



# ROHINI

**COLLEGE OF ENGINEERING AND TECHNOLOGY**

Approved by AICTE and affiliated to Anna University, (An ISO Certified Institution)

**DEPARTMENT OF CIVIL ENGINEERING**

# LIVIC-2017

**MAGAZINE**



## Department Vision

**To develop knowledgeable and professionally competent civil engineers and to create ethically skilled students for better contribution to the society.**

## Department Mission

- + To provide technically valuable education for the development of Civil Professionals**
- + To make a platform for the students to explore their potential and critical thinking in research field.**
- + To create awareness and spirit of ethical thoughts in societal concerns for professional development.**

## Programme Educational Objectives (PEOs)

- +PEO1: Graduates will apply the knowledge of Civil Engineering concepts to solve real world Engineering problems.**
  
- +PEO2: Graduates will have required qualities for a successful career in Civil Engineering and good interaction skills.**
  
- +PEO3: Graduates will exhibit the professional skills with ethical values through societal concerns.**



## 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**

As A Chairman of Rohini College of Engineering and Technology. I feel proud that the students CIVIL Engineering Department are releasing a magazine RCET is a dream project for me and I am happy that RCET is taking a proper shape with the co-operation of all concerned. Students are the real assets of RCET and when they realize their responsibilities, RCET will always remain above all other similar Institutions. I take this opportunity to wish all the students a bright future.

## **MANAGING DIRECTOR'S MESSAGE**

**Dr.N.NEELA VISHNU**

**MANAGING DIRECTOR**

**ROHINI College of Engineering and Technology**

I understand that the students of CIVIL Engineering Department are coming out with a Magazine. 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

Prof.N.SUBRAMONIA PILLAI

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.



## 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 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 heartfelt 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.K.AJAN (Associate Editor)

### List of Awards won by bright Students

SL.NO	NAME OF THE STUDENT	INSTITUTION NAME	AWARDS RECEIVED
1	DINESH MONISHA LAVI.M	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
2	SUDHAKAR.T	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination

### Projects Presented as Paper in Conference/ Journal

SL.NO	NAME OF THE STUDENT	TITLE OF PAPER	PAPER PRESENTED
1.	Indhu R Karthika M Manju ZRL Rathipriya T	Study of Increasing Performance by using Concrete with Rice Husk ash with M-Sand	National Conference on Advances in Civil Engineering
2.	Akhil Alexander Ari Bala Prakash N Marichamy M Veeramani S	Project Report on Ceramic Tiles Concrete	National Conference on Advances in Civil Engineering

## 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	III	05/08/2017	Water Filter House, Krishnan Kovil	Water treatment Process
2	II	18/08/2017	Fishing Harbour, Muttom	Construction Process
3	IV	18/08/2017	Railway Yard	Steel Structures, Placing of Sleepers



## LIST OF STUDENTS PARTICIPATED IN TECHNICAL SYMPOSIUM

S.NO	Name of the Student	Event	College Name	Prize
1.	Arumugam . B Manjunath Honest nijith Karthick	Paper Presentation	V. V engineering college	FIRST
2.	Jebin moses karthick	Model Making	V. V engineering college	SECOND
3.	Arumugam . B Kevin	Quiz	V. V engineering college	FIRST
4.	Jebin moses Karthick Ganga yamuna	Brick wall	V. V engineering college	FIRST
5.	Arumugam . B	Code cracking	V. V engineering college	FIRST
6.	Jegan natha bharath Jebin moses	Brick bond	CSI institute of technology	FIRST
7.	Honest nijith Manju nath Kevin Pon pandi	Paper Presentation	CSI institute of technology	SECOND
8.	Mugesh Arumugam	Quiz	CSI institute of technology	SECOND

## List of Awards won by bright Students

SL.NO	NAME OF THE STUDENT	INSTITUTION NAME	AWARDS RECEIVED
1	SABARI C	Rohini College of Engineering and Technology	Outstanding Achievements in Anna university Examination
2	ATCHAYA V K	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

## List of Awards won by Faculties

S.No	Name of the Faculty	Organization	Awards Received by Faculties
1.	SUTHAMALLI T	Rohini College of Engineering and Technology	Outstanding performance
2.	AJAN K	Rohini College of Engineering and Technology	Outstanding performance
3.	ARTHI SN	Rohini College of Engineering and Technology	Outstanding performance

