



DEPARTMENT OF CIVIL ENGINEERING

MAGAZINE





Department Vision

To be centre for quality education and research in diverse area of civil engineering, and provide service to nation in terms of nurturing Civil Engineers with a strong social commitment. Department Mission

To nurture Civil Engineering professionals by providing strong
fundamentals and technical skills in civil engineering through effective
teaching - learning Methodologies.
To articulate research learning by dissemination of diverse areas of civil
engineering in practical applications and undertake professional
consultancy services.



Programme Educational Objectives (PEOs)

PEO1: Graduates will demonstrate how to apply fundamental principles of civil

engineering to solve engineering problems.

PEO2: Graduates will work effectively as individuals and as part of

interdisciplinary teams with a sense of social responsibility

PEO3: Graduates shall excel in recent advancements in industry and accomplish

professional competence



Program Outcomes

Civil Engineering Graduates will be able to:

PO 1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. PO 3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.



PO 5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent

and life-long learning in the broadest context of technological change.



PROGRAMME SPECIFIC OUTCOMES (PSOS)

PSO1: Apply and develop basic concepts of civil engineering by inculcating the best practices for solving real time

problem through feasible solution and to specialize in various academics.

PSO2: Ability to provide interdisciplinary skill to meet the social needs through civil engineering and to develop successful professional career along with strong technical, communication and presentation skill.

PSO3: To apply experimental knowledge, analysis, interpretation of data and information to Civil Engineering problems.

FOUNDER'S MESSAGE

Shri.K.NEELA MARTHANDAN CHAIRMAN ROHINI College of Engineering and Technology

I am very glad to know that the students of the Department of CIVIL are bringing out a magazine to throw light on the activities and achievements of their department. Such activities among the students will enhance their communication skills, technical skills, innovative thinking and knowledge as well. I congratulate the students of department of CIVIL for taking up this task and I wish all the students of CIVIL can have a great future which is ahead.

Livic'19

MANAGING DIRECTOR'S MESSAGE Dr.N.NEELA VISHNU MANAGING DIRECTOR ROHINI College of Engineering and Technology

It is a great pleasure for me that our CIVIL Engineering department is releasing magazine "LIVIC". As the Managing Director of Rohini College of Engineering and Technology, I feel proud about it. We have taken an oath that we will develop RCET to world class standard and provide an overall development to all the students. We march towards that goal. We are happy that the students of RCET are properly shaping up, facilitating us to meet our goal. I wish all success to the CIVIL students.





PRINCIPAL'S MESSAGE

Dr.R.RAJESH PRINCIPAL ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY

It is a great pleasure for me that our CIVIL Engineering department is releasing a magazine. The magazine is presenting a glimpse of the growth of the institution on many fronts. The essential purpose of a magazine is to inform, engage, inspire and entertain a diverse readership - including alumni, parents, students, faculty, staff and other friends of the college - by telling powerful stories that present a compelling, timely and honest portrait of the college and its extended family. This magazine has made an earnest attempt in this direction and brought out certain aspects of the college to the eyes of the public so that they may understand and know the college even better. The college has been simply unstoppable in its progress as it has been actively involved in various activities that have brought to light the hidden talents of the college students and staff. The highly qualified and dedicated members of staff have always stood shoulder with the management and have carried out their duties with a level of commitment. This magazine has recorded achievements of staff members and students of CIVIL Department, competitions won by the hugely talented CIVIL students, innovative projects carried out by CIVIL students with the guidance of CIVIL staff, among others. They stand as a witness to the monumental efforts taken by the management to make the college a centre of excellence in education and research. I wish the management, CIVIL staff and CIVIL students of the college success in their future Endeavor's.





Livic'19



Head of Department's Message Dr.J.Sahaya Ruben HOD /civil Rohini College of Engineering and Technology

I am highly elated and proud to announce that our department of CIVIL is inaugurating the LIVIC Magazine Edition. As our CIVIL department acts as a pioneering department in preparing students to completely globally in their profession and to reach the pioneer levels of in intellectual attainment. I deem that the LIVIC Association and symposium will trigger the talents of the students and kindle the light of innovation and technology. It's a fact that we constant updating to establish ourselves in this revolving dynamic world. I express my heartful and sincere thanks to all conveners, colleagues and student is who are the backbone of this endowers. I am happy and wish the technical symposium as well as the release of magazine a grand success.



EDITORIAL MESSAGE

It is an occasion of immense pleasure for the Department of CIVIL Engineering to publish the E- magazine "LIVIC". The Editorial board of department of LIVIC wants to thanks all the faculty members and students who have made this issue a success by providing an article . This magazine focuses on the recent trends evolved in the field of CIVIL engineering & wants to provide advanced knowledge and awareness among the students about the same. The Editorial board also wants to thanks the Management of the Institute and Head of the department for inspiring us to go forward in publishing this magazine.

Editorial Board

Prof.N.SUTHAN KUMAR (Editor in chief)) Prof.A.ANANTH (Associate Editor)

A National Level Technical Symposium "LIVIC 2019"

Department of Civil Engineering organised LIVIC'19 on 25th February 2019 for the students to showcase their technical soundness. Er. A. Bino Das, President and Er. K. Ganesh Kumar, Ex President, Civil Engineers Association of Kanyakumari dist has been invited as the Chief Guest for the event. Receiving the dignitaries for the Inauguration to the "The Grand Arena". The event started at 10.30 AM with prayer song with august presence of Board of the directors, Heads of the department, Event Coordinator Prof. Sudan. The events such as Paper Presentation, CAD Contest, Code Cracking, Brick Tricks, Model Making and Photography were held as a part of the Symposium. Several committees were formed inclusive of Editorial, Event Management, Registration, Technical, and Financial and Miscellaneous committees and were headed by faculty members under the guidance of Prof. Sudan, Event Coordinator of LIVIC 2019.

Livic'19





Chief Guest Er. A. Bino Das, President addressed the gathering stating few tips for the Engineering Professional Life. He also emphasised the importance of Civil engineering in connection towards all the other branches in the field of Engineering. "Civil Engineering is the Mother of all the other Branches in Engineering", said Er. K. Ganesh Kumar



Actor Harrish Kalyan graced the Valedictory Function of "LIVIC 2019". The winners of the competition were awarded with merit certificate. Participation certificates were also given to all the participants. Student of Civil Engineering, Event Organizer thanked the board of Directors, office bearers for making this event grand success.

Industrial Training/ Internship undergone by Students

During summer vacation, students are permitted to undergo training in reputed industries/companies to get practical exposure to latest technologies. It helps the students to relate theory and its application to real world engineering problems.



Sl. No	Year	Name of the Student	Period	Name of the Industry
1	IV	AmalKrishna Vijesh C.S Abdul Ahad A	24/06/2019 to 29/06/2019	Confident Projects (India) Pvt. Ltd.
2	IV	Akshaya Leo G.	03/06/2019 to 29/06/2019	Urc Construction (P) Ltd.

SEMINARS/WORKSHOPS ATTENDED BY FACULTY

SL.NO	Name of the faculty	Event Participated	Venue	Duration
1.	Dr.J,SahayaRuben	FDP	MACET	2
2.	Mr.Magesh Kumar	FDP	IIT Mumbai	7







GUEST LECTURER ON CIVIL ENGINEERING

Guest lecturer was organized by Dept. of Civil Engineering, Dr.Bharathi, Tamilnadu Pollution Control Board inaugurated the event and delivered a thought provoking speech on Study Of Recycling Industrial Effluent, The Environment friendly Construction, Recycling and Reuse Of Building Waste to the students.



The session was made more fruitful. He shared his experience and the opportunities available for the the Environment friendly Construction, Recycling and Reuse of building Waste to the students. She insisted the students on acquiring skills in order to sustain in this competitive world.

PROJECT CARRIED OUT BY BRIGHT STUDENTS IN INDUSTRIES

S.No	Name of the Student	Title of the project	Industry Name
1.	Prathibha P P Matharasi A Anjali Venu Kumar Suji Reena S	Experimental study on self stabilization using lime and fly-ash	RK Construction





Paper Published by bright Students along with Faculty

Students excelling in academics are collaborated with faculty to carry out paper publication in various forum.

S.No	Name of the author	Title	Name of the Conference
1.	Dr.J.Sahaya Ruben Sabari C Sajil S Sooraj S Sarath Krishna L	Water resource management for rural development	International Conference Career Research Education Alliance Training & Entrepreneurship

Association of Civil Engineers:

A special guest Er.P.Gopal, MBA, FIV Rtd. Special CHIEF Engineer, PWD was invited for the inauguration of Association of Civil Engineers was held on 18th July 2019 at Rohini college of Engineering and Technology.

The chief guest delivered a technical talk on Industrial Expectations from Academic Institutions. His talk highlighted about some practical examples on how an organization was bridging the gap between science and disaster risk reduction in different regions of the world.





Lectures by Industrial Experts

Sl.No.	Industrial Expert	Title of the Lecture	
	Er.Subash,		
1	Educad, Nagercoil.	Stadd pro	
2	Mr.Selva raj, Triocad, Nagercoil.	Revit Architechure	



List of Awards won by bright Students

S.No	Name of the Student	Organization	Awards / Recognitions Received by Students
1	SUJIBADEVI V	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
2	ΑΤCHAYA V Κ	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
3	BALA SOWBARNIKA P	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
4	NISHA G	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
5	MARY PUSHPAM V	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
6	BALA SOWBARNIKA P	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination



Industrial Visits

The department is associated with various government, quasi-government and private industries in the field of Civil Engineering. Our students visit these companies to get a practical exposures to current work practices.

Sl.No.	Year	Date of Visit	Place of Visit	Scope of Visit
1	Π		Munnar Dam & Kochin Harbour	Dam and harbour structures are included in the civil engineering curriculum.





Performance of FRP-confined reinforced concrete columns

External confinement by fibre reinforced polymers (FRPs) is now a widely implemented technique to strengthen reinforced concrete (RC) columns. To date, the vast majority of experiments on FRP-confined concrete have considered short, unreinforced, small scale concrete cylinders, with aspect ratios of less than three and tested under concentric axial load. In practice, RC columns invariably have aspect ratios larger than three and are subjected to inadvertent load eccentricities or combined axial–flexural (P–M) loading. Limited available research suggests that the effectiveness of FRP confinement is reduced under P–M loading. This paper presents the results of a systematic test program on circular FRP-confined RC columns of realistic slenderness under eccentric axial loads to study the mechanics and performance of these types of members. Test data are compared against theoretical P–M interaction diagrams, as well as against recently published design guidelines for P–M interaction in FRP-confined RC columns.

Prof.N.SUTHAN KUMAR, AP/CIVIL/RCET



10 Facts About India's Statue of Unity

- 1. The Statue of Unity is approximately **4 times taller** than New York's famous Statue of Liberty when plinths are discounted.
- **2.** The statue cost approximately (29.9bn rupees) to build.
- 3. The scale of the project is reflected in the staggering size and weight of its materials: the statue's construction took 2,500,000 cubic feet_of concrete, 5,700 tons of steel structure and 18,500 tons of reinforced steel rods.
- 4. There are approximately **12,000 bronze panels** covering the structure, weighing around **1,700 tons**.
- It is projected that the memorial remotely located 125 miles from the state capital, Ahmedabad — will become a nationalist pilgrimage for about 2.5 million visitors every year.
- 6. The statue's height surpasses the Spring Temple Buddha in Henan, China, which, at **420 feet** was previously the tallest statue in the world.
- 7. Visitors can go up to the viewing gallery, which is located near the chest of the statue at a height of **500 feet**
- 8. The Gujarat government reportedly relocated some **185 families** to make way the statue, compensating them with 1,200 acres (475 hectares) of new land.
- **9.** More than **2,000 Indian workers** along with several hundred laborers from China contributed to the construction efforts.
- **10.** The project has <u>divided opinion in India</u>, with some criticizing the government's public spending on the project and others protesting against the displacement of farmers to make way for the memorial.

Prof.A.ANANTH,AP/CIVIL,RCET





sardar patel statue



ARTISTS BY CIVIL STUDENTS



T.BINOJ/IIICIVIL







Mr.AKILESH (III CIVIL)



Department of Civil Engineering

