# RAPID-SHARE

"A Knowledge Granary"

Newsletter from Department of Master of Computer Applications | Volume No.: 9, Issue No.: 2 May 2025 - August 2025



# MESSAGE FROM EDITOR

The RAPID-SHARE newsletter is an initiative by the MCA department to foster connections among our students. It is designed for all students, with a focus on promoting unity and integrity within our community. Through this newsletter, we aim to provide opportunities for learning, sharing experiences, and showcasing expertise.

# Why Rapid - Share?

The Rapid-Share Newsletter is published at the end of each semester to showcase current trends in ICT, featuring contributions from staff, students, and alumni, as well as various activities of our MCA department. It aims to ignite young minds with a wealth of knowledge.



# Stay connected with

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### VISION OF NHCE

To emerge as an institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical competence.

### **QUALITY POLICY OF NHCE**

To provide educational services of the highest quality both curricular and co-curricular to enable students integrate skills and serve the industry and society equally well at global level

### **VISION OF MCA DEPARTMENT**

To emerge as a department of eminence in the field of Computer Applications in serving the Information Technology Industry and the nation by empowering students with a high degree of technical, managerial and practical competence.

### QUALITY POLICY OF MCA DEPARTMENT

To provide services of the highest quality both curricular and co-curricular, so that our students can integrate their skills and serve the industry and society equally well at the global level.

### **MISSION OF NHCE**

- To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovation among faculty members and students.
- To encourage long-term interaction between the academia and industry through their involvement in the design of curriculum and its hands-on implementation.
- To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in cocurricular and extracurricular activities.

### **MISSION OF MCA DEPARTMENT**

- To strengthen the theoretical, practical and ethical aspects of the learning while inculcating a culture of research, innovation and practical applications amongst faculty and students.
- To encourage long-term interactions between the department and the IT Industry through rich involvement of the Industry in the design of the curriculum and its hands-on implementation.
- To strengthen and mold students in professional, ethical, social and environmental dimensions by encouraging participation in co-curricular and extracurricular activities.

# MAY

### **INDUSTRIAL VISIT**

TITLE - INDUSTRIAL VISIT-ISKCON

**DEPARTMENT - MCA** 

**DATE - MAY 22, 2025** 

TIME - 9:00 AM - 4:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### **DESCRIPTION**

The Department of MCA at New Horizon College of Engineering organized a visit to AkshayaPatra, ISKCON, on May 22, 2025.

A total of 59 first-semester MCA students and two faculty members participated in the full-day visit.

The journey began at 08:30 AM and the team reached the destination by 10:30 AM.

Mr. Ankit Mishra, Program Coordinator, explained kitchen operations, IoT use, and large-scale meal distribution.

An interactive session by the Youth Empowerment Club with FOLK highlighted GPS tracking, Six Sigma, and management practices. The visit emphasized industry collaboration, professional relationships, and intercultural learning. Students also realized the importance of coordination, efficiency, and teamwork in large organizations.

Overall, the enriching experience fostered both academic learning and personal growth among students.



### **INDUSTRIAL VISIT**

TITLE - INDUSTRIAL VISIT-ISRO

**DEPARTMENT - MCA** 

**DATE - MAY 23, 2025** 

TIME - 9:00 AM - 2:30 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

On 23rd May 2025, the Department of MCA organized an industrial visit to ISRO UR Rao Satellite Centre (URSC) for 65 students and 2 faculty members. The visit aimed to enhance student knowledge on advanced technology and satellite applications. Students explored the space exhibition, which featured models of Aryabhata, APPLE, and the INSAT series.

A video presentation demonstrated the satellite assembly process and the progress of the Chandrayaan-3 mission. Students also experienced their weight on celestial bodies like Mars, Moon, and Earth. The session included insights on electronic components, satellite communication, and image capturing. Mentors guided students on ISRO's recruitment process and career opportunities. Overall, the visit enriched students' understanding of space technology, satellite applications, and future prospects.





### **EXPERT TALK**

TITLE - UNLOCKING THE FUTURE: DIGITAL MARKETING IN THE AI ERA

**DEPARTMENT - MCA** 

**DATE-MAY 24.2025** 

TIME - 10:00 AM - 12:00 PM

**BENEFICIARY - IV SEM MCA STUDENTS** 

### **DESCRIPTION**

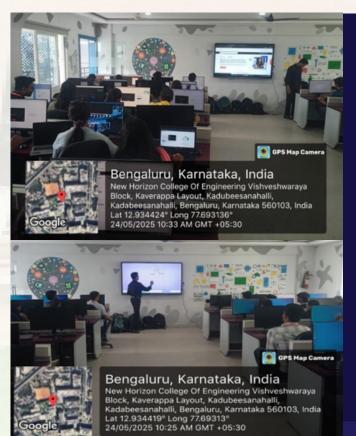
The Department of MCA organized an Expert Talk on AI-Driven Digital Marketing to provide insights into how Artificial Intelligence is reshaping modern marketing. A total of 46 participants attended the session, which focused on AI-driven customer segmentation, predictive analytics, and personalized content delivery. The speaker highlighted automation tools, case studies, and best practices for enhancing campaign performance.

