

# Newsletter by ECE (2022-2026)

*Inspired by*

# WESAT

LBS INSTITUTE OF TECHNOLOGY FOR WOMEN POOJAPURA



# Newsletter Team Members



Abhirami AS

Adheena VS

Akila V Uday

Ameenamol S

Ananthi R

Angel JS

Anishma AR

Arya Sanker S

Vaishnavi RB

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# Introduction:

Welcome to the latest edition of our monthly newsletter ! "Wesat" .  
We're excited to share with you some exciting updates and news from our college.

We the students of Electronics and Communication Engineering Department (2022-2026) , LBS Institute of Technology for Women , Poojapura, presents you a  
Newsletter Inspired by WESAT.

WESAT, short for 'Women Engineered SATellite', is billed as the country's first satellite to be designed fully under the supervision of women.

And also about Prayaag 3.0, the annual tech fest organized by LBS Institute of Technology for Women, showcasing the institute's commitment to fostering innovation, technology, and creativity.

Dear readers, be a part of focusing on the remarkable achievements of colleagues and discovering their inspiring stories and effective initiatives.

# WESAT : FIRST EVER ALL WOMEN TEAM DEVELOPED SATELLITE BY AN INSTITUTE

**W**ESAT (Women Engineered Satellite), developed by LBSITW, is a groundbreaking project, initiated by the Space Club of our institute. **WESAT is India's First Satellite Payload developed by a Women only Institute led by an all-women team and is also the First Student Satellite from the Govt. Of Kerala.** The purpose of WESAT is to measure UV radiations in space and on earth's surface and their influence on the warm temperatures and climate change phenomena in Kerala. This pioneering effort, entirely managed by a team of women, is a testament to gender equality and innovation. Overcoming challenges including the pandemic, the project collaborated with VSSC, ISRO, IN-SPACE, Dept. of Space culminating in ISRO's approval of the launch scheduled for November 2023. The anticipated launch of WESAT holds the promise of yielding invaluable insights into atmospheric warming and health risks, specifically focusing on Kerala.

The WESAT project was born out of a collective passion for space exploration and the allure of a women-only space endeavor. The team was captivated by the potential of contributing to space research and understanding the impact of UV radiation. The project's goal aligned perfectly with the desire to make a positive difference in society and set a unique milestone in the field of aerospace engineering.

## **The Mission:**

The satellite project, WESAT (Women Engineered Satellite) has been in progress in our college for the past four years. It is the first satellite led by an all-women institute. The satellite will be used to study the effect of ultraviolet radiation on Kerala and help the state better prepare for the effects of climate change.



## Understanding the WESAT Satellite's Mission:

In simple terms, WESAT is designed to study the effects of UV radiation on Earth, with a special focus on the Indian state of Kerala. The primary mission objective is to understand the UV radiation intensity above and below Earth's atmosphere. This research is vital for a variety of reasons.



## Government Partnership:

MoU signed with VSSC, ISRO, IN-SPACE, Dept. of Space and Govt. of India for launching WESAT in the upcoming PSLV mission. WESAT's collaboration with esteemed organizations like the Indian Space Research Organisation (ISRO) and IN-SPACE is a testament to the project's legitimacy. The team sent a proposal to ISRO, which was approved after several discussions. This collaboration ensures the successful execution of their mission. The project received funding from the central government through DST Nidhi Prayas scheme and from the state government via Kerala Startup Mission. WESAT has received 30 lakhs funding from the Government of Kerala along with Kerala Startup Mission.

## Pioneering Achievement:



**In an all-women feat, LBS In-** **Satellite built by all-wor**  
**to design satellite to study u** **team set to begin sojourn**

**The Hindu Bureau**  
**THE HYDARABAD**

The students of the Lal Bahadur Shastri Institute of Technology for Women here are building a small satellite to study ultraviolet radiation and its impact.

If everything falls into place, WESAT, short for Women Engineered Satellite, will be launched aboard a Polar Satellite Launch Vehicle (PSLV) of the Indian Space Research



All women team: LBS Institute's space club members outside the ground receiving station of the WESAT project.

This year, a project of the institute's Space Club, the "nanosatellite" weighing 1

**వెబ్ డిజైన్** (Web Design) పేరున...

WESAT (Women Engineered Satellite) అనేది ఒకటిగా మారిన మహిళా అంతరిక్షాధిపతులు. ఇది ఒకటిగా మారిన మహిళా అంతరిక్షాధిపతులు. ఇది ఒకటిగా మారిన మహిళా అంతరిక్షాధిపతులు.

ఈ ఏడాది, ఇన్ స్టిట్యూట్ యొక్క స్పేస్ క్లబ్ సభ్యులు ఒకటిగా మారిన మహిళా అంతరిక్షాధిపతులు. ఇది ఒకటిగా మారిన మహిళా అంతరిక్షాధిపతులు.

