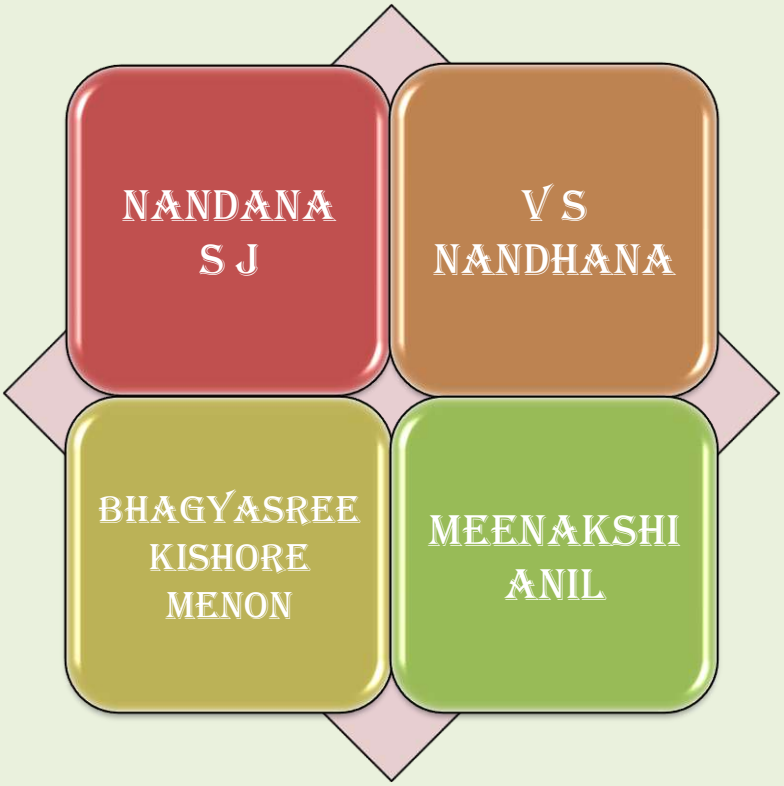
TECHVERSE CHRONICLES

ISSUE 3

NEWS LETTER S3 ERE

Our Members:



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NATIONAL SPACE DAY CELEBRATION

On October 3, LBS Institution of Science and Technology for Women, in collaboration with the Indian Space Research Organization (ISRO), celebrated National Space Day with great enthusiasm and participation from students and faculty. The event aimed to create awareness about space science and technology, highlighting India's remarkable achievements in space exploration, with special emphasis on the Chandrayaan-3 mission and the WESAT mission, a student-led satellite initiative.

OBJECTIVES OF THE EVENT:

1. To inspire and educate students about India's advancements in space technology.
2. To provide a platform for students to showcase their knowledge and creativity in space science.
3. To highlight the significance of the Chandrayaan-3 mission and the WE SAT mission and their contributions to India's space capabilities.
4. To promote career opportunities in the field of space research and exploration.

PROGRAMS CONDUCTED:

1. QUIZ COMPETITION

The space-themed quiz competition was a highlight of the event, where students participated enthusiastically in teams. The questions covered a wide range of topics including:

India's space missions such as Chandrayaan-3, Mangalyaan, and Gaganyaan.

International space programs like NASA’s Artemis and SpaceX missions.

The objectives and success of the Chandrayaan-3 lunar mission.

The competition encouraged students to expand their knowledge and foster a spirit of curiosity about space science. The top-performing teams were awarded certificates and prizes.

2. SEMINARS AND EXPERT TALKS

A series of expert talks were conducted by ISRO scientists and faculty members, providing deep insights into various aspects of space exploration. The key topics covered included:Chandrayaan-3: India’s Historic Lunar Mission – A detailed discussion on the mission's objectives, challenges, and achievements. Chandrayaan-3 successfully demonstrated India’s soft landing capabilities on the Moon's south pole region, advancing India's lunar exploration efforts.The Importance of the WE SAT Mission – A presentation on how the student-led satellite project provides practical experience in space technology.

