

**STUDENT ASSOCIATION  
MASTER OF COMPUTER APPLICATIONS**

# NEWSLETTER

VOLUME 2

2023 - 2024



**NMAM INSTITUTE  
OF TECHNOLOGY**

## **FROM THE DESK OF HEAD OF THE DEPARTMENT**



Dr. Mamatha Balipa,  
Professor and Head,  
Department of MCA NMAMIT Nitte

It is with great enthusiasm and pride that I present to you our department's annual magazine. This publication not only highlights the remarkable initiatives and events that have shaped our past year but also reflects our deep commitment to the values of popular education. In our department, we view education as a dynamic and transformative experience, extending far beyond traditional classroom boundaries. Our aim is to cultivate an environment where students are not only informed but inspired. Through a diverse range of activities—such as innovative field trips, collaborative research projects, enriching internships, and impactful community service—we strive to provide our students with a comprehensive learning experience that supports their intellectual, social, and emotional growth. This magazine serves as a celebration of the hard work and dedication of both our students and staff. It showcases their achievements, highlights the success of our various programs, and demonstrates how our initiatives are paving the way for students to become engaged, thoughtful, and proactive members of society. As you peruse the pages, you will find stories of growth, learning, and achievement that embody our department's mission. We are excited to share these accomplishments with you and to continue our journey of excellence in education. We look forward to another year of inspiring and empowering our students, as we continue to innovate and expand our educational programs to meet their evolving needs and aspirations.

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### **Academic Activities (2023-24)**

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## A Webinar on Data Science, Data Analytics and Artificial Intelligence

The Department of MCA, in collaboration with ExcelR EdTech Private Limited, organized an insightful webinar on "Data Science, Data Analytics, and Artificial Intelligence" on January 18, 2024. The session was led by Mr. Dilavar Basha, Principal Data Science Trainer at ExcelR EdTech, who shared his expertise on various aspects of these cutting-edge fields with the students.

Dr. Mamatha Balipa, Head of the MCA Department, provided valuable insights during the webinar, adding depth to the discussion. The event was skillfully coordinated by Dr. Mangala Shetty, Associate Professor in the MCA Department, and saw enthusiastic participation from over 300 students of NMAMIT Nitte. The webinar concluded with positive feedback from both the participants and the resource person, marking it as a successful and enriching experience.



**N.M.A.M Institute of Technology**  
in Collaboration with  
**ExcelR EdTech Pvt Ltd**





### Webinar on Understanding Data Science, Data Analytics and Artificial Intelligence

**LIVE WEBINAR** 

Join us for an insightful discussion  
with an Industry Expert

 January 18, 2024

 Start at 7.00 PM

**OPEN FOR ALL BRANCH  
AND YEAR STUDENTS**



**Scan & Register Now  
with the Link!**

**Please Note:** Registration is compulsory to attend the Webinar

<p><b>Dr. Niranjan N Chiplunkar</b> Principal NMAMIT</p>	<p><b>Dr. Mamatha Balipa</b> Professor &amp; Head Department of MCA NMAMIT</p>	<p><b>Dr. Mangala Shetty</b> Associate Professor Department of MCA NMAMIT</p>	<p><b>Mr. Manikant I Melmani</b> Business Manager - Karnataka Every Day Learning</p>
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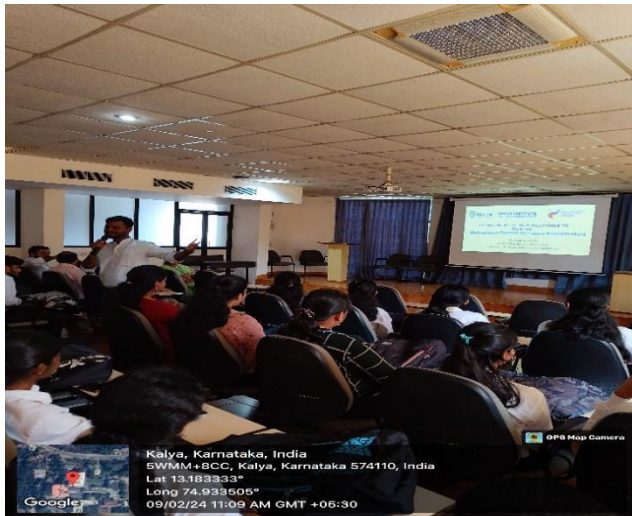
**ExcelR EdTech Pvt Ltd**  
(Subsidiary of ExcelR Houston, USA)  
Every Day Learning Initiative

