

Civil Connect

Vol-8, Issue-1, Jun-2025

Department of Civil Engineering



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It is a privilege to present the current issue of the Bi-Annual Newsletter of the Department of Civil Engineering. This publication highlights the key academic, technical, and co-curricular activities undertaken during the past six months.

The newsletter captures departmental events such as workshops, seminars, expert lectures, industrial visits, student projects, faculty achievements, and outreach activities. These initiatives reflect our commitment to providing quality technical education and practical exposure to our students. Such contributions not only enhance communication skills but also foster confidence, creativity, and professional growth.

I sincerely thank all students, faculty members, and the editorial team for their valuable contributions and continuous support in bringing out this issue successfully. Their dedication and teamwork strengthen the academic culture of the department.

Let this newsletter inspire us to pursue excellence, innovation, and responsibility in shaping the built environment for a better tomorrow.

Published by

Department of Civil Engineering

Gandhi Institute of Advanced Computer and Research, Rayagada

Message from the Principal



It is truly heartening to witness the Civil Engineering Department of our college publishing its bi-annual newsletter, a testament to the department's vibrant academic culture and forward-thinking initiatives. The branch of Civil Engineering continues to make noteworthy contributions to emerging domains such as autonomous civil vehicles, renewable energy systems, and sustainable infrastructure development.

The evolving landscape of science and technology underscores the pivotal role of Civil engineers in shaping a resilient and innovative future. In response to these dynamic challenges, the department has proactively introduced a range of measures aimed at equipping students with the skills and mindset needed to thrive in this transformative era.

This bi-annual newsletter serves as a reflection of the department's commitment to excellence, showcasing key activities, achievements, and initiatives that foster academic growth, technological advancement, and societal impact.

Message from the Head



Greetings!

I am delighted to witness the launch of the Department of Civil Engineering's newsletter—a vibrant platform that fosters connection among students, faculty, and stakeholders by showcasing the department's dynamic activities and achievements.

This edition proudly highlights the Project Expo and the ongoing Research and Development initiatives, reflecting the innovative spirit and academic rigor of our department. It also features the commendable contributions of our faculty members and the best practices that continue to elevate the standards of Civil Engineering education.

I extend my heartfelt congratulations to all the students and faculty of the Civil Engineering Department for their dedication and collaborative effort in bringing out this newsletter. May it continue to inspire excellence and strengthen our academic community.

Vision and Mission of the Institution

Vision

To become a globally recognized, value-driven educational institution committed to excellence in delivering quality education, nurturing students' inherent talents, and developing innovative professionals in technical and managerial fields, thereby equipping them to meet the future challenges of the global economy.

Mission

M1: To deliver quality education through effective teaching–learning processes that foster academic excellence in technical and managerial disciplines.

M2: To nurture students' inherent talents by encouraging creativity, critical thinking, innovation, and lifelong learning.

M3: To develop competent and ethical professionals with strong values, leadership skills, and social responsibility.

M4: To promote industry-oriented learning and research through collaboration, practical exposure, and adoption of emerging technologies.

M5: To prepare globally competitive graduates capable of adapting to evolving challenges and contributing effectively to the global economy.

Vision & Mission of Department of Civil Engineering

Vision

To emerge as a center of excellence in civil engineering education, delivering globally relevant knowledge and developing ethically strong engineers dedicated to building the nation.

Mission

M1: To provide strong foundational and advanced knowledge in civil engineering and technology through effective teaching–learning processes.

M2: To inculcate ethical values and professional responsibility among students to develop socially responsible engineers.

M3: To promote practical learning and industry interaction through fieldwork, internships, and real-world projects.

M4: To encourage innovation, research, and sustainable engineering practices addressing global and societal needs.

M5: To prepare competent civil engineers capable of contributing effectively to infrastructure development and national growth.

