

# *Civil Connect*

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## 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.

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**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**

- M<sub>1</sub>:** To deliver quality education through effective teaching–learning processes that foster academic excellence in technical and managerial disciplines.
- M<sub>2</sub>:** To nurture students' inherent talents by encouraging creativity, critical thinking, innovation, and lifelong learning.
- M<sub>3</sub>:** To develop competent and ethical professionals with strong values, leadership skills, and social responsibility.
- M<sub>4</sub>:** To promote industry-oriented learning and research through collaboration, practical exposure, and adoption of emerging technologies.
- M<sub>5</sub>:** 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, equipments and software's which will equip them to complete the project in the stipulated time and cost.

**Independence Day Celebration at GIACR Rayagada by Diploma Civil Engineering Department**

The Department of Civil Engineering, GIACR Rayagada, proudly celebrated the **Independence Day** with great enthusiasm and patriotic spirit on 15/08/2023. The event commenced with the hoisting of the national flag by the Principal, followed by the national anthem that echoed a sense of pride and unity among all. Faculty members, staff, and students of the Diploma Civil Engineering Department actively participated in the celebration.



Students presented patriotic songs, speeches, and cultural performances highlighting the sacrifices made by the freedom fighters and the importance of national integrity. The department also organized a **poster and slogan writing competition** on the theme “*Nation Building through Infrastructure Development*”, showcasing the role of civil engineers in modern India.

In his address, the Head of the Department emphasized the responsibility of young engineers in contributing to sustainable infrastructure and rural development, aligning with the vision of a self-reliant India. The event concluded with a vote of thanks and distribution of sweets among the participants.

The celebration fostered a sense of unity, respect, and commitment among the students to serve the nation through their technical skills and dedication as future civil engineers.

## **Celebration of Fresher's Day at GIACR Rayagada**

The Fresher's Day celebration at GIACR Rayagada was held on 22/08/2023 with great enthusiasm and joy to welcome the newly admitted students into the institution. The event served as a platform for freshers to showcase their talents and interact with seniors, promoting friendship, harmony, and a sense of belonging. The programme commenced with the lighting of the ceremonial lamp and an inspiring address by the Principal, who encouraged students to strive for excellence and uphold the values of GIACR.



Various cultural events, including songs, dances, skits, and games, were performed by students, creating an atmosphere of excitement and celebration. The much-awaited "Mr. and Ms. Fresher" contest added charm and thrill to the event, as participants displayed confidence and creativity. Faculty members and senior students played an active role in organizing and coordinating the event smoothly.

The celebration concluded with a vote of thanks, followed by a DJ and refreshment session where everyone participated with great enthusiasm. The day left behind beautiful memories for the newcomers, marking the beginning of their academic journey at GIACR Rayagada with warmth, joy, and motivation for a bright future.

## **Industrial Visit to Kolab Dam by Diploma Civil Engineering Students of GIACR Rayagada**

The Department of Civil Engineering, GIACR Rayagada, organized an industrial visit to Kolab Dam, located near Jeypore on 17<sup>th</sup> September 2023 to provide practical exposure to the diploma students. The visit aimed to bridge the gap between theoretical learning and real-world engineering applications. Under the guidance of faculty members, the students observed various structural and hydraulic features of the dam, including the spillway system, sluice gates, powerhouse, and reservoir layout.



The engineers at the site explained the design principles, construction techniques, and maintenance aspects of the dam, highlighting the role of civil engineers in large-scale water resource projects. Students also gained insights into the importance of hydropower generation, irrigation management, and flood control mechanisms associated with the dam.

The visit offered a valuable learning experience, enhancing the students' understanding of surveying, concrete technology, and structural engineering concepts. It also encouraged them to appreciate the integration of civil engineering in sustainable infrastructure development. The trip concluded with an interactive session where students shared their observations and clarified technical doubts. Overall, the industrial visit to Kolab Dam was highly informative and enriching, contributing significantly to the practical learning experience of the Civil Engineering students of GIACR Rayagada.

## **Blood Donation Camp at GIACR Rayagada**

A **Blood Donation Camp** was organized at **GIACR Rayagada** on 2<sup>nd</sup> October 2023 with the aim of promoting humanitarian values and social responsibility among students and staff. The event was jointly coordinated by the college in collaboration with the **District Headquarters Hospital, Rayagada**. The camp witnessed enthusiastic participation from faculty members, non-teaching staff, and students from various departments.



The program was inaugurated by the Principal, who highlighted the importance of voluntary blood donation in saving lives and serving society. Medical officers and technicians from the hospital conducted thorough health check-ups of donors before collection to ensure safety and hygiene. The Diploma Civil Engineering students actively participated in mobilizing volunteers and assisting in the smooth conduct of the event.

A total of more than **80 units of blood** were collected during the drive, which will be used for patients in need of emergency care. The donors were provided with certificates and refreshments as a token of appreciation for their noble contribution.

The event successfully created awareness about the significance of regular blood donation and reflected the institution's commitment to community welfare, compassion, and social responsibility among the youth of GIACR Rayagada.

## Avoid Polyethene Awareness Programme



The Department of Civil Engineering organized an Awareness Programme on “Avoiding the Use of Polythene” on 1st September 2023 at Halua Village, located about 10 km away from Rayagada town. The programme was conducted with the objective of educating rural communities about the harmful effects of polythene and promoting eco-friendly alternatives.

Students and faculty members actively participated in the event and interacted with the villagers to spread awareness about environmental protection. The team explained how excessive use of polythene causes soil pollution, blocks drainage systems, contaminates water bodies, and poses serious health hazards to both humans and animals. Demonstrations were given on the use of cloth bags and biodegradable materials as sustainable substitutes.

Pamphlets highlighting the importance of reducing, reusing, and recycling were distributed among the villagers. The students also encouraged the community to adopt responsible waste management practices and avoid burning plastic waste, which releases toxic gases into the atmosphere.

The villagers responded positively and expressed their willingness to minimize the use of polythene in their daily lives. The programme not only created environmental awareness but also strengthened the bond between the institution and the local community, reflecting the department’s commitment to social responsibility and sustainable development.

## Seminar on Recent Trends in Civil Engineering



A seminar on “Recent Trends in Civil Engineering” was organized by the Department of Civil Engineering on 15th September 2023. The session was delivered by Dr. P. Dinakar from NIST University, Berhampur. The seminar aimed to expose students to the latest advancements and emerging technologies in the field of civil engineering.

Dr. Dinakar highlighted innovative developments such as sustainable construction practices, green building technologies, smart materials, advanced surveying techniques, and the application of artificial intelligence in infrastructure planning. He emphasized the importance of adopting eco-friendly construction methods to minimize environmental impact and ensure long-term sustainability.

The speaker also discussed career opportunities in modern civil engineering domains and encouraged students to focus on research, skill development, and practical knowledge. The interactive session allowed students to clarify their doubts and gain valuable insights into industry expectations.

The seminar proved to be highly informative and inspiring, enhancing the technical knowledge of students and motivating them to stay updated with current trends in the rapidly evolving civil engineering sector.