



...striving towards perfection

Geethanjali College of Engineering & Technology

UGC Autonomous Institution

Accredited by NAAC, Approved by AICTE and affiliated to JNTU'H

Cheeryal (V), Keesara (M), Medchal (Dist.) Pin-501 301

Ph: +91 7306295152, Website: www.gcet.edu.in

DEPARTMENT OF CIVIL ENGINEERING

PRAGATHI

Volume 4, Issue 1, July– December 2019



Sri. G. R. Ravinder Reddy
M. Tech.
Chairman



Dr. Udaya Kumar Susarla
M. E., Ph.D.
Principal



Dr. R. Prasanna Kumar
M. E., Ph. D
Professor & Head

I am very happy to bring out the fourth volume, first issue of Department Newsletter "PRAGATHI". There were a few milestones in the department during this period. The department has signed MoUs with two industries and a group of four students have been selected to present their model for the 3rd AICTE-Chhatra Vishwakarma Awards-2019. The department has also successfully uploaded the SAR for the NBA accreditation of B.Tech Program under Tier II. We are making our sincere efforts to receive and present before the NBA expert team in the third week of March 2020 so that our B.Tech Program can be accredited. Also Many of our students are participating in various extracurricular activities such as hackathons, model presentations and winning prizes, bringing laurels to the department. My hearty congratulations all the participating students and wish them a grand success in all their future endeavors.

Vision of the Department

The Civil Engineering Department is committed to excellence, quality and sustained growth while offering our students an outstanding and rigorous education in an environment that supports intellectual growth while meeting 21st century demands.

Mission of the Department

1. To provide high-quality educational experience for students with strong emphasis on professional ethics, social and environmental responsibilities.
2. To provide infrastructure and facilities to meet the latest technological requirements.
3. To provide research opportunities for faculty and students.
4. To have a continuous interaction with industry with an emphasis on R&D.
5. To produce engineers capable of critical thinking, devoted to a lifelong learning, and highly sought after by employers.

Program Educational Objectives (PEOs)

Program Educational Objectives (PEOs) are broad statements that describe the career and professional accomplishments that the program is preparing the graduates to achieve within three to five years of graduation. The PEOs for Civil Engineering program are:

PEO 1: Graduates will be technically adept in mathematical, scientific, and engineering fundamentals to pursue their chosen profession or pursue advanced studies with a commitment to lifelong learning for professional development.

PEO 2: Graduates will be able to apply problem-solving skills to various engineering problems that involve management of medium-sized projects to large-scale projects using modern equipment or systems, and work on multidisciplinary projects in multicultural environment demonstrating interpersonal skills.

PEO 3: Graduates will exhibit creativity, innovation, and professional ethics with leadership qualities towards societal development.

Program Specific Outcomes (PSOs)

PSO 1: Apply knowledge in core areas of Civil Engineering such as Structural, Geotechnical, Water Resources, Transportation and Environmental Engineering to Civil Engineering practice.

PSO 2: Utilize Civil Engineering principles that are appropriate to produce detailed drawings, design reports, quantity and cost estimates, specifications, contracts and other documents appropriate for the design, construction, operations and maintenance of Civil Engineering projects.








PSO 3: Shall interact and collaborate with stakeholders; execute quality construction works applying Civil Engineering tools namely, Total Station, Global Positioning System (GPS), ArcGIS, AutoCAD, STAAD and other necessary tools.

I Publications By Faculty

S.No.	Faculty Name	Title of Paper	Name of the Journal	International/ National Journal with Impact Factor, ISSN/ISBN Number & DOI
1	G.VaniSri Assistant Professor	NDE Techniques for In-Situ Concrete Structures	IOSR Journal of Engineering (IOSRJEN)	ISSN (e): 2250-3021, ISSN (p): 2278-8719 Vol. 09, Issue 10, October. 2019, Series -IV, PP 44-48 UGC Indexed
2	D. Varunkumar Assistant Professor & G. Raju Assistant Professor	Comparative Study of Partial Replacement of Cement with Ceramic Powder for M30 Concrete	Journal of Advanced Research in Dynamical and Control Systems	Journal submitted for acceptance SCOPUS Indexed
3	D. Ramachander Assistant Professor & P. Supriya Assistant Professor	Integration of Materials used in Ancient Structures for present day Construction	International Journal of Advanced Science and Technology	Journal submitted for acceptance SCOPUS Indexed

II Academic Toppers

The students who topped the results of B. Tech. I -Semester during the academic year 2019-20 are given below.

