



SUSTAINABILITY

-How Sustainabilities Work

CIVIL ENGINEERING DEPARTMENT NEWS LETTER

2019-20 | JULY – DECEMBER 2019 |

*We don't need a handful of
people doing zero waste
perfectly. We need millions
of people doing it
imperfectly."*



Training Programmes Organized

- Professor M. Rama Rao organised two day training programme on 'Geo-Studio for various geotechnical applications (GGA)' was organised for fourth year B.Tech, M.Tech, Ph.D and Industrial persons, during July 19-20, 2019 by Department of Civil Engineering, in association with Indian geotechnical society-students' Chapter. Resource persons are Dr. B. Umashankar and Dr. B. MunwarBasha Associate Professors, Department of Civil Engineering, IIT Hyderabad, enlightened participants on Geo-Studio software like creating model and analyse various geotechnical problems. Initiated with the common problems occur in slope stability analysis under static and earthquake loading, and seepage analysis in earthen dams. In addition, reinforced soil structures, soil nailing/anchors, and probabilistic analysis and a sensitivity analysis of the stability of a slope was handled. Along with this provided hands on experience during the afternoon session. Resources persons took real life

problems to enable the participants better appreciate the sessions.

- Three day training programme on 'ETABS (Extended Three-dimensional Analysis of Building Systems)' was organised for the Faculty members and Design Engineers, during November 20-22, 2019 by Department of Civil Engineering, in association with Andhra Pradesh State Skill Development Corporation (APSSDC) and this is organised by Dr. M.V.P Chandra Sekhara Rao and Syed SyeedAhammed, Asst. Prof..

Guest Lecture Organized

- Dr. A. Madhan Kumar, Head of Engineering, Keller engineering services Pvt. Ltd., India, Chennai, delivered a lecture on 'Case studies in geotechnical engineering practice' for third and final year students, in his lecture he enlightened students about various problems faced due to slope failures of subsoil and also discussed about the innovative technologies for preventing the unexpected failures, on August 2, 2019.

- Dr. P. Venateswara Rao, Associate Professor, Department of Civil Engineering, NIT Warangal, delivered a lecture about the 'Integrated Solid Waste Management' for the third and final year students, in his lecture he explained various methods to control and manage the solid waste, on August 3, 2019.
- Professor, M. Amaranatha Reddy, Department of Civil Engineering, IIT Kharagpur, delivered a lecture on 'Flexible Pavements', he enriched the knowledge of participants by adding the new design code (IRC:37) rules in several design principles, on September 20, 2019.
- Dr. HarshaVardhanErra, CEO and Co-founder Peepal Renewable India Pvt. Ltd., delivered a lecture on 'Organic Waste Management-Need of the hour (waste and energy)' to enrich the students' knowledge in environmental protection, on September 21, 2019.

Small steps by faculty to generate awareness towards eco sustainable environment among peers

Guest Lectures Delivered by Faculty

Prof. M. Rama Rao delivered guest lectures on the following:

- Applications of mind mapping in Geo-technical engineering' to third and final year B. Tech students of Sasi Institute of Technology and Engineering College, Tadepalligudem, West Godavari, July 11, 2019.
- 'Design and construction of summer storage tank (earthdam)' to engineers from government and private organizations, academicians, contractors, consultants, under graduate and post-graduate students of Civil Engineering, at Chalapathi Institute of Technology, Motadaka on August 31, 2019.
- 'Analysis, Design and construction of Reinforced Earth retaining walls' during one day Seminar at

MalineniPerumallu Educational Society's Group of
Institutions, Pulladigunta, Guntur, December 10, 2019.

*Small to large research by department to create
sustainable eco system.*

Research Paper Publications

- J. UshaKranti, Asst. Prof., Prof. K. Srinivasu, 'An experimental study on durability properties of normal grade concrete containing Copper slag as a fine aggregate', Journal of Advanced Research in Dynamical and Control Systems, Vol. 11, No. 5, 2019, pp. 327-334. (Scopus Indexed)
- N. VenkataSairam Kumar, Asst. Prof., G. Sindu Krishna, M.V.R Harish Babu, 'Utilization of FlyAsh in Concrete as Partial Replacement of Cement' The International Journal of Innovative Research in Science, Engineering and Technology, Vol.8, No. 7, July 2019, pp. 8271-8279.
- N. VenkataSairam Kumar, Asst. Prof., T. Sri Divya, K. Rama Rao 'Use Of Fly Ash As Partial Replacement Of Cement In

Concrete Subjected To Elevated Temperatures' International Journal of Innovative Research in Science, Engineering and Technology, Vol.8, No.7, July 2019, pp.7773-7779.

- N. VenkataSairam Kumar, Asst. Prof., Prof. K. S. Sai Ram, 'Sustainable Use of Waste Crushed Rock Dust as Filler Material in Concrete: Performance at Elevated Temperatures', Ecology, Environment and Conservation, Vol. 25, No. 3, November 2019, pp. 1230-1238. (Scopus Indexed)
- N. VenkataSairam Kumar, Asst. Prof., Prof. K. S. Sairam, 'Performance of Concrete at Elevated Temperatures made with Crushed Rock Dust as Filler Material in Concrete' Materials today: Proceedings, Vol.18, Issue 7, pp. 2270-2278, November 2019, (Elsevier; Scopus Indexed).
- K. Leela Krishna, Asst. Prof., Prof. N. V. Umamahesh, Prof. A. Srinivasa Prasad, 'Optimal Crop Water Allocation Coupled With Reservoir Operation by Genetic Algorithm and Non-Linear Programming (GA-NLP) Hybrid Approach', Journal of

Physics: Conference Series. Vol. 1344, No. 1, November 1, 2019, pp. 01200.

- L. N. K. Sai. Madupu, