MACET MYSTICA

MAULANA AZAD COLLEGE OF ENGINEERING & TECHNOLOGY

EDITORIAL

Independence Day serves as a reminder to rekindle a sense of love and patriotism for our country. It is time to reflect on the importance of freedom and the sacrifices made by those who fought for it. It is also a time to acknowledge the challenges in ensuring equality, justice, and prosperity for all citizens. This might involve committing to work towards a more inclusive society, upholding democratic values, and fostering a bond of unity among diverse communities.

Students should understand their roles and responsibilities as citizens. They should learn about their rights and duties and actively participate in the nation's progress. It's time they should set personal goals for contributing positively to the country's future. So it's important to stay informed about social issues and challenges facing their nation. Working in the direction of bridging gaps between communities and promoting tolerance and understanding is the need of the hour.

Remember, change starts with individuals coming together and taking action.

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SAIMA FARZEEN

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Independence Day Celebrations

Shahid Aziz, Asst. Prof., ECE Department

On the 15th of August, 2023, the campus of **Maulana Azad College of Engineering and Technology (MACET),** Neora, Patna was adorned in patriotic fervor as celebrate India's 77th Independence Day. The air was electric with a sense of unity and pride, as the college celebrated the red letter day to mark the historic occasion.

The morning began with a flag hoisting ceremony, symbolizing the country's freedom and the college's commitment to nurturing responsible citizens. The national anthem reverberated across the campus, instilling a deep sense of patriotism in everyone present. The celebrations highlighted the unity that lies within this diversity, underscoring the essence of **"Ek Bharat, Shrestha Bharat"** – One India, Great India.

The Independence Day celebrations at MACET has always been a spirited reminder of the values, sacrifices, and aspirations that bind us as a nation. The day's events left an indelible mark on the hearts and minds of all participants, reinforcing the importance of unity, freedom, and responsible citizenship. As the sun set on this memorable day, it left behind a renewed commitment to building a stronger, more inclusive India.

FDPs / Research Papers

ECE Department

Mr. Md. Nadeem Enam

- Successfully Completed One week FDP on *"Bio Medical Engineering"* organized by NITTTR Kolkata from 24th July- 28th July 2023.
- Successfully Completed *"Configure virtual machine backups"* conducted by Microsoft, on 9th August 2023.
- Successfully Completed *"Configure storage security"* conducted by Microsoft, on 9th August 2023.
- Successfully Completed *"Configure network routing and endpoints"* conducted by Microsoft, on 9th August 2023.
- Successfully Completed "Microsoft *Azure AI Fundamentals : Explore natural language processing"* conducted by Microsoft on 12th August 2023.
- Successfully Completed "Microsoft *Azure AI Fundamentals : Explore computer vision"* conducted by Microsoft on 12th August 2023.
- Successfully Completed "Microsoft *Azure AI Fundamentals : Explore visual tools for machine learning"* conducted by Microsoft on 12th August 2023.
- Successfully Completed "Designing and implementing a Microsoft *Azure AI Solution"* conducted by Microsoft on 20th August 2023.
- Participated in Webinar on *"Ki-NBA/OBE Software Demo"* organized by Kramah Software Pvt. Ltd. held on 24th August 2023.
- Successfully Completed *"Manage workspaces and datasets in Power BI"* conducted by Microsoft on 29th August 2023.
- Successfully Completed "Get started with Microsoft data analytics" conducted by Microsoft on 29th August 2023.
- Successfully Completed *"Create dashboards in Power BI"* conducted by Microsoft on 29th August 2023.
- Successfully Completed *"Manage datasets in Power BI"* conducted by Microsoft on 29th August 2023.
- Successfully Completed *"Create and manage workspaces in Power BI"* conducted by Microsoft on 29th August 2023.
- Successfully Completed *"Perform analytics in Power BI"* conducted by Microsoft on 12th August 2023.
- Successfully Completed 5 days "National Level Online teachers Training Program" conducted by Association of Muslim Professionals in collaboration with Maulana Azad University (Jodhpur) , from 7th August - 11th August 2023.

Mr. Md. Naushad Akhter

- Participated in the Workshop titled: *" VLSI to System Design: Silicon to End Application Approach"* organized by AICTE from 31st July to 4th August 2023.
- Participated in the Webinar titled: *" Ki-NBA/OBE Software Demo"* organized by Kramah Software India Pvt Ltd. held on 24th August 2023.