Program Outcomes (POs)

- 1. Basic and Discipline specific knowledge:** Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
- 2. Problem analysis:** Identify and analyses well-defined engineering problems using codified standard methods.
- 3. Design/ development of solutions:** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
- 4. Engineering Tools, Experimentation and Testing:** Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
- 5. Engineering practices for society, sustainability and environment:** Apply appropriate technology in context of society, sustainability, environment and ethical practices.
- 6. Project Management:** Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- 7. Life-long learning:** Ability to analyse individual needs and engage in updating in the context of technological changes.

Program Educational Objectives

PEO1: To impart science-based engineering education to develop professional skills that will prepare the students for immediate employment in relevant branch of civil engineering in industry.

PEO2: To develop human potential to its fullest extent so that intellectually capable and creatively gifted leaders can emerge in range of professions.

PEO3: To develops among students the awareness of and the competence to be savvy users of information technology.

PEO4: To develop among students the ability to work with others, in professional and social settings.

PEO5: To develop a global view among students so that they can appreciate diversity in the world and in intellectual pursuits and the desire and ability to keep learning throughout life.

Programme Specific Outcome

PSO1: Apply principles of mechanics and basic sciences to analyze civil engineering structures. Survey, map, measure and analyze data for sustainable infrastructure planning.

PSO2: Ability to enhance research skills and utilize advanced computing tools for analysis, design and implementation of these systems for resolving real life / social problems.

PSO3: To prepare plan, drawings, estimates, reports and execute all Civil Engineering projects by applying modern construction techniques, equipment and software's which will equip them to complete the project in the stipulated time and cost.

Industrial Visit to IMFA, Therubali

The Department of Civil Engineering organized an industrial visit to Indian Metals & Ferro Alloys Ltd. (IMFA) on 15th January, 2025, Therubali, to provide students with practical exposure to large-scale industrial construction and infrastructure management. IMFA, a leading producer of ferro alloys, has extensive civil structures such as industrial sheds, power plants, storage facilities, and residential townships.



During the visit, students observed various civil engineering applications, including foundation design, structural framing, water treatment systems, and road network layouts within the plant premises. The site engineers explained the use of reinforced concrete, steel structures, drainage systems, and maintenance of industrial buildings. Students also learned about quality control in construction materials, safety standards, and project management practices followed in an operational industrial environment.

This visit helped bridge the gap between classroom learning and field implementation, enhancing students' understanding of industrial civil works and infrastructure planning. The exposure encouraged them to apply theoretical concepts in real-world engineering contexts and inspired them to pursue careers in industrial and construction project management.

Webinar on Safe and Trusted AI



A webinar on **Safe and Trusted AI** was successfully conducted on 11/02/2026 for the students and faculty members. The session was delivered by Dr. G. Sunil Kumar from the Department of Electronics, Raghu Engineering College, Andhra Pradesh. The objective of the webinar was to create awareness about the responsible development and deployment of Artificial Intelligence systems.

Dr. Sunil Kumar elaborated on the importance of safety, reliability, transparency, and ethical considerations in AI technologies. He discussed key aspects such as data privacy, bias mitigation, explainable AI, robustness of models, and the role of governance frameworks in building trust in AI systems. Real-world examples were presented to illustrate the potential risks of unregulated AI applications and the necessity of implementing safeguards.

The session was highly informative and interactive. Participants actively engaged in discussions and raised queries regarding AI ethics, security challenges, and future career opportunities in the AI domain. The webinar provided valuable insights into the emerging landscape of trustworthy AI and encouraged students to adopt responsible practices while working with advanced technologies.

Village Cleanliness Drive



A Village Cleanliness Drive was organized on 20/02/2025 at Tumbiguda by the students of the Civil Engineering Department. The initiative aimed to promote awareness about hygiene, sanitation, and environmental responsibility among the local residents. The students actively participated in cleaning public areas, roadsides, and community spaces by collecting plastic waste, debris, and other non-biodegradable materials. They also interacted with villagers to emphasize the importance of maintaining a clean and healthy environment to prevent diseases and improve overall quality of life.

The drive was conducted with great enthusiasm and teamwork. Students demonstrated social responsibility and practical leadership skills while contributing to community welfare. The event not only helped in improving the cleanliness of the village but also instilled a sense of civic duty among the participants. Such activities reflect the department's commitment to sustainable development and community engagement beyond classroom learning.

