MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING
(A Unit of Rajalaxmi Education Trust®, Mangalore - 575001)
Autonomous Institute affiliated to VTU, Belagavi, Approved by AICTE, New Delhi
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ALUMNI COMMITTEE

Annual Report: AY 2024-25

ALUMNI COMMITTEE FOR THE ACADEMIC YEAR 2024-25

The composition for the Alumni Committee for the Academic Year 2024-25 is as follows:

Sl. No.	NAME	REPRESENTATION
1	Dr. Prashanth C M, Principal	Chairperson
2	Dr. Sujesh Kumar, Department of Aeronautical Engineering	Member
3	Ms. Swapna S A, Department of Civil Engineering	Member
4	Mr. Ashwin Kumar M, Department of Computer Science & Engineering	Member
5	Mr. Ranjith H D, Department of Electronics & Communication Engineering	Member
6	Mr. Rajesh N Kamath, Department of Information Science & Engineering	Member
7	Mr. Aveen K P, Department of Mechanical Engineering	Member
8	Dr. Kirankumar M V, Department of Mechatronics Engineering	Member
9	Mr. Akshathraj Jain, Department of Management Studies	Member
10	Dr. Vinayambika S Bhat, Department of Electronics & Communication Engineering	Convener

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ALUMNI INTERACTION AY 2024-25

Sl. No.	Name of the Alumni	Designation	Date	Title of the Technical Talk /Workshop	Page No.
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5	Mr. Sheesha Aithal	Proprietor at Aithal AccounTax Solutions, Mangalore		Smart Finance for Smart Entrepreneurs: Unlocking Innovation Potential	9
6	Mrs. Chaitra G C	Senior Business Analyst, Collins Aerospace, Bengaluru	26/04/2025	Crafting Tomorrow: Innovation and Entrepreneurship in Product & Process Design for Aeronautical Engineering in the Digital Age	12
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11	Mr. Deekshith Poojary Airody	Technical Assistant Engineer, Department of MGNREGA, Taluk Panchyath, Karkala		Resonance: Where Culture Amplifies Technical Learning	26
12	Mr. Jerrin Rajan	Lead Data Scientist, MIQ Digital Ltd, Bengaluru		The Landscape of Generative AI, Machine Learning & Data Science	28
13	: Mr. Anush G	Tech Lead, Regeneron, Bengaluru		Work, Build, Repeat: The Art of Balancing Job & Startup Dreams	31
14	Mr. Nithin Y B	Technical lead , Robosoft Technologies Udupi		Beyond Coding: Designing and Prototyping your IT Career Path	33
15	Mr. Pathanjali Sharma	Co- Founder & Managing Partner Panoray Ventures, Bengaluru		From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain	35
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16	Ms. Kushboo Rani	Lead Data Science Analyst, Infosys, Bengaluru	06/12/2024	Mind over Mood - EQ over IQ	39
17	Mr. Nishith P Hegde	Project Manager, Siemens Technologies,		Getting Industry Ready!	41

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19	Mr. Aayush S Hegde	PG Student at NITK Surathkal		Design, development and testing of Unmanned ground vehicles	46
20	Ms. Vishalakshi T Bandiwad	Bigdata Engineer at Societe Generale, Bangalore	07/12/2024	Crafting Tomorrow: Aeronautical Engg. in Digital Age	50
21	Ms. Anusha K R	Quality Analyst, Thoughtworks, Bengaluru		Beyond Coding: Diverse Careers in IT	52
22	Mr. G M Mufeed	Senior Software Engineer, Apps10X Private Limited, Bengaluru.		Uncovering the Basics Behind Generative AI	54
23	Ms. Anjani B M	Mobile Application Developer, DXC Technology Bengaluru		Finding your voice: Developing communication skills for the future	56
24	Mr. Sachin Pai	Design & Development Engineer Siemens, Bengaluru		Industrial Automation in DigitalAge: Challenges and Opportunities	59
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Alumni Technothon - MITE (ATM) Series II

DAY-1

25th April 2025

Brief about the event:

SESSION-1

Title: Shaping Innovation: Process and Prototype Design for Emerging Technologies

Speaker : Mr. Mithun Marmakki, Team Lead, HTC Global Services Bengaluru

Graduated Year: 2015

Date: 25/04/2025 **Time: 10:00AM**

Profile of the Resource Person: Mr. Mithun Marmakki is a seasoned Team Lead at HTC Global Services, with over a decade of experience in Android application development. Throughout his impressive career in the tech industry, he has led and contributed to the creation of high-impact mobile solutions across various domains, including infotainment, food delivery, and OTT streaming. His portfolio includes work on widely-used applications such as Discovery+, PayTm, McDelivery, and more. At HTC Global Services, Mr. Mithun plays a pivotal role in architecting scalable and user-centric mobile experiences, driving innovation and excellence in every project he undertakes.

Keynote Address: Mr. Mithun M., an esteemed alumnus, delivered an insightful and thought-provoking talk and he opened the discussion with an engaging icebreaker, prompting attendees to reflect on the roles artificial intelligence (AI) and emerging technologies like quantum computing might play in their futures. His core message revolved around not merely surviving these changes but learning to adapt and thrive in a technology-driven landscape.

A key highlight of the talk was the exploration of quantum computing, where speaker explained the concept of qubits and their potential to solve complex problems that are beyond the capacity of classical computers. He outlined its possible applications in fields such as drug discovery, materials science, and finance, noting that while the technology is still in its infancy, its future impact could be transformative. He further supported his points with a compelling case study: the downfall of Blockbuster and the rise of Netflix, illustrating how failing to embrace innovation can render even industry giants obsolete.

Mr. Mithun also facilitated an interactive activity focused on the future of education, asking students to imagine a world where traditional exams are replaced by AI systems that track real learning. This exercise sparked a meaningful dialogue on how education systems must evolve to meet the needs of a tech-integrated society. Throughout the session, he encouraged students to ask "what if" questions to spark innovation—challenging conventional thinking and highlighting that imagination can be more powerful than information.

In addressing AI, Mr. Mithun traced its evolution from the 1950s to its current role across industries. He emphasized that the future of work lies not in competing with AI but in collaborating with it. Using the example of AI in healthcare, particularly in early cancer detection, he demonstrated how AI, when used responsibly, can significantly improve outcomes. His message was clear: technology should be viewed as a tool, not a threat.

To prepare for the future, speaker provided actionable steps for students: follow an emerging technology for 30 days, create a project driven by curiosity and purpose, and seek mentorship or guidance from someone just a couple of years ahead in the field. He also stressed the importance of cultivating future-ready skills such as problem-solving, adaptability, lifelong learning, and effective communication.

The session concluded with an open Q&A and a challenge for the audience: "What's one thing you'll start doing today to prepare for tomorrow?" Mr. Mithun's talk left a lasting impression, inspiring students to embrace curiosity and to proactively shape their own future in a world increasingly influenced by intelligent technologies. It was a valuable and motivating experience, reminding everyone that the future belongs to those who are willing to learn, adapt, and lead with vision.

Speaker Mr. Mithun Marmakki, Team Lead, HTC Global Services, Bengaluru, delivering a session on *"Shaping Innovation: Process and Prototype Design for Emerging Technologies."*

SESSION-2

Title: Reenvisioning MBA: A Design-led Journey

Speaker : Ms. Nidhi Shetty, Management Trainee, Piramal Pharma Ltd, Mumbai

Graduated Year: 2020

Date: 25/04/2025 **Time: 11:30AM**

Profile of the Resource Person: Ms. Nidhi Shetty is a driven professional with prior experience in the Life Sciences domain at Tata Consultancy Services. She recently completed her MBA from K J Somaiya Institute of Management, Mumbai. As part of her MBA journey, she interned with Piramal Pharma Ltd., where her exceptional performance led to a Pre-Placement Offer (PPO). She is set to join Piramal Pharma Ltd. as a Supply Chain Management Trainee in June 2025, embarking on a promising career in the pharmaceutical and supply chain sector.

Keynote Address: Ms. Nidhi Shetty presented an inspiring reflection on how the MBA experience goes far beyond academic grades and resumes. She emphasized that real lessons

are often hidden within lived experiences, and unless they are articulated and shared, they remain untapped. Nidhi highlighted the importance of being fully present, cherishing the moments as they come, and understanding that there is never a "perfect time" for anything only the right intention to act. She advocated that ambition must be paired with proper information, insight, and honest conversations to be truly meaningful.

Further, Nidhi challenged the traditional notion of an MBA as just a degree. She asserted that where one pursues an MBA significantly influences the journey and that the experience is not something to passively undergo but actively create. Growth during an MBA, she emphasized, comes from saying "yes" to new opportunities, showing up consistently, and staying open to change. Managing an MBA is not about doing more tasks but about better managing time, priorities, people, and oneself.

Another critical point she stressed was the value of curiosity: it’s perfectly fine not to have all the answers, but it’s not okay not to ask the right questions. Nidhi encouraged students to chase purpose rather than just placements, urging them to seek roles aligned with their values rather than merely filling up a resume. She explained that genuine networking is about building real relationships through collaboration and learning from others, rather than treating interactions as mere transactions.

Finally, Nidhi underlined the importance of continuous learning. She described the MBA journey as a process of self-discovery where the right environment, pressure, and support reveal a person’s true potential. According to her, the MBA doesn't fundamentally change who you are; instead, it helps uncover and amplify the strengths that were always within. Her concluding message reinforced that experiences, perspectives, and human connections are the most valuable takeaways from an MBA, not just the degree itself.

Speaker Ms. Nidhi Shetty, Management Trainee, Piramal Pharma Ltd, Mumbai, delivering a session on *"Reenvisioning MBA: A Design-led Journey."*

SESSION-3

Title: Role of Industrial Automation in Modern Product Development
Resource Person: Mr. Vignesh V Kini, Automation Engineer

Graduated Year: 2020 (Department of Mechatronics Engineering)

Date: 25/04/2025 **Time: 10:00AM**

Profile of the Resource Person:

Mr. Vignesh V Kini is a distinguished alumnus of the Department of Mechatronics Engineering, MITE (batch of 2017–2020). Post-graduation, he has built a promising career specializing in Industrial Automation. His expertise lies in automation solutions involving sensors, controllers, and actuators, with an emphasis on the integration of PLC systems for modern manufacturing setups. His commitment to innovation and practical knowledge has made him a valued professional in the field of automation engineering.

Keynote Address:

Mr. Vignesh V Kini commenced the session by introducing the concept of **Industrial Automation**, elaborating on its growing need in modern industries. He emphasized the **advantages of automation**, such as increased efficiency, precision, reliability, and cost-effectiveness. He discussed about how automation revolutionizes production, leading to enhanced product quality and reduced human intervention in critical tasks.

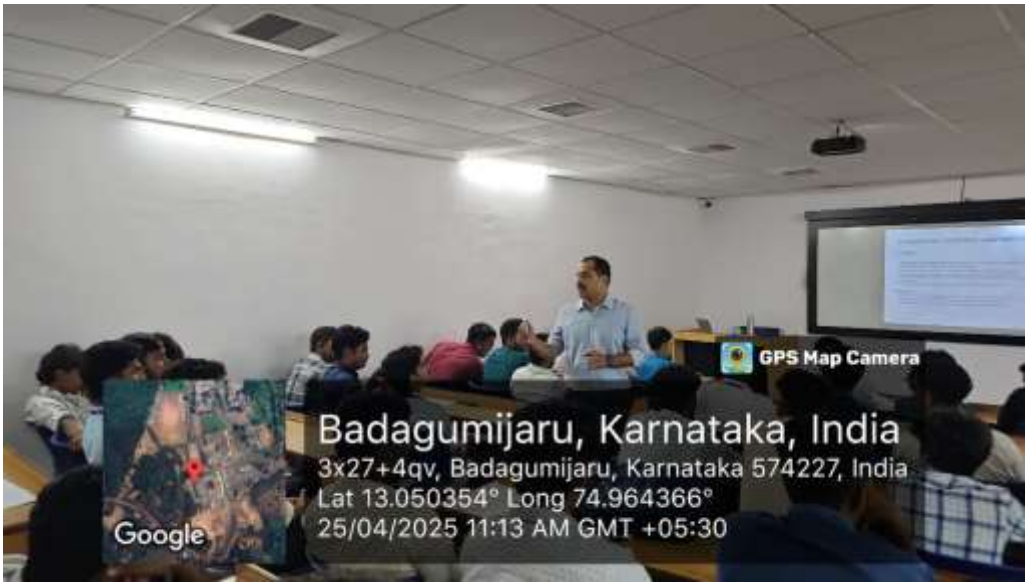
Moving forward, he explained the fundamental components of any automated system **Sensors**, **Controllers**, and **Actuators**. He described the **types**, **importance**, and **key differences** between these elements:

- **Sensors:** Devices that detect changes in the environment and send information to controllers.
- **Controllers:** The 'brain' of automation systems, mainly focusing on **PLCs (Programmable Logic Controllers)** in this session.
- **Actuators:** Components that execute physical actions based on controller signals.

Deep Dive into PLCs and Industrial Automation:

In-depth attention was given to **Programmable Logic Controllers (PLCs)**, highlighting their **advantages**, **features** like **redundancy** and **fail-safe mechanisms**, and their critical role in ensuring uninterrupted operations in industrial setups. Mr. Vignesh also discussed the historical background, mentioning **Richard E. Morley**, known as the **Father of PLCs**, and elaborated on how PLCs have become the backbone of modern manufacturing plants.

He also provided real-world examples of how automation is deployed across various industries such as automotive, food processing, packaging, and electronics manufacturing, helping the participants connect theoretical knowledge with practical applications.



Speaker Mr. Vignesh V Kini, Mechatronics and Automation Trainer, 3D Engineering Automation, NITK Surathkal, delivering a session on *"Role of Industrial Automation in Modern Product Development."*

SESSION-4

Title: "Cracking the Code: What Recruiters Really Look for in Future Leaders"
Resource Person: Ms. Shika Alva, Executive Human Resource, Data Template, Mangalore
Graduated Year: 2020
Date: 25/04/2025 **Time: 02:00PM**

Profile of the Resource Person: Ms. Shika Alva, an alumna of 2020 Management Studies graduate has over 5 years of experience into marketing Currently serving as Executive Human Resource, Data Template, Mangalore, she has achieved remarkable success with many promotions within a short span. Recognized for his outstanding accomplishments, she is heading the recruitment for Data Template handling Mangalore and Bangalore offices.

Keynote Address: The alumni talk on "Cracking the Code: What Recruiters Really Look for in Future Leaders", Ms. Shikha addressed the students on essential skills and strategies to succeed in their professional journey. Her talk provided valuable guidance, practical tips, and a realistic view of today's industry expectations. She emphasized the importance of building self-confidence as a foundation for personal and professional success. She advised students to believe in their abilities, take initiative, and step out of their comfort zones to grow.

Addressing the reality of the workplace, she spoke about handling pressure effectively. Ms. Shikha shared those challenges and stressful situations are common in any career, and students must develop resilience, time management skills, and a calm attitude to navigate them successfully. A major highlight of her talk was on the need to work on communication skills. She stressed that both verbal and written communication are vital for conveying ideas, building relationships, and leading teams. Regular practice and active listening were recommended strategies for improvement. Ms. Shikha also highlighted the significance of valuing the thoughts and opinions of others. She encouraged students to cultivate an attitude of respect and openness, as teamwork and collaboration are critical in today's dynamic work environments.

She urged students to constantly adapt, update, and upgrade themselves in line with industry trends. Continuous learning through certifications, workshops, and professional courses was strongly recommended to stay competitive. Further, she discussed how important it is for students to understand the role they are aspiring for and the skills required in that role. She advised thorough research and self-assessment to align their skill sets with industry demands. Another critical aspect she touched upon was the need to build professional networks. Ms. Shikha advised students to actively connect with peers, mentors, alumni, and industry professionals to create opportunities and stay informed.