Mrs. Meena Prasad

- Participated in the Workshop titled: *" VLSI to System Design: Silicon to End Application Approach"* organized by AICTE from 31st July to 4th August 2023.
- Participated in the Webinar titled*: "Ki-NBA/OBE Software Demo"* organized by Kramah Software India Pvt Ltd. held on 24th August 2023.
- Participated in the Webinar titled: *" Big Data Analytics using Spark "* organized by Centre for Development of Advanced Computing (CDAC) held on 28th July 2023

Mr. Shahid Aziz

- Paper titled *"Enhancing Children's Short Utterance based ASV using Data Augmentation techniques and feature concatenation approach"* has been accepted for publication at the 25th International Conference on Speech and Computer SPECOM-2023 jointly organized by IIT Dharwad and IIIT Hyderabad.

FDPs / Research Papers

Mechanical Engineering Department

One week online FDP Course on *"Bio-Medical Engineering"* from 24th to 29th July, 2023 has been completed by:

- Md Shabbeer Ansari
- Ali Nezam
- Dr. Naushad Hasin Khan
- Md Taslim Raza
- Firoz Alam

Saima Farzeen

- Attended the live webinar on *"Ki-NBA/OBE Software"* held on August 24th , 2023 by Kramah Software India Pvt. Ltd.

Civil Engineering Department

Zeeshan Farooque

- Attended One Week Online FDP on *"Polymer Composites and Nano composites"* organised by NITTR Kolkata from 7th August 2023 to 11th August 2023.

Computer Science & Engineering Department

Zaffar Abbas

- Participated in 5 Days Online International FDP on *"NLP and ChatGPT Applications"* organized by SECAB Institute of Engineering & Technology in collaboration with ExcelR Edtech Pvt. Ltd. from 14th August 2023 to 19th August 2023.

Dr. Md. Sadruddin Ahmad

- Participated in 5 Days Online FDP on *"Bio-Medical Engineering"* organized by NITTR, Kolkata from 24th July 2023 to 28th July 2023.

News Update

New Courses Launched: MCA and Diploma Engineering

✓ Master of Computer Application Course (MCA) will kick- start this year for the Session 2023 . MCA is a two years professional Post Graduate Program for candidates who want to make a fantastic career in the world of Computer Applications. This course is affiliated to Aryabhatta Knowledge University (AKU), Bihar and approved by AICTE, New Delhi, Govt. of India.

✓ Diploma engineering course will kick- start this year for the Session 2023. This course is affiliated to State Board of Technical Education, Bihar and approved by AICTE, New Delhi, Govt. of India. The aspirants willing to pursue a career in Diploma Engineering after 10th will now have the chance to take admission in Diploma in following branches:

- **Diploma in Civil Engineering**
- **Diploma in Computer Science**
- **Diploma in Electrical Engineering**

India Aims for the Moon with Engineers

Rishav, EEE, 2021 Batch

Today is 27th of August and its almost 3 days so far when India got proud for their mission of Chandrayan-3. Its really a great achievement to be a 1st nation across the globe who have touched the moon at his southern pole, so I am writing this article to gain your attention towards how the different department of engineering made this huge moment happen for us.

As we know on August 23, 2023 the successful soft landing of India's mission of chandrayaan-3 has been done on the surface of the moon by the control of Indian Space Research Organisation. In the recent interview ISRO Chief S.Somnath told apart from ISRO there is lots of brain and engineering organisation is working for ISRO to make this mission happen. Tata Consulting Engineers Limited (TCE) has the critical systems and sub-systems engineered by the firm played a pivotal role in the launch of India's third moon mission (Chandrayaan-3) by the Indian Space Research Organisation (ISRO). As the largest Indian private-sector engineering and project management consultancy, TCE has created unique and indigenously built essential systems and sub-systems, tailor-made for space mission launches.

MECON engineer Nishith Kumar, who was a part of this project, said that in the year 1999, MECON got the contract to make a launching pad for rocket launch for ISRO. This was the first time that a launching pad was built to launch a rocket in India. Prior to this, India had no experience in building a launching pad for launching rockets. MECON didn't even have any old references. ISRO gave its requirements and a core team of 50 engineers from MECON under the leadership of S. R. Majumdar of MECON started the work and made the project a success.

The computer and science department also plays a pivotal role in enhancing Chandrayaan-3's lunar mission. Artificial intelligence (AI) is one of the technologies that has been essential to Chandrayaan-3 mission throughout the success. Chandrayaan-3 has greatly improved its planning, navigation, data analysis and overall operating efficiency by utilizing AI-driven technology. Not only have these developments contributed to the lunar mission, but they have also raised the bar for lunar exploration. This article explores how Chandrayaan-3's backed by ISRO mission with previously unheard-of accuracy and efficiency was made possible by AI.

So this effort of engineering organisation and engineers in this huge success of Chandrayan-3 will always inspire our Indians and the engineering community. We should proud to be an Indian as well as Engineers. Hope you like this.