Alumni Meet – 2021 Pass-out Students (Department of Civil Engineering)

The Department of Civil Engineering, GIACR Rayagada, organized an **Alumni Meet** for the **2021 batch of Diploma students** on 23rd February, 2025 to reconnect with their alma mater and share their professional experiences. The event aimed to strengthen the bond between alumni and the department while creating a platform for interaction between current students and former graduates.



The program began with a welcome address by the **Head of the Department**, followed by an inspiring speech from the **Principal**, highlighting the importance of alumni engagement in academic and institutional growth. Alumni shared their journey in the field of civil engineering, discussing their experiences in construction companies, government projects, and higher studies. Their insights into **practical field challenges, career opportunities, and skill development** were highly beneficial for the students.

The event concluded with a felicitation ceremony and a vote of thanks, expressing gratitude to all participants. The Alumni Meet served as a memorable and motivating occasion, fostering a sense of belonging and continued collaboration between the department and its graduates.

Expert Talk by Er. P.J. Murali on Construction Engineering

The Department of Civil Engineering, GIACR Rayagada, organized an **expert talk by Er. P.J. Murali** on 3rd March, 2025, a **retired civil engineer** with vast experience in government and private construction projects. The session aimed to enhance students' understanding of **construction engineering practices, project management, and field applications**.



Er. Murali shared his valuable insights on topics such as **foundation design, quality control in concrete works, material selection, and structural safety**. He emphasized the importance of **site supervision, adherence to building codes, and sustainable construction methods** in modern civil engineering. The talk also covered real-life case studies from his professional career, illustrating how theoretical concepts are applied in actual project execution.

Students actively interacted with the expert, asking questions related to **career opportunities, project handling, and new technologies** in construction. The session inspired students to focus on practical learning, discipline, and professional ethics.

The program concluded with a vote of thanks by the Head of the Department, appreciating Er. Murali's contribution to enriching students' technical knowledge. Overall, the expert talk was highly informative and motivational, bridging the gap between academic learning and industry practices.

Celebration of Graduation Day



Graduation Day was celebrated with great enthusiasm and pride on 12th March 2025 in the Conference Hall of GIACR Rayagada. The occasion marked a significant milestone for the 2024 pass-out students, as they were formally awarded their original degree certificates in the presence of faculty members and dignitaries.

The event was graced by the Revered Director of GIACR, Sri Govind Prasad Rath, whose inspiring presence added dignity to the ceremony. In his address, he congratulated the graduates on their academic achievements and encouraged them to uphold professional ethics, dedication, and lifelong learning in their respective careers. He emphasized the importance of technical competence, discipline, and social responsibility in shaping a successful professional journey.

Faculty members extended their heartfelt wishes to the graduating students and appreciated their hard work and perseverance throughout their academic tenure. The atmosphere was filled with joy, pride, and nostalgia as students received their degrees and shared memorable moments with their teachers and peers.

The celebration concluded with a vote of thanks, expressing gratitude to the Director, faculty members, and organizing team. Graduation Day served as a proud moment for the institution, reflecting its commitment to academic excellence and student success.

Prototype Presentation



On 26th March 2025, the students of the Civil Engineering Department presented their design projects before the esteemed expert Prof. Sidharth Panda from Veer Surendra Sai University of Technology (VSSUT), Burla. The presentation session was organized to provide students with an opportunity to showcase their technical knowledge, design skills, and practical understanding of civil engineering concepts.

The students presented detailed design solutions covering structural analysis, transportation planning, environmental considerations, and cost estimation. Each group explained their methodology, design assumptions, calculations, software applications used, and adherence to relevant codes and standards. Prof. Panda carefully evaluated the presentations and provided valuable feedback on improving design accuracy, sustainability aspects, and professional documentation practices.

The expert emphasized the importance of integrating theoretical concepts with practical field requirements and encouraged students to focus on innovative, economical, and environmentally responsible solutions. The interactive session enabled students to clarify their doubts and gain deeper insights into real-world engineering challenges.