In today's world, she cautioned students to be vigilant about job scams. She informed them that while seeking opportunities, it is important to verify the legitimacy of companies and avoid falling prey to fraudulent schemes. For job searches, she recommended using trusted platforms like LinkedIn and Naukri. She suggested maintaining updated profiles and using these platforms to connect directly with HR managers and industry professionals.

Lastly, Ms. Shikha stressed that students should be well-prepared about what the industry expects. Understanding market demands, company expectations, and role-specific requirements would significantly enhance their employability and success in the workplace. The session was highly interactive and left the students feeling motivated and better prepared for their future careers. The department extended heartfelt gratitude to Ms. Shikha for taking the time to mentor the budding professionals with such valuable insights.

The session provided sufficient opportunities for students to ask questions, share their thoughts, and actively participate in the discussion. The speaker's responses to questions insightful and encouraging for further dialogue. Overall, the talk provided valuable insights into the world of HR and gained valuable knowledge.

Speaker Ms. Shika Alva, Executive – Human Resource, Data Template, Mangalore, delivering a session on *"Cracking the Code: What Recruiters Really Look for in Future Leaders."*

SESSION-5

Title: "Smart Finance for Smart Entrepreneurs: Unlocking Innovation Potential"
Resource Person: Mr. Sheesha Aithal, Proprietor at Aithal AccounTax Solutions, Mangalore
Graduated Year: 2020
Date: 25/04/2025 **Time: 03:00PM**

Profile of the Resource Person: Mr. Sheesha Aithal, an alumnus of 2020 Management Studies graduate has over 5 years of experience, began his career as an accountant at a firm, where he worked for two years. After gaining valuable experience, he went on to establish his own firm, Aithal AccounTax Solutions, in Bantwal, Mangalore. Today, he is a successful entrepreneur with a growing number of clients.

Keynote Address: The alumni talk on "Smart Finance for Smart Entrepreneurs: Unlocking Innovation Potential", Mr. Shreesha began by defining an entrepreneur as someone who

seeks profitable opportunities and takes calculated risks to establish and grow a business. He highlighted the difference between entrepreneurs, small-business owners, and managers, emphasizing the entrepreneurial drive for growth and responsibility for resource utilization.

Mr. Shreesha explained how today's entrepreneurs must embrace smart accounting tools to revolutionize financial management. He detailed how AI enhances automation and efficiency by handling repetitive tasks like data entry and invoice processing. Real-time financial insights provided by AI help businesses stay informed about revenue, expenses, and cash flow. Predictive analytics, another AI feature, allows businesses to anticipate cash flow patterns, financial risks, and revenue trends.

He also discussed the critical role of AI in fraud detection and ensuring regulatory compliance. Mr. Shreesha elaborated on cost-saving strategies and how AI-driven decisions help optimize expenses and boost profitability. Examples like Zerodha Streak and Smallcase were shared to illustrate AI's role in personalizing portfolio management. He described how AI enhances risk detection, assessment, and mitigation by enabling real-time risk information sharing and improving compliance.

Predictive analytics applications in finance, such as risk management, investment forecasting, and customer behavior analysis, were also thoroughly explained. Mr. Shreesha stressed the growing role of AI in financial forecasting, cash flow analysis, and investment optimization. He projected that platforms like QuickBooks and SAP will further integrate advanced AI features in the near future. Finally, he emphasized that future finance professionals must develop AI literacy and shift from data entry roles to strategic financial advisory services.

The session was extremely insightful and motivated students to understand and embrace technology-driven financial management techniques for future entrepreneurial success.The session provided sufficient opportunities for students to ask questions, share their thoughts, and actively participate in the discussion. The speaker’s responses to questions insightful and encouraging for further dialogue. Overall, the talk provided valuable insights into the world of insurance and gained valuable knowledge.

Speaker Mr. Sheesha Aithal, Proprietor, Aithal AccounTax Solutions, Mangalore, delivering a session on *"Smart Finance for Smart Entrepreneurs: Unlocking Innovation Potential."*

DAY 2

26th April 2025

SESSION-6

Title: "Crafting Tomorrow: Innovation and Entrepreneurship in Product & Process Design for Aeronautical Engineering in the Digital Age"

Resource Person: Mrs. Chaitra G C, Senior Business Analyst, Collins Aerospace, Bengaluru

Graduated Year: 2016

Date: 26/04/2025 **Time: 09:30AM**

Profile of the Resource Person: Mrs. Chaitra G C, an alumnus of the batch 2012-2016, is currently working as Senior Business Analyst at Collins Aerospace since 2020. Chaitra G C is a Senior Business Analyst with a strong background in data analysis, project management, and business process improvement. With a proven ability to support strategic decision-making, she specializes in creating insightful dashboards, streamlining workflows, and leading cross-functional teams to successful project completion. Chaitra brings valuable experience from her roles at Collins Aerospace, Genpact, National Aerospace Laboratories and Infosys, where she consistently delivered data-driven solutions to enhance operational efficiency.

Keynote Address: The keynote address on "Crafting Tomorrow: Innovation and Entrepreneurship in Product & Process Design for Aeronautical Engineering in the Digital Age" was delivered by Mrs. Chaitra G C, a distinguished alumna of the 2012–2016 batch. Currently serving as a Senior Business Analyst at Collins Aerospace, Mrs. Chaitra brought forth an engaging and insightful perspective on how innovation, data-driven decision-making, and entrepreneurial thinking are shaping the future of aeronautical engineering.

Opening her address, Mrs. Chaitra traced her professional journey from her early roles at Infosys and National Aerospace Laboratories to her impactful contributions at Genpact and Collins Aerospace. Her multifaceted experience across these organizations has enabled her to build a strong foundation in data analytics, project management, and business process optimization—all of which are essential in today's digital engineering landscape.

A significant portion of the talk focused on the convergence of engineering and digital technologies. Mrs. Chaitra illustrated how modern aeronautical engineering increasingly relies on intelligent dashboards, workflow automation, and cross-functional collaboration to enhance both product and process design. By presenting real-world scenarios from her projects at Collins Aerospace, she emphasized the growing role of digital tools in reducing inefficiencies, improving turnaround time, and supporting strategic decision-making in complex aerospace systems.

Highlighting the theme of entrepreneurship, Mrs. Chaitra discussed how innovation today extends beyond technical invention to include process transformation and service excellence. She encouraged students to think beyond conventional engineering roles and explore opportunities in business analytics, operations strategy, and digital innovation. Her experiences in leading multidisciplinary teams underscored the importance of communication, critical thinking, and adaptability in driving change within large aerospace organizations.

Mrs. Chaitra also addressed the evolving skill sets required in the digital era, encouraging students to build proficiency not only in engineering fundamentals but also in emerging domains like data visualization, AI-driven analytics, and agile project methodologies. She stressed that innovation is no longer confined to R&D labs—it thrives at the intersection of technology, data, and entrepreneurial insight.

Concluding her talk, Mrs. Chaitra inspired students to be bold in their ideas, collaborative in their approach, and resilient in their pursuit of engineering excellence. The session, attended by an enthusiastic audience of over 65 students, left a lasting impact by showcasing how the fusion of innovation and entrepreneurship can truly craft tomorrow’s aerospace landscape.

Speaker Mrs. Chaitra G C, Senior Business Analyst, Collins Aerospace, delivering a session on *"Crafting Tomorrow: Innovation and Entrepreneurship in Product & Process Design for Aeronautical Engineering in the Digital Age."*

SESSION-7

Title: Industrial AI and IoT in Next-Gen Product Design for Mechatronics Engineers

Resource Person: Mr. Akshay P D, Senior Development Engineer 2, Guise AI, Bangalore

Graduated Year: 2018

Date: 26/04/2025 **Time:** 10:30 AM

Profile of the Resource Person:

Mr. Akshay P D is a distinguished alumni of the Department of Mechatronics Engineering, MITE (batch of 2018), he has built a promising career specializing in Software Development. His expertise lies in the field of Machine learning and he is working as a Senior Development Engineer at Guise.AI Banglore. His commitment to innovation and practical knowledge has made him a valued professional for today's workshop.

Keynote Address:

Mr. Akshay P D initiated the session by providing an overview of Artificial Intelligence (AI), explaining its growing significance in today's technological landscape. He elaborated on the types of AI, classifying them into:

- Narrow AI: Focused on specific tasks (e.g., voice assistants, recommendation systems).
- General AI: Hypothetical AI capable of performing any intellectual task a human can.
- Super AI: A futuristic concept where AI surpasses human intelligence.

With examples for each category, he emphasized how AI is reshaping industries and everyday life.

Deep Dive into AI Techniques and Architecture:

The session progressed into discussing key AI techniques:

- Natural Language Processing (NLP)
- Machine Learning (ML)
- Deep Learning (DL)

He clarified that Machine Learning is essentially built upon statistical models, helping machines learn patterns and make predictions.

Further, Mr. Akshay explained the Architecture of AI systems, laying the foundation for understanding how different AI modules interact and function cohesively.

AI and IoT Integration:

An important segment of the session focused on the integration of Artificial Intelligence (AI) with Internet of Things (IoT), especially in the context of Industrial Automation and Smart Systems.

He discussed:

- General Prediction Models:
  Where predictions are made based on past data and present data to forecast future data.
  If predictions deviate, the system adjusts automatically, showcasing adaptive learning capabilities.

- Home IoT, Smart Cities, and Industrial IoT:
  Highlighting practical implementations such as smart homes, intelligent traffic systems, and industrial automation setups.
- Benefits of AI in IoT:
  - Enhanced decision-making.
  - Real-time analytics.
  - Automation and optimization of industrial processes.

  Benefits of IoT itself:
  - Connectivity of devices.
  - Remote monitoring and control.
  - Data-driven insights for better management.

AI + IoT Workflows and Applications:

Mr. Akshay illustrated the typical AI workflow integrated with IoT systems, using real-world examples like predictive maintenance, smart grids, and autonomous systems.

He stressed that combining AI with IoT opens up endless possibilities, from making factories smarter to improving everyday conveniences for individuals.

Professional Tips:

Towards the conclusion, he encouraged the participants to:

- Build a strong foundation in AI concepts like ML and DL.
- Understand the basics of IoT communication protocols and architecture.
- Work on mini-projects combining AI and IoT to better grasp the practical aspects.
- Stay updated with trends like Edge AI, Industrial IoT (IIoT), and Smart City innovations.

He emphasized that adaptability, interdisciplinary knowledge, and curiosity are key to succeeding in the era of Industry 4.0.

Speaker Mr. Akshay P D, Senior Development Engineer 2, Guise AI, Bangalore, delivering a session on *"Industrial AI and IoT in Next-Gen Product Design for Mechatronics Engineers."*

SESSION-8

Title: **Integrating Process Design with Business Analytics for Innovative Entrepreneurship**
Resource Persons: **Mr. Niranjan Mallya N N, *Consultant Engineer, Deloitte USI, Bengaluru***
Graduated Year: **2020 (Department of Information Science & Engineering)**
Date: **26/04/2025** **Time:** **09:30 AM**

Profile of the Resource Persons: Mr. Niranjan Mallya is an alumnus of batch 2016-20. He worked as a Business Planning & Analyst at ITC Infotech Bangalore from 2020 to 2023 June. He was handling UK based clients of Tobacco Manufacturing Company and Grand Thorton, a US based company. From 2023 he is currently working as consultant Engineer at Deloitte USI Bengaluru

Keynote Address: The talk titled **" Integrating Process Design with Business Analytics for Innovative Entrepreneurship "** by **Niranjan Mallya VN ""** explored the critical synergy between efficient process design and strategic business analytics in driving innovation and entrepreneurial success. The session emphasized how blending structured processes with data-driven insights can enhance product development, boost operational

efficiency, and enable startups and businesses to innovate in a rapidly evolving marketplace. The speaker argued that in today's dynamic business landscape, innovative entrepreneurship is not solely driven by novel ideas but also by the ability to design efficient and adaptable processes that are continuously optimized through data-driven insights. The integration of process design and business analytics provides a powerful framework for identifying opportunities, mitigating risks, and fostering sustainable growth for new ventures

The Importance of Structured Process Design for Startups: The speaker emphasized that even in the early stages, well-defined processes are crucial for operational efficiency, scalability, and consistent value delivery. This could involve outlining key business functions like customer acquisition, product development, and service delivery.

Leveraging Business Analytics for Process Optimization: The talk highlighted how collecting, analyzing, and interpreting business data can provide valuable insights into process performance. This includes identifying bottlenecks, inefficiencies, areas for improvement, and opportunities for automation.

Identifying Innovation Opportunities through Process Analysis: The speaker discussed how analyzing existing or potential processes can reveal unmet customer needs, market gaps, or areas where current solutions are lacking. This data-driven approach can lead to the development of truly innovative products, services, or business models.

Data-Driven Decision Making in Entrepreneurship: the speaker stressed the importance of moving beyond intuition and gut feeling by grounding entrepreneurial decisions in data and analytics. This can inform strategic choices related to product development, marketing, resource allocation, and scaling.

The Role of Analytics in Understanding Customer Behavior and Market Trends: The speaker elaborated on how business analytics can provide a deeper understanding of customer preferences, market dynamics, and emerging trends, enabling entrepreneurs to tailor their offerings and processes for greater impact.

Building Agile and Adaptive Processes: The speaker touched upon the need for entrepreneurial ventures to design processes that are flexible and can adapt quickly to

changing market conditions and customer feedback, facilitated by continuous monitoring through analytics.

Tools and Technologies for Process Design and Business Analytics: The speaker provided an overview of relevant methodologies, software tools, and technologies that can support both process design (e.g., BPMN, workflow automation tools) and business analytics (e.g., data visualization platforms, statistical analysis software).

Case Studies of Innovative Entrepreneurship through Integrated Approach: The speaker included real-world examples of startups or established businesses that have successfully leveraged the integration of process design and business analytics to achieve significant innovation and growth.

To illustrate, the speaker used examples such as:

- A startup using customer journey mapping (process design) and website analytics (business analytics) to identify pain points in the onboarding process and develop a more user-friendly solution.
- An e-commerce business analyzing sales data (business analytics) to optimize its supply chain and inventory management processes (process design), leading to faster delivery and reduced costs.
- A tech company using A/B testing (business analytics applied to a process) to refine its user interface and improve user engagement.

The overarching message of the talk was a call for entrepreneurs to adopt a more systematic and data-informed approach to building and scaling their ventures. The speaker urged the audience to:

- **Recognize the critical link** between efficient processes and successful innovation.
- **Integrate business analytics** into every stage of process design and execution.
- **Embrace a data-driven culture** for informed decision-making.
- **Continuously analyze and optimize** their processes based on real-time insights.
- **Leverage the power of data** to identify and capitalize on innovation opportunities.

The talk "Integrating Process Design with Business Analytics for Innovative Entrepreneurship" provided a compelling framework for how entrepreneurs can move beyond simply having a good idea to building sustainable and innovative businesses. By strategically designing their operational processes and continuously leveraging the power of business analytics, entrepreneurs can gain a significant competitive advantage, identify unmet needs, and drive meaningful innovation in the marketplace. The talk inspired attendees to think critically about their own processes and explore how data-driven insights can fuel their entrepreneurial ambitions.

Speaker Mr. Niranjan Mallya N N, Consultant Engineer, Deloitte USI, Bengaluru, and 2020 graduate from the Department of Information Science & Engineering, delivering a session on *"Integrating Process Design with Business Analytics for Innovative Entrepreneurship."*

SESSION-9

Title: **Tech without thinking is Just Typing**

Resource Persons: **Mr. Prashil C Alva, *Software Developer, EG India, Mangalore***

Graduated Year: **2020 (Department of Information Science & Engineering)**

Date: **26/04/2025** **Time:** **11:00 AM**

Profile of the Resource Persons: Mr. Prashil C Alva is an alumnus of batch 2016-20. He worked as a Senior Test Manager at ITC Infotech Bangalore from 2020 to 2021 June. From

2021 he served as IoS Developer for US based Telecommunication Company at Infosys Bangalore. Currently he is working as Software Developer in EG India Mangalore providing services to Health care Public Administration and Business services.

