



Rajarajeswari College of Engineering

(An Autonomous Institute Under Visvesvaraya Technological University, Belagavi)

Sponsored by: MOOGAMBIGAI CHARITABLE AND EDUCATIONAL TRUST



Department of Robotics and Automation

Report on Technical Talk on “Introduction to Rubber Technology and Polymer Nanocomposites”

1. Type Event : Technical talk on “Introduction to Rubber Technology and Polymer Nanocomposites”
2. Name of the resource person : Dr. Jobish Johns,
Professor, Department of Physics,
Rajarajeswari College of Engineering
3. Date of event : 16th April 2025
4. Time : 10:15 am to 11.45 pm
5. Programme Co Coordinator :Dr.M.KARTHIKEYAN,
Dy. CoE and Professor
Department of Robotics and
Automation
RajaRajeswari College of Engineering
6. Semester :04th Semester, Robotics and
Automation
7. Summary of Programme :

1. **Understanding of Rubber Types and Properties**

Participants will be able to differentiate between natural and synthetic rubber and explain their mechanical and chemical properties.

2. **Insight into Rubber Processing Techniques**

Gain knowledge on key rubber processing methods such as mastication, mixing, vulcanization, and molding.

3. **Awareness of Common Additives and Fillers**

Understand the role of fillers like carbon black, silica, and plasticizers in enhancing rubber performance.

4. **Introduction to Polymer Nanocomposites**

Learn the basic structure, components, and significance of nanocomposites in polymer science.

5. **Applications of Rubber and Nanocomposites in Industry**

Explore real-world applications in automotive, aerospace, healthcare, and electronics.

6. **Improved Knowledge of Mechanical and Thermal Properties**

Learn how nanofillers affect the strength, flexibility, and thermal stability of rubber materials.



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7. Familiarity with Characterization Techniques

Introduction to tools such as SEM, TEM, TGA, DSC, and FTIR used to analyze rubber and nanocomposite structures.

8. Awareness of Recent Research Trends




Insight into ongoing developments and innovations in sustainable and high-performance rubber materials.

9. Environmental and Sustainability Aspects

Understand the challenges of rubber waste and the development of eco-friendly polymer nanocomposites.

10. Skill Development for Future Research and Industry Roles

Build foundational knowledge useful for careers or higher education in materials science, chemical engineering, and polymer technology.



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An Autonomous Institution
Under VTU - Belagavi, Approved by AICTE, UGC & GoK
No. 14, Ramohalli Cross, Kumbalagodu, Mysore Road, Bengaluru - 560074

DEPARTMENT OF ROBOTICS AND AUTOMATION
Organizing Seminar on
'Introduction to Rubber Technology and Polymer Nanocomposites'



16.04.2025
10:15 am to 11:45 am
Venue:
Dr. A.P.J. Abdul Kalam Hall
RRCE Campus

Resource Person
Mr. Jobish Johns
Professor
Department of Physics
Rajarajeswari College of Engineering
Bengaluru-74

Visit us:
www.rrce.org

Technical Talk poster

Campus: #14, Ramohalli Cross, Kumbalagodu, Mysore Road, Bengaluru – 560074

Phone: +91-80-28437124 / 28437375

Email Id: hodra@rrce.org

Website: <https://www.rrce.org>



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Department of Robotics and Automation



Programme Coordinator Dr.M.KARTHIKEYAN introduce Dr.Jobish Johns to the students of 4th sem Robotics and Automation