## **Talk on Motivational Factors for Future Entrepreneurs**

The Institution's Innovation Council (IIC) of NMAMIT, in collaboration with the Department of MCA, organized an inspiring talk on "Motivational Factors for Future Entrepreneurs" on February 9, 2024. The session featured Mr. Shailesh S. Shetty, Head of the Department of CS & BS at Srinivas Institute of Technology, Mangalore, and Founder of Thaniya Technologies, as the resource person.

The event aimed to encourage students to explore entrepreneurship as a viable career path. Mr. Sailesh Shetty shared valuable insights on the essential qualities of successful entrepreneurs, providing practical examples and guidance on initiating startup projects. He also discussed government schemes like MSME and Udyam Registration, which offer financial support for student-led startups.

The interactive session saw students actively engaging with Mr. Sailesh Shetty, seeking answers to their questions about entrepreneurship. The program, attended by over 100 students, concluded on a positive note with Dr. Mamatha Balipa, Head of the MCA Department, urging students to transform their innovative ideas into viable business models. The talk was well-received and left a lasting impact on the participants.







## Training on CO PO Mapping

The Department of MCA at NMAMIT organized a focused training program on February 24, 2024, centered around the topic of "Course Outcome and Programme Outcome Mapping." The session was led by Mr. Arhath Kumar and Mr. Balachandra Rao, both Assistant Professors in the MCA Department, and was attended by the teaching faculty of the department.

### **Topics Covered:**

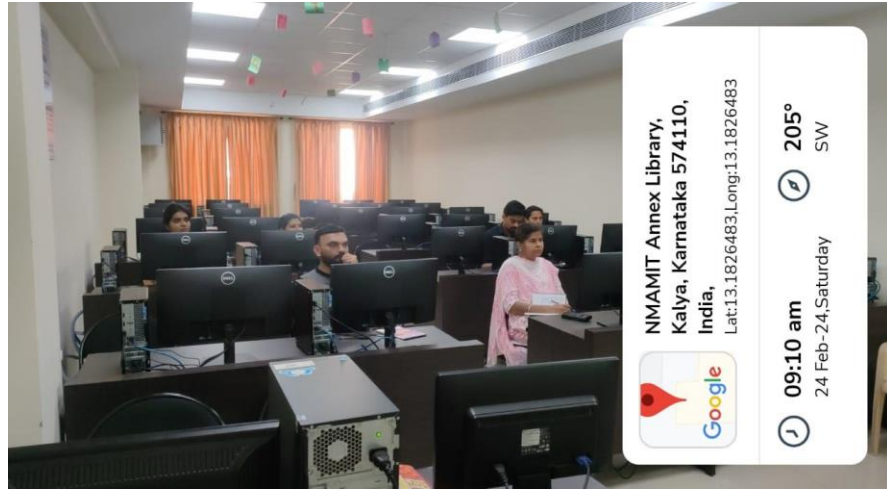
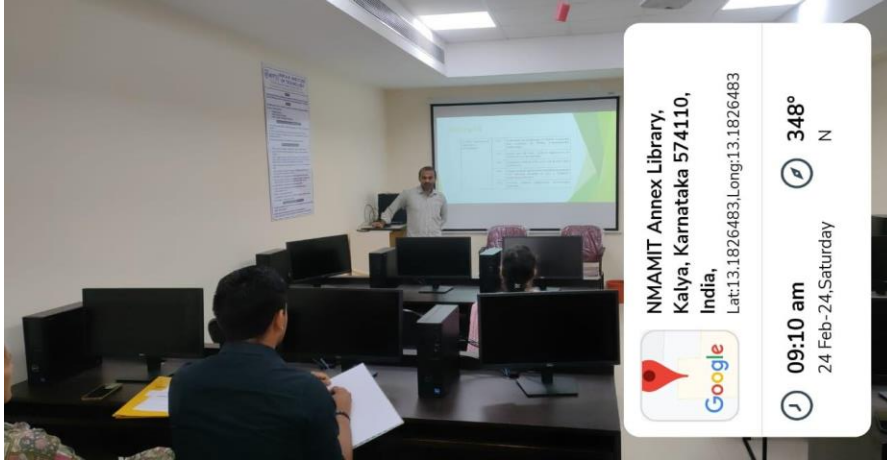
The training aimed to deepen the faculty's understanding of the core objectives of the MCA program, ensuring that the education provided is comprehensive, practical, and aligned with industry standards. The session covered the **Program Educational Objectives (PEOs)**, which outline the long-term goals for graduates, including critical thinking, technological competence, lifelong learning, leadership, and ethical responsibility. Specifically, the PEOs emphasize the importance of preparing students to think creatively, stay updated with relevant technologies, take on leadership roles, and manage tasks effectively.