	I-Year	II-Year	III-Year	IV-Year
I RANK	 CH. SANJAY 19R11A0109 SGPA- 9.55	 G. SHILPA 19R15A0107 SGPA- 9.50  G. SHRUTHI 18R11A0119 SGPA-9.50	 A. VIJAY KUMAR 17R11A0150 CGPA-9.79	 K. MEGHANA SAI 16R11A0147 CGPA-8.88
II RANK	 J. ARUNREDDY 19R11A0126 SGPA- 9.40	 B. PRUDVI RAJ 19R15A0110 CGPA- 9.10	 M. VIKAS 17R11A0123 CGPA- 9.50	 B. KARTHIC 17R15A0101 CGPA-8.63  I. V K REVANTH NAIDU 16R11A01B0 CGPA-8.63
III RANK	 D. PREETHI 19R11A0114 SGPA- 8.95	 SHIVANI 18R11A0127 CGPA- 8.95	 K. ANKUSH 17R11A0166 CGPA- 9.29	 M. JAYANTH 16R11A0148 CGPA-8.50

III Student Participation & Achievements

S. No.	Name of the student	Roll Number	Participated Event Name	Date of Event	Place/College
1	S.J. Namrata	16R11A0137	Two day Work Shop	2-3rd August 2019	JNTUH
2	Ch. Ramya	16R11A0157	Two day Work Shop	2-3rd August 2019	JNTUH
3	M. Ramya	16R11A0199	Two day Work Shop	2-3rd August 2019	JNTUH
4	S. Jahnvi Reddy	17R11A0140	Two day Work Shop	2-3rd August 2019	JNTUH
5	A. Sai Charan	17R11A0105	Two day Work Shop	2-3rd August 2019	JNTUH
6	Ch. Kalyani	17R11A0109	Two day Work Shop	2-3rd August 2019	JNTUH
7	K. Reshma	17R11A0119	Two day Work Shop	2-3rd August 2019	JNTUH
8	K.V.N.V. Snigdha	17R11A0121	Two day Work Shop	2-3rd August 2019	JNTUH
9	N. Spandana	17R11A0131	Two day Work Shop	2-3 rd August 2019	JNTUH
10	D. Bhargava	17R11A0158	Two day Work Shop	2-3 rd August 2019	JNTUH
11	M. Rakesh Goud	16R11A01B1	Two day Work Shop	2-3 rd August 2019	JNTUH
12	V. Vaishnavi	16R11A0190	Two day Work Shop	2-3 rd August 2019	JNTUH
13	P. Roshan	16R11A0182	Two day Work Shop	2-3 rd August 2019	JNTUH
14	I.V.K.Revanth Naidu	16R11A01B0	Two day Work Shop	2-3 rd August 2019	JNTUH
15	K. V. Sai Tanay	16R11A0195	Two day Work Shop	2-3 rd August 2019	JNTUH
16	A. Tilok Reddy	17R11A0101	Tedx Hyderabad	22 nd Sept 2019	Hyderabad
17	R.Laxmi Sai Priya	17R11A0183	Electrica 2k19-Tresuraze	1 st October 2019	GCET
18	U. Navya	18R15A0119	Electrica 2k19-Tresuraze	1 st October 2019	GCET
19	K. Jayanth	16R11A0169	Electrica 2k19-Tresuraze	1 st October 2019	GCET
20	P. Alekya	17R11A0135	Electrica 2k19-Tresuraze	1 st October 2019	GCET
21	Nari Vivek	17R11A0132	Paper Presentation (Best Paper Award)	27-28 December 2019	NIT Tiruchirapalli
22	M.Vikas	17R11A0123	Paper Presentation (Best Paper Award)	27-28 December 2019	NIT Tiruchirapalli

IV FDP's/Workshops/ Conferences & FTP's Participated by Faculty

S. No.	Name of the Faculty	Duration of Workshop	Topic	Organized by
1	V. Abdul Raffi Associate Professor	July to October 2019 (12 week-NPTEL Online Course)	Foundation Engineering	IIT Kharagpur
2	D. Divya Vani Assistant Professor	25-9-2019 to 27-9-2019 (3 Days)	Materials for Sustainable Infrastructure Development	CVR College of Engineering, Hyderabad
3	G. Vanisri Assistant Professor	25-9-2019 to 27-9-2019 (3 Days)	Materials for Sustainable Infrastructure Development	CVR College of Engineering, Hyderabad
4	S. Hari Kiran Associate Professor	22-11-2019 to 23-11-2019 (2 Days)	Regional Research Symposium on PBL	KLE Technological University, Hubballi, Karnataka
5	P. Harsha Praneeth Associate Professor	22-11-2019 to 23-11-2019 (2 Days)	Regional Research Symposium on PBL	KLE Technological University, Hubballi, Karnataka
6	V. Abdul Raffi Associate Professor	9-12-2019 to 14-12-2019 (1 Week)	Raising Awareness on laboratory soil testing for better teaching and practice to the young faculty	JNTU Hyderabad