Resource person Dr. Jobish Johns presenting the talk

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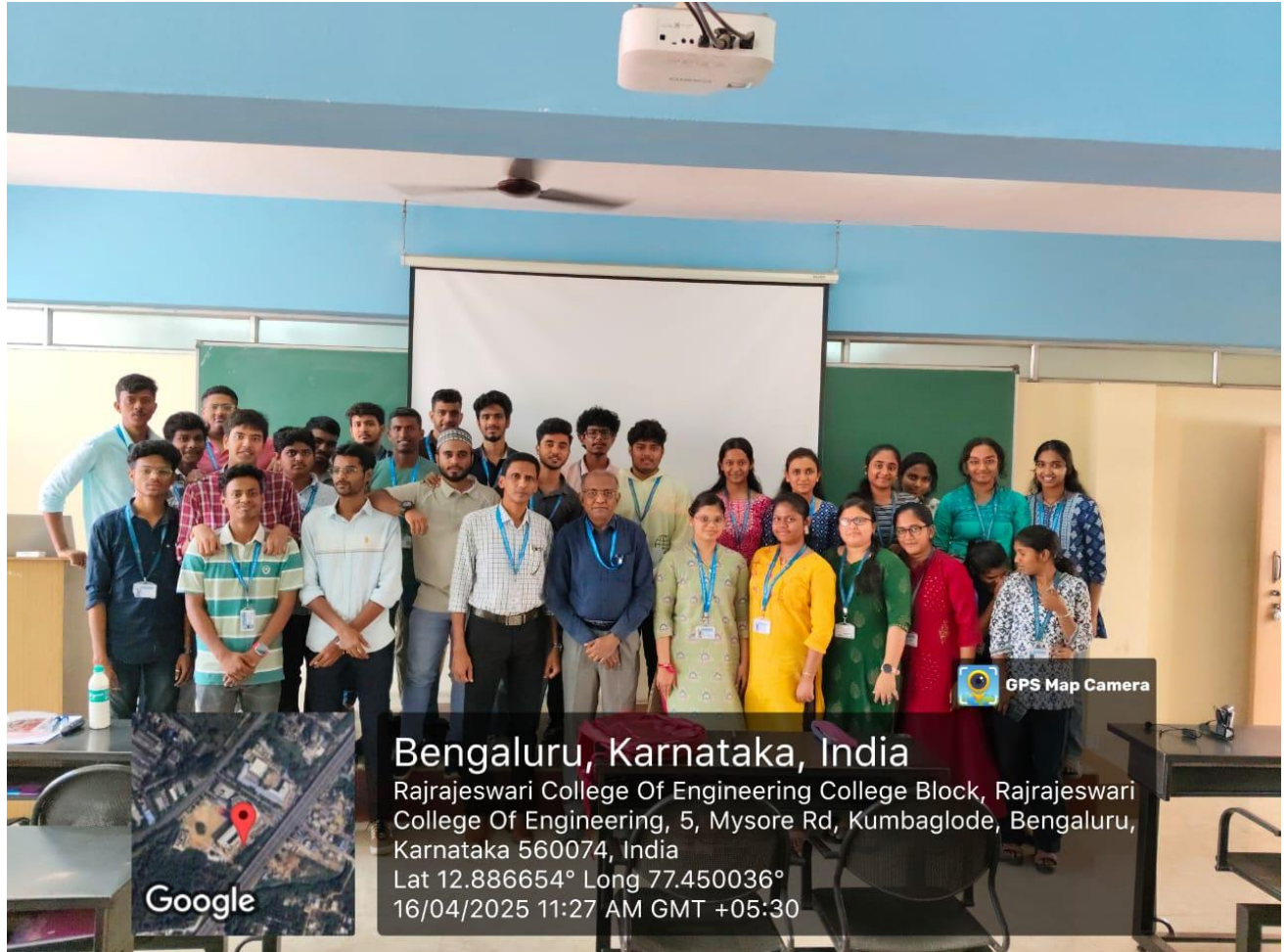


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Department of Robotics and Automation



Students of 4th sem Robotics and Automation are with Programme Coordinator Dr.M.KARTHIKEYAN and the resource person Dr.Jobish Johns

-Report prepared by
Dr.M.KARTHIKEYAN,
Dy. CoE and Professor
Department of Robotics and Automation
Rajarajeswari College of Engineering