The **Program Outcomes (POs)** were also a key focus, detailing the specific abilities students are expected to develop during their course of study. These include applying knowledge of mathematics, science, and engineering; designing and conducting experiments; solving complex engineering problems; and understanding the broader impact of engineering solutions in various contexts. The outcomes also highlight the importance of professional and ethical responsibility, effective communication, and the need for lifelong learning.

Furthermore, the session discussed the **Program Specific Outcomes (PSOs)**, which are tailored to the unique aspects of the MCA program. The PSOs aim to empower students to excel in the field of Information Technology, uphold ethical standards, and adopt modern technologies like Artificial Intelligence, Machine Learning, and Data Analytics to address real-world challenges.

A significant portion of the training was dedicated to explaining how **Course Outcomes (COs) are mapped to Program Outcomes (POs)** through a matrix developed by course coordinators and instructors. This mapping ensures that every course contributes to the overarching educational goals of the MCA program, providing a clear pathway for students to achieve the desired competencies by the time they graduate.

The training program was highly informative and received positive feedback from the faculty, who appreciated the clarity and depth of the topics covered. This initiative is expected to enhance the quality of education in the MCA Department, aligning teaching practices with the program's strategic objectives.





## **Teck-KNO'24 - An Intercollegiate competition**

The Department of MCA at NMAM Institute of Technology, Nitte, in collaboration with CodeCraft Technologies, Mangalore, organized a technical competition, "Teck-KNO'24," on February 29, 2024. The event was specifically designed for students of B.Sc., BCA, and B.Com. (IT) programs.

The competition was inaugurated by Mr. Shripada Hebbar, Principal Technology Mentor at CodeCraft Technologies. In his opening address, Mr. Hebbar urged students to use AI tools primarily for educational enrichment rather than relying on them for completing assignments. He also emphasized the importance of mastering at least one programming language and developing a strong foundation in data structures.

The event was presided over by Dr. Niranjan Chiplunkar, Principal of NMAMIT, who encouraged students to take full advantage of the competition to enhance their skills and increase their industry readiness. Dr. I. R. Mithanthaya, Vice Principal and Dean Academics, praised the MCA department for organizing such a valuable program for undergraduate students.

Dr. Mamatha Balipa, Professor and Head of the Department of MCA, warmly welcomed the participants and shared insights into the "Teck-KNO'24" competition. The chief guest was introduced by Dr. Mangala Shetty, and the vote of thanks was delivered by Dr. Spoorthi P. Shetty.

The competition's final round was judged by an esteemed panel including Mr. Shripada Hebbar, Ms. Likitha, Senior Specialist in HR, and Mr. Harshanand Manel Vittal, Principal Architect of Web at CodeCraft Technologies.

