



Kakatiya Institute of Technology & Science,

DEPARTMENT OF CIVIL ENGINEERING



JULY 2020

VOL 8, ISSUE 2

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Vision of the Department:

- The Vision of the department is to become a leading centre of excellence in producing quality human resource in civil engineering by developing a sustainable technical education system to meet the changing technological needs of the Country. The Department will make significant contributions to the economic development of the state, region and nation.

Mission of the Department:

- To produce outstanding Civil Engineering graduates with highest ethics
- To impart quality education in civil engineering to raise satisfaction level of all stake holders.
- To serve society and the nation by providing professional civil engineering leadership to find solution to community, regional and global problems and accept new challenges in rapidly changing technology.

Programme Educational Objectives (PEO's): The Programme Educational Objectives (PEO's) of the civil engineering program are designed to produce skilled engineers who are ready to contribute effectively to the civil engineering profession and are ready to handle the challenges of the profession. The Programme Educational Objectives (PEOs) are defined considering the opinion of all the stakeholders.

PEO 1	Demonstrate professional competency in varied fields of engineering industry and/or pursue higher education by nourishing mathematical scientific and engineering precepts.
PEO 2	Investigate, analyze and design solutions to complex civil engineering problems ensuring safety, sustainability and ecological harmony.
PEO 3	Exhibit professionalism by transferring latest technology and understanding societal impacts to protect interests of the public at large Identify, formulate, research literature, and analyze complex engineering problems reaching
PEO 4	Develop competence by engaging in lifelong learning, in order to integrate ethics, economics and equity.

Programme Outcomes (PO's):

PO1	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	Engineering knowledge
PO2	Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences	Problem analysis
PO3	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.	Design/development of solutions
PO4	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.	Conduct investigations of complex problems
PO5	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.	Modern tool usage
PO6	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.	The engineer and society
PO7	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	Environment and sustainability
PO8	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice	Ethics
PO9	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings	Individual and team work
PO10	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.	Communication
PO11	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.	Project management and finance
PO12	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.	Life-long learning

Program Specific Outcomes (PSO's)

PSO 1	Apply fundamental computational methods and elementary analytical techniques in sub-disciplines related to civil engineering
PSO 2	Design civil engineering structures, component or process to meet desired needs with appropriate consideration for the public health and safety, cultural, societal, sustainability and environmental considerations
PSO 3	Appreciate professional and ethical responsibility concerning legal, contemporary, environmental & cultural issues and consequent responsibilities relevant to the professional engineering practices and norms of civil engineering practice code.
PSO 4	Appreciate the role of research in civil engineering practice and recognize the need for and to engage in life-long learning in civil engineering and allied domains as relevant to rapidly changing technology.

Chief Editor Message:

It gives me immense pleasure in welcoming NEWSLETTER, on behalf of the entire campus community of KITS Warangal. This newsletter will serve to reinforce and allow increased awareness, improved interaction and integration among all of us. This inaugural issue is a brief account of the important events of Civil Engineering Department. I congratulate all those who have contributed in bringing out this issue. I hope this newsletter will inspire all of us for a new beginning enlighten with hope, confidence and faith in each other.

Dr.K. Ashoka Reddy, Principal

Editor Message:

I would like to congratulate the Editorial team for having brought out the Newsletter for the Academic session July 2020. It is indeed heartening to note that the entire magazine has been designed and framed by the students and faculty of the Editorial Board. My special accolades go to all those who have worked behind the screen for completing this emulating NEWSLETTER.

Dr. M. Veera Reddy, Professor & Head

Editor In-charge Message:

It is with great honor and great pleasure for us to involve in laying the ground work of this newsletter. We congratulate the Editorial Team for their hard work in producing this Newsletter. We are absolutely certain that the best is yet to come. We hope that you will enjoy reading this newsletter.