## 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	Name of the students	Name of the industry
1.	T. Suthakar N. Ari Bala Prakash M. Dinesh Monisha Lavi	UPK TECHSERV

# FLY ASH BRICKS

Fly ash is used for the manufacture of masonry units such as fly ash bricks and concrete blocks. This paper deals with results of an experimental investigation on the characteristics of fly ash-lime-gypsum bricks and their masonry. Review on the existing literature on fly ash bricks/blocks is presented. Characteristics (strength, absorption and durability) of compacted fly ash - lime bricks with and without gypsum additive were examined. Compressive strength, flexure bond strength and stress strain characteristics of fly ash brick masonry using four types of fly ash bricks and cement-lime mortar were investigated. The results reveal that (1) it is possible to achieve 8-10 MPa compressive strength in saturated state, reasonably low values of water absorption, good dimensional stability and durability characteristics for fly ash lime gypsum bricks using 10% lime and 2% gypsum, (2) fly ash bricks of higher density can be produced using fly ash-sand mixture, instead of fly ash alone and (3) fly ash brick masonry shows higher flexure bond strength when compared with that of burnt clay brick masonry.



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

**“It is better to work out than rust out.”**

**-Sir Mokshagundam Visvesvaraya**

## Top 10 Tallest Buildings In INDIA

The metro cities in India are undergoing massive construction boom, with hundreds of high-rises and more than 100 super tall skyscrapers under construction. Mumbai has more than 4000 high-rise buildings and has the 6th highest number of skyscrapers in the world. Tall buildings and monumental landmarks determine how urbanized a country is. Here are 10 of the tallest buildings in India that serve as landmark to the respective cities.

- **Omkar 1973, Mumbai**
- **Palais Royale, Mumbai**
- **The 42, Kolkata**
- **Imperial Towers, Mumbai**
- **Ahuja Towers, Mumbai**
- **One Avighna Park, Mumbai**
- **Bayview, House of Hiranandani, Chennai**
- **Ireo Victory Valley Tower, Gurugram**
- **Mantri Pinnacle, Bengaluru**
- **Lodha Bellezza 3 & 4 Towers, Hyderabad**



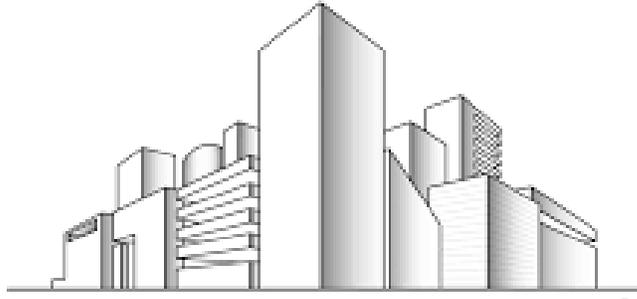
Prof.K.AJAN/AP/CIVIL

## Longest Bridges in India

Serial no.	Name	Distance	Opened	Type	Connecting	Place
1	Dhola Sadiya bridge	9.15 Km	2017	Road	Assam and Arunachal Pradesh	Lohit River, Tinsukia, Assam
2	Dibang River Bridge	6.2 Km	2018	Road	Arunachal Pradesh	Dibang River
3	Mahatma Gandhi Setu	5.75 Km	1982	Road	South Patna to Hajipur	Ganga, Patna, Bihar
4	Bandra-Worli Sea Link (BWSL)	5.57 Km	2009	Road	Bandra to Worli (South Mumbai)	Mahim Bay, Mumbai
5	Bogibeel Bridge	4.94 Km	2018	Rail cum road	Dhemaji to Dibrugarh	Brahmaputra River, Assam
6	Vikramshila Setu	4.70 Km	2001	Road	Bhagalpur to Naugachia	Ganga, Bhagalpur, Bihar
7	Vembanad Rail Bridge	4.62 Km	2011	Rail-cum-road	Edappally to Vallarpadam	Vembanad Lake, Kochi, Kerala
8	Digha-Sonpur Bridge	4.55 Km	2016	Rail-cum-Road	Digha, Patna to Sonpur, Saran	Ganga, Patna, Bihar
9	Arrah-Chhapra Bridge	4.35 Km	2017	Road	Arrah to Chhapra	Ganga, Saran, Bihar
10	Godavari Bridge	4.13 Km	2015	Rail cum Road	Kowur to Rajahmundry	Godavari river, Rajahmundry, Andhra Pradesh