Keynote Address: The talk titled "Tech Without Thinking is Just Typing" by Prashil C Alva centers around a critical message for today's technology-driven world: The core of mastering technology lies not in blind coding, but in developing structured, critical thinking skills. With the pace of technological evolution faster than ever, this session stresses the enduring importance of logical problem-solving over superficial technical know-how. The motivation behind this talk stems from the observation that while technologies change rapidly, the fundamental ability to think critically remains the key to sustainable success. Many learners and practitioners jump headfirst into new technologies without solidly grasping the underlying principles. Thus, the primary goal of the session was to encourage a shift in mindset towards effective and fundamental learning, building a strong base rather than chasing fleeting technological trends.

The Speaker made a powerful distinction:

- Coding is equated to mere typing.
- Thinking is the real skill of solving problems.

Rather than relying excessively on tools like Google at the first sign of difficulty, learners should strive to debug and think through problems independently. Knowing what to search for, and how to approach a solution systematically, is emphasized as a highly valuable skill in itself.

The speaker also highlighted a common pitfall among tech learners: the "Tutorial Trap". Many mistake passive consumption of online tutorials for real understanding. However, passive learning does not translate to the ability to solve real-world problems. The following Key points were highlighted:

- Passive Learning: Following tutorials without hands-on engagement leads to shallow knowledge.

- No Real Application: Without building and breaking things, true mastery remains elusive.

He encouraged students to actively engage by building small projects, breaking them, and repeating the cycle. True understanding arises from direct experience and repeated application.

The speaker advocated for an application-driven approach such as building practical projects like simple calculators or to-do lists and also accept and embrace errors as a natural part of learning. He made them realize that merely completing courses without application is not sufficient for skill development.

A fundamental truth highlighted in the talk was “Programming languages evolve, but logical constructs remain constant.” Concepts like if/else conditions, loops, and functions are universal. Thus, learners are urged to focus on mastering logic and problem-solving skills rather than getting attached to any specific programming language. He also added Adaptability is the key to longevity in the tech world.

The Speaker suggested on adopting practical habits to foster critical thinking:

- Solve at least two problems per week using platforms like LeetCode or HackerRank.
- Debug independently before seeking help.
- Read and analyze others' code to gain new perspectives.
- Consistently build small projects to apply theoretical knowledge.

Developing these habits consistently over time leads to significant improvement in thinking and problem-solving skills.

The talk concluded by reinforcing that Technology is a tool; thinking is the foundation and learners must start small, stay curious, and be consistent, seeking guidance from others is valuable, but independent thinking is irreplaceable. By internalizing these principles, individuals can navigate the ever-changing technology landscape with confidence and competence.

The talk ended with an interactive Q&A session where participants were encouraged to ask questions, reinforcing the importance of curiosity and active engagement in learning.

Speaker Mr. Prashil C Alva, *Software Developer, EG India, Mangalore* , delivering a session on ″ Tech without thinking is Just Typing**”**

SESSION-10

Title:" Navigating Industrial Sales in the Paint Sector: Insights from JSW Paints"

Resource Person: Mr. Bhavan Rajesh Kulal, Assistant Manager, JSW Paints, Mangalore

Graduated Year: 2019 (Department Mechanical Engineering)

Date:26/04/2025 **Time: 9:00AM**

Profile of the Resource Person: Bhavan Rajesh Kulal is an accomplished Assistant Manager at JSW Paints, based in Mangalore. A proud 2019 graduate from the Department of Mechanical Engineering, he has quickly established himself in the competitive field of industrial sales. With a strong foundation in mechanical principles and a keen understanding of customer dynamics, Bhavan excels at bridging technical product knowledge with client needs. His expertise spans across sales strategy, customer relationship management, and industrial coatings applications. Known for his proactive approach and in-depth market

knowledge, he continues to play a vital role in expanding JSW Paints' footprint in the industrial and decorative paint sectors.

Keynote Address: The session provided an in-depth look into the evolving landscape of industrial sales within the paint sector. Mr. Bhavan Rajesh Kulal, leveraging his rich experience at JSW Paints, shared valuable insights into how mechanical engineers can successfully navigate and excel in this dynamic field.

He emphasized that industrial sales require a strong technical understanding of product applications, surface preparation methods, and industry-specific standards. Mechanical engineers, with their analytical skills and process knowledge, are ideally suited for roles that demand both technical expertise and customer engagement.

During the talk, Mr. Kulal elaborated on key roles and responsibilities in industrial paint sales:

1. **Technical Sales Executive:**

    - Understanding client requirements and recommending suitable paint solutions.
    - Coordinating between technical teams and customers for project success.

    Key Account Manager:

    - Managing relationships with large clients across manufacturing, construction, and infrastructure sectors.
    - Ensuring product satisfaction and timely support.

    Business Development Officer:

    - Identifying potential customers and creating strategies for market penetration.
    - Conducting market analysis and competitive benchmarking.

    Application and Support Engineer:

    - Assisting customers in the correct application techniques.
    - Conducting site visits and technical workshops.

Mr. Kulal suggested the following steps for mechanical engineers aiming to enter the industrial sales sector:

1. **Strengthen Fundamentals:**
   Gain deeper knowledge of materials science, surface preparation, and paint technologies.
2. **Skill Enhancement:**

   - Develop strong interpersonal, negotiation, and presentation skills.
   - Learn basic CRM and data management tools.

   Relevant Certifications:

   - Industrial Sales Training Programs
   - Basic Coating Inspector Certification (NACE/SSPC)

   Field Experience:

   - Seek internships or entry-level roles in technical sales or business development.
   - Visit industries and sites to understand practical paint application challenges.

The talk by Mr. Bhavan Rajesh Kulal provided a clear and motivating pathway for mechanical engineers to consider rewarding careers in industrial sales. By combining technical competence with business skills, they can significantly contribute to the growth of companies and their own professional journeys.

The session concluded with an interactive Q&A, where students clarified their doubts about career progression, industry trends, and practical challenges in sales roles. Mr. Kulal's practical advice and motivational insights left a lasting impact on all participants.

Speaker Mr. Bhavan Rajesh Kulal, Assistant Manager, JSW Paints, delivering a session on *"Navigating Industrial Sales in the Paint Sector: Insights from JSW Paints."*

SESSION-11

Title:" Resonance: Where Culture Amplifies Technical Learning"

Resource Person: Mr. Deekshith Poojary Airody, Technical Assistant Engineer, Department of MGNREGA, Taluk Panchyath, Karkala

Graduated Year: 2019 (Department Civil Engineering)

Date: 26/04/2025 **Time: 2:00PM**

Profile of the Resource Person: Deekshith Poojary Airody is an accomplished Technical Assistant Engineer at Department of MGNREGA,Taluk Panchayath, Karkala. A proud 2019 graduate from the Department of Civil Engineering, with a strong technical foundation and a passion for precision, he has contributed to a variety of civil engineering projects in both public and private sectors. He is a dedicated and accomplished performing artist. As a trained dancer and model, he has participated in numerous stage performances, fashion shows. His acting skills have also been featured in short films, commercial advertisements, and cultural productions, showcasing versatility and expressive talent. This rare blend of technical expertise and artistic expression makes him a unique voice in interdisciplinary education and creative leadership.

Keynote Address:

The keynote emphasized the powerful synergy between technical education and cultural expression, using the concept of "resonance" to describe how the two domains can amplify each other. The speaker, a civil engineer and performing artist, shared personal experiences to illustrate the value of maintaining creative pursuits alongside a technical career. The address challenged the traditional separation of STEM fields and the arts, advocating for a more integrated and interdisciplinary approach to learning.

It was highlighted that skills developed through cultural activities such as dance and music—like rhythm, spatial awareness, and discipline—directly enhance technical problem-solving and innovation. The speaker stressed that cultural identity and personal expression are not distractions but essential elements of holistic education and professional development. Examples were given on how creativity leads to human-centered design in engineering, contributing to more inclusive and empathetic infrastructure and systems.

The audience was encouraged to embrace their full identities—both technical and creative—and to value diverse perspectives within teams and institutions. The keynote inspired participants to rethink how learning environments are structured, promoting flexibility and support for multidimensional skillsets.

In conclusion, the speaker emphasized that technical fields, can be greatly enriched by incorporating cultural elements like art, music, and dance. By integrating creativity with technical education, professionals can approach problem-solving from a more holistic and human-centered perspective.

Speaker **Mr. Deekshith Poojary Airody, Technical Assistant Engineer, Department of MGNREGA, Taluk Panchyath** delivering a session **on "Resonance: Where Culture amplifies Technical Learning."**

SESSION-12

Title: The Landscape of Generative AI, Machine Learning & Data Science

Resource Person: Mr. Jerrin Rajan, Lead Data Scientist, MIQ Digital Ltd, Bengaluru

Graduated Year: 2019 (Department of Computer Science & Engineering)

Date: 26/04/2025 **Time: 9:30AM**

Profile of the Resource Person: Mr. Jerrin Rajan is an alumna of batch 2015-19. Jerrin Rajan is a passionate Data Science professional with a strong foundation in Computer Science. He is currently pursuing his MBA from IIM Kozhikode, complementing his rich technical background with strategic business acumen.

Jerrin's professional journey began during college with an internship under Azzan Patani, PACE wisdom on the project Namma Karavali. This early exposure sparked his interest in the corporate world and the field of data science. Eager to dive deeper, he began learning data

science and machine learning alongside his academics, which led him to ITC Infotech in 2019 as a Data Scientist in the CPG/FMCG vertical. Today, Jerrin leads as a Lead Data Scientist at MIQ Digital in Bangalore, bringing with him years of experience in developing data-driven solutions across industries and working with clients across the globe.
Beyond the corporate world, Jerrin is a globetrotter on a mission to fill every page of his passport with visa stamps. An enthusiastic trekker and lover of local cuisines, he lives life with energy, curiosity, and a thirst for adventure.

Keynote Address: A thought-provoking and insightful talk titled "The Landscape of Generative AI, Machine Learning & Data Science" was conducted for the) students. The session aimed to provide a comprehensive overview of the rapidly evolving fields of artificial intelligence, with a special focus on generative models, machine learning algorithms, and their intersection with data science.

The speaker began the session by introducing the foundational concepts of Machine Learning (ML), elaborating on supervised, unsupervised, and reinforcement learning techniques. Real-world examples such as recommendation systems, fraud detection, and self-driving cars were used to illustrate the practical applications of ML in everyday life. The students gained clarity on how data plays a crucial role in training models and how algorithms evolve through iterative learning.

The core focus of the talk revolved around Generative AI, a subfield of artificial intelligence that deals with creating new content — text, images, music, code, and more. Technologies like GANs (Generative Adversarial Networks), VAEs (Variational Autoencoders), and transformer-based models like GPT and DALL·E were introduced. The speaker highlighted how generative models are revolutionizing industries — from content creation and drug discovery to personalized marketing and virtual reality.

The discussion also emphasized Data Science, where students were introduced to the data science pipeline, including data collection, preprocessing, analysis, visualization, and model deployment. The synergy between ML and data science was well explained, emphasizing

how data-driven decision-making is becoming central to business strategies and technological innovations.

Importantly, the speaker also touched upon the ethical considerations and societal impact of AI, including data privacy, AI biases, and the need for responsible AI practices. Students were encouraged to think critically about not just what AI can do, but what it should do.
The session concluded with a Q&A round, where students engaged actively, reflecting their enthusiasm and curiosity about the future of AI. They were also guided on how to build a career in these fields, with tips on learning resources, tools, and projects.

Overall, the talk served as an eye-opener and inspiration for the students, equipping them with foundational understanding and future pathways in the dynamic world of AI, ML, and Data Science.

Speaker **Mr. Jerrin Rajan Lead Data Scientist, MIQ Digital Ltd, Bengaluru** delivering a session on "**The Landscape of Generative AI, Machine Learning & Data Science**".

SESSION-13

Title: Work, Build, Repeat: The Art of Balancing Job & Startup Dreams

Resource Person: Mr. Anush G, Tech Lead, Regeneron, Bengaluru.

Graduated Year: 2018 (Department of Computer Science & Engineering)

Date: 26/04/2025 **Time: 11:00AM**

Profile of the Resource Person: Mr. Anush G is an proud alumnus of batch 2014-18. Anush G graduated with just 57%, he living proof that marks don't determine your destiny — your mindset does. After graduation, without a placement offer, went for 3-month internship at a startup in NITK. That experience opened his eyes to the world of entrepreneurship and innovation. It eventually led me to Bangalore's startup ecosystem.

Today, with over 7 years of experience, worked tech lead and Product Owner, having explored a wide spectrum of domains — from software development and automation to automotive tech, marketing, and product strategy. he worked across both service and product-based startups, and even ventured into entrepreneurship. One of my most defining phases was running a software and digital marketing startup. He successfully completed 43 projects, built an entire eCommerce platform. In between joined had joined Mindtree L&T.

He is a cofounder of Spannerdoor, a tech-driven two-wheeler servicing startup built on data, innovation, and customer trust.

Keynote Address: The speaker mainly covered how to "Work, Build, Repeat: The Art of Balancing Job & Startup Dreams". In today's fast-paced world, the entrepreneurial spirit is alive like never before. Many professionals dream of building their own startups while continuing their full-time jobs. This dual path offers financial security while nurturing personal ambitions, but it comes with unique challenges. Striking a balance between a day job and a startup dream requires discipline, strategic planning, and unwavering commitment.

1. Time Management is the Foundation: The most valuable resource for anyone juggling both a job and a startup is time. Effective time management is not just about working longer hours but working smarter. Successful side entrepreneurs often follow structured daily routines, prioritize tasks using tools like the Eisenhower Matrix, and set aside dedicated hours—typically early mornings, evenings, or weekends—for their startup.

2. Set Clear Boundaries and Goals: Having clearly defined short-term and long-term goals for both your job and startup is essential. Establish boundaries to avoid burnout—mentally and physically. At work, maintain professionalism and focus on performance. For the startup, ensure consistent progress by setting weekly or monthly milestones. This dual-track strategy ensures neither aspect suffers and progress remains measurable.

3. Leverage Your Day Job as a Learning Ground: Your current job can be an incredible asset. It offers industry exposure, network access, and a steady income. More importantly, it provides a platform to learn soft and hard skills—from project management and teamwork to technical expertise and market insight. The knowledge gained can often be directly applied to your startup efforts, accelerating growth and minimizing early-stage mistakes.

4. Build a Lean and Agile Startup: When time is limited, efficiency is everything. A side hustle should follow lean startup principles—build a minimum viable product (MVP), test quickly, gather feedback, and iterate. Avoid trying to scale too early. Use low-cost tools and platforms to automate processes, reduce manual tasks, and maintain momentum even during busy job periods.

5. Stay Committed but Flexible: Passion fuels perseverance, but adaptability ensures survival. Sometimes, work responsibilities peak, and startup activities may need to pause temporarily. Other times, startup momentum might require extra time and effort. Being flexible in your schedule and forgiving of slow periods helps maintain long-term consistency. The key is not to quit but to adjust and resume.

6. Maintain Work Ethics and Confidentiality: Ethical integrity is critical. Avoid conflicts of interest by not using company resources or time for your startup. Many organizations have policies around moonlighting, so ensure you are transparent if required and operate within legal boundaries. Building a startup with integrity enhances its long-term credibility.

7. Build a Support Network:No one succeeds alone. Surround yourself with mentors, like-minded peers, or co-founders who can share the load. Having a trusted circle provides motivation, accountability, and fresh perspectives. Whether it’s feedback on an idea or help with execution, collaboration can multiply impact.

He concluded by telling balancing a job and a startup dream is not easy, but it's possible and increasingly common. With smart strategies, discipline, and resilience, professionals can pursue both stability and innovation. The journey might be demanding, but the rewardspersonal growth, financial freedom, and creative fulfillment make it truly worthwhile.

Speaker **Mr. Anush G, Tech Lead, Regeneron, Bengaluru.** delivering a session on "**Work, Build, Repeat: The Art of Balancing Job & Startup Dreams**".