Student's Corner

Summer Internships and Projects

Hosted by Mr. Abhishek Khurana from STUDLENCE on 4th of august 2023

Zaara Tahreem, CSE, 2021 Batch

Introduction: a highly informative and engaging webinar was conducted by the company named "STUDLENCE" on the topic of "Summer Internships and Projects," featuring Mr. Abhishek Khurana as the esteemed speaker. The webinar was aimed at providing valuable insights and guidance to students about making the most of their summer internships and projects.

Mr. Abhishek Khurana is an accomplished professional with over 15 years of experience in the field of human resources and talent development.

Highlights:

1. Importance of Summer Internships: Mr. Khurana began by highlighting the importance of summer internships in a student's academic journey. He emphasized that internships provide students with real-world exposure, helping them bridge the gap between theoretical knowledge and practical application. Through internships, students can gain industry insights, develop essential skills, and build a professional network.

2. Choosing the Right Internship: The speaker provided valuable insights into how students can choose the right internship that aligns with their career goals and interests. He stressed the importance of researching companies, understanding their culture, and evaluating the scope of learning and growth opportunities.

3. Making the Most of Internships: Mr. Khurana shared strategies on how to maximize the learning experience during internships. He advised students to take initiative, seek feedback, and actively participate in various projects.

4. Navigating Summer Projects: The speaker delved into the significance of summer projects, which often go hand-in-hand with internships. He explained that projects allow students to delve deep into specific topics, enhance problem-solving skills, and showcase their creativity.

5. Building a Professional Network: Mr. Khurana emphasized the importance of networking during internships and projects. He shared tips on how students can effectively connect with colleagues, mentors, and industry professionals.

6. Leveraging Internship Experience: The speaker concluded by discussing how students can leverage their internship experience on their resumes and during job interviews. He highlighted the value of showcasing tangible achievements and lessons learned during internships to impress potential employers.

The webinar concluded with an engaging question-and-answer session, where participants had the chance to interact with Mr. Khurana directly. Attendees posed questions about resume building, cover letter writing, remote internships, and more, receiving insightful responses that further enriched the discussion.

Conclusion: The "Summer Internships and Projects" webinar hosted by Mr. Abhishek Khurana provided invaluable guidance to students seeking to make the most of their summer learning experiences. His expertise, practical insights, and interactive approach made the webinar an enriching experience for all attendees. Participants left the webinar equipped with a clearer understanding of how to approach internships and projects to enhance their personal and professional growth.

Student's Corner

What is Ransomware?

Shivangi Gupta, CSE, 2022 Batch

Ransomware is a type of malicious software (malware) that threatens to publish or blocks access to data or a computer system, usually by encrypting it, until the victim pays a ransom fee to the attacker. In many cases, the ransom demand comes with a deadline. If the victim doesn't pay in time, the data is gone forever or the ransom increases. Ransomware is not a virus and it is considered a category of malware, but it does not self-replicate like a virus.

Types of Ransomware:

1. Scareware: This common type of ransomware deceives users by displaying a fake warning message claiming malware has been detected on the victim's computer. These attacks are often disguised as an antivirus solution demanding payment to remove the nonexistence malware.

2. Screen lockers: These programs are designed to lock the victim out of their computer, preventing them from accessing any files or data. A message is typically displayed that demands payment to unlock it.

3. Mobile ransomware: As the name suggests, mobile ransomware targets devices like smartphones and tablets and demands payment to unlock the device or decrypt the data.

4. Ransomware-as-a-service (RaaS): Cybercriminals offer ransomware programs to other hackers or cyber-attackers that use such programs to target victims.

Who Is at Risk?

Any device connected to the internet risks becoming the next ransomware victim. Ransomware scans a local device and any network-connected storage, which means a vulnerable device makes the local network a potential victim. If the local network is a business, the ransomware could encrypt important documents and system files that could halt services and productivity.

If a device connects to the internet, it should be updated with the latest software security patches, and it should have anti-malware installed that detects and stops ransomware. Outdated operating systems such as Windows XP that are no longer maintained are at a much higher risk.

Ransomware Prevention and Detection:

Prevention for ransomware attacks typically involves setting up and testing backups as well as applying ransomware protection in security tools. Security tools such as email protection gateways are the first line of defense, while endpoints are a secondary defense. Intrusion Detection Systems (IDSs) can detect ransomware command-and-control to alert for a ransomware system calling out to a control server. While user training is critical, it's just one of several layers of defense to protect against ransomware. It typically comes into play after the delivery of ransomware via email phishing.

"Ransomware Attacks on the Rise in India: The Need for a Global Culture of Crisis Management".

https://www.isaca.org/resources/news-and-trends/isaca-now-blog/2023/ransomware-attacks-on-the-rise-in-india-the-need-for-a-global-culture-of-crisis-management

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