Participants actively engaged in discussions and a Q&A session on AI tools, data privacy, and ethical implications. Key takeaways included exposure to AI-based platforms, data-driven strategies, and personalized marketing.

Overall, the talk was highly engaging, leaving participants confident about integrating AI into marketing practices.







### WORKSHOP

TITLE: UNRAVELLING MAGENTO FRAMEWORK

**DEPARTMENT - MCA** 

DATE - MAY 24, 2025

TIME - 10:00 AM - 12:00 PM

**BENEFICIARY - IV SEM MCA STUDENTS** 

### DESCRIPTION

A workshop on "Magento Framework and its Applications in Web Development" was organized for MCA II Semester students on Saturday, 9th August 2025 with 45 participants. The session focused on Magento's architecture, modular design, and customization features, highlighting how the platform supports scalable e-commerce solutions. The resource person demonstrated the process of setting up an online store, developing modules, and customizing themes, while also sharing best practices for performance optimization and project scalability.

The session was highly interactive, with students engaging in discussions and live demonstrations. Participants asked insightful questions on extension development, database handling, and real-world challenges in Magento projects. The workshop provided practical exposure, enabling students to understand the core structure of Magento and gain confidence in applying it to build efficient online stores.

### **WORKSHOP-FOSS CLUB**

TITLE -TALEND OPEN STUDIO & UI DESIGN FOR JAVA APP

**DEPARTMENT - MCA** 

DATE - MAY 30, 2025

TIME - 1:30 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

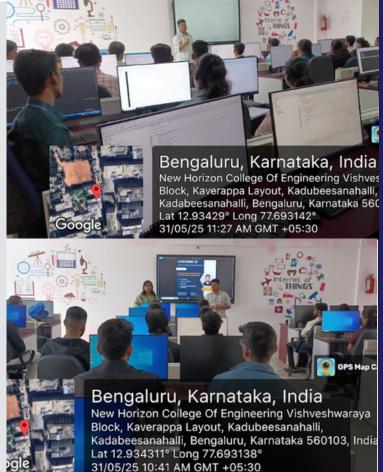
The Department of MCA organized the event "Talend Open App and UI Design for Java App" on 30th May 2025 at Tejas Seminar Hall. The program served as a platform for students to showcase their creativity and technical expertise in app development and UI design.

The first session was delivered by Mr. Glen C Xavier, who introduced Talend Open Studio, highlighting ETL processes, data workflows, and integration techniques.

The second session by Mr. Hari Haran K focused on UI Design for Java Apps, covering layouts, event handling, and responsive design using Swing.

Students presented innovative, user-centric, and visually appealing interfaces reflecting creativity and functionality. The sessions demonstrated how strong UI design and effective data integration enhance usability and impact. Overall, the event enriched participants with practical insights into modern app development and design practices.





### **WORKSHOP**

TITLE - DATA STRUCTURES AND ALGORITHMS FOR COMPETITIVE PROGRAMMING

**DEPARTMENT - MCA** 

**DATE - MAY 31, 2025** 

TIME - 10:00 AM - 1:00 PM

BENEFICIARY - II SEM MCA STUDENTS

### DESCRIPTION

A workshop on Data Structures and Algorithms for Competitive Programming was organized to build strong coding and problem-solving skills. Core topics emphasized included the role of data structures in competitive coding, time and space complexity analysis, searching and sorting algorithms, stacks, queues, linked lists, trees, graphs, dynamic programming, and recursion. Students also learned optimization strategies for writing efficient code. Activities conducted included live coding sessions, hands-on practice on platforms like Codeforces, LeetCode, and HackerRank, and discussions on career paths in software engineering. Students registered on coding platforms and had Hands-on practice on with real-time problem solving exercises. Participants improved problem-solving speed and accuracy while gaining exposure to interview-level coding techniques. A total of 46 MCA students actively participated and benefitted from the workshop.