Dr. N.S. A. M First Grade College won the First Prize, earning a cash award of Rs. 10,000, while Canara College, Mangalore, secured the Second Prize with a cash award of Rs. 5,000. The event was successfully coordinated by Dr. Mangala Shetty and Dr. Spoorthi B. Shetty, making "Teck-KNO'24" a memorable and impactful experience for all participants.

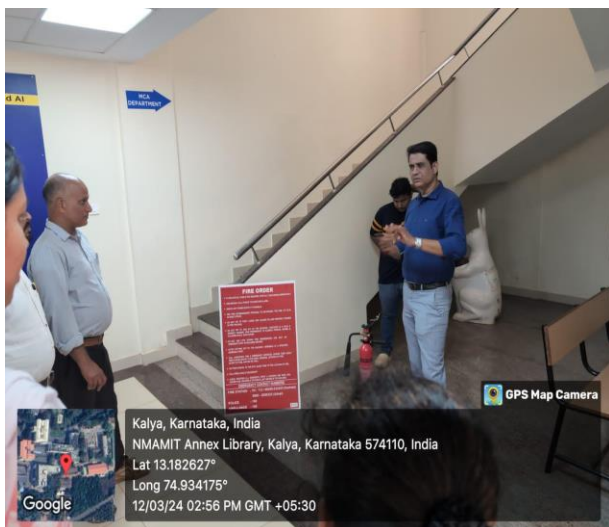




## Training for Faculty and staff on Fire Safety

On March 12, 2024, a firefighting training session was conducted at the Raja Raman Block for both teaching and non-teaching faculty members of the MCA department. The training session commenced at 3:00 PM and aimed to enhance participants' awareness and skills in fire safety and emergency response procedures. The training session began with an introductory presentation on the importance of fire safety and the role of faculty members in emergency response situations. Participants were briefed on the potential fire hazards in academic buildings and the importance of fire prevention measures. A demonstration of firefighting equipment and tools, including fire extinguishers, fire blankets, and emergency exit routes, was conducted to familiarize participants with their usage and operation. Practical exercises were also conducted to allow participants to practice using fire extinguishers effectively.

Participants were educated on the different classes of fires and the appropriate methods for extinguishing each type, emphasizing the importance of selecting the correct extinguishing agent and maintaining a safe distance from the fire. Emergency evacuation drills were conducted to ensure that participants were familiar with evacuation procedures and assembly points in the event of a fire alarm. Faculty members were guided on the importance of remaining calm and assisting others during evacuations. The training session concluded with a Q&A session, allowing participants to seek clarification on fire safety procedures, equipment usage, and emergency response protocols.







## A hands-on workshop on Application development using React Native Framework

The Department of MCA organized a workshop on “**Application development using React Native Framework**” on 15<sup>h</sup> and 16<sup>th</sup> March, 2024. The workshop was conducted in association with WENAMITAA – NMAMIT Alumni Association, Nitte.

The resource person of the interaction was Mr. Dwarakanath Rao, Software developer, Oyyo Tech Services, Bangalore in his opening remarks he briefed about the importance of React native framework in application development.

The workshop commenced with an overview of fundamental concepts in the React native framework, starting with the basics of javascript and the lifecycle of the React native framework followed by the installation of the expo setup, and a few codes were implemented related to expo. In the next session layout designing was taught where students developed designs for a TO-DO application. The last session was a group project where every team was assigned to do different projects on the Calculator app, Stopwatch app, and Insta app.

Ms. Sharath K R introduced the resource person and HoD Dr Mamatha Balipa addressed the gathering.

Second semester MCA students participated in the workshop.







## Talk on Creativity and Innovation

The Department of MCA, in association with the Institution's Innovation Council (IIC), hosted a talk on creativity and innovation on May 17, 2024, at 10:00 AM in the MCA Seminar Hall. This event was organized in honor of World Creativity and Innovation Day. The session was led by Mr. Royal Praveen D'Souza, an Assistant Professor in CS, Applications & Animation at St. Aloysius (Deemed to be University), Mangalore, and the founder of SIONA SOLUTIONS.