Dr. M. Andal, Professor
Smt. Sree Laxmi Pavani N, Assistant Professor

GATE QUALIFIED STUDENTS 2019-2020

PLACEMENTS 2019-2020

S. No.	Name	Roll No
1	Syed Saood Ahmed	B16CE021
2	Prasanna Kumar Yatelli	B16CE104
3	A. Vineeth	B16CE073
4	P. Raj Kumar	B16CE010
5	M. Sai Karthik	B17CE134L
6	D. Sharath	B16CE080
7	Mounika Jatoth	B16CE119

S.No.	Name	Placed In
1	Mohd Wajahath Ur Rasheed	TCS Ninja
2	M. Chaitanya	Edupolis Technologies & Toppr Technologies
3	R. Harshini	Milekal Engineering Private Limited



31st National Road Safety Week

➤ **BIKE RALLY**

In view of 31st National Road Safety Week, which was held from 27th January 2020 to 02nd February 2020, the Road Transport Authority, Warangal in collaboration with Indian Road Safety Chapter of CED has organized and KITSW have conducted the rally. This rally was to create awareness about the loss in road accidents and its prevention. It was a 5km rally started at KITSW and was headed towards collector office Hanamkonda. The student rally team was led by women traffic officers.

The rally was spectacular and grabbed the attention of many road users. This rally intended to spread awareness to maximum number of people, as the new law states wearing of helmets is compulsory. KITSW, IRSC student chapter have conducted this activity to remind everyone about their responsibilities to ride safely. The rally ended with Sir Prashanth J. Patil, collector of Warangal congratulating the women motor cyclists and all the women motor cyclists taking oath along with police officers to follow all traffic rules.



Start of Rally at KITSW



Rally by KITSW Students & Women traffic officers at KU Junction



Taking an oath to follow traffic rules

❖ **AWARENESS SESSION**

This session was to create awareness about the loss of road accidents and its prevention by quoting live examples with which the policemen are dealing with. They also prepared a video tape and displayed the loss of road accidents and as a young adult how can we avoid it. This program was conducted in the presence of the respected chief guests Sri G. Bala Swamy, Assistant Commissioner of Police-Hanamkonda traffic department, Sri Md. Hannan, Inspector-Hanamkonda traffic department and Principal of KITSW Dr. K. Ashoka Reddy. The session was a fruitful one as many youngsters who are the backbone of the country changed their minds and are following the traffic rules. They ended the session by stating that license is must, Riding tribbles is dangerous, Eco friendly vehicles should be used, and the pillion drivers and children should wear helmets.



Commissioner addressing the session



Organizing committee of the session



INDUSTRIAL TOUR

➤ B Tech Students Industrial tour

SRISAILAM & NAGARJUNA SAGAR DAM

The Department of Civil Engineering organizes the educational tours every year for the students to expose them to the real time Civil Engineering projects like visiting the well-known Dam sites, Irrigation Projects, Cement manufacturing industries, Bridge sites, etc. On January 24th 2020, 3rd year Civil Engineering students were taken to Srisaillam and Nagarjuna Sagar Projects. On Day 1 the students visited Srisaillam Dam and they visualized the important features of the dam then the Executive Engineer of the Srisaillam dam have explained students about the construction and techniques involved in the construction of the dam & about the generation of Electricity. On Day 2 the students visited Nagarjuna Sagar Dam and experienced many things practically, then the Executive Engineer explained about the history and functioning of the Dam. This tour helped the students to visualize their theory in practical way.



Chief Engineer explaining the functioning of Srisaillam Dam



Students at Nagarjuna Sagar Dam with Faculty Coordinators

➤ M Tech Students Industrial tour

ULTRA TECH CEMENTS, RMC Plant at Arepally, Warangal District

To Impart technical knowledge and skills in Ready Mix Concrete for MTech (S&CE) 1st semester Students, an industrial tour was organized by Ekashila Educational Society, CED, KITS Warangal to visit ULTRA TECH CEMENTS, RMC plant, Arepally, Warangal District on 13th December 2019. This industrial visit made M.Tech. (S&CE) students to learn new things such as, Ready Mix Concrete procedure, types of concrete plants, components of concrete batch mix plant, operation and working of concrete batching plant. Plant Manager, Mr. Sreekanth Reddy have explained everything about Ready Mix Batching plant to the M.Tech. students of CED in detail.



