



**RV College of
Engineering®**

CENTRE OF EXCELLENCE CENTRE OF SENSOR TECHNOLOGY APPLICATIONS (CSTA)

**ESTABLISHED AND FUNDED BY
Rashtreeya Sikshana Samithi Trust (RSST)**

The Centre of Sensor Technology and Applications (CSTA) at RV College of engineering, Bengaluru, India, was established in September 2022 to support academic and research programmes in Sensor's fabrication and their integration. The centre has established a strong collaboration with experts from academia, research organization and industries related to this area. The CSTA was launched, since currently many systems are being automated and the role of the Sensors is vital to develop any robotics / agriculture / biomedical / IoT / AIML and industrial automation applications.

Focus Areas

The centre has the state-of-the-art facilities for Sensor's fabrication and their characterization to develop various applications, using appropriate processor/controller modules.

A) PRODUCT DEVELOPMENT & CONSULTANCY –

1. Designed and developed Sensor and its applications kits for various institutions
2. Designed and developed IoT applications kits for various institutions.
3. Designed a touch-free hand sanitizer dispenser.
4. Developed Color Sorting Device for the IEM Department at RVCE.
5. Executed an industry project with Samsung on IoT and energy-saving, using people activity tracking via computer vision.
6. Executed the WIRIN consultancy project delivering three key systems for autonomous
7. vehicles: Tyre Pressure Monitoring System (TPMS), a Smart Braking System for electric
8. vehicles, and a real-time battery temperature monitoring system.



B) INTERNSHIPS & WORKSHOPS - Conducted Internships for students and workshops for both UG/PG students and faculties of various institutions.

Photographs of Internship conducted for students





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C) RESEARCH – The research centre is dedicated to advancing sensor technology for environmental monitoring, IoT applications, and pollution reduction. By developing cutting-edge sensors for air, water, and soil quality monitoring, the centre aims to provide real-time data on pollutants and contaminants, which is crucial for effective environmental management.

Achievements

Amount generated by Product Development 18.75 Lakhs	Amount generated by Consulting Projects 10.72 Lakhs	Amount generated by Internship 7.84 Lakhs
Papers Published 5	Conference Publications 2	No of Patents Granted 3

FACILITIES @ CSTA

The CSTA centre having

1. 42 Analog and Digital sensors and 11 Actuators
2. 20 Arduino uno, 20 Node MCU and 15 raspberry pi Kits
3. 20 robotics development Kits
4. Wiring and soldering setup
5. Having interdisciplinary team members.

CURRENT RESEARCH THEMES

The research in sensor technology explores advanced material systems tailored for gas, electrochemical, and optical sensing applications. By innovating with conjugated polymers, polymer nanocomposites, and functional nanoparticles, the studies aim to achieve high sensitivity, selectivity, and stability across diverse sensor platforms

For further details contact:

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