V List of MOUs Signed by the Department

Department has entered into an MOU (Memorandum of Understanding) with **THISA CONSULTANCY LLP**, Hyderabad on 10.8.2019 and **LSB TEMERITY INFRA Pvt. Ltd**, Hyderabad on 31.8.2019 for Providing Internships, workshops, project works, industrial visits, Industrial training, Consultancy works etc., to the extent of feasibility and availability for industrial exposure to the students and faculty.



VI Expert Lectures /Workshops/Field Visits Organized by the Department

1. An Expert Lecture was conducted on “[Career opportunities in Civil Engineering](#)” was conducted on 05-08-2019, by Mr. P. Ram Jagadesh Director MVS Academy Hyderabad. The lecture was attended by third year students and faculty which covered the various aspects in application of theory in practical and career opportunities in the real world. The session was fruitful with discussions on importance of GATE and Civil Engineering opportunities in public sectors.



Career opportunities - Expert Lecture Photos

2. A Workshop on “[Hands on Experiences with Plaxis-2D](#)” was conducted on 26th-27th July 2019 for fourth year B.Tech Civil Engineering students and faculty. The workshop focused on the following key elements.

- i. Various complex problems of geotechnical engineering from embankments to tunneling.
- ii. Basics of finite element methods were discussed.
- iii. Soil modeling.
- iv. Analysis of deformation & stability aspects.



Hands on Experiences with Plaxis-2D - Expert Lecture Photos

3. A Workshop on “[Geometrical Design and Road Safety Audit of Highways - A practical approach](#)” was conducted on 10th August 2019 for third year B. Tech Civil Engineering students and faculty. The workshop focused on the following key elements.

- i. Practical aspects of highway longitudinal design and establishment of the geometric elements on highway.
- ii. Quality aspects of highway geometric design to ensure the adequacy of the same
- iii. Road safety audit – An Overview
- iv. Road safety audit – A Case Study



Geometrical Design and Road Safety Audit of Highways - Expert Lecture Photos

4. An “[Industry workshop on Auto CAD](#)” was conducted on 14th September 2019 for final year B. Tech Civil Engineering students by Raster Engineers Pvt. Ltd. The workshop covered the following topics:

- i. Introduction to Auto CAD
- ii. Building plan, elevation, Cross-Section
- iii. Beam, slab and column detailing.



Industry workshop on Auto CAD - Expert Lecture Photos

5. A Field visit to “[Slit +3 structure at Kukatpally, Hyderabad](#)” was organized by Civil Engineering Department in collaboration with [LSB TEMERITY Infra Pvt. Ltd](#) on 31st August 2019 for B. Tech final year students. The faculty members Mr. D. Ramachander, Dr. K. R. C. Reddy accompanied the students during the visit.

The students were explained about the plan and elevation of the structure by giving them the overall plan of the structure in advance itself. Later students were shown about the reinforcement of the slab and explained them in clear about types of slabs and about different casting procedures and explained about different beams and how to locate the columns in the structure based on the requirement. There was a very good conversation went between the students and the Director of LSB Temerity Pvt. Ltd, Mr. Siva Rami Reddy about the structural details and the practical problems of civil engineer during the execution of plans and he also enriched students in choosing the path after completing their bachelors of technology.



Slit +3 structure at Kukatpally - Field visit Photos

VIII Activities in the Department

1

Model Expo

The department of Civil Engineering has conducted an Model Expo on 25th October 2019 under Civil Engineering Technical Association for all the B. Tech four year students to showcase their talent in the field of civil engineering. Students with great enthusiasm and energy have participated in the event. As part of the modal presentation models presented are “Recycling of Rain water”, “Phyto remediation”, “Root zone depth”, “self decomposing”, “hemp create”, “Automated irrigation with soil moisture”.



Model Expo - Photos

2

Freshers Day

Civil Engineering Department of GCET organized a lavish Fresher’s welcome party for the batch of 2019-20 within the college premises on 31st August 2019. Fresher's party is about welcoming newcomers in a friendly atmosphere, making the best start to the new academic year and a time to build lifelong relationships.

The party began with a blast of pulsating ambience, flashing lights and foot-tapping music. Both events were performed artistically and beautifully, and the audience remained excited about mind-blowing dance, song and mimicry performances.. Fresher’s loved the welcome and appreciated the whole-hearted efforts of their seniors. It is said that a good start signifies a great end, and the Fresher’s could not have asked for the better kick off.



Freshers Day - Photos

IX Institute Level Activities

1 Graduation Day

The college Graduation Day was organized on 3rd August 2019. The second outgoing batch (2015-2019) of Civil Engineering department students shared the stage along with students of other departments and Pharm. D. students.



Graduation Day - Photos

2 Alumni Meet

The college Alumni Meet 2019 was conducted on 25th December 2019 at college premises. Around 100 alumni students attended the programme and shared their experiences of college.



Alumni Meet - Photos

Orentation Program

3

The Fresher's orientation program was organized by GCET on 2nd August 2019 in campus. As part of B. Tech program the students of Civil Engineering department have actively participated in two week 'Induction Program'. The students were addressed and motivated by various eminent speakers from different organizations.



Orientation Program - Photos

NSS Activities

4

NSS Unit of the college has actively done various services to the local people. Among them some of the programs organized by the NSS unit are Better Spoken English & M. S. Office program, Dental Camp, Donation of Stationary to Govt. Priamary Schools-Cheeryal, "Haritha Haaram" Program, Cutting and Tailoring Classes for women(Cheeryal and Yadgarpally villagers) and Land Survey for villagers of Cheeryal.



NSS Activities - Photos

Article

SELF EXPLAINING AND FORGIVING ROADS TO IMPROVE ROAD SAFETY

Loss of lives due to Road accident has been a matter of great concern for Disaster professionals, Technocrats and Policy makers. More than 1.35 million people are killed on the road every year and more than 20 million are injured, according to a World Health Organisation recent report. Despite the fact that 10% of the total accidents are single vehicle accidents (typically run-off-road accidents) the rate of these events increases up to 45% when only fatal accidents are considered. Hence Improving road safety has been the key objective for road authorities worldwide in recent years. Lately, many concepts like self-explaining roads, low cost measures or forgiving roads were adopted to reduce the number of fatalities, concepts. As new research findings are published, differing theories evolve and road safety visions change. The way roads are laid out and designed can reduce the exposure to traffic of vulnerable road users, reduce the probability that crash and injury occur when these users are exposed and reduce the severity of injury if it occurs. Substantial and sustainable casualty reductions can be achieved in relatively short time and at relatively short cost by identifying and treating high risk infrastructure sites, creating safer and forgiving roads. The article presented here gives an overview of improving traffic safety by increasing the awareness of road authorities, in order for them to implement road safety measures, to use intelligent, intuitive and cost-efficient combinations of new technologies and traditional infrastructure best practice applications, in order to enhance the forgiving and self-explanatory nature of roads.

Standard road safety measures for forgiving roads:

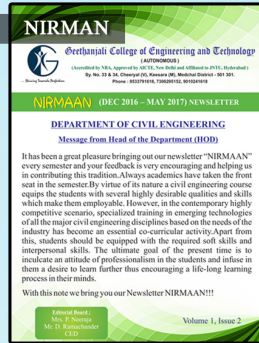
- 1. Roadside clear zones*
- 2. Safe Drainage Structures*
- 3. Safe barrier Systems*
- 4. Rumble strips*
- 5. Frangible Poles*
- 6. Slip-base tire poles*
- 7. Deformable poles*

Excerpts taken from the article by Dr Sunil Kumar Chaudhary, INDIAN HIGHWAYS, JAN2020.

PERIODICAL EDITIONS



Volume I, Issue I
(Jun 2016 - Nov 2016)



Volume I, Issue II
(Dec 2016 - May 2017)



Volume II, Issue I
(July 2017 - Dec 2017)



Volume II, Issue II
(Jan 2018 - June 2018)



Volume III, Issue I
(July 2018 - December 2018)



Volume III, Issue II
(Jan 2019 - July 2019)

EDITORIAL BOARD

Dr. R. Prasanna Kumar

Chief Editor

Professor /HOD

Mr. G. Raju

Associate Editor

Assistant Professor

Mr. D. Ramachander

Editor

Assistant Professor