



Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
(Deemed to be University)
Maduravoyal, Chennai - 600 095. Tamilnadu, India.
(An ISO 9001-2015 Certified Institution)



MGR ASSOCIATION FOR GREAT INNOVATIVE CREATORS

Department of Electronics and Communication Engineering

Event Title	Technical Talk on " Satellite Sensors: Technologies and Real-World Applications"		
Objective of Event	To create awareness about satellite sensors and their role in modern science and technology, highlighting applications in communication, navigation, environmental monitoring, and space research.		
Chief Guest /Speaker Details	Dr.Kalpana Arvind, Scientist, Associate director, LEOS (ISRO)		
Date	22/08/2025	Time	10.00 AM to 12.00 PM
Venue	University Auditorium	No. of Participants	200

REPORT

TITLE

Technical Talk on " Satellite Sensors: Technologies and Real-World Applications"

CONTENT

The Department of Electronics and Communication Engineering and the ECOMET Association successfully organized a technology talk on "Satellite Sensors and their Applications" on 22nd August 2025. The objective of the event was to create awareness about the role of satellite sensors in modern science and technology and to highlight their wide-ranging applications in communication, navigation, environmental monitoring, and various other space-related fields.

The session began with a welcome address by Dr. S. Deborah, who emphasized the significance of emerging space technologies in shaping the future. Dr. D. Viswanathan, our Rector, motivated the student fraternity by discussing the emerging space activities undertaken by our country and our university. He encouraged students to actively participate in the various initiatives of our university, including the development of CubeSat and CanSat satellites.

This was followed by the keynote presentation delivered by Ms. Kalpana Arvind, Associate Director (Retd.) of the Laboratory for Electro-Optics Systems, ISRO Bengaluru, and an expert in designing sensors for Indian National Satellites such as the INSAT-2 series, Chandrayaan-1, 2, and 3, and the Mars Orbiter Mission. She provided an in-depth overview of satellite sensors, their types (sun sensors,



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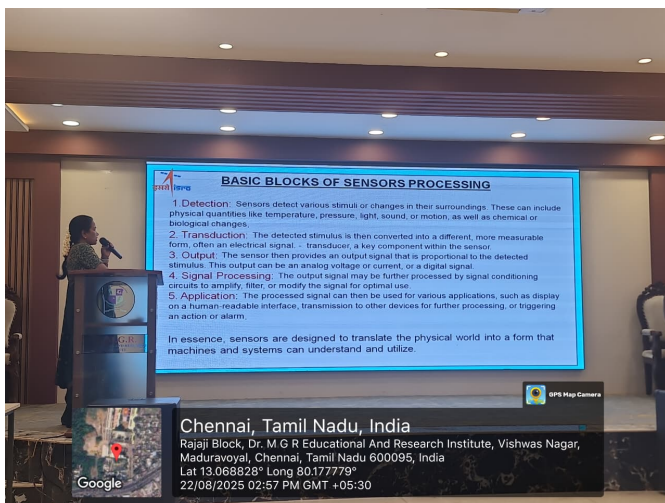
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geostationary sensors, star sensors, optical, infrared, microwave, and multispectral sensors), and explained how these sensors function in capturing vital data from the Earth's surface and atmosphere.

The session concluded with an interactive question-and-answer segment, where students and faculty members clarified their doubts regarding sensor accuracy, data processing, and future trends prospects in satellite-based research. The event ended with a vote of thanks by Dr. U. Jayalathsumi, Head of the Department, who appreciated the resource person for sharing her valuable insights and the participants for their enthusiastic involvement.

The event was successfully organized under the guidance of Dr. U. Jayalathsumi, Head of the Department, and coordinated by Dr. M. Kumaresan, Professor (ECE), and Dr. S. Deborah, Professor (ECE). The technology talk provided a deeper understanding of the crucial role satellite sensors play in addressing global challenges and advancing technological development.

The Department sincerely thanks our Honorable President for his continuous support and extends special thanks to our Rector, Dr. D. Viswanathan, and all the executives for their unwavering encouragement in making this event a success.



EVENT OUTCOME

The session enhanced participants' understanding of various satellite sensors, their working principles, and applications, inspiring students and faculty to explore research and innovation in space science and satellite technology.

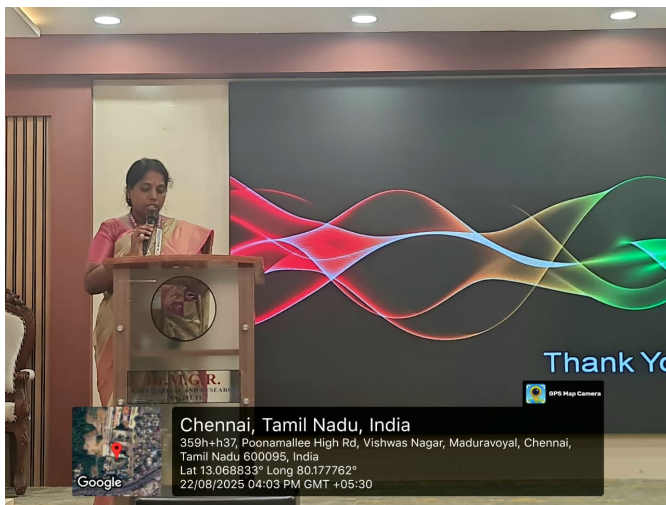


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PHOTOS



Dr. M. Kumaresan/Dr. S. Deborah