### **WORKSHOP**

**TITLE - DOCKER AND KUBERNETES** 

**DEPARTMENT - MCA** 

DATE - MAY 31, 2025

TIME - 10:00 AM - 1:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

A workshop on "Docker and Kubernetes" was organized to provide MCA students with a hands-on introduction to modern DevOps practices. The session covered Docker fundamentals, including containers, images, Dockerfiles, container networking, volumes, and multi-container applications using Docker Compose. Students practiced creating and managing containers, building images, and using essential Docker commands. The workshop also introduced Kubernetes concepts such as Pods, Nodes, ReplicaSets, Deployments, and Services, followed by hands-on sessions using Docker Desktop. 48 MCA students actively participated and gained experience in deploying applications, writing YAML manifests, scaling pods, rolling updates, and monitoring clusters with kubectl commands. Activities included a real-world case study, live demonstrations, and interactive Q&A discussions to clarify advanced concepts like Docker Swarm vs. Kubernetes. By the end of session, students could containerize applications and manage them effectively with Docker and Kubernetes.





# JUNE



### SOCIAL OUTREACH

TITLE - SOCIAL OUTREACH ACTIVITY

**DEPARTMENT - MCA** 

**DATE - JUNE 3, 2025** 

TIME - 2:00 PM - 4:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA conducted a social outreach program at Samarthanam Trust for the Disabled, HSR Layout, Bengaluru, as part of its community engagement initiative. The visit aimed to foster empathy, inclusiveness, and social responsibility among students while supporting the Trust's mission of empowering the differently-abled through education and technology.

Activities included storytelling, teaching basic concepts, sign language demonstrations, music, dance, and interactive games. MCA students were divided into teams for teaching, games, and coordination, ensuring smooth execution of the program.

Children at the Trust actively participated with enthusiasm, while MCA students gained interpersonal skills. The Trust staff expressed gratitude for the efforts, noting the positive engagement and motivation brought to the children.

Overall, the outreach program was a mutually enriching experience, highlighting the importance of compassion and social responsibility.

### **EXPERT TALK**

TITLE - ENGINEERING YOUR FUTURE : THE POWER OF PROJECTS AND PRACTICAL EXPOSURE

**DEPARTMENT - MCA** 

**DATE -JUNE 06. 2025** 

TIME - 10:00 AM -12:00 PM

**BENEFICIARY - IV SEM MCA STUDENTS** 

### **DESCRIPTION**

The Department of MCA, in association with Matrex Softwares, organized this Expert Talk on "Engineering Your Future – The Power of Projects and Practical Exposure." The session aimed to highlight the role of hands-on learning and real-time projects in enhancing technical competency, problem-solving ability, and industry readiness.

The resource person, Mr. Raghavendra Sarala, Senior Marketing Manager emphasized the importance of aligning academic concepts with real-world applications. He also highlighted the value of communication skills, teamwork, and proactive learning in building a successful career. Key topics covered included project-based learning, industry expectations, and the relevance of marketing and communication in technical careers. The event concluded with an interactive Q&A session where 47 students had actively participated, shared insights, and clarified their doubts.

Overall, the expert talk provided students with practical guidance and a roadmap to become future-ready professionals.







### SOCIAL OUTREACH

TITLE - UDAAN: IGNITING FUTURES WITH RAY OF MIND

**DEPARTMENT - MCA** 

DATE - JUNE 20 . 2025

TIME - 1:30 PM - 4:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA organized a social outreach program titled "Udaan: Igniting Futures with Ray of Mind" at Government Higher Primary School, Devarabisanahalli, Bengaluru. The initiative aimed to foster digital awareness, emotional well-being, and self-confidence among school children from underprivileged backgrounds.

16 MCA students engaged the children through storytelling, basic computer awareness sessions, and demonstrations of simple digital tools. Creative activities like drawing, music, and interactive games were conducted to encourage participation and self-expression.

Students were divided into teaching, activity, and logistics teams to ensure smooth planning and execution of the program. Around 60 school children benefitted from the initiative, which created a meaningful impact by enhancing learning, creativity, and confidence. Overall, the outreach activity successfully strengthened MCA students' sense of social responsibility while bringing joy, motivation, and valuable learning experiences to the school children.

### **ALUMNI TALK**

TITLE - FROM PIXELS TO PERCEPTION: THE FUNDAMENTALS OF COMPUTER VISION"

**DEPARTMENT - MCA** 

**DATE -JUNE 21, 2025** 

TIME - 11:00 AM - 1:00 PM

**BENEFICIARY - II MCA STUDENTS** 

### DESCRIPTION

An expert talk on "The Fundamentals of Computer Vision" was organized by the Department of MCA with the objective of providing insights into core concepts, related technologies, algorithms, and real-world applications. The session aimed to inspire students to pursue research and projects in this emerging field.

