

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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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.

Orientation Programme of Diploma Civil Engineering at GIACR Rayagada

An **Orientation Programme** for the newly admitted students of **Diploma Civil Engineering** was organized at **GIACR, Rayagada**, on 01/08/2022 to welcome the fresh batch and introduce them to the academic environment of the institute. The event began with a warm welcome address by the Head of the Department, highlighting the importance of civil engineering in nation building and infrastructure development. Faculty members introduced themselves and briefed the students about the course structure, laboratory facilities, and departmental activities.



The programme aimed to familiarize the students with institutional rules, academic ethics, and co-curricular opportunities available on campus. Motivational talks were delivered by senior faculty members, encouraging students to develop technical knowledge, communication skills, and professional discipline. The orientation also included interactive sessions where students could clarify their doubts regarding the curriculum and career prospects in civil engineering.

The Principal of GIACR, in his address, emphasized the value of hard work, innovation, and teamwork in achieving academic excellence. The programme concluded with a vote of thanks, expressing gratitude to all participants for their active involvement. The orientation created a positive learning atmosphere and inspired the newcomers to begin their academic journey with enthusiasm and commitment.

Independence Day celebration at GIACR Rayagada

The Independence Day celebration at GIACR Rayagada was observed with great patriotism and enthusiasm on 15th August 2022. The event began with the hoisting of the National Flag by the Principal, followed by the singing of the National Anthem by all faculty members, staff, and students. In his address, the Principal highlighted the sacrifices of freedom fighters and emphasized the importance of youth participation in nation-building.



Students from different departments, including Diploma Civil Engineering, presented patriotic songs, speeches, and cultural performances that reflected the spirit of freedom and unity. The campus was decorated with tricolour flags and posters showcasing India's rich heritage and achievements since independence. Various competitions such as essay writing, painting, and quiz on India's freedom struggle were also organized to mark the occasion.

The celebration concluded with the distribution of sweets among all participants. The event not only instilled patriotic fervour among the students but also inspired them to contribute positively to the progress of the nation. The Independence Day celebration at GIACR Rayagada truly reflected the college's commitment to nurturing responsible and patriotic citizens for a better tomorrow.

Teachers Day Celebration



The Teachers' Day Celebration was organized by the students of the Department of Civil Engineering on 5th September 2022 with great enthusiasm and respect. The programme was arranged to honor and express gratitude to the teachers for their dedication, guidance, and continuous support in shaping the future of students.

The celebration began with a warm welcome to the Principal and faculty members. The students shared their thoughts and expressed heartfelt appreciation for the invaluable contribution of teachers in both academic and personal development. A special cake-cutting ceremony was conducted by the Principal in the presence of faculty members and students, symbolizing respect and unity. The atmosphere was filled with joy and appreciation as everyone participated in the celebration.

Students also organized short cultural performances and delivered speeches highlighting the importance of teachers in society. The event created a strong bond between teachers and students and reinforced mutual respect. The celebration concluded with a vote of thanks, making the occasion memorable and meaningful for all present.

Swachh Bharat Programme of Diploma Civil Engineering at GIACR Rayagada

The **Swachh Bharat Programme** was organized by the **Department of Diploma Civil Engineering, GIACR Rayagada**, on 2nd October, 2022 as part of the nationwide initiative to promote cleanliness and environmental awareness among students and society. The event began with an inspiring address by the Head of the Department, emphasizing the importance of cleanliness in ensuring public health, sustainable infrastructure, and civic responsibility.



Students and faculty members actively participated in cleaning the college campus and nearby surroundings. They collected plastic waste, removed litter, and planted saplings to enhance greenery in the area. The activity not only encouraged teamwork but also instilled a sense of social responsibility among the participants. Posters and banners highlighting the message of “Clean India, Green India” were displayed to spread awareness among the local community.

A brief talk was conducted to educate students about waste management techniques, recycling methods, and the importance of maintaining hygiene in daily life. The Principal appreciated the efforts of the Civil Engineering Department for their initiative in supporting the Swachh Bharat Mission. The programme concluded with a pledge by students and staff to keep their surroundings clean and to contribute towards building a cleaner, healthier nation.

Students Achievement in District Level “Chaiti Festival”

Students of GIACR Rayagada brought pride to the institution by achieving remarkable success in the District Level “Chaiti Festival” held in Rayagada on 10th December 2022. The festival, organized by the District Cultural Department, aimed to promote local art, culture, and youth talent. Students from various departments, including Diploma Civil Engineering, actively participated in multiple events such as folk dance, song, debate, rangoli, and art competitions.



Their outstanding performances earned several prizes, showcasing the students’ creativity, discipline, and dedication. The folk-dance team of GIACR secured the first position for their energetic and culturally rich performance depicting Odisha’s traditional heritage. Similarly, students won accolades in debate and painting competitions, highlighting their all-round capabilities beyond academics.

The Principal and faculty members congratulated the winners for their achievements and encouraged other students to take part in such cultural activities to enhance their overall personality. The success of GIACR students in the “Chaiti Festival” not only brought honour to the institution but also strengthened its reputation as a centre for nurturing technical excellence along with cultural values. Their participation truly reflected the vibrant spirit and talent of the youth of GIACR Rayagada.

Expert-talk by Prof. P. Dinakar on Recent Trends in Civil Engineering in Online Mode

The Department of Diploma Civil Engineering at GIACR Rayagada organized an **online expert talk** in the topic “**Recent Trends in Civil Engineering**” on 17/12/2022 by **Prof. P. Dinakar**, a renowned academician and researcher in the field. The main objective of the session was to enlighten students about the latest developments, innovative materials, and sustainable construction technologies that are shaping the future of civil engineering.



Prof. Dinakar discussed emerging topics such as the use of geopolymers concrete, self-healing materials, green building concepts, and the integration of Artificial Intelligence and Building Information Modelling (BIM) in construction management. He emphasized the importance of adopting eco-friendly practices and advanced technologies to meet the growing infrastructure demands while ensuring sustainability.

The session was conducted in an interactive online mode, allowing students to engage actively through questions and discussions. Prof. Dinakar also shared real-world examples and research insights, motivating students to focus on innovation and technical excellence.

The event concluded with a vote of thanks by the Head of the Department, appreciating Prof. Dinakar's valuable contribution and encouraging students to stay updated with modern engineering practices. The expert talk proved to be an enriching experience, enhancing students' knowledge and inspiring them toward a future of smart and sustainable civil engineering.