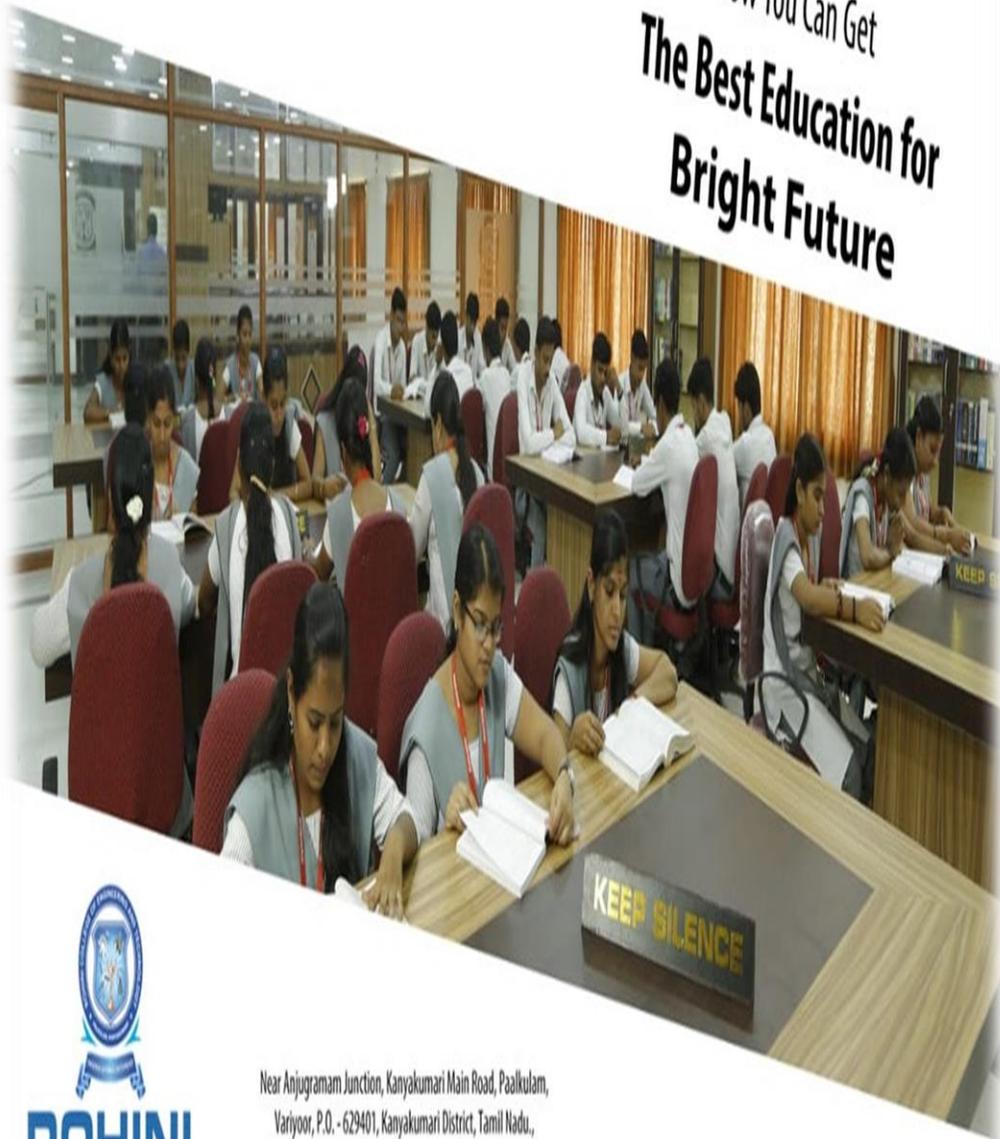
*Prof.R.RAJIV GANDHI,AP/CIVIL/RCET*

## ARTISTS BY CIVIL STUDENTS



N.KARTHIK/III CIVIL

Now You Can Get  
The Best Education for  
Bright Future



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