3. ESSAY WRITING COMPETITION

The essay writing competition encouraged students to articulate their thoughts on India's space exploration efforts. Topics included:

- "The Significance of Chandrayaan-3 in India's Space Odyssey"
- "WE SAT Mission: A Step Towards Student Innovation"
- "India's Role in the Global Space Race"

The competition saw enthusiastic participation, with well-researched essays providing valuable insights and creative ideas. The best essays were awarded and published in the college magazine.

4. SPACE EXHIBITION

A space exhibition was set up to visually engage students with:
Scale models of rockets such as PSLV, GSLV, and the Chandrayaan-3 lander module.
Informational posters detailing Chandrayaan-3's journey, its Vikram lander, Pragyan rover, and scientific experiments conducted on the Moon.
A dedicated section on the WE SAT mission, showcasing how students have contributed to the development of miniaturized satellites for educational purposes.
The exhibition attracted a large number of visitors and provided a hands-on learning experience.

5. INTERACTIVE Q&A SESSION

The interactive session provided students an opportunity to ask questions and seek guidance from ISRO experts regarding:
The scientific findings of Chandrayaan-3 and its impact on future lunar missions.
Career paths in space research and aerospace engineering.
The significance of student-led space projects like the WE SAT mission.
The session was highly informative and helped students clarify their doubts while gaining inspiration to pursue careers in space technology.

THE IMPORTANCE OF CHANDRAYAAN-3 MISSION:

The Chandrayaan-3 mission, launched by ISRO, is a monumental step in India's space exploration journey. The mission successfully achieved a soft landing on the Moon's south pole on August 23, 2023, making India the first country to land in this region.

The mission demonstrated India's technological prowess and self-reliance in space exploration.

PRAYAAG 4.0

PRAYAAG is the annual tech fest organized by Lal Bahadur Shastri Institute of Technology for Women, showcasing the institute's commitment to fostering innovation, technology, and creativity. PRAYAAG, symbolizes the harmonious convergence of our three dynamic associations - CARYATID (Civil), VISTARA (ECE-AEI-ERE), and CODEX (CS-IT). It is a testament to the unity and prowess of LBSITW. This event serves as a platform for students from across the region, tech enthusiasts, and professionals to come together, exchange ideas, and celebrate the advancements in the field of technology.

EVENT HIGHLIGHTS

WORDPRESS WEB DEVELOPMENT

As part of the vibrant Prayaag 4.0 event, the WordPress Web Development workshop was organized to provide a platform for students, developers, and enthusiasts to explore the dynamic world of WordPress. The event combined theoretical insights with a hands-on approach, enabling participants to grasp the fundamentals of web development while putting their skills into practice

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INTRODUCTION TO WORDPRESS

The session began with an engaging introduction to WordPress, led by industry experts and experienced developers. The speakers provided an overview of WordPress, showcasing it as a versatile content management system (CMS) that powers over 43% of the web. Key topics included:

Themes: How to choose and customize themes for various types of websites.

Plugins: The role of plugins in extending functionality, covering popular options for SEO, security, and design.

User Interface: The ease of using WordPress' intuitive dashboard, even for beginners.

The session underscored WordPress' relevance for professionals across industries, whether they're creating blogs, e-commerce sites, or portfolios.

HANDS-ON WEB DEVELOPMENT ACTIVITY

The most exciting part of the event was the hands-on session. Participants were divided into small groups and guided by mentors through the process of:

1. Installing WordPress on a local server.
2. Customizing a Theme to reflect a specific design objective.
3. Adding Content such as posts, pages, and media.
4. Incorporating Plugins to enhance website functionality.
5. Testing and launching their mini-projects in a local environment.

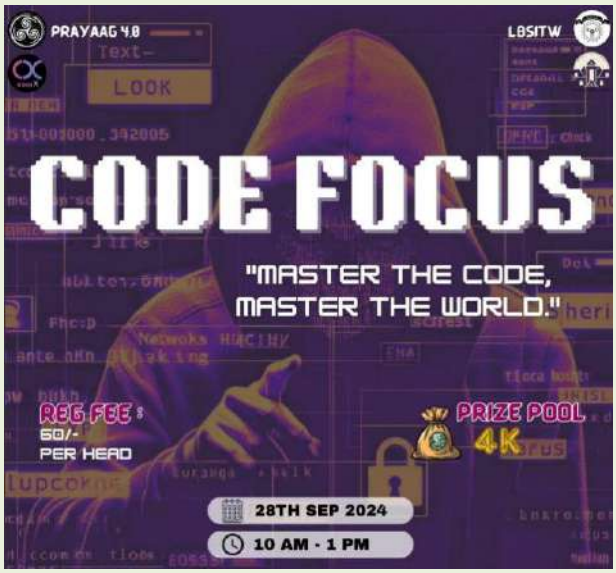
This activity enabled participants to build a fully functional webpage by the end of the session. It provided an opportunity for real-time problem-solving, teamwork, and creativity.

STUDENT FEEDBACK

Participants expressed enthusiasm and satisfaction with the event. A few highlighted reviews include: "The event was very informative. As a beginner, I appreciated how the instructors simplified complex topics." Here are some notable reviews shared by students:

1. Beginner-Friendly Approach:
   "As someone with no prior knowledge of web development, I found the event very beginner-friendly. The step-by-step guidance during the hands-on session helped me build my first webpage, which was an exciting experience."
2. Interactive and Engaging:
   "The event wasn't just a lecture—it was interactive and practical. We got to ask questions, explore tools, and work on real projects. I now feel confident enough to experiment with WordPress on my own."
3. Industry-Relevant Learning:
   "The mentors were very knowledgeable and highlighted how WordPress is used in the industry. Learning about plugins and SEO tools was particularly helpful for understanding how to create professional websites."
4. Collaborative Environment:
   "It was great to collaborate with peers during the activity. We shared ideas and solved challenges together. This teamwork aspect made the learning process even more enjoyable."
5. Motivational:
   "This session has inspired me to delve deeper into web development. I'm planning to create my own blog and portfolio site using the techniques I learned here."The combination of practical exercises, approachable mentors, and real-world relevance left participants motivated and equipped to explore web development further. Students appreciated the event for being both educational and enjoyable.

CODE FOCUS



Code Focus, held on September 28th, 2024, was a two-round programming competition testing technical knowledge and coding skills. In the first round, teams of 2-4 members answered 30 questions on a chosen programming language (C, Java, or Python) within a time limit. Qualifying teams proceeded to the second round, where they solved one of three coding problems using any preferred language, evaluated on logic, approach, and code completion. My team, using C programming, cleared the first round but was outperformed in the second round by a senior team from SCT College, who solved all three problems. Despite the loss, the event was a challenging and rewarding experience, enhancing our teamwork and programming skills.

CIPHER DETECT

Cipher Detect, held on September 29th, 2024, was a three-stage event combining technical problem-solving with mystery-solving skills. Teams of 3-4 participants tackled challenges requiring logical reasoning, coding proficiency, and collaborative effort. The first round began with decoding a Morse code, solving a crossword puzzle, and analyzing the victim's diary for clues to identify potential suspects. The second round tested participants' technical abilities with four coding challenges, which provided additional clues upon completion. In the final round, teams revisited the murder scene to gather new evidence, decrypted a password from a laptop's background display, and connected it with earlier clues to identify the victim's wife and stepdaughter as the culprits. Despite our team solving all challenges and uncovering both killers, we narrowly lost to the winning team, Simply Detectives. The event highlighted the importance of teamwork, analytical thinking, and technical precision, making it an engaging and intellectually stimulating experience.

ROBOHIVE 2.0 WORKSHOP

ABOUT LBSITW ROBOTICS CLUB

The Robotics Club of LBSITW is a vibrant hub for innovation and creativity, bringing together passionate students who are keen on exploring the fascinating world of robotics and automation. The club's primary objective is to foster an environment that encourages women to develop their robotic skills, learn new techniques, and work collaboratively on robotic projects. The club provides a collaborative platform for members to learn, design, and build robots while fostering technical expertise and problem-solving skills. Regular workshops, hackathons, and hands-on projects ensure that students gain practical experience and stay updated with cutting-edge technologies in robotics. With a strong emphasis on teamwork and innovation, the Robotics Club empowers its members to participate in national competitions, pushing the boundaries of their capabilities. It serves as an inspiring space where ideas come to life and future engineers thrive.

ABOUT THE WORKSHOP

The Robotics Club of LBSITW organized an engaging and informative two-day workshop, mentoring participants through hands-on activities and introducing them to key concepts in the world of robotics and 3D printing. The workshop, led by **Arun K. Narayanan (CEO, RAGEBOTZ), marked the *first-ever Robowar workshop in Kerala**, and covered a wide range of topics, starting with design tools and ending with an exciting RoboWar.

DAY ONE:

The first day kicked off with an introduction to ***AutoCAD**, where participants learned the fundamentals of designing objects digitally. The focus was on creating personalized keychains, a practical project that allowed students to grasp the concepts of 2D design. After the design phase, the participants were introduced to the basics of ***3D printing**, with the highlight being the 3D printing of their designed keychains. By the end of the workshop, everyone had their own unique, 3D-printed keychain, a tangible result of their newly acquired skills.

DAY TWO:

The second day began with an exciting session on building **AntBots**. The attendees were divided into teams and each group worked together to assemble their own AntBot. These tiny robots were designed to mimic the movements of ants, providing participants with a fun, collaborative experience while learning the principles of robotics. By the end of the session, all teams successfully created their AntBots, fostering a sense of accomplishment and teamwork. The final session of the workshop was an introduction to drones. The mentors brought drones for a live demonstration, showcasing the potential of aerial robotics. Students were given the opportunity to interact with the drones and observe their capabilities in flight. The workshop's climax was the Robowar, where the AntBots built by each team faced off in a friendly but competitive battle. This thrilling contest tested the participants' engineering and programming skills, showcasing their learning in a fun and engaging way.

HIGHLIGHTS:

- **First Robowar Workshop in Kerala**, featuring hands-on robotics experiences.
- **AutoCAD and 3D Printing** sessions where participants designed and printed custom keychains.
- **Building AntBots** in teams, learning real-world robotics principles.
- **Robowar Competition**, where AntBots battled in a fun and competitive event.
- **Drone Demonstration** showcasing aerial robotics in action.
- Focus on practical learning in robotics, 3D printing, and drone technology.

CONCLUSION:

Overall, the workshop was a fantastic learning experience, blending theory with practical application in the fields of design, 3D printing, robotics, and drone technology. Participants walked away with new skills, greater confidence, and a deeper interest in pursuing robotics further. **Arun K. Narayanan's** mentorship was invaluable, ensuring that all participants received expert guidance throughout the event. The Robotics Club, with the leadership of Arun K. Narayanan, successfully created an engaging and educational environment for all attendees.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

VISION

To become a centre of excellence in Electronics, Communication, Instrumentation and Computer Engineering to facilitate professional education and research keeping higher level of value systems.

MISSION

M1: To transform young women to high quality engineers, entrepreneurs and researchers with ethical values.
M2: To contribute creative engineering solutions to industry by keeping pace with latest technological advancements.
M3: To provide intellectual services to the society by the application of Electronics, Communication, Instrumentation and Computer Engineering.

VISION AND MISSION OF LBSITW

VISION

To become a center of academic excellence that empowers women in the technical domain

MISSION

Imparting value based technical education for transforming young women to professionals excelling globally in academics, research & development and industry meeting societal challenges.