

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.

Celebration of Fresher's Day at GIACR Rayagada

The Fresher's Day celebration at GIACR Rayagada was organized with great enthusiasm to welcome the newly admitted students into the GIACR family on 10th September, 2024. The event aimed to create a friendly bond between the seniors and freshers, fostering a sense of unity and belonging among all. The program began with a formal inaugural session, where the Principal, HODs, and faculty members addressed the students, motivating them to excel in academics, discipline, and extracurricular activities.



The cultural segment of the program was filled with vibrant performances, including songs, dances, skits, and games that showcased the creativity and talent of the students. The highlight of the event was the “Mr. and Ms. Fresher” contest, which brought excitement and joy to the audience. Various fun activities and interactive sessions added to the festive atmosphere.

The event concluded with a vote of thanks followed by a DJ session, where students danced and celebrated together, marking the beginning of a new journey. Overall, the Fresher's Day celebration was a grand success, filled with energy, enthusiasm, and the true spirit of togetherness at GIACR Rayagada.

Celebration of Engineers' Day by the Civil Engineering Department

The Civil Engineering Department of GIACR commemorated Engineers' Day on 15th September, 2024 with great enthusiasm and reverence, honouring the legacy of Bharat Ratna Sir Mokshagundam Visvesvaraya. The program commenced with a formal inauguration ceremony, graced by esteemed dignitaries including Chief Guest Er. Jhuna Panda, Guest of Honour Sri Govind Prasad Rath, Director of GIACR, and Principal Dr. Pratap Chandra Mishra.

The event began with the ceremonial lighting of the lamp, invoking the blessings of Goddess Saraswati, the embodiment of wisdom and learning. This auspicious start set a tone of inspiration and intellectual pursuit for the day's proceedings.

Each distinguished guest shared insightful reflections on the significance of Engineers' Day, emphasizing the pivotal role engineers play in shaping society through innovation, resilience, and dedication. Their words encouraged students to uphold the values of integrity and excellence in their professional journey.

To mark the occasion, the department organized a paper presentation competition, providing a platform for budding engineers to showcase their research, creativity, and problem-solving skills. Topics ranged from sustainable infrastructure to emerging technologies in civil engineering. A quiz competition followed, testing participants' technical knowledge and fostering a spirit of healthy academic rivalry.

The celebration not only honoured the contributions of engineers but also inspired students to pursue excellence and innovation in their field. The event concluded with a vote of thanks, expressing gratitude to all participants, guests, and organizers for making the day memorable



and meaningful.

Study Visit to Public Works Department (PWD), Rayagada by 3rd Semester Civil Engineering Students

As part of its commitment to experiential learning, the Civil Engineering Department of GIACR organized a study visit for the 3rd semester diploma students on 17th October, 2024 to the Public Works Department (PWD), Rayagada. The visit aimed to bridge the gap between classroom learning and real-world engineering practices by exposing students to ongoing construction activities and infrastructure development projects.

During the visit, students had the opportunity to observe a range of civil engineering works undertaken by the department, including road construction, building foundations, drainage systems, and structural reinforcements. The site engineers and officials at PWD provided valuable insights into project planning, execution, quality control, and safety measures adopted during construction.

This hands-on exposure allowed students to understand the practical applications of theoretical concepts such as surveying, material testing, load distribution, and site management. It also highlighted the importance of coordination among various stakeholders in delivering public infrastructure efficiently and sustainably.

The visit proved to be a rich learning experience, enhancing the students' technical knowledge and sparking curiosity about the challenges and innovations in civil engineering practice. It also instilled a sense of professional responsibility and inspired them to contribute meaningfully to the field in the future.

The department extends its sincere gratitude to the officials of PWD Rayagada for their support and hospitality, and looks forward to organizing more such field visits to enrich the academic journey of its students.



Cleanliness Drive at Barijhola Village

The Department of Civil Engineering, in collaboration with the Green Energy Club, organized a Cleanliness Drive at Barijhola Village on 08 September 2024. Located just 2 km from the college campus, the village was chosen for its significance in promoting sustainable living and environmental awareness.

The event commenced at 7:00 AM and concluded by 10:00 AM, with 30 enthusiastic student volunteers actively participating in the initiative. The drive focused on preserving the village environment through waste collection, sanitation awareness, and community engagement.

Volunteers also conducted interactive sessions to educate residents on energy conservation practices, aligning with the Green Energy Club's mission to foster eco-conscious habits. The initiative not only contributed to the cleanliness of the village but also strengthened the bond between the institution and the local community. The department extends its appreciation to all participants for their dedication and spirit of service.

Photo of Cleanliness Drive

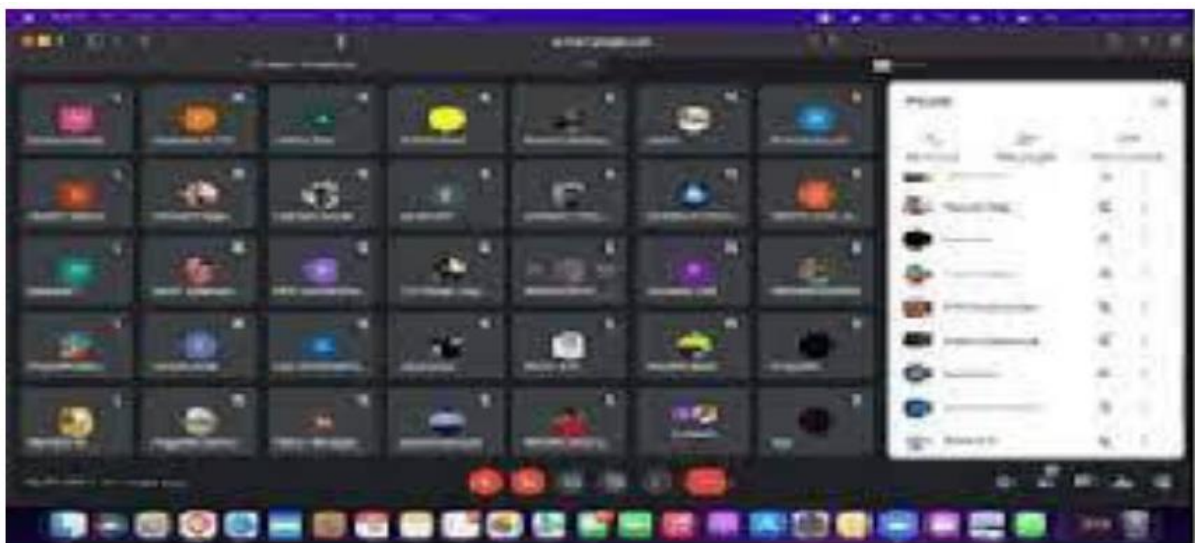


Expert Talk on Emerging Trends in Civil Engineering

The Department of Civil Engineering at GIACR successfully organized an insightful expert talk on *Recent Trends in Civil Engineering*, on 7th November, 2024 by Dr. Narayan Tiyadi, a distinguished professor from the Department of Civil Engineering, Maharaja Institute of Advanced Computing and Research, Bhubaneswar. Conducted in online mode, the session was thoughtfully curated for diploma engineering students, aiming to broaden their understanding of cutting-edge developments shaping the civil engineering landscape.

Dr. Tiyadi shared valuable perspectives on evolving construction technologies, sustainable infrastructure practices, smart materials, and the integration of digital tools such as BIM (Building Information Modelling) and GIS (Geographic Information Systems). He emphasized the growing importance of resilience in structural design, environmental considerations in urban planning, and the role of civil engineers in addressing global challenges like climate change and resource optimization.

The session provided students with a platform to engage with contemporary innovations and encouraged them to align their academic pursuits with industry expectations. It also highlighted the significance of continuous learning and adaptability in a rapidly transforming professional environment. The department remains committed to fostering such enriching interactions to prepare students for future-ready careers in civil engineering.



Blood Donation Camp



A Blood Donation Camp was successfully conducted on 5th December at GIACR Rayagada. The camp was organized with the objective of promoting humanitarian values and creating awareness about the importance of voluntary blood donation. Students, faculty members, and staff participated enthusiastically in this noble cause.

A team of medical professionals supervised the entire process, ensuring proper health check-ups and adherence to safety protocols before and after donation. The donors were guided throughout the procedure, and necessary precautions were taken to maintain hygiene and comfort. In total, 43 units of blood were successfully collected during the camp.

The event reflected the spirit of social responsibility and community service among the participants. Such initiatives not only contribute to saving precious lives but also encourage young individuals to actively engage in activities that benefit society. The camp concluded with words of appreciation for all donors and organizers who made the event a success.