SESSION-14

Title: "Beyond Coding: Designing and Prototyping your IT Career Path"

Speaker : Mr. Nithin Y B, Technical lead , Robosoft Technologies Udupi

Graduated Year: 2015

Date: 26/04/2025 **Time: 10:00AM**

Profile of the Resource Person: Mr. Nithin Y B is a seasoned Technical Lead at Robosoft Technologies Pvt. Ltd., bringing over a decade of experience in software development. He has successfully led and contributed to the creation of innovative software solutions across diverse platforms and industries. With a strong foundation in engineering and a passion for technology, Mr. Nithin is deeply committed to technical leadership and mentoring. His career reflects a consistent dedication to nurturing emerging talent and driving the development of scalable, efficient, and impactful systems, making him a valued leader and technology advocate in the field.

Keynote Address: Mr. Nithin Y B, an esteemed alumnus and Technical Lead at Robosoft Technologies Pvt. Ltd., delivered an insightful session for students, offering a comprehensive overview of the IT industry's evolution and its expanding role across sectors such as

healthcare, finance, education, and entertainment. He emphasized that modern IT is no longer confined to software services but is a core driver of innovation, powered by advancements in digitalization and globalization. Students were encouraged to see IT not just as a domain of coding, but as a landscape full of opportunities to solve real-world problems.

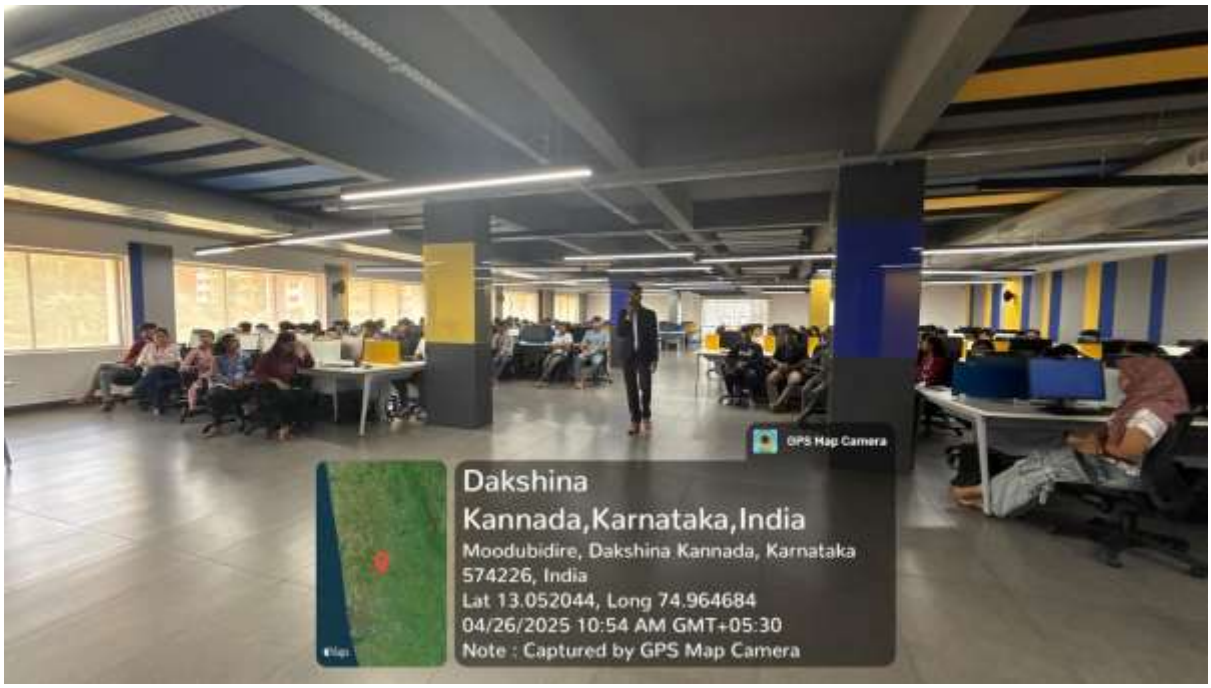
Mr. Nithin then walked the audience through the inner workings of a software company, explaining the functions of various departments such as development, testing, product management, UI/UX design, technical writing, marketing, and customer support. He highlighted the importance of cross-functional collaboration in Agile and DevOps environments, stressing that building a successful product involves more than just coding — it requires teamwork, customer feedback, and continuous iteration.

He went on to detail the technical career paths available to IT graduates, including roles like software developer, mobile app developer, cloud engineer, data scientist, cybersecurity analyst, and DevOps engineer. He emphasized the importance of foundational computer science skills, hands-on experience, and keeping pace with emerging technologies through certifications and project-based learning. Students were advised to explore specialized domains such as AI, blockchain, cloud computing, and cybersecurity for future growth.

The session also shed light on non-technical roles in the IT industry that don’t require deep programming expertise but are equally essential. These included product management, business analysis, UI/UX design, technical writing, IT consulting, and customer success management. Mr. Nithin highlighted how these roles bridge the gap between business and technology, encouraging students to evaluate their strengths in communication, leadership, and analytical thinking when considering such paths.

A key segment of the talk focused on cross-domain opportunities, where IT intersects with specialized fields like HealthTech, FinTech, AgriTech, EdTech, and LegalTech. He emphasized the growing demand for professionals who possess both technical and domain-specific expertise, urging students to pursue interdisciplinary learning and domain certifications.

Toward the end, Mr. Nithin discussed emerging trends and skills shaping the future of IT, such as artificial intelligence, machine learning, blockchain, IoT, edge computing, and green technology. He also highlighted the increasing importance of soft skills adaptability, critical thinking, collaboration, and emotional intelligence as key to long-term success. Students were encouraged to adopt a mindset of lifelong learning and to proactively explore new domains and roles. The session concluded with an engaging Q&A, where students sought advice on career planning, skill development, and industry expectations.



Speaker Mr. Nithin Y B, Technical Lead, Robosoft Technologies, Udupi, delivering a session on *"Beyond Coding: Designing and Prototyping Your IT Career Path."*

SESSION-15

Title: From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain

Speaker : Mr. Pathanjali Sharma, Co- Founder & Managing Partner Panoray Ventures, Bengaluru

Graduated Year: 2018

Date: 26/04/2025 **Time: 11:30AM**

Profile of the Resource Person: Mr. Pathanjali Sharma is the Co-Founder and Managing Partner of Panoray Ventures, a venture capital firm focused on early-stage investments in

transformative technologies such as Web3, artificial intelligence, and blockchain infrastructure. With a strong background in marketing, business development, and go-to-market strategies, Sharma plays a key role in helping startups scale from ideation to market readiness.

At Panoray Ventures, Sharma has led the firm to become a significant force in the venture capital ecosystem, with a sharp focus on decentralized finance (DeFi) and real-world asset tokenization. The firm is known for its emphasis on transparency, fractional ownership, and the strategic integration of AI to drive innovation across sectors. Sharma's professional journey spans roles from Program Lead to AVP, giving him a nuanced understanding of both corporate and startup dynamics. A respected voice in the Web3 space, he frequently shares his insights at major industry events, including the Web3 Sankalpa Tour and Token 2049.

Beyond his investment activities, Sharma is passionate about building collaborative communities within the tech ecosystem. He actively encourages co-creation and knowledge-sharing, making him a key enabler for emerging founders and innovators in the rapidly evolving digital landscape.

Keynote Address: Mr. Sharma opened the session by introducing the concept of "career prototyping" a mindset that urges students to move beyond conventional job roles and embrace experimentation in their professional journeys. He emphasized that in today's dynamic tech landscape, it is essential for students to explore, test, and pivot their career paths early on. By leveraging technologies like Artificial Intelligence, Web3, and Blockchain, students can actively shape their futures while addressing real-world problems.

A central theme of the session was the importance of original thinking and creativity. Sharma highlighted how innovation is no longer optional but critical in an era defined by automation and rapid digital transformation. He shared inspiring success stories of young entrepreneurs who had used emerging technologies to solve niche problems, launch impactful startups, and disrupt traditional industries.

One of the session's most exciting moments was Sharma's announcement of funding support for student-led projects. He encouraged students to think boldly and pitch innovative ideas

that are technologically sound, practically viable, and socially relevant. This announcement generated palpable enthusiasm among the attendees, with many already brainstorming potential project ideas.

Sharma also stressed the need for students to develop a future-oriented action plan. He advised them to set clear short-term and long-term goals, consistently upgrade their technical and soft skills, and build strong personal portfolios. He recommended practical steps like participating in hackathons, contributing to open-source platforms, interning at startups, and networking with industry experts as effective strategies for professional growth.

Another highlight of the session was Sharma's passionate call to entrepreneurship. He urged students not only to prepare for jobs but to also consider creating jobs by becoming entrepreneurs. He elaborated on the transformative potential of Web3 and Blockchain in enabling decentralized business models, digital economies, and trustless systems. His message resonated strongly: today's students have the tools and opportunities to become the problem-solvers and leaders of tomorrow.

To make the session interactive, Sharma invited students to share their entrepreneurial ideas and aspirations. Several students came forward with their startup concepts, receiving valuable feedback and encouragement. Sharma offered mentorship support, guiding students to think critically about scalability, user value, and impact as they shape their ideas into reality.

The session concluded with a vibrant Q&A segment, where students discussed AI trends, the future of Web3, and practical advice on building technical and entrepreneurial skill sets. Sharma's insights were not only informative but deeply motivating, leaving students inspired to take proactive steps toward innovation.

Speaker Mr. Pathanjali Sharma, Co-Founder & Managing Partner, Panoray Ventures, Bengaluru, delivering a session on *"From Idea to Impact: Career Prototyping through AI, Web3, and Blockchain.*

Alumni Technothon - MITE (ATM) Series I

Day 1

SESSION-1

Title: **Mind over Mood - EQ over IQ**

Resource Person: **Ms. Kushboo Rani, Lead Data Science Analyst , Infosys, Bengaluru**

Graduated Year: **2017 (Department of Computer Science & Engineering)**

Date: **06/12/2024** **Time:** **10:00AM**

Profile of the Resource Person: Ms. Kushboo Rani is an alumna of batch 2013-17. Khushboo Rani is a dynamic professional with a solid foundation in engineering, having graduated in Computer Science in 2017, followed by an MBA specializing in Systems, HR, and Business Analytics from SDMIMD Mysore & Texas A&M University. She began her journey at Infosys as a Data Science Analyst and currently leads as a Lead Data Science Analyst, bringing over 4 years of rich corporate experience. A passionate Toastmaster for 5 years, Khushboo has honed her leadership and communication skills, becoming a sought-after corporate anchor. With an impressive portfolio of over 50 corporate events hosted, she captivates audiences with her charm and energy. Beyond the corporate world, she's an avid traveller and a talented painter, channelling creativity both in her work and personal life.

Keynote Address: Ms. Khushboo Rani, Lead Data Science Analyst at Infosys, Bengaluru, delivered a technically rich and insightful session on "Mind Over Mood - EQ Over IQ," exploring the synergy between Emotional Quotient (EQ) and Intelligence Quotient (IQ) in enhancing personal and professional success. She explained that EQ, encompassing self-awareness, self-regulation, empathy, and social skills, governs how emotions influence behavior, relationships, and decision-making, while IQ contributes to logical reasoning, problem-solving, and knowledge acquisition. Ms. Rani emphasized that neither EQ nor IQ operates in isolation; instead, their interplay determines the effectiveness of applying cognitive intelligence in real-world scenarios, a dynamic she termed the "game" of EQ & IQ.

To understand and manage emotions, she delved into their triggers external events, internal thoughts, or physiological responses and their impact on behavior. For instance, she linked a critical comment eliciting inadequacy to underlying cognitive schemas, a concept rooted in

cognitive science. She introduced thought distortions such as catastrophizing and overgeneralization, which can stem from past experiences, belief systems, or social influences, explaining how these can lead to emotional distress and impaired judgment.

Ms. Rani elaborated on the limitations of positive thinking, cautioning against "toxic positivity," which ignores valid negative emotions and fosters unrealistic expectations. Instead, she advocated for balanced thinking, a cognitive-behavioral approach that acknowledges challenges while focusing on actionable solutions. Introducing Cognitive Behavioral Therapy (CBT) worksheets, she demonstrated their utility in restructuring thoughts and emotions through a systematic process: identifying triggers, evaluating automatic thoughts, assessing emotional responses, examining evidence for and against these thoughts, and reframing them into more balanced perspectives. She highlighted the measurable impact of CBT on reducing emotional intensity and improving cognitive clarity.

The session further explored advanced emotional regulation techniques, including the neurobiological basis of self-awareness and decision-making, connecting the prefrontal cortex's role in logical reasoning with the amygdala’s function in emotional processing. She also discussed the significance of adaptive self-regulation, aligning it with agile methodologies in the workplace, where managing emotions under uncertainty can enhance team dynamics and productivity.

Concluding, Ms. Rani emphasized the integration of EQ and IQ as a pathway to achieving emotional intelligence and intellectual excellence. By leveraging tools such as CBT, fostering self-awareness, and understanding the factors influencing thoughts and emotions, individuals can navigate complex professional and personal landscapes effectively. This harmonious blend of EQ and IQ not only drives personal growth but also ensures well-rounded decision-making and collaborative success.

Speaker **Ms. Kushboo Rani, Lead Data Science Analyst , Infosys, Bengaluru** delivering a session on "**Mind over Mood - EQ over IQ**".

SESSION-2

Title: **Getting Industry Ready!**

Resource Person: **Mr. Nishith P Hegde, Project Manager, Siemens Technologies, Bengaluru**

Graduated Year: **2012 (Department of Computer Science & Engineering)**

Date: **06/12/2024** **Time:** **11:30AM**

Profile of the Resource Person: **Mr. Nishith P Hegde Project Manager, Siemens Technologies, Bengaluru** is an alumna of batch 2008-12. He Completed Bachelor's in Computer Science & Engineering in 2012. He started his professional carrier soon after college and joined a Startup company named Isarva Infotech and he worked over there for 3.5 years. Then he joined Advanced Healthcare as a Test Engineer. He joined Siemens Technologies in 2018 as a Test Professional, got promoted as a Global Scrum Master. From 2023, started handling a team of 20 members as a Global Project Manager.

He is married to a Doctor and blessed with a 3-year-old son. Like reading entrepreneurship books. If time permits, then I love going on long drive with family. A strong believer of Manifestation and positive affirmations in life.

Keynote Address: The speaker mainly covered how to get industry ready. As the world evolves, industries continuously seek professionals equipped with technical expertise, relevant skills, and a versatile mindset. Preparing oneself for the competitive professional landscape involves a strategic combination of mastering fundamentals, developing industry-relevant skills, building hands-on experience, and refining soft skills. Here's how these steps pave the way for becoming "industry ready."

1. Master Your Fundamentals: Every industry requires a solid understanding of core principles. Mastering the fundamentals involves not only academic learning but also understanding how core concepts apply to real-world scenarios. For instance, a software developer must be proficient in basic programming languages, algorithms, and data structures. Without strong foundational skills, it becomes challenging to adapt to advanced practices or contribute effectively to a team.