The event saw an impressive participation of over 90 students, alongside faculty members, including the HoD of the MCA Department, Dr. Mamatha Balipa, and the IIC President, Dr. DK Shreekantha. Geetika Bharat Bisht, the President of the IIC Club, kicked off the event by introducing the esteemed speaker, Mr. Royal Praveen D'Souza.

Mr. D'Souza delivered a highly informative and engaging presentation, packed with innovative ideas and strategies aimed at fostering creativity and innovation among the students. He also conducted activities designed to stimulate the creative thinking of the attendees.

The session concluded with a vote of thanks by Bhushan. Dr. Mamatha Balipa expressed her gratitude to Mr. D'Souza for his insightful contribution, highlighting the importance of his ideas in cultivating the creative potential of the students.

Overall, the talk was an enlightening and enriching experience, leaving the audience inspired to embrace creativity and innovation in their academic and professional pursuits.



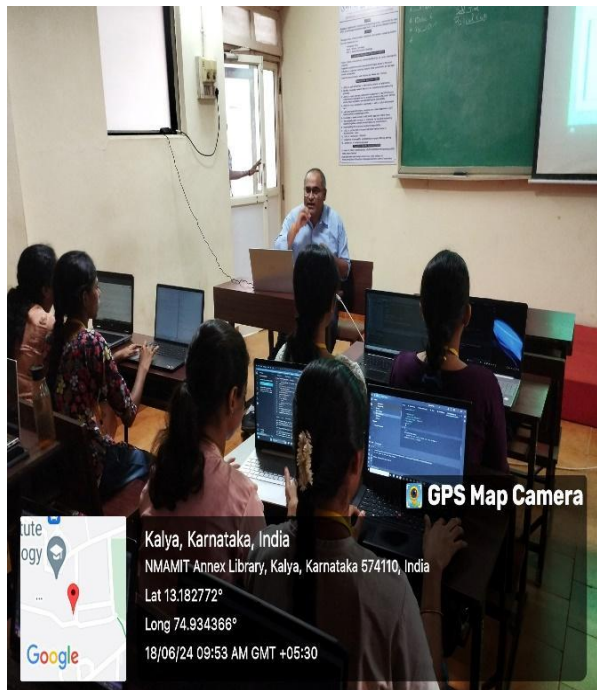
## Placement Training By Dlithe Services Pvt Ltd

Dlithe Services Pvt Ltd conducted an intensive technical placement training program from June 14 to June 22, 2024, aimed at equipping 174 students with essential technical skills. The program was coordinated by Assistant Professors Anantha Murthy, Keerthi Shetty, and Sharath K R from the MCA Department, with a focus on enhancing students' technical competencies, interview preparedness, industry awareness, and overall employability.

The training began with pre-assessments to gauge students' initial knowledge, followed by expert-led live classroom sessions and activity-based learning that emphasized discussions and coding problem-solving. The curriculum covered foundational software engineering, Python programming basics, data structures, and hands-on practice with industry-specific problems.

Key outcomes of the program included improved planning through category-based batch formation, stronger collaboration with placement departments, increased proficiency in Python, Java, C, and Database Management Systems, and the development of algorithmic thinking and technical interview skills. The training also addressed aptitude, verbal, and communication skills.

Observations during the program revealed that while students were actively engaged in coding, some lacked access to laptops, highlighting the need for dedicated lab facilities. Additionally, the feedback suggested that offering short-term programs earlier in students' academic careers could help non-circuit branch students gain more confidence in coding.