The speaker introduced computer vision basics, including image formation, representation, and processing techniques such as filtering, edge detection, and histogram equalization. Advanced topics like feature extraction, object detection and deep learning approaches with CNNs and transfer learning were also highlighted. Applications in medical imaging, AR/VR, robotics, and surveillance were discussed, along with hands-on tools such as OpenCV, TensorFlow, and PyTorch. The interactive Q&A session helped students clarify doubts on career opportunities and practical implementations. 50 participants gained a strong conceptual foundation and were motivated to experiment with open-source tools. Overall, the talk was highly informative and encouraged students to explore innovative projects in computer vision.





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### **FOSS CLUB**

TITLE -TRITECHX - WHERE QUICK MINDS AND SHARP CODERS CLASH FOR GLORY

**DEPARTMENT - MCA** 

DATE - JUNE 27, 2025

TIME - 1:00 PM - 2:30 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA, through its FOSS Club, organized "TRITECHX" on 27th June 2025 at the MCA Lab. The event was designed to bring out students' strengths in programming, creativity, and problem-solving while fostering collaboration and innovation. Students from different semesters participated enthusiastically, showcasing their passion for coding, AI, and open-source tools.

The competition comprised two engaging rounds. Round 1 - SnippetStorm tested debugging, logical reasoning, and code completion skills of participants. Round 2 - Prompt & Deploy challenged them to use AI tools for prompt engineering and rapid website development, highlighting creativity and adaptability.

The event successfully created an atmosphere of excitement, teamwork, and learning, encouraging students to think critically and apply their knowledge in real-time. Faculty members and student coordinators ensured smooth execution, making TRITECHX both impactful and memorable.

### **EXPERT TALK**

TITLE - DESIGNING SCALABLE APPLICATIONS WITH MONGODB

**DEPARTMENT - MCA** 

**DATE - JUNE 28, 2025** 

TIME - 10:00 AM - 12:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### **DESCRIPTION**

The Department of MCA organized an Expert Talk on "Designing Scalable Applications with MongoDB" to provide students with insights into building applications that can efficiently manage growth in data, users, and workload. The session was delivered by Mr. Maddi Abhilash, Senior Software Developer at Anthology Inc., who shared his expertise in backend systems, database optimization, and cloud-based solutions. He discussed the fundamentals of scalability, highlighting aspects such as modular design, fault tolerance, and responsiveness. He emphasized the role of databases in scalability, focusing on MongoDB techniques like caching, indexing, and sharding. Realworld use cases and best practices were presented, helping students connect theory with industry applications.

The session concluded with an interactive Q&A where students engaged in scenario-based challenges on scalability and performance optimization. With 52 participants, the talk was well-received and enhanced students' knowledge in MongoDB.







### **EXPERT TALK**

TITLE - PROMPTCRAFT IN THE CLOUD: MASTERING AI

**CONVERSATIONS** 

**DEPARTMENT - MCA** 

**DATE - JUNE 28, 2025** 

TIME - 10:00 AM - 12:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA organized this session to introduce students to prompt engineering techniques for effective AI interactions in cloud environments. The session was delivered by Mr. Rohith, an expert in Digital Marketing and AI-driven communication strategies.

He explained the role of Large Language Models (LLMs), techniques for crafting effective prompts, and demonstrated real-world applications using cloud-based AI tools. Students learned how subtle prompt changes can influence AI responses in tasks like coding, content creation, and data querying.

The talk also covered best practices, common pitfalls, and ethical considerations in prompt design, along with future trends in AI communication. The Q&A session included scenario-based discussions, such as designing an AI assistant to manage large-scale student queries during peak times. 52 participants were benefitted from the session.

### **GUEST LECTURE**

TITLE - BUILDING DYNAMIC WEB APPLICATIONS WITH SERVLET AND JSP

DEPARTMENT - MCA
DATE - JUNE 28, 2025
TIME - 2:00 PM-4 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

A guest talk on "Building Dynamic Web Applications with Servlet and JSP" was organized by Department of MCA to provide students with practical insights into Java-based web development. The session covered the fundamentals of Servlets, their lifecycle, request-response handling, and deployment strategies.

The resource person introduced JSP for embedding Java into HTML, demonstrating directives, scriptlets, and expressions for dynamic content generation. A live mini-project was showcased, highlighting JDBC integration with MySQL for real-time data retrieval and display.

Students also learned about MVC architecture and its role in structuring scalable web applications. The session included live demonstrations, mini-project presentations by students, and constructive feedback from the expert.