Students and Faculty visit to RMC Plant



Manager explaining pumping of concrete



Explanation of operation in control room

Experts Visit

1. Prof. Sai Krishna Vanapalli, Professor, Civil Engineering Department, University of Ottawa, Canada

One day interaction session with **Prof. Sai Krishna Vanapalli**, Professor, Civil Engineering Department, University of Ottawa, Canada was organized by Department of Civil Engineering, Kakatiya Institute of Technology and Science-Warangal on 24th December, 2019. A meeting was held with Academic Advisory committee members of KITSW and Prof. Sai Krishna Vanapalli. In the meeting Prof. Sai Krishna Vanapalli has agreed to work for the collaboration between KITSW and University of Ottawa. It was also resolved that Prof. Sai K Vanapalli will be working as a Visiting/Adjunct Professor at KITSW on successful signing of MoU between both the organizations. Later, Prof. Sai Vanapalli visited laboratories in Civil Engineering department and highly appreciated ongoing research work in the department.



AAC members KITSW, interacting with Prof. Sai Krishna Vanapalli



Prof. Sai Krishna Vanapalli visiting laboratories in CED

2. Voggu Srinivas, CSIR Senior Principal and scientist

CSIR Senior Principal and scientist, **Voggu Srinivas** have visited Civil Engineering Department of KITSW on 28th November 2019 to review the Civil Engineering syllabus and has given his ideas to best make the new syllabus and curriculum of Civil Engineering Department, which will help the students for their future endeavor. In this process, Head of the Department, Dr.M. Veera Reddy and Senior professors, Dr.S.G.Narayana Reddy, Dr.S.Sunil Pratap Reddy, Dr.M. Srikanth, Dr. M. Andal, Dr.D.Hari Krishna, and faculty of CED were also present.



Scientist V Srinivas with Head and Faculty of CED



Scientist V. Srinivas interacting with HOD and Senior Faculty

3. Mr. Raji Reddy, Director, CDI National Academy of Construction & Eminent Prof. Purushotham Reddy, OU, Environmental Scientist

Mr. Raji Reddy, Director, CDI National Academy of Construction and their team with Eminent Prof. Purushotham Reddy, OU, Environmental Scientist have visited the Department of Civil Engineering, KITS, Warangal on 3rd January 2020 to discuss the activities as part of MOU.



Mr. Raji Reddy, Prof. Purushotham Reddy, and their team along with HOD and Senior faculty of CED

➤ **FACULTY VISIT TO CSIR-NGRI, HYDERABAD**

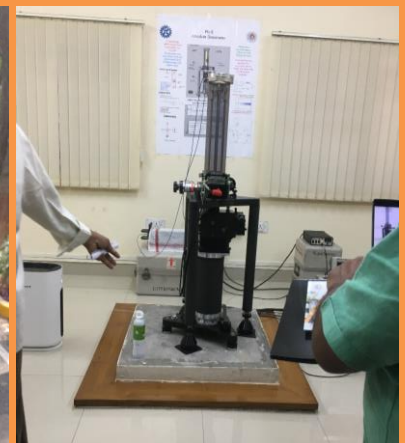
Department of Civil Engineering organized a one-day Industrial visit to CSIR (Council of Scientific and Industrial Research) – NGRI (National Geophysical Research Institute), Hyderabad on 6th December 2019 for the faculty of civil engineering Department, KITS, Warangal. The faculty members were exposed to various laboratories such as Seismic, Gravity and Magnetism, Rock Mechanics and Ground water labs and could understand the real-time applications of the projects undertaken by NGRI. KITSW is planning to put up the MOU with CSIR-NGRI in the areas of establishing a new M.Tech. stream, and shall direct 2nd Year CED, M.Tech. students of Structural and Construction Engineering to NGRI for their project works and also support of technical seminars and meetings in collaboration with NGRI. This made the industrial visit a grand success.



Faculty of CED in front of Seismic Lab



Faculty moving in the campus to visit various labs



Absolute Gravi meter in NGRI Gravity and Magnetism Lab

➤ **Retirement of Dr. S G Narayana Reddy, CED, KITS, Warangal**

Dr. S G Narayana Reddy, Professor, Department of Civil Engineering retired on 30.04.2020.

Dr. S G Narayana Reddy is a senior most faculty of Civil Engineering Department of KITS, Warangal. He joined the Institute as Assistant professor in the year 1985 and retired in April 2020 with an experience of 35 years. He worked as Assistant Professor from 1985-1993, as Associate Professor from 1993-2009, and as Professor from 2010-2020 at KITS, Warangal. He worked thrice as Head of Civil Engineering Department, worked as Professor In-charge Industry Consultancy Cell, & also as president of Staff Club, KITS, Warangal. He made many soil tests for major government projects of Andhra and Telangana states. He published eight international journals.

Academic Advisory Committee (AAC), KITS, Warangal thanked Prof. SG Narayana Reddy, Professor, Dept. of CE for his wonderful contributions to the institute, as he was superannuated on 30.04.2020. The AAC wished him a happy and healthy retired life.



Principal Dr.K.Ashoka Reddy & Dean Administration Dr.P.Ramesh Reddy felicitating Dr.S.G.Narayana Reddy



Prof.R.Ravinder Rao, Mechanical Engineering Dept. felicitating Dr. S.G.Narayana Reddy

➤ **CIVIL ENGINEERING ASSOCIATION**

The Civil Engineering Association (CEA) is the premier body of Civil Engineering department in Kakatiya Institute of Technology & Science, Warangal and is formed out of voluntary enthusiasm and extreme passion of its students to discover the deepest knowledge of their interests. Under the extraordinary guidance of Head of the department, faculty and with their unconditional and invaluable support, students here in the association improve their every skill and strive with an obsession of carving their capabilities to perfection and mastery.

**EVENTS: 03-02-2020 - Brief introduction to GOOGLE TRIMBLE SKETCH UP by Canter CADD Institute
02-03-2020 - Awareness on GATE**



Canter CADD Executive addressing the Students



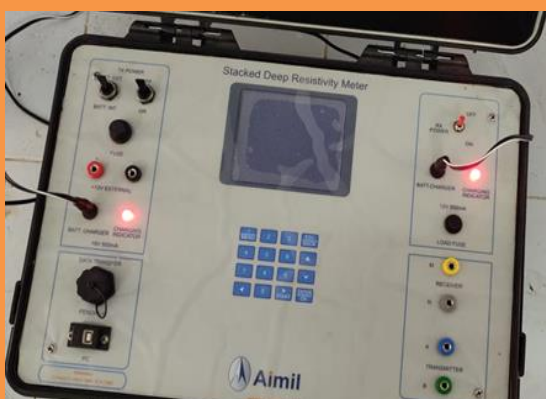
GATE Ranker explaining the Tips to crack GATE

➤ **Faculty Achievements**

S.No.	Name of the Faculty	Faculty Achievement
1.	Dr. D. Abhigna	PhD awarded from NIT Warangal on 9th August 2019
2.	Dr. A. Suchith Reddy	PhD awarded from NIT Warangal on 27th January 2020
3.	Dr. S. Shirisha	PhD awarded from NIT Warangal on 6th March 2020
4.	Mr. Md. Shakeel Abid	Registered for PhD at NIT Tiruchirappalli in Jan 2019
5.	Mrs. Ch. Sree Laxmi Pavani	Registered for PhD at NIT Warangal in July 2019
6.	Mr. B. Sai Laxman	Registered for PhD at IISC, Bangalore in August 2019
7.	Mr. Ch. Sridhar	Registered for PhD at Annamalai University in October 2019
8.	Mrs. K. Bhargavi	Registered for PhD at NIT Warangal in December 2019

➤ **Departmental Developments: New Equipment added in the Labs of CED**

1. Engineering Geology Lab



Electrical Resistivity Meter

Electrical Resistivity Meter was taken for Engineering Geology Laboratory of Civil Engineering Department in May 2019.

The instrument design incorporates several innovative features and advanced techniques of digital circuitry to make it a reliable Geophysical tool providing high quality data useful for mineral and ground water exploration and any other Geophysical applications like Subsoil groundwater prospecting at shallow, medium and great depth, geological stratigraphy, studies of salt water contamination in fresh water layers, Landslide monitoring, Mineral Exploration, geotechnical investigations and Archaeological research. Electrical resistivity imaging is a widely used tool in near surface geophysical surveys for investigation of various geological, environmental and engineering problems. The possibility to download data through USB enables a quick interpretation with the data inversion software.



2. Geotechnical Engineering Lab:



5-ton load frame with digital data acquisition system

5 tonne load frame with digital data acquisition system was taken in September 2019 for Geo Technical Engineering Lab of Civil Engineering Department.

This equipment is a specially designed testing box of size 1200mm (Length) x 1200mm (Width) x 1000mm (Height) and thickness 8mm. The testing box was fabricated out of rigid steel plates and to enable visual inspection an acrylic sheet of size 1200mm (Length) x 1200mm (Height) and thickness 12mm was utilized as a wall of the tank on one side. Three stiffeners were attached on external face of each wall of the tank to avoid deformations. The testing box weighed around 550kgs and was supported over a self-reacting loading frame mounted with a hydraulic jack of 5Ton capacity with a stroke length of 250mm. The hydraulic jack has an advantage of mobility feature which enables to apply load anywhere on the either sides from the centre. The applied axial force was measured using a ‘S’ shaped load cell of capacity 5Ton attached to the hydraulic jack.

3. Concrete Technology Lab:



Ultra-sonic Pulse Velocity (UPV)instrument

Ultra-sonic Pulse Velocity (UPV)instrument was taken in Feb 2020 for Concrete Technology lab of Civil Engineering Department.

The measurement of pulse velocity can be used to for the determination of the uniformity of concrete, the presence of cracks or voids, changes in properties with time and in the determination of dynamic physical properties. This equipment gives guidance on testing fresh concrete, hardened concrete, and concrete in structures. It specifies a method for the determination of the velocity of propagation of pulses of ultrasonic longitudinal waves in concrete. It features online data acquisition, waveform analysis and full remote control of all transmission parameters. Along with the traditional transit time and pulse velocity measurement, it offers path length measurement, perpendicular crack depth measurement and surface velocity measurement. Optimized pulse shaping gives greater transmission range at lower voltage levels.



Permeability Apparatus

Permeability Apparatus was taken on 4th July 2019 in Concrete Technology Laboratory

One of the durability tests of concrete is to determine permeability of water through specimen. Permeability apparatus is used for determining the permeability of cement mortar and concrete specimens of 15 cm cubes cast in the laboratory. The design of concrete mix aims at maximum durability for the conditions prevailing at the site where it is to be used. ability to resist the flow of water through, is one of the important durability characteristics. The permeability is determined on cement, mortar and concrete specimens, either cast in the laboratory or obtained by cutting out cores from existing structures.



RCPT (Rapid Chloride permeability Test) Apparatus

RCPT (Rapid Chloride Permeability Test) Apparatus was taken in Concrete Technology Laboratory on 4th July 2019.

RCPT is used to test the quality of concrete. Data Acquisition system stores all the data and at the end of test will calculate charges in Coulombs for each cell.

The RCPT is Rapid Chloride permeability Test Apparatus As per ASTM C 1202-05. The RCPT is designed to assess the Resistance of concrete to the penetration of chloride ions and indicator of its permeability. The RCPT is full Self contained