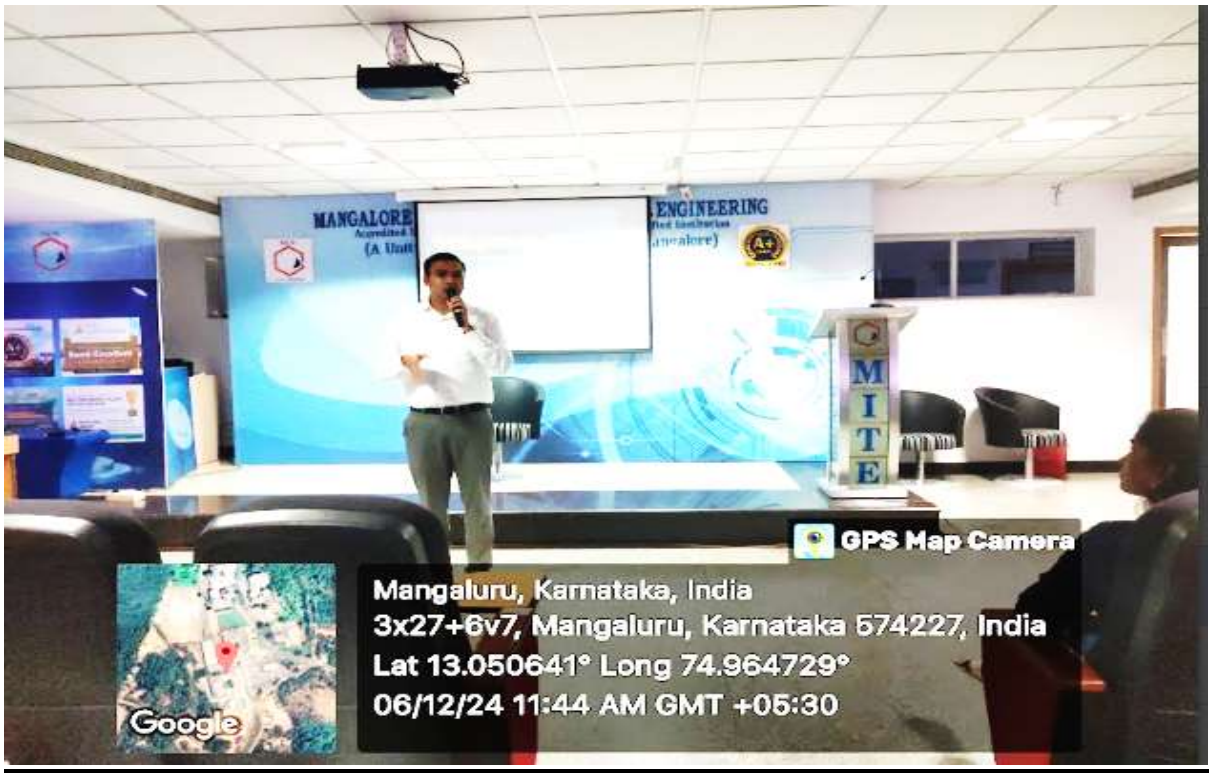
2. Develop Industry-Relevant Skills: Employers often prioritize candidates who possess skills directly applicable to the job. Keeping pace with industry trends and acquiring relevant certifications or training can significantly enhance employability. For example, data analytics, cloud computing, and AI are sought-after skills in the technology sector. Engaging with industry-relevant tools and techniques bridges the gap between theoretical learning and practical application.

3. Build Hands-On Experience: Theoretical knowledge and skills must be complemented with practical exposure. Hands-on experience helps in understanding the nuances of real-world challenges, fostering confidence and proficiency. Internships, live projects, and apprenticeships are excellent ways to gain practical exposure. Hands-on experience not only sharpens technical abilities but also demonstrates initiative and commitment to potential employers.

4. Refine Your Soft Skills: While technical skills are essential, soft skills often determine long-term career success. Effective communication, teamwork, problem-solving, and adaptability are critical in any professional setting. Refining soft skills involves practice and mindfulness—such as active listening, constructive feedback, and a growth-oriented mindset.

For example, clear and concise communication during presentations can amplify the impact of technical ideas, leaving a lasting impression on colleagues and stakeholders.

Getting industry-ready is a multifaceted process that combines academic rigor, skill acquisition, practical application, and interpersonal growth. Mastering your fundamentals lays the groundwork for competence, while developing industry-relevant skills aligns your expertise with market demands. Hands-on experience bridges the gap between theory and practice, and refining soft skills ensures seamless interaction within professional environments. By embracing this comprehensive approach, you not only position yourself as a strong candidate but also equip yourself for sustained success in an ever-evolving job market.



Speaker **Mr. Nishith P Hegde Project Manager, Siemens Technologies, Bengaluru** delivering a session on "**Getting Industry Ready!**".

SESSION-3

Title: Emerging Trends in IoT and Wireless Sensor Networks for Intelligent Systems

Resource Person: Ms. Nazia Abdul Majeed, Assistant Professor, Yenepoya Institute, Moodbidri

Graduated Year: 2013 (Department of Eelectronics & Communication Engineering)

Date: 06/12/2024 **Time: 11:00AM**

Profile of the Resource Person: Nazia Abdul Majeed is a dedicated academic professional with a strong background in Electronics and Communication Engineering. She holds B.E. in Electronics and Communication Engineering from Mangalore Institute of Technology and Engineering in 2013 and an M.Tech in Digital Electronics and Communication (DEC) from Nitte Mahalinga Adyanthaya Memorial Institute of Technology (NMAMIT) in the year 2015. Nazia has over 5 years of teaching experience at Yenepoya Institute of Technology, Moodbidri. Her research work includes innovative projects like FPGA-based design for multipliers using Vedic Mathematics and Hardware implementations for detecting hard exudates and Alzheimer disease diagnosis. Nazia has actively contributed to publications in renowned journals and conferences, including IEEE Xplore and several international research platforms.

Keynote Address: The invited talk on "Emerging Trends in IoT and Wireless Sensor Networks for Intelligent Systems" covered a wide range of topics, highlighting the fields of the Internet of Things (IoT) and Wireless Sensor Networks (WSNs) are undergoing rapid advancements, particularly through the integration of Artificial Intelligence (AI) and Machine Learning (ML). These technologies are revolutionizing intelligent systems by enhancing automation, data analysis, and decision-making capabilities. This report explores some of the key developments and trends in these areas, emphasizing their potential to shape the future of technology. Wireless Sensor Networks (WSNs) form a foundational aspect of IoT systems, playing a critical role in gathering and transmitting data from various environments. The architecture of WSNs typically consists of a network of sensors, gateways, and processing units. Sensors are deployed to collect data from physical or environmental conditions, gateways transmit this data, and processing units analyze it to generate actionable insights. Despite their transformative potential, WSNs face several challenges, including issues with scalability, energy efficiency, data security, and reliability in challenging environments. The

Internet of Things (IoT) integrates WSNs with interconnected devices to create intelligent ecosystems. The inclusion of AI and ML enhances the ability of IoT systems to learn, adapt, and make decisions, enabling applications such as smart homes, industrial automation, and healthcare monitoring. By leveraging AI/ML, IoT systems can process vast amounts of data in real time, optimize operations, and predict future trends, thereby improving efficiency and functionality.

One prominent application of IoT and WSN technologies is in autonomous vehicles or driverless cars. These vehicles rely on a sophisticated array of sensors, including Lidar, Radar, cameras, and ultrasonic sensors, to gather critical information about their surroundings. The data collected is processed by control systems to manage tasks like steering, braking, and acceleration, ensuring safe and efficient operation.

Another groundbreaking development is the ability to communicate through dreams, a concept pioneered by REMspace, a startup in California. By utilizing specialized equipment, researchers enabled two individuals to exchange simple messages during lucid dreaming states. This achievement was facilitated through the development of a dream language called "Remmyo," which was transmitted and decoded using sensitive sensors. This innovation represents a significant step toward exploring new methods of human communication and interaction. SpaceX's Starlink has introduced direct-to-cell technology, which allows smartphones to connect directly to satellites without the need for traditional cell towers.

In conclusion, the integration of IoT and WSN technologies with AI and ML is driving remarkable advancements in intelligent systems. Applications such as autonomous vehicles, dream communication, and satellite-based connectivity exemplify the potential of these innovations to address complex challenges and improve human experiences. However, addressing issues related to scalability, energy efficiency, security, and ethical considerations will be essential for realizing their full potential. These advancements highlight a future where technology continues to enhance connectivity, automation, and decision-making in unprecedented ways.

Speaker Ms. Nazia Abdul Majeed, Assistant Professor, Yenepoya Institute, Moodbidri, delivering a session on "Emerging Trends in IoT and Wireless Sensor Networks for Intelligent Systems".

SESSION-4

Title: **Design, development and testing of Unmanned ground vehicles**

Resource Person: **Mr. Aayush S Hegde, PG Student at NITK Surathkal**

Graduated Year: **2019 (Department of Mechatronics Engineering)**

Date: **06/12/2024** **Time:** **02:00PM**

Profile of the Resource Person: Mr. Aayush S Hegde is currently pursuing his M.Tech in Mechatronics at NITK Surathkal. He has a diverse professional background, starting with his role as a Mechanical Engineer at Vanora Robots in Mangalore, where he worked for 1 year and 6 months. During this time, he was involved in the design, development, and testing of Unmanned Ground Vehicles (UGVs) for outdoor navigation, particularly in harsh environments where human deployment is not feasible. Following this, he worked as a Mechatronics Engineer at Bharat Electronics Limited (BEL) in Bengaluru for 3 years. At BEL, he was part of the Product Development and Innovation Centre (PD&IC), where he

worked on defence-related projects, collaborating closely with armed forces officers to develop innovative solutions for various complex challenges.

Keynote Address:

Mr. Aayush S Hegde began by introducing unmanned ground vehicles (UGVs) and their significance in various industries such as defense, agriculture, and exploration. He explained how UGVs are essential in hazardous environments, where human presence is limited or unsafe, and how unmanned rovers are used in planetary exploration, military applications, and search-and-rescue operations.

Design Process of an Unmanned Ground Vehicle

The lecture delved into the step-by-step process of building a robot, starting with the design phase. Mr. Hegde emphasized the importance of understanding the purpose of the robot before diving into the design. The first step in designing a UGV is identifying its requirements based on the environment in which it will operate. This includes choosing the appropriate mechanical structure, power supply, and sensor systems.

Mechanical Design:

The design of the chassis and frame is critical for a robot's performance. Mr. Hegde explained how the chassis must be lightweight yet durable enough to withstand external forces. For unmanned rovers, such as those used in space exploration, the mechanical structure is designed to be robust while ensuring ease of movement across rough or uneven terrain. The choice of materials for the body and wheels, like aluminum or carbon fiber, helps balance durability and weight.

Sensor Integration:

Next, Mr. Hegde explained the integration of sensors that allow the UGV to interact with its environment. Sensors like LIDAR, ultrasonic sensors, and cameras help the vehicle perceive its surroundings, detect obstacles, and navigate autonomously. For unmanned rovers, additional sensors like thermal cameras or spectrometers might be used for scientific analysis, such as soil or atmospheric composition.

Power Systems and Mobility:

The power system is another crucial aspect of UGV design. Mr. Hegde explained how a reliable and efficient power supply, such as batteries or solar panels, is selected based on the mission duration and energy consumption of the robot's components. In the case of

unmanned rovers, battery life is particularly important, especially when the rover is deployed in remote locations where recharging may not be possible for extended periods.

Development Phase: Integrating Hardware and Software

Once the design is finalized, the development phase begins with hardware assembly and software programming. Mr. Hegde discussed the importance of integrating sensors, actuators, and control systems into a unified platform. This requires detailed wiring and assembly of the mechanical parts while ensuring all components communicate efficiently.

The software development for UGVs typically involves the use of platforms like the **Robot Operating System (ROS)**, which provides a framework for controlling the robot's movements and processing sensor data. Programming languages such as Python, C++, and MATLAB are used to implement the algorithms that allow the robot to navigate autonomously, detect obstacles, and perform tasks like object manipulation.

In the case of unmanned rovers, specialized algorithms for navigation and obstacle avoidance are developed, as the rover needs to adapt to constantly changing environments, such as rough terrain or uneven surfaces.

Testing and Validation

Testing is a crucial part of the development process. Mr. Hegde highlighted how UGVs undergo rigorous validation to ensure they perform as expected in real-world scenarios. He described how testing involves checking the mobility of the vehicle across various terrains, including both soft and hard surfaces, as well as evaluating the effectiveness of sensors in detecting and avoiding obstacles. Additionally, the system's ability to handle unexpected conditions, like mechanical failures or environmental interference, is also tested to ensure robustness.

Mr. Hegde concluded the session by sharing career advice for students interested in robotics and UGVs. He stressed the importance of gaining hands-on experience through academic projects, internships, and participation in robotics competitions. Additionally, he encouraged students to focus on key areas such as programming, mechanical design, and control systems. By building a solid foundation in these skills, students can open doors to various opportunities in the growing field of robotics and autonomous systems.

Mr. Aayush S Hegde, delivering a session on “Design, development and testing of Unmanned ground vehicles”

DAY 2

8th DEC 2024

SESSION-5

Title: Crafting Tomorrow: Aeronautical Engg. in Digital Age

Resource Person: Ms. Vishalakshi T Bandiwad, Bigdata Engineer at Societe Generale, Bangalore

Graduated Year: 2020 (Department of Aeronautical Engineering**)**

Date: 07/12/2024 **Time: 11:30AM**

Profile of the Resource Person: Vishalakshi Bandiwad, an alumnus of 2016 Aeronautical Engineering graduate, boasts over four years of experience in the software industry and has been a bigdata developer at Societe Generale since August 2023. Societe Generale, French multinational universal bank and financial services company founded in 1864. It is registered in downtown Paris and headquartered nearby in La Défense. Vishalakshi began her career as Data Engineer at DXC before transitioning to a full-stack career as bigdata developer working primarily with hadoop, hive, postgres, scala, spark, apache nifi, kibana and amazon cloud services. She is currently focused on designing and developing applications and data management.

Keynote Address: The keynote address on "Crafting Tomorrow: Aeronautical Engineering in the Digital Age" covered a broad spectrum of topics, underscoring the transformative impact of digital technologies on Aeronautical Engineering. The speaker began by highlighting cutting-edge innovations such as advanced simulation tools like Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA), as well as the revolutionary potential of Digital Twin technology. These advancements enable precise modelling, real-time monitoring, and enhanced aircraft performance optimization.

The session then delved into sustainability, emphasizing the role of digital technologies in crafting environmentally friendly aviation solutions. Topics included the development of optimized aerodynamic designs powered by artificial intelligence, the progress of electric and hybrid propulsion systems, and the adoption of green manufacturing processes through smart factory automation.

A significant portion of the talk was dedicated to artificial intelligence (AI) and machine learning (ML) applications in aeronautics. The speaker detailed their integration in autonomous flight systems, AI-enhanced design processes, and virtual reality-based pilot and engineer training programs, which are transforming the industry's approach to safety, efficiency, and innovation. The address also explored challenges in the digital transformation of aeronautics, including cybersecurity risks in connected systems, the need for adaptive regulatory frameworks, and the skills gap in engineering education. These hurdles call for global cooperation, academia-industry partnerships, and continuous upskilling for aeronautical professionals.

Career opportunities in the digital age of aeronautics were also discussed, spanning roles such as simulation engineers, data analysts, cybersecurity experts, and sustainability specialists. The speaker stressed the importance of interdisciplinary skills to harness the potential of digital technologies effectively. The talk, attended by an enthusiastic audience of over 100 students, provided valuable insights into the integration of digital innovations in aeronautical engineering, showcasing both the challenges and opportunities of this transformative era. Participants gained a deeper understanding of how the digital age is shaping the future of aviation and the role they can play in crafting tomorrow's aeronautics.

Ms. Vishalakshi T Bandiwad, Bigdata Engineer at Societe Generale, delivering a session on "Crafting Tomorrow: Aeronautical Engineering in Digital Age"

SESSION-6

Title: **Beyond Coding: Diverse Careers in IT**

Resource Person: **Ms. Anusha K R, Quality Analyst, Thoughtworks, Bengaluru**

Graduated Year: **2020 (Department of Computer Science & Engineering)**

Date: **07/12/2024** **Time:** **10:00AM**

Profile of the Resource Person: **Ms. Anusha K R** , is an alumna of batch 2016-20. She Completed Bachelor's in Computer Science & Engineering in 2020. She got campus placed in thought works and joined as a consultant graduate. Got promoted to consultant within a year and then to senior consultant next year. Currently Playing the role of Senior quality analyst for a banking project. Has overall 4 years of industry experience.

Keynote Address: The speaker mainly covered the field of Information Technology (IT) is often associated with coding and software development. While programming remains a fundamental skill, IT offers a plethora of career opportunities that go far beyond traditional coding roles. Understanding these diverse career paths can unlock new opportunities and help align their passions with the dynamic needs of the industry.

Broad Scope of IT Careers : The IT sector encompasses a variety of roles that cater to different interests, from problem-solving and creativity to communication and leadership. These roles often combine technical expertise with domain-specific knowledge, creating career paths that extend beyond coding.

Prominent Non-Coding Careers in IT

1. Data Analysis and Data Science: Data analysts and data scientists extract insights from large datasets to inform decision-making. These roles require knowledge of statistical tools, data visualization, and domain expertise. Tools like Python, R, SQL, and visualization platforms such as Tableau or Power BI are essential for success in this field.

2. Cybersecurity Specialist: With increasing cyber threats, cybersecurity is a top priority for organizations. Specialists in this area design systems to protect data, detect vulnerabilities, and prevent attacks. Roles like ethical hacker, incident response analyst, and compliance officer fall under this domain. Certifications like CISSP, CEH, and CompTIA Security+ are valuable for aspiring professionals.

3. Product Management: Product managers bridge the gap between technical teams and business stakeholders. They oversee the development of IT products, from concept to launch, ensuring alignment with user needs and market demands. This role requires strong communication, project management, and strategic thinking skills.

4. UI/UX Design: User Interface (UI) and User Experience (UX) designers focus on creating intuitive and visually appealing digital experiences. This role emphasizes design principles, user psychology, and tools like Figma, Sketch, and Adobe XD. It is ideal for students with a creative inclination.

5. IT Consulting: IT consultants help businesses adopt and optimize technology solutions to meet their goals. This role involves advising clients, planning IT strategies, and implementing solutions. Consulting often requires a mix of technical knowledge, problem-solving skills, and business acumen.

6. Cloud Computing and DevOps: Cloud architects and DevOps engineers design scalable and efficient infrastructure. They focus on deployment automation, system integration, and performance optimization using platforms like AWS, Azure, or Google Cloud. Certifications such s AWS Certified Solutions Architect or Azure DevOps Engineer are beneficial for these roles.

7. AI and Machine Learning Operations: Beyond developing AI models, managing their deployment, monitoring, and scalability are critical tasks. MLOps roles ensure the operational success of machine learning systems, combining knowledge of AI with systems engineering.

Soft Skills and Industry Readiness: Irrespective of the role, soft skills like communication, teamwork, and adaptability are crucial. Certifications, internships, and participation in hackathons or workshops can provide hands-on experience and enhance employability.

Conclusion: The IT industry offers opportunities for every interest and skill set, far beyond just coding. As final-year CSE students prepare to embark on their careers, exploring these diverse paths can help them find roles that align with their strengths and aspirations. By thinking beyond coding, students can contribute to the ever-evolving landscape of IT in innovative and meaningful ways.

Speaker **Ms. Anusha K R, Quality Analyst, Thoughtworks, Bengaluru,** delivering a session on "**Beyond Coding: Diverse Careers in IT**".

SESSION-7

Title: **Uncovering the Basics Behind Generative AI**

Resource Person: **Mr. G M Mufeed, Senior Software Engineer, Apps10X Private Limited, Bengaluru.**

Graduated Year: **2020 (Department of Computer Science & Engineering)**

Date: **07/12/2024** **Time:** **11:30AM**

Profile of the Resource Person: **G M Mufeed,** is an alumna of batch 2016-20. Completed B.E. in Computer Science and Engineering from Mangalore Institute of Technology & Engineering in 2020. Started career as a Full Stack Engineer Intern at Pace Wisdom, focusing on micro services. Later worked as a Junior Software Developer at Xelpmoc Design and Tech, developing psychometric assessments and video proctoring using ML for ed-tech. Currently working as a Senior Software Engineer at Apps10X, collaborating across teams (Design, Development, and Marketing) and driving product development as a product manager.

Keynote Address: The speaker mainly covered Basics Behind Generative AI. Generative AI, a subset of artificial intelligence, has emerged as one of the most transformative technologies of the 21st century. It focuses on creating new data that mimics the characteristics of existing datasets, whether text, images, audio, or video. This capability has profound implications for industries like healthcare, entertainment, finance, and beyond. Understanding the basics of Generative AI is crucial to staying competitive in the evolving technological landscape.

Core Concept of Generative AI

At its essence, Generative AI is about building models capable of generating new, synthetic outputs based on patterns in training data. Unlike traditional AI, which primarily focuses on classification or regression tasks, generative models aim to create. This could involve generating realistic images of non-existent objects, writing human-like text, or even composing music.

Key Techniques in Generative AI:

Generative Adversarial Networks (GANs): GANs consist of two neural networks—a generator and a discriminator—working in tandem. The generator creates fake data samples, while the discriminator evaluates their authenticity. Over time, this adversarial process improves the generator's ability to produce realistic data. Applications of GANs include deep fake generation, style transfer, and image synthesis.

Variational Autoencoders (VAEs): VAEs are a type of auto encoder with a probabilistic twist. They map input data to a latent space and sample from it to generate outputs. Unlike GANs, VAEs optimize a reconstruction loss, making them ideal for tasks like anomaly detection and controlled data generation.

Transformers (e.g., GPT, BERT): Transformers are the backbone of modern natural language processing (NLP) applications. Models like GPT (Generative Pre-trained Transformer) use attention mechanisms to process sequences of text and generate coherent, contextually relevant outputs. These models power tools like chatbots, translation systems, and content generators.

Applications and Real-World Use Cases

Generative AI is transforming diverse fields: **Healthcare:** AI-generated synthetic data is used to train models where real patient data is scarce or sensitive. It also aids in drug discovery and personalized medicine. **Media and Entertainment:** Artists and designers use AI to generate graphics, compose music, and create scripts. GANs have been instrumental in creating

realistic visual effects. **Finance:** Synthetic data helps improve fraud detection algorithms and risk modeling. **Education:** AI-powered tools create personalized learning material, simulate real-world scenarios, and automate grading.

Generative AI represents the future of creative and intelligent systems. As technology evolves, mastering its principles and applications will be a vital asset for aspiring engineers. By embracing this field, students can contribute to shaping the next wave of AI-driven innovations.

Speaker Mr. G M Mufeed, Senior Software Engineer, Apps10X Private Limited, Bengaluru delivering a session on “Uncovering the Basics Behind Generative AI”.

SESSION-8

Title: Finding your voice: Developing communication skills for the future

Resource Person: Ms. Anjani B M, Mobile Application Developer, DXC Technology Bengaluru

Graduated Year: 2017 (Department of Eelectronics & Communication Engineering)

Date: 07/12/2024 **Time: 9:30AM**

Profile of the Resource Person: Anjani B M is a Mobile Application Developer at DXC Technology, with professional experience since 2018. Stepping into the tech industry has

been an incredible journey marked by continuous learning and growth. Over the years, Anjani has contributed to projects aimed at making technology more accessible and user-friendly. She specializes in designing and developing mobile applications that address real-world challenges, a dynamic field that consistently pushes her to think creatively and stay ahead of emerging trends and technologies. Beyond her technical expertise, Anjani is passionate about technology and public speaking. Her enthusiasm for connecting with audiences began during her college years, where she discovered the joy of sharing knowledge and engaging with others.

Keynote Address: The speaker primarily addressed strategies for newly joined engineers in the industry to tackle real-world challenges by enhancing their communication skill set.

Advocating for Communication Skills

Through workshops and talks, Anjani emphasizes the importance of communication in personal and professional development. She believes that effective communication is not just about exchanging words but about understanding emotions, fostering collaborations, and driving innovation.

Her insights include:

- **Active Listening**: A critical skill in technical environments to foster teamwork and problem-solving.
- **Clear and Concise Speaking**: Ensuring ideas are understood by all stakeholders, from executives to peers.
- **Professional Writing**: Crafting clear and purposeful messages, whether in emails or technical documents.

Breaking Barriers and Empowering Growth

Anjani's philosophy is rooted in overcoming barriers like fear of public speaking or negative self-perceptions. She advocates for strategies like:

- Identifying the source of communication fears.
- Practicing active listening and thoughtful preparation.
- Shifting focus to the message rather than personal insecurities.

Finding and Aligning Your Voice

Anjani inspires others to align their communication style with personal values such as empathy, collaboration, and authenticity. This alignment builds trust, clarity, and stronger relationships, enabling professionals to leave a lasting impact.

Future Trends in Communication and Technology

As the tech landscape evolves, Anjani emphasizes staying ahead through:

- Building a strong personal brand on platforms like LinkedIn.
- Mastering virtual communication tools for effective remote collaboration.
- Adopting new communication technologies to enhance outreach and engagement.

Conclusion

Anjani B M's journey is a powerful reminder of the importance of integrating technical expertise with communication skills. By embracing challenges, seeking feedback, and continuously refining her craft, she exemplifies the qualities of a modern professional ready to shape the future of technology. Her story inspires others to not only excel in their domains but to find their voice and make a meaningful impact.

Speaker Ms. Anjani B M, Mobile Application Developer, DXC Technology Bengaluru delivering a session on “Finding your voice: Developing communication skills for the future”.

SESSION-9

Title: **Industrial Automation in DigitalAge: Challenges and Opportunities**

Resource Person: **Mr. Sachin Pai, Design & Development Engineer Siemens, Bengaluru**

Graduated Year: **2017 (Department of Information Science & Engineering)**

Date: **07/12/2024** **Time:** **11:00AM**

Profile of the Resource Person: Sachin Pai is a Design and Development Engineer at Siemens, specializing in the Process Automation field. With a strong foundation in engineering and a passion for innovation, Sachin combines technical expertise and problem-solving skills to develop cutting-edge solutions. Through his professional journey, Sachin has demonstrated a commitment to excellence and continuous learning, making him a valuable contributor to the advancement of process automation systems.

Keynote Address: Sachin Pai began the session by explaining the concept of industrial automation, emphasizing its significance in modern manufacturing. He outlined how automation, as described by him, enhances efficiency, precision, and safety across various industries, establishing it as a cornerstone of technological advancement.

The speaker illustrated the critical role of automation in reducing manual effort, improving Consistency, and increasing productivity. Drawing from his experience, he shared case studies from manufacturing plants that rely on advanced automation systems to streamline their operation. Providing an overview of the skills essential for designing and developing automation systems, Sachin highlighted the importance of expertise in programming, electronics, and data science. He emphasized the need for interdisciplinary knowledge and adaptability to address the dynamic demands of the automation field. A key focus of Sachin's talk was the integration of Artificial Intelligence (AI) and Machine Learning (ML) into automation systems. He explained how these technologies are transforming industrial processes through predictive maintenance, real-time decision-making, and improved efficiency. He explored various challenges such as cybersecurity, system interoperability, and the necessity for continuous upskilling. He also identified numerous opportunities for aspiring engineers to innovate, including smart factories, IoT-enabled systems, and sustainable automation practices. Concluding his talk, Sachin engaged the audience in a dynamic Q&A session, addressing students' queries about career prospects, emerging trends, and the practical applications of automation.

Sachin Pai's talk provided students with invaluable insights into the world of industrial automation and the evolving role of engineers in this domain. His inspiring journey from MITE to Siemens encouraged students to embrace continuous learning and pursue interdisciplinary approaches in their careers.

Speaker Mr. Sachin Pai, Design & Development Engineer Siemens, Bengaluru, delivering a session on "Industrial Automation in Digital Age: Challenges and Opportunities".

SESSION-10

Title: Hands-on Session on Full Stack Development using Mean and Mern

Resource Person: Mr. Sumanth Kumar, Software Developer, Nevius Solutions, Udupi & Mr. Manikantha Shetty Data Analyst Flexera, Bengaluru

Graduated Year: 2019 (Department of Information Science & Engineering)

Date: 07/12/2024 **Time: 9:30AM**

Profile of the Resource Person: Mr. Sumanth Kumar is an alumnus of batch 2015-19. He worked as a junior Software Engineer at Infosys from 2019 to 2021 June. From 2021 he is employed at Nevius Solutions Udupi as a Software Developer working on Python-based technologies, including Django, Flask, and NumPy. He deals with the projects which involve software solutions for finance clients, including accounting systems and payment processing

systems. He is currently working for the client HDFC ERGO: A leading general insurance company in India

Mr. Manikantha Shetty is an alumnus of batch 2015-19. He worked as a Software Intern at Wipro Technologies from 2019 to 2020 November . From 2020 to 2021 December he served as Software Associate at Bix Bytes Solutions. Currently he is working as a Data Analyst at Flexera Bengaluru working on DevOps and Continuous Integration/Continuous Deployment (CI/CD) and Open-Source Software Security. He is working on projects related to sustainable IT and AI-powered transformation, helping organizations reduce their environmental impact and leverage AI for business growth

Hands-on session: The Mr. Sumanth Kumar and Mr. Manikantha Shetty began the sessions with an engaging introduction to the MERN stack, explaining its relevance in modern web development. Their industry experience added depth to the discussions, as they shared real-world examples and best practices. He explained about Full Stack Development using MERN (MongoDB, Express.js, React, and Node.js) which is a popular approach for building dynamic, feature-rich web applications. It enables developers to work on both the front-end and back-end of an application, offering an end-to-end development experience.

The speakers mainly highlighted on the Key components of MERN Stack

MongoDB: MongoDB is a NoSQL database that stores data in a flexible, JSON-like format called BSON. Its schema-less nature allows for easy scalability and adaptability, making it suitable for applications with dynamic or rapidly changing data requirements.

Express.js: Express.js is a lightweight web application framework for Node.js. It simplifies the creation of robust server-side logic and APIs, providing developers with essential features such as routing, middleware support, and efficient handling of HTTP requests and responses.

React: React is a powerful front-end library for building interactive user interfaces. It promotes the use of reusable components and provides a virtual DOM, enabling high performance and dynamic rendering of web pages. React's declarative nature makes UI development intuitive and efficient.

Node.js: Node.js is a runtime environment that allows JavaScript to be executed on the server side. It uses an event-driven, non-blocking I/O model, which makes it lightweight and efficient for real-time applications. Node.js enables seamless integration between the back-

end and front-end. The session emphasized experiential learning. Participants actively followed the speakers in setting up a MERN stack project and developing a basic CRUD (Create, Read, Update, Delete) application. The hands-on nature ensured that attendees could directly apply the concepts learned. The workshop provided a platform for participants to learn from experienced professionals, offering valuable insights into industry trends and practices.

The session facilitated networking among students and alumni, opening avenues for future collaboration and mentorship. The session concluded with an interactive Q&A segment, where participants clarified doubts and sought guidance on using Full stack Development. Participants gained a comprehensive understanding of the MERN stack and its advantages in building modern web applications. The Hands-on session on "Full Stack Development using MERN" was a resounding success, achieving its objective of imparting practical knowledge and skills to participants. Around 60 students participated in the session and gained good insights about the technology.

Speaker Mr. Sumanth Kumar Software Developer, Nevius Solutions, Udupi briefing about Full Stack Development using MERN.

Speaker Mr. Manikantha Shetty , Data Analyst Flexera, Bengaluru delivering instructions on hands on working with Full stack.

SESSION-11

Title: Exploring Career Opportunities in DevOps and Cloud Computing for Mechanical Engineers

Resource Person: Mr. Shreyas Moily, DevOps Engineer/Cloud Assoicate, Niveus Solutions, Udupi

Graduated Year: 2019 (Department of Mechanical Engineering)

Date: 07/12/2024 **Time: 9:00AM**

Profile of the Resource Person: Shreyas Moily is a skilled DevOps Engineer and Cloud Associate at Niveus Solutions Pvt. Ltd., a leading provider of cloud solutions and digital transformation services. He has hands-on expertise in modern DevOps practices, including Continuous Integration/Continuous Deployment (CI/CD), infrastructure as code (IaC), and container orchestration tools like Kubernetes and Docker. Shreyas is also well-versed in leveraging cloud platforms, particularly Google Cloud Platform (GCP) and AWS, to optimize workflows and enhance system performance. His practical approach to problem-solving and deep understanding of industry trends make him a valuable mentor and a sought-after speaker in the domain of DevOps and cloud technologies.