The event concluded with an interactive Q&A session where participants clarified doubts on Servlets, JSP, and database connectivity. With 50 students participating, the talk enhanced both conceptual clarity and hands-on skills in building dynamic web applications.







### SOCIAL OUTREACH

TITLE - BRAIN BLOOM:LEARNING THROUGH PLAY

**DEPARTMENT - MCA** 

**DATE - JUNE 28. 2025** 

TIME - 1.30 PM-3: 30 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA organized a social outreach activity "Brain Bloom: Learning Through Play" at Makkala Dhama, Bengaluru, involving second-semester MCA students. The program aimed to foster empathy, teamwork, and leadership while engaging 450 resident girl children through interactive, play-based learning.

Activities included math puzzles, logic games, brainstorming sessions, team challenges, and digital learning introductions to spark curiosity and confidence among the children. Students were divided into four groups, each conducting unique sessions that promoted collaboration, problem-solving, and joyful learning.

The children actively participated, showing enthusiasm and engagement, while MCA students gained real-world exposure to empathy and social responsibility.

# JULY

# **GUEST LECTURE**

TITLE - FUNDAMENTALS OF GIT WORKFLOW

**DEPARTMENT - MCA** 

**DATE - JULY 5, 2025** 

TIME -10:00 AM - 12:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### **DESCRIPTION**

The Department of MCA organized a guest lecture on "Fundamentals of Git Workflow" for II Semester students on 4th July 2025. The session was conducted by Mr. Pavan Kumar V J, Associate Software Development Engineer at Zetwerk and Gold Medalist from New Horizon College of Engineering.

He introduced the importance of version control systems, explained core Git commands, and demonstrated their practical applications. Concepts of branching, merging, and GitHub integration were covered with real-time examples to show collaborative workflows.

Students learned best practices such as effective commit messages and branching strategies for efficient project management. The session also emphasized the role of Git in team-based software development.

The resource person shared his own project experiences, making the session more relatable and impactful for the audience. The session concluded with an interactive Q&A, where students clarified doubts and explored real-world Git applications.

A total of 73 students participated, gaining practical knowledge and confidence in applying Git to academic and professional projects.









# **GUEST LECTURE**

TITLE - ACCELERATORS/INCUBATION - OPPORTUNITIES FOR STUDENTS & FACULTIES

**DEPARTMENT - MCA** 

**DATE - JULY 09, 2025** 

TIME -9:00 AM - 5:00 PM

**BENEFICIARY - II SEM MCA STUDENTS** 

### **DESCRIPTION**

The Department of MCA organized a workshop on "Opportunities in Accelerators and Incubators" conducted by Prof. Shivumanjesh P, Assistant Professor, Maharaja Institute of Technology (MIT), Mysore. The session introduced students to entrepreneurship opportunities and the role of accelerators and incubators in supporting ventures.

Students were guided on the steps to protect creative ideas and the process of transforming them into viable startups. The workshop also emphasized the importance of collaborating on innovative projects and utilizing startup support systems.

The resource person highlighted practical pathways to leverage incubation facilities and motivated students and faculty to explore entrepreneurship. Participants gained clarity on converting ideas into ventures and effectively engaging with startup ecosystems.

**Department of Master of Computer Applications** 

# **AUGUST**

### **GUEST LECTURE**

TITLE - "BUILDING RESTFUL API'S WITH SPRING BOOT"

**DEPARTMENT - MCA** 

DATE - AUGUST 2, 2025

TIME - 9:00 AM - 11:00 AM

**BENEFICIARY - II SEM MCA STUDENTS** 

### DESCRIPTION

The Department of MCA organized a guest talk on "Building RESTful APIs with Spring Boot" for II Semester students on Saturday, 2nd August 2025, which witnessed the participation of 44 students. The session was delivered by Mr. V Venkata Sreenivasa Reddy, an experienced full-stack and backend developer with expertise in scalable applications.

He began by introducing REST principles and explaining the importance of APIs in modern software development. Students were guided through setting up a Spring Boot project using Spring Initializr and structuring it with data models, repositories, and service layers. The speaker demonstrated how to create REST endpoints and map HTTP methods like GET, POST, PUT, and DELETE to standard CRUD operations. A live example of building a simple RESTful service was shown to help students connect theory with practice. The talk emphasized best practices for designing efficient and secure APIs while linking the concepts to real-world industry applications.

The event concluded with an interactive Q&A session, where students actively engaged with the speaker, clarifying doubts and exploring further applications of RESTful API development.





**Department of Master of Computer Applications**