&E. Arduino, an open-source electronics platform, allows users to design and build interactive projects, while Tinkercad offers a virtual environment for experimentation, fostering creativity by eliminating physical resource limitations.

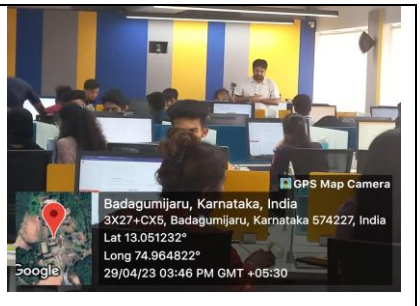
The workshop aimed to teach participants how to program Arduino boards using the Arduino IDE and Tinkercad, providing insights into coding, circuitry, and sensor interfacing. Day 1 focused on the basics of Arduino, covering an overview of Arduino and Tinkercad, an introduction to Arduino IDE, understanding Arduino boards and components, and a hands-on session where participants created their first Arduino project by blinking an LED. Day 2 explored intermediate concepts, including the types and applications of sensors and actuators, interfacing sensors with Arduino, and building a sensor-based project. Participants were also introduced to Tinkercad for virtual prototyping and simulated Arduino projects. Day 3 delved into advanced programming techniques, integrating multiple sensors, and group projects where participants designed and simulated circuits on Tinkercad before implementing them with physical components. The workshop provided practical experience in Arduino programming and sensor interfacing, allowing participants to create their own interactive projects. On the final day, a competition was held, where participants first created circuits in Tinkercad and then built them using physical components, with the fastest team winning. The workshop equipped students with a solid foundation in Arduino and Tinkercad, empowering them to explore electronic prototyping, innovation, and creative problem-solving.



Day 1 Session



Day 2 Session



Day 3 Session

Talk on ' Demand and Supply Planning with Data Integration ' by Mr. Ramadasa Hegde, Consultant, Arkieva

Date: 29/05/2023

Ramadasa Hegde A, a seasoned Consultant, has extensive experience in Demand Planning, Data Integration, Oracle ERP (P2P and Finance), HR Solutions, Data Warehousing, and Sentiment Analysis. Currently, as a Consultant at Arkieva, he excels in designing customer-centric products, implementing Python-based integration solutions, and contributing to demand system planning. His expertise also includes SQL server performance tuning, dimensional modeling, and creating interactive dashboards using QlikView. During his session, Mr. Ramadas Hegde emphasized the importance of equipping the younger generation with essential skill sets to meet market demands. He explained how accurate demand forecasting, derived from historical data and real-time integration, enables organizations to better align production, inventory, and distribution with market needs. He highlighted the strategic importance of data integration for businesses seeking resilience and agility in their operations.

Students from the Information Science & Engineering department attended the session, gaining valuable insights into supply chain management and data integration. The lecture provided an enlightening perspective on how businesses can utilize technology to streamline operations, and the students found the session highly informative and beneficial for their future.

Talk on ' Stress Management '
by Mrs. Vedha Upadya

Date: 20/11/2023

A talk on "Stress Management" was organized specifically for 7th-semester students, led by Mrs. Vedha Upadhya. The session focused on the importance of mental health and time management, particularly as students face increasing mental stress due to academic pressures, peer influence, and personal challenges. Mrs. Vedha highlighted how physical comforts have grown, but at the expense of mental well-being. She explained that prolonged mental stress can lead to headaches, exhaustion, and a lack of focus.

The two-hour workshop began with light exercises and soothing music to help students relax. Mrs. Vedha emphasized that relaxation is key to reducing stress and enhancing focus, especially during this crucial period of placements and academics.

Mrs. Vedha shared practical tips to manage time and maintain a healthier lifestyle: engaging in 20 minutes of aerobic exercise daily, eating balanced meals with whole grains, nuts, fruits, and vegetables, avoiding caffeine, ensuring at least 7 hours of sleep, and dedicating time each day to both programming practice and skill development. The session ended with music meditation, leaving participants feeling relaxed and more equipped to handle stress. Students found the session informative and beneficial, with open discussions and queries resolved at the end.

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