## **5-Day Flutter Workshop by MCA Department**

The MCA Department organized a comprehensive 5-day workshop on Flutter from 3<sup>rd</sup> July to 7<sup>th</sup> July 2024, aimed at equipping students with the skills needed to develop mobile applications using Flutter and Dart. The workshop was structured to provide hands-on experience, starting from the basics and progressing to advanced topics including state management and Firebase integration. Mr Shahiz K, Second year MCA student was the resource person. The head of the department Dr. Mamatha Balipa inaugurated the workshop and the Coordinator Dr.Spoorthi Shetty proposed the vote of thanks. The following topics were covered

### **Day 1: Introduction to Flutter and Dart Basics**

#### **Topics Covered:**

##### **1. Introduction to Flutter:**

- Overview of Flutter's features and benefits.
- Comparison with other frameworks like React Native, Xamarin, and Ionic.

##### **2. Development Environment Setup:**

- Step-by-step guide on installing Flutter SDK.
- Setting up IDEs: Visual Studio Code and Android Studio.
- Running the first Flutter app: "Hello World."

##### **3. Dart Programming Basics:**

- Basic Syntax and Structure: variables, data types, control flow.
- Introduction to StatelessWidget and StatefulWidget.

### **Day 2: Layouts in Flutter and State Management**

#### **Topics Covered:**

##### **1. Layouts in Flutter:**

- Basic layout widgets: Padding, Center, Align.
- Creating complex layouts using Flex, Expanded, and Stack widgets.
- Introduction to ListView for displaying scrollable content.

##### **2. State Management and User Interaction:**

- Understanding the widget tree and managing state with setState.
- Adding interactivity: buttons, gestures, and handling input with TextField.
- Building forms and implementing validation logic.

## **Day 3: Introduction to Firebase and Authentication**

### **Topics Covered:**

#### **1. Introduction to Firebase:**

- Overview of Firebase and its core services.
- Setting up a Firebase project and integrating it with Flutter.

#### **2. Firebase Authentication:**

- Configuring Firebase Authentication.
- Implementing user sign-up, sign-in, and sign-out functionality.
- Managing user state and handling authentication states in the app.

## **Day 4: Firestore Basics and Advanced Firebase Integration**

### **Topics Covered:**

#### **1. Firestore Basics:**

- Understanding Firestore's document-based database structure.
- Performing CRUD operations (Create, Read, Update, Delete) with Firestore.
- Using Firestore for real-time updates in the app.

#### **2. Building a Simple App with Firebase Integration:**

- Defining the project scope: a small project such as a note-taking app.
- Implementing authentication and user management.
- Storing and retrieving data from Firestore and displaying it in the app.

## **Day 5: Advanced Flutter Concepts and Project Showcase**

### **Topics Covered:**

#### **1. Advanced Flutter Concepts:**

- Exploring advanced widgets and animations.
- Introduction to state management solutions like Provider, Riverpod, or Bloc.



## 2. Project Showcase:

- Finalizing the group projects.
- Presenting the completed projects to the class.



## **Comprehensive Placement Readiness Program: Python, Problem-Solving, and GitHub Essentials**

The Department of MCA has organized a two-week placement training program on July 15<sup>th</sup> to July 26<sup>th</sup> 2024 aimed at preparing students for upcoming placement opportunities. The program was led by seven fellow students and covered essential topics, including Python programming, problem-solving with LeetCode, and using GitHub for version control and collaboration. The training sessions were meticulously planned, ensuring comprehensive coverage of each topic, and were instrumental in equipping students with the necessary skills and knowledge to excel in technical interviews and professional settings. The dedicated trainers, each specializing in different areas, played a significant role in the success of the program.



### **Training Schedule:**

#### **Week 1: Python Programming**

- Day 1: Introduction to Python, development environment setup, basic syntax, and data types.
- Day 2: Control structures, functions, and modules.
- Day 3 & 4: Data structures (lists, tuples, dictionaries, sets) and their applications.
- Day 5: Object-Oriented Programming in Python.

## **Week 2: LeetCode Problems and GitHub**

- Day 6: Introduction to Git and GitHub, version control concepts.
- Day 7: Collaboration on GitHub, managing repositories, pull requests, and merging.
- Day 8: Introduction to LeetCode, solving easy-level problems.
- Day 9: Techniques for solving medium-level LeetCode problems.
- Day 10: Advanced problem-solving strategies and practice with hard-level problems.