Keynote Address: The rapidly evolving landscape of technology has opened new and exciting career opportunities for professionals from diverse fields, including mechanical engineering. Shreyas Moily, an experienced DevOps Engineer and Cloud Associate at Niveus Solutions Pvt. Ltd., delivered an insightful talk on the potential of DevOps and cloud computing as career pathways for mechanical engineers. This report provides an overview of the talk, highlighting key technical insights and actionable recommendations for aspiring professionals.

Shreyas Moily emphasized that both DevOps and cloud computing rely on automation, scalability, and collaboration to meet modern business demands. For mechanical engineers, these technologies offer avenues to leverage their analytical problem-solving skills in roles requiring similar technical aptitudes.

During the session, Mr. Moily elaborated on various roles mechanical engineers could consider transitioning into, along with their core responsibilities:

1. **DevOps Engineer**:
    - Designing CI/CD pipelines to automate software delivery.
    - Managing configuration and deployment of microservices in containers.
    - Implementing Infrastructure as Code (IaC) using tools like Terraform or Ansible.
2. **Cloud Architect**:
    - Designing cloud solutions tailored to organizational needs.
    - Ensuring security, scalability, and cost-efficiency of cloud services.
    - Utilizing cloud platforms like Google Cloud Platform (GCP), AWS, or Azure.
3. **Site Reliability Engineer (SRE)**:
    - Monitoring and maintaining cloud infrastructure to ensure uptime.
    - Implementing failover systems and disaster recovery strategies.
    - Automating repetitive operations tasks to enhance reliability.
4. **Automation Engineer**:
    - Developing scripts for automating system deployments.
    - Using DevOps tools like Jenkins, GitLab, and Kubernetes to streamline processes.

Shreyas Moily recommended the following steps for mechanical engineers aspiring to enter DevOps and cloud computing:

1. **Foundational Knowledge**: Learn the basics of Linux, networking, and cloud computing.
2. **Online Courses and Certifications**:
    - AWS Certified Solutions Architect
    - Google Cloud Associate Engineer
    - Certified Kubernetes Administrator (CKA)
3. **Practical Projects**:
    - Build and deploy a CI/CD pipeline.
    - Create a simple web application and deploy it on a cloud platform.
4. **Internships and Entry-Level Roles**: Seek opportunities to gain practical exposure.

The talk by Shreyas Moily illuminated the vast career possibilities in DevOps and cloud computing for mechanical engineers.

The session concluded with a Q&A, during which attendees gained further clarity on industry expectations and career progression. Mr. Moily's expertise and actionable advice have undoubtedly inspired participants to embark on this transformative career journey.

Speaker **Mr. Shreyas Moily DevOps Engineer/Cloud Assoicate, Niveus Solutions Pvt. Ltd** delivering a session on **"Exploring Career Opportunities in DevOps and Cloud Computing for Mechanical Engineers"**

SESSION-12

Title: Benefits of RDBMS database

Resource Person: Mr. Adithya Pai, Senior System Engineer at Infosys Ltd., Mangalore

Graduated Year: 2020 (Department of Mechatronics Engineering)

Date: 07/12/2024 **Time: 10:00AM**

Profile of the Resource Person: Mr. Adithya Pai began his professional journey as a .NET Developer at Electrono Solutions Pvt. Ltd., Bangalore, where he honed his skills in software development. He later advanced to a similar role at Roling Rock Software Pvt. Ltd., Bangalore, gaining deeper expertise in .NET technologies. Currently, Mr. Pai works as a Senior Systems Engineer at Infosys Ltd., Mangalore, contributing to large-scale system solutions and demonstrating his commitment to innovation and excellence.

Keynote Address: Mr. Adithya Pai began the session by giving an overview of the wide-ranging opportunities in the field of database management and systems engineering. He elaborated on the significant roles available in the database and software industry, such as Database Administrator (DBA), Database Developer, Data Analyst, Data Engineer, and System Architect. For instance, a Database Administrator is responsible for installing, configuring, and maintaining databases while ensuring data security and accessibility. A Database Developer, on the other hand, specializes in creating and maintaining efficient database structures and writing complex SQL queries. Similarly, a Data Analyst interprets data to derive actionable business insights, often relying on RDBMS for structured data storage and processing, while a Data Engineer focuses on designing and implementing large-scale data processing systems that utilize relational databases. Finally, a System Architect plays a key role in designing comprehensive system solutions that integrate databases to meet organizational needs.

Mr. Pai provided detailed explanations of each role, offering insights into the skills required, the responsibilities they entail, and the potential for career growth. His explanations helped participants understand how each role contributes to the efficient management and utilization of data in modern organizations.

Deep Dive into RDBMS Concepts

To make the session more engaging, Mr. Adithya Pai explained the fundamentals of

Relational Database Management Systems (RDBMS) and their importance in the industry. He highlighted how RDBMS ensures data integrity and consistency, allowing for reliable and accurate data across various applications. He further explained how RDBMS supports scalability, enabling organizations to handle large amounts of data and growing user demands efficiently. Flexibility was another key feature he emphasized, as RDBMS supports complex queries and allows seamless organization, retrieval, and updating of data. Security, he noted, is another strength of RDBMS, with robust mechanisms in place to protect sensitive data from unauthorized access. Lastly, he discussed interoperability, explaining how RDBMS integrates easily with various applications and platforms, thus broadening its functionality.

Career Guidance in RDBMS

As part of the session, Mr. Pai emphasized the importance of skill development for those aspiring to build a career in RDBMS. He advised starting with a strong foundation in SQL, which is fundamental for working with any relational database. He recommended exploring beginner-friendly online tutorials and certifications to build confidence. Hands-on experience with popular RDBMS tools such as MySQL, PostgreSQL, Oracle Database, and Microsoft SQL Server was also encouraged. To strengthen practical skills, he suggested working on projects involving database schema creation, normalization, and query optimization. He highlighted the value of pursuing certifications from industry-leading vendors like Oracle, Microsoft, or AWS to enhance employability. Finally, he stressed the importance of staying updated with advancements in database technologies, including cloud-based databases and NoSQL alternatives, as these represent the future of data management.

Professional Tips

Towards the end of the session, Mr. Adithya Pai shared valuable advice on career preparation and workplace etiquette. He underscored the importance of thorough preparation for interviews, particularly in mastering core technical skills. He also emphasized the need to cultivate a positive attitude and demonstrate eagerness to learn, as these traits are highly valued by employers. Additionally, he encouraged participants to build a strong foundation in problem-solving and communication, as these skills are essential for excelling in the workplace.

The session was attended by 45 participants, who gained valuable insights into RDBMS and career development in the field of database management. Mr. Adithya Pai's expertise and

engaging presentation style left a lasting impact on the audience, inspiring them to explore opportunities in the database domain and related industries.

Speaker Mr. **Adithya Pai, Senior System Engineer at Infosys Ltd., Mangalore** delivering a a session on "Benefits of RDBMS database"

SESSION-13

Title: The Future of Life Insurance: Trends, Challenges and Opportunities

Resource Person: Mr. Shreyank, Assistant Vice President Kotak Mahindra Life Insurance Company Ltd.

Graduated Year: 2020 (Department of Management Studies)

Date: 07/12/2024 **Time: 10:00AM**

Profile of the Resource Person: Mr. Shreyank, an alumnus of 2020 Management Studies graduate has over 5 years of experience into marketing Currently serving as Assistant Vice President at Kotak Mahindra Life Insurance Company Ltd., he has achieved remarkable success with four promotions within a short span. Recognized for his outstanding accomplishments, he is on the verge of stepping into a leadership role and has also earned eligibility for an international trip as a testament to his excellence.

Keynote Address: The alumni talk on "The Future of Life Insurance: Trends, Challenges, and Opportunities" emphasized the vital role of insurance in ensuring financial security for everyone. Mr. Shreyank, Assistant Vice President at Kotak Mahindra Life Insurance Company Ltd., began the session by narrating the foundational journey of Kotak Mahindra, shedding light on its initial struggles, strategies, and organizational ethos.He underscored that insurance remains one of the most overlooked sectors despite its importance in providing security and stability. According to him, the lack of awareness leads many to underestimate the significance of insurance. He emphasized the need for financial literacy, explaining that while not all investments offer protection, insurance is a critical investment that secures both an individual's and their dependents' future.

Mr. Shreyank highlighted the transformative impact of technology on the insurance sector. He explained how artificial intelligence has revolutionized customer interactions, shifting the focus from selling generic products to crafting personalized solutions tailored to customer needs. Innovations like customized policies, automation for faster claims processing and advanced analytics are reshaping the industry. Kotak Mahindra, is recognized for its exemplary reimbursement services, setting a benchmark in customer satisfaction.

He also discussed how modern organizations prioritize delivering a superior customer experience by proactively addressing customer issues, offering personalized recommendations and promoting financial literacy. Transparent communication has become the cornerstone of building trust in the sector. Addressing current challenges, Mr. Shreyank pointed out concerns related to data privacy and security. He highlighted the strict regulatory framework of the Insurance Regulatory and Development Authority (IRDA), which mandates companies to adapt to evolving conditions, meet customer expectations, and cater to changing demographics effectively.

The session provided sufficient opportunities for students to ask questions, share their thoughts, and actively participate in the discussion. The speaker's responses to questions insightful and encouraging for further dialogue. Overall, the talk provided valuable insights into the world of insurance and gained valuable knowledge.

Speaker Mr. Shreyank Addressing the audience on the topic The Future of Life Insurance: Trends, Challenges and Opportunities

Department of Electronics & Communication Engineering

(Accredited by NBA)

Title : Hands-on Workshop titled "Embedded Systems Design Roadmap: Process and Prototyping for Innovative Solutions"

Resource Person : Mr. Vilas Shetty, Senior Product Engineer, Tantragyaan Solutions, Bengaluru

Date :19-21 April 2025 **Time : 9:00AM to 4:30PM**

About the Workshop:

The department of Electronics & Communication Engineering in Association with Alumni committee successfully organized a Hands-on workshop titled **"Embedded Systems Design Roadmap: Process and Prototyping for Innovative Solutions"** on 19th to 21st of April 2025. This comprehensive workshop offers a structured and practical pathway into embedded system design, emphasizing a rigorous approach from initial concept to functional prototype. Participants will gain in-depth knowledge of the embedded development lifecycle, encompassing requirements definition, architectural considerations, and meticulous component selection. A key element of this workshop is the applied experience gained through hands-on prototyping with the Raspberry Pi Pico and the industry-standard Visual Studio Code development platform. Attendees will develop practical skills in configuring the development environment, implementing and debugging embedded software for the Pico, and interfacing with a variety of peripherals. Participants will learn to use these tools to rapidly iterate and validate their embedded system designs.

Profile of the Resource Person: **Mr. Vilas Shetty** has a professional experience of 4 years in embedded industry. He is currently a Senior Product Engineer in Tantragyaan Solutions, Bengaluru, responsible for the design and development of embedded and IoT systems in terms of product architecture design, firmware development, Linux device driver design and product testing.

Session Details:

Day 1: April 19, 2025 (Forenoon Sessions)

Time: 9:30 AM – 10:00 AM

Session 1: Introduction to Embedded Systems

The workshop began with an introductory session that laid the foundation for understanding embedded systems. The resource person explained what embedded systems are, their real-life applications in industries such as automotive, consumer electronics, and IoT, and how they differ from general-purpose computing systems. The session emphasized the role of embedded systems in modern-day automation and product development.

Time: 10:00 AM – 12:00 PM

Session 2: Getting Started with Embedded Development using Raspberry Pi (Hands-on)

Participants were introduced to Raspberry Pi, its architecture, and its use as a platform for embedded development. A hands-on session followed where students were guided through initial setup, GPIO pin configuration, and executing basic scripts. The interactive format allowed participants to engage directly with hardware, boosting their confidence in working with real-time embedded systems.

Time: 12:00 PM – 1:00 PM

Session 3: Analog and Digital Interfaces

This session focused on understanding how to interface digital and analog components with Raspberry Pi. Demonstrations included controlling LEDs, reading digital input from push switches, and using basic sensors. The facilitator explained concepts of voltage levels, signal types, and circuit safety, providing a practical foundation for sensor and actuator integration.

Day 2: April 21, 2025 (Forenoon Sessions)

Time: 9:00 AM – 10:00 AM

Session 4: Serial Interface Protocols

Participants were introduced to key communication protocols such as UART, I2C, and SPI. The session explained how devices communicate in embedded systems, the pros and cons of each protocol, and real-world use cases. Visual aids and diagrams were used to reinforce protocol structures and signal flow.

Time: **10:00 AM – 12:00 PM**

Session 5: Data Transfer Demonstration

A live demonstration showcased data transfer between the Raspberry Pi and various external modules like sensors and displays. This included code walkthroughs and logic tracing to help students understand the programming involved in serial communication. The hands-on nature of the demo helped students gain practical exposure to interfacing components.

Time: 12:00 PM – 1:00 PM

Session 6: Debugging and Optimization Strategies

This session addressed common issues in embedded applications such as signal noise, incorrect pin configurations, and memory constraints. Students learned effective debugging techniques, including using print statements, logic analyzers, and software tools. Optimization strategies to enhance performance and reduce power consumption were also discussed.

Afternoon Sessions

Time: 2:00 PM – 3:15 PM

Session 7: World of Embedded Product Development

The post-lunch session provided insights into real-world embedded products and case studies from industries like health tech, automotive, and smart devices. The speaker discussed the full product lifecycle—from prototyping to manufacturing—and highlighted the challenges and innovations in embedded product design.

Time: 3:30 PM – 4:30 PM

Session 8: Conclusion and Project Discussion

The workshop concluded with an open discussion on potential student project ideas. The facilitator encouraged students to identify real-world problems and explore solutions using embedded systems. Participants shared ideas ranging from home automation to wearable health monitors. The session was interactive, and the mentor offered feedback and mentorship opportunities to help refine and implement these ideas.

Conclusion

The two-day workshop successfully equipped students with foundational and practical knowledge of embedded systems using Raspberry Pi. The combination of theoretical explanations, hands-on sessions, and real-world applications offered a holistic learning experience. Students expressed strong interest in pursuing embedded projects, and many reported an increased confidence in applying what they learned.

Glimpses of the Workshop


GPS Map Camera
Badagumijaru, Karnataka, India
3x27+cx5, Badagumijaru, Karnataka 574227, India
Lat 13.05116° Long 74.964788°
21/04/2025 12:15 PM GMT +05:30
Google

Mr. Vilas Shetty, Senior Product Engineer, Tantragyaan Solutions, Bengaluru conducted workshop on "Embedded Systems Design Roadmap: Process and Prototyping for Innovative Solutions".

Department of Aeronautical Engineering

(Accredited by NBA)

Title: "Careers in Aerospace: Navigating Opportunities in Design, Innovation, and Entrepreneurship"

Resource Person: Mr. Flavian Dsouza, QUEST GLOBAL, Lead Engineer, Bangalore

Graduated Year: 2015

Date: 19/04/2025 **Time: 10:30AM**

Profile of the Resource Person: Mr. Flavian Dsouza, a graduate from the batch of 2011-15, is presently employed as a Lead Engineer at Quest Global in Bangalore. He began his professional journey in the aerospace sector as a Graduate Engineer Trainee at Bangalore Aircraft Industries, where he progressed to the role of Assistant Structural Engineer. In this capacity, he contributed to various in-house projects and provided support for design, stress analysis, and production activities for organizations such as HAL, NAL, and ISRO. He also worked on-site at NAL as an engineer, assisting the SARAS MK-II project. Currently, as a Lead Engineer at Quest Global, he is involved in static and fatigue-related projects for clients, focusing on the conversion of Airbus A330 passenger aircraft to freighters. He leads a team of young and experienced engineers, serving as a technical reviewer for fatigue-related structural repairs on the A330-300/200 fuselage.

Keynote Address: The keynote address on "Careers in Aerospace: Navigating Opportunities in Design, Innovation, and Entrepreneurship" delivered by Mr. Flavian Dsouza, an alumnus of the 2011–2015 batch, provided a comprehensive overview of the dynamic and evolving aerospace sector. Currently serving as Lead Engineer at Quest Global, Bangalore, Mr. Dsouza drew upon his rich professional journey to offer valuable guidance to aspiring aerospace engineers.

The session began with an inspiring account of his early career, which took flight at Bangalore Aircraft Industries as a Graduate Engineer Trainee. Progressing to the role of Assistant Structural Engineer, Mr. Dsouza gained hands-on experience in design, stress analysis, and production support for prominent organizations including HAL, NAL, and

ISRO. He recounted his time working on-site at the National Aerospace Laboratories (NAL), contributing to the SARAS MK-II aircraft project—a unique exposure that laid the foundation for his future endeavors in the field.

Moving on to his current role at Quest Global, Mr. Dsouza elaborated on his involvement in high-stakes aerospace programs, particularly focusing on the conversion of Airbus A330 passenger aircraft into freighters. As a Lead Engineer, he guides a team of skilled professionals and serves as a technical reviewer for fatigue-related structural repairs on the A330-300/200 fuselage. His insights into fatigue analysis and structural integrity underscored the importance of precision and innovation in modern aircraft design.

A key highlight of the address was the emphasis on interdisciplinary growth and the multitude of career pathways available in aerospace—spanning core design roles, stress engineering, testing, and entrepreneurial ventures. Mr. Dsouza encouraged students to embrace lifelong learning and to cultivate not only technical expertise but also creativity and adaptability, especially in a field where technology and regulations are constantly advancing.

The address also touched upon the entrepreneurial dimension of aerospace careers. Drawing from his industry experiences, Mr. Dsouza stressed the growing opportunities in start-ups and private ventures that are redefining the aerospace landscape in India and beyond.

Concluding his session, Mr. Dsouza urged students to pursue excellence with curiosity, to remain resilient in the face of challenges, and to view every project as an opportunity to innovate. Attended by over 50 students, the talk offered both inspiration and practical wisdom, empowering the next generation to confidently navigate their own journeys in aerospace engineering.

Mr. Flavian Dsouza, QUEST GLOBAL, Lead Engineer, delivering a session on “Careers in Aerospace: Navigating Opportunities in Design, Innovation, and Entrepreneurship”

Title: **“The Role of Communication Skills in Product Design, Development, and Engineering Innovation”**

Resource Person: **Mr. Lionel D'Costa, IT Operations Associate Manager, Accenture, Bengaluru**

Graduated Year: **2015**

Date: **19/04/2025** **Time:** **09:30AM**

Profile of the Resource Person: Mr. Lionel D'Costa, an alumnus of the 2011-2015 batch, currently serves as an IT Operations Associate Manager at Accenture. He leads a team of

over 80 employees, supporting a major hospitality client that contributes more than $150 million in annual revenue to the company. He specializes in End User Computing Technology, focusing on the design, implementation, migration, and management of Microsoft 365 solutions, including Exchange Online, Teams, SharePoint, and OneDrive. His expertise extends to device management solutions such as Microsoft Intune and Broadcom Workspace One. Additionally, he leads a Level 3 team managing over 600 domain controllers for a client operating across 9,000+ properties worldwide. Lionel also heads the automation team, which has saved the client approximately $2 million and continues to eliminate over 200 hours of manual effort. Beyond his technical and managerial responsibilities, Lionel actively hosts and leads client visits, as well as people engagement and cultural activities for a delivery unit comprising more than 400 employees.

Keynote Address: The keynote address on *"*The Role of Communication Skills in Product Design, Development, and Engineering Innovation*"* delivered by Mr. Lionel D'Costa, alumnus of the 2011–2015 batch, emphasized the indispensable role of communication in modern engineering practices. Drawing from his extensive experience as IT Operations Associate Manager at Accenture, where he leads a team of over 80 professionals supporting a major global hospitality client, Mr. D'Costa offered valuable insights into how effective communication acts as a catalyst in driving innovation and efficiency in complex technical environments.

The talk began by highlighting how communication forms the backbone of successful product design. From gathering user requirements and collaborating across multifunctional teams to documenting technical solutions and managing stakeholder expectations, Mr. D'Costa illustrated how each phase of the product lifecycle hinges on clarity of expression and mutual understanding. He cited real-world scenarios from his projects involving Microsoft 365 technologies—such as Teams, Exchange Online, SharePoint, and OneDrive—where well-structured communication directly impacted the quality and timeliness of solution delivery.

Mr. D'Costa went on to discuss how communication is equally vital during development and implementation. In particular, he shared how his leadership of a Level 3 support team managing over 600 domain controllers across 9,000+ global client sites required not just technical acumen but also the ability to coordinate, negotiate, and problem-solve through

effective dialogue. His automation team's efforts—resulting in savings of approximately $2 million and the elimination of over 200 hours of manual effort—underscored how the clear articulation of technical ideas and value propositions can accelerate decision-making and foster trust with clients.

The address also covered the role of communication in enabling engineering innovation. Mr. D'Costa emphasized that creative ideas often emerge from diverse minds collaborating in a shared space, where communication becomes the bridge between differing perspectives. He encouraged students to practice active listening, develop presentation skills, and document their work methodically.

The session concluded with a call to action: for future engineers to treat communication not as an ancillary skill, but as a core engineering tool—one that can unlock opportunities, amplify impact, and transform ideas into real-world solutions. The inspiring talk, attended by over 55 students, left a lasting impression on the importance of being not just a skilled engineer, but also a persuasive communicator.

Mr. Lionel D'Costa, IT Operations Associate Manager, Accenture, delivering a session on "The Role of Communication Skills in Product Design, Development, and Engineering Innovation"

Alumni Committee

Title of the Event: **"Alumni Meet"**

Date: **5th April 2025** **Time:** **04:00 PM**

Venue: **Auditorium 3, Mangalore Institute of Technology & Engineering, Moodabidri**

Brief about the Event:

The Alumni Meet – MITE Chapter was successfully organized on 5th April 2025 at Auditorium 3, Mangalore Institute of Technology & Engineering (MITE), Moodabidri. The event brought together a vibrant mix of alumni from various departments, faculty members, and dignitaries, celebrating memories, sharing insights, and fostering future collaborations.

The meet was graced by our **Honorable Chairman Mr. Rajesh Chouta**, **Principal Dr. Prashanth C M**, **Alumni Convener Dr. Vinayambika S Bhat**, along with heads of various departments, Deans and Department-level Alumni Coordinators.

The event commenced with a warm welcome address by **Dr. Vinayambika S. Bhat**, who also highlighted the flagship initiatives of the Alumni Association. She elaborated on major events such as the Alumni General Body Meeting, Alumni Technothon MITE Series, and alumni involvement in institutional committees.

The platform was then opened to alumni to share their thoughts. Esteemed alumni including **Mr. Krishnamoorthy Bhat Kakunje** (Computer Science & Engineering), **Mr. Shivaraj Shetty** (Mechatronics Engineering), **Mr. Deekshith Poojary** (Civil Engineering), **Mr. Nishchith Shetty** (Information Science & Engineering), and **Mr. Sheraz Sheikh** (MBA Department) shared their nostalgic college experiences. They also provided valuable insights into the latest trends and technologies, advising current students to keep pace with industry demands.

Dr. Prashanth C M, Principal of MITE, expressed his delight at the reunion and shared the institution's recent infrastructure developments and student achievements. He appealed to the alumni to play a proactive role in guiding students, particularly in securing internships and job placements.

Chairman Mr. Rajesh Chouta extended a heartfelt welcome to the alumni and appreciated their continued association with their alma mater. He applauded the successful execution of the MITE Alumni Meet – Bangalore Chapter and encouraged organizing core committee to plan this academic Year's Meet with more than 300 participants. He invited alumni to conduct **hands-on workshops** on current technologies and also welcomed them to engage as **Professors of Practice** on Saturdays. A key highlight of his address was the mention of **MITE FIRST**, a platform fostering innovation through Ideathons and Pitch Presentations, offering **seed funding** for selected ideas. He inspired alumni to leverage these opportunities to build their own startups.

The event was gracefully compered by Alumna and Alumnus of Computer Science & Engineering **Ms. Amrutha** and **Mr. Shivaraj B G**. The meet concluded with a memorable group photograph, marking the successful culmination of a vibrant and enriching alumni gathering.

Glimpses of the Event:

Dr. Vinayambika S. Bhat, Alumni Convener delivering the Welcome Address.

Alumni Interactions

Principal Dr Prashanth C M Addressing the Gathering

Honorable Chairman Mr. Rajesh Chouta interacting with the Alumni

Group Photo

Title of the Event: "Revenante-Alumni Performance"

Date: 05-04-2025

Time: 7:45 PM **Venue: MITE Greens**

Brief bout the event: On April 5th, 2025, the much-anticipated "Revenante" Alumni performance took place as part of the annual SENTIA 2025 celebration, showcasing the incredible talents of our distinguished alumni. The event was a testament to the enduring bond between our institution and its graduates, bringing together former students who have excelled in various fields. The event was hosted by **Mr. Shivaraj B G** and **Ms. Amrutha**, an alumnus and Assistant Professors in the Department of Computer Science & Engineering. **Mr. Kartik Metha** an Alumni of Department of Computer Science & Engineering from 2023 Batch.

As part of the "Revenante - Alumni Performance Sentia 2025" celebration held on April5th, 2025, **Ms.Anjana R Shetty**, a distinguished alumna from the 2022 batch of the Department of Computer Science and Engineering, showcased her exceptional talent through a captivating solo performance.Ms. Anjana's performance stood out as a testament to the diverse talents among MITE's alumni and contributed significantly to the grandeur of the event.**Mr. Shashikumar Kohir**, a talented alumnus from the 2023 batch of the Department of Aeronautical Engineering, enthralled the audience with a dynamic solo performance in filmy style and act added flair to the event and was widely appreciated by faculty, students, and fellow alumni.Such enthusiastic contributions from our alumni highlight the vibrant culture of MITE and the holistic development encouraged within its academic environment.**Ms.**

Thanushree and Ms. Shravya B C, alumni from the 2021 batch of the Department of Electronics & Communication Engineering, delivered a captivating duet performance in semi-classical style.Their act was a graceful fusion of classical dance elements and synchronized expressions that resonated deeply with the audience. The seamless coordination, elegance, and rhythm demonstrated the strength of their artistic collaboration. The performance stood out as a tribute to India's rich cultural heritage while also reflecting the creative spirit fostered at MITE.**Mr. Shivraj Shetty**, a proud alumnus of the 2018 batch from the Department of Mechatronics Engineering, delivered a vibrant and high-energy solo performance.The performance received enthusiastic applause and served as a reminder of the diverse accomplishments of MITE alumni beyond the academic realm.

Mr. Adarsh S. Achar, an accomplished alumnus from the 2020 batch of the Department of Electronics & Communication Engineering, delivered a soulful solo performance in the lyrical Bollywood style.His emotionally expressive movements and graceful transitions beautifully portrayed the essence of Bollywood storytelling through dance. The performance connected deeply with the audience, showcasing a perfect balance between artistic emotion and technical precision.His contribution was highly appreciated and added a heartfelt dimension to the evening's celebration.

Mr. Deekshith Poojary Airody, a vibrant alumnus from the 2019 batch of the Department of Civil Engineering, delivered an energetic solo performance in filmy style.His performance, filled with charisma and cinematic flair, brought enthusiasm and joy to the stage.The performance not only showcased his individual talent but also highlighted the fun and festive spirit of the alumni celebration.His involvement was a wonderful addition to the event, reflecting the diverse range of creative pursuits among MITE's alumni community.

Mr. Shivaraj B G, an alumnus and Assistant Professor in the Department of Computer Science & Engineering, delivered the closing address with pride and gratitude.He expressed deep appreciation for the enthusiastic participation of alumni from various graduating batches and departments, whose performances reflected the spirit, diversity, and talent of MITE's extended family.

Anjana R Shetty, a distinguished alumna from the 2022 batch of the Department of Computer Science and Engineering. A captivating solo performance.

Mr. Shashikumar Kohir, a talented alumnus from the 2023 batch of the Department of Aeronautical Engineering. An engaging one-person show.

Ms. Thanushree and Ms. Shravya B C, alumni from the 2021 batch of the Department of Electronics & Communication Engineering, delivered a captivating duet performance in semi-classical style.

Mr. Shivraj Shetty, a proud alumnus of the 2018 batch from the Department of Mechatronics Engineering, delivered a vibrant and high-energy solo performance.

Mr. Adarsh S. Achar, an accomplished alumnus from the 2020 batch of the Department of Electronics & Communication Engineering, delivered a soulful solo performance in the lyrical Bollywood style.

Mr. Deekshith Poojary Airody, a vibrant alumnus from the 2019 batch of the Department of Civil Engineering, delivered an energetic solo performance in filmy style.

Mr. Kartik Metha an Alumni of Department of Computer Science & Engineering from 2023 Batch, hosting the event.

Mr. Shivaraj B G and **Ms. Amrutha**, an alumnus and Assistant Professors in the Department of Computer Science & Engineering, hosting the event.

Title: **"Designing a Better Future: Engineers in Civil Services"**

Resource Person: **Mr. Mohammed Shaukath Azeem, Assistant Controller of Defence Accounts, Southern Command, Pune**

Graduated Year: **2013**

Date: **14/05/2025** **Time:** **02:30 PM**

Profile of the Resource Person: Mohammed Shaukath Azeem, an alumnus of Mangalore Institute of Technology & Engineering (Batch of 2013), began his professional journey as a System Engineer at Control Print Limited in Bengaluru. Driven by a strong commitment to public service, he successfully cleared the UPSC Civil Services Examination in 2022, securing an All India Rank (AIR) of 545 and joining the Indian Defence Accounts Service (IDAS) as an Assistant Controller in Pune. Demonstrating continued dedication and perseverance, he appeared again for the UPSC exam in 2024 and achieved an impressive AIR of 345, earning a place in the prestigious Indian Administrative Service (IAS). He is set to begin his training at the Lal Bahadur Shastri National Academy of Administration, Mussoorie, in August 2025.

Keynote Address: Mr. Azeem, an esteemed alumnus of MITE, delivered an insightful session for students, offering engineering students with a comprehensive perspective on the relevance of their technical education in the civil services domain. It emphasized that engineers possess a unique problem solving mindset, strong analytical skills, and a systematic approach to challenges - qualities that are highly valuable in administrative and governance roles. The speaker highlighted how these competencies can be seamlessly transferred from technical workspaces to the realm of public administration and policy implementation.

Participants were introduced to the diverse roles engineers can take on within the civil services, ranging from infrastructure planning and technology-driven governance to decision-making in critical sectors like energy, transport, and urban development. The session helped demystify the notion that civil services are limited to humanities or law graduates, instead showcasing real-world examples of engineers excelling in roles like District Collectors, Project Directors, and Policy Advisors.

A significant portion of the session was dedicated to UPSC preparation strategies, tailored specifically for technical graduates. The speaker covered essential aspects such as selecting the right optional subject, balancing engineering studies with civil services preparation, curating reliable study resources, and managing time effectively. The emphasis was not only on academic preparation but also on the mental discipline and consistency required to succeed in one of the country's most competitive examinations.

Another crucial focus of the talk was the development of non-technical competencies, such as communication, leadership, ethical reasoning, and decision-making. These soft skills, often underemphasized in technical curricula, are integral to the everyday responsibilities of an administrative officer. The session encouraged students to cultivate these abilities alongside their technical growth, thereby preparing for multidimensional roles in governance and policy making.

The session concluded on a highly interactive and motivational note, with a Q&A segment that allowed students to ask questions, share concerns, and receive personalized guidance. The speaker's insights helped many participants envision a broader career landscape one where their engineering background can contribute meaningfully to nation-building. The session left students feeling empowered and inspired to consider civil services not just as a job opportunity, but as a platform for impactful, purpose-driven careers.

Mr. Mohammed Shaukath Azeem, delivering an expert talk to students on “Designing a Better Future: Engineers in Civil Services”.

Mr. Mohammed Shaukath Azeem, delivering an expert talk to students on “Designing a Better Future: Engineers in Civil Services”.

Principal, MITE, felicitating Mr. Azeem