Our institute is proud to be the first institute in Kerala and the only women institute in India to accomplish this milestone. Our project has garnered extensive media coverage in a multitude of prestigious newspapers (The Hindu, The Indian Express, Malayala Manorama, Vasundhara etc.) and telecasted on prominent TV as well as YouTube channels (Asianet, Manorama, ETV Bharat, etc.).

## Conclusion:

WESAT, the Women Engineered Satellite, represents a milestone in space technology and gender equality. This ambitious project, led by an all-female team of engineers, has demonstrated the remarkable capabilities of women in aerospace engineering. Beyond the technical achievements, WESAT's commitment to education and empowerment serves as a source of inspiration for women and girls around the world. Through dedication, collaboration, and innovation, WESAT is shedding light on the impact of UV radiation and changing the narrative in space exploration.

## Payload:





**Team WESAT at Sathish Dhawan Space Centre,  
SHAR, Sriharikota.**

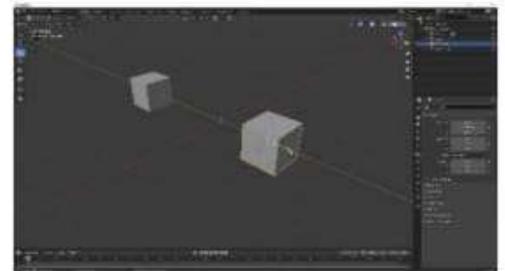
# PRAYAAG 3.0



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. This event serves as a platform for students, tech enthusiasts, and professionals to come together, exchange ideas, and celebrate the advancements in the field of technology.

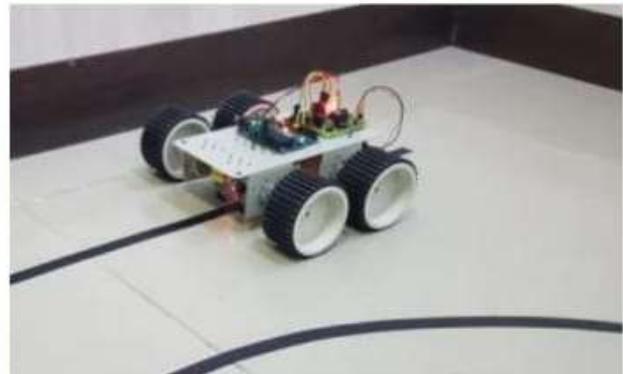
## Event Highlights

### Workshop on blender



The hands-on workshop on Blender software provided participants with a comprehensive and interactive learning experience. Attendees engaged in practical exercises and demonstrations, gaining valuable insights into the various features and functionalities of Blender. The workshop covered fundamental concepts such as 3D modeling, texturing, animation, and rendering, allowing participants to develop a solid understanding of the software's capabilities. Instructors guided participants through step-by-step processes, fostering a hands-on approach that enabled them to create their own projects. The workshop emphasized creativity and problem-solving, encouraging participants to explore the diverse applications of Blender in the realm of digital art and design. Overall, the event proved to be a dynamic and immersive learning opportunity for individuals looking to enhance their skills in 3D content creation using Blender.

## Workshop on Line follower Robot



The hands-on workshop on line follower robots was an engaging exploration into the world of robotics and automation. Participants delved into the intricacies of designing, building, and programming robots capable of following a designated path autonomously. The workshop commenced with a brief introduction to the fundamental concepts of robotics and sensor technologies. Participants then got their hands dirty, assembling the line follower robots using provided kits that included motors, sensors, and microcontrollers. Guided by experienced instructors, attendees learned to program the robots to interpret sensor data and make decisions to stay on the designated path. The practical aspect of the workshop allowed participants to troubleshoot and refine their robots in real-time. The collaborative environment encouraged participants to share insights and problem-solving strategies, fostering a sense of teamwork. The culmination of the workshop involved testing the line follower robots on a predefined course, where each participant's creation navigated through twists and turns, showcasing their programming and design prowess. By the end of the session, participants not only had a functional line follower robot but also a solid understanding of robotics principles and practical skills in designing autonomous systems. The hands-on workshop left attendees inspired and ready to explore further applications of robotics in diverse fields.

*Conclusion:*

# VISION AND MISSION OF THE INSTITUTION

## Embarking Excellence



### VISION

To be a center of academic excellence empowering women in the technical domain. To surpass competitions with confidence and build successful careers for themselves, setting an example for the society.

### MISSION

To become a center of excellence in electronics, communication and instrumentation to facilitate professional education and research keeping higher the level of value systems. To provide intellectual services for society and industry by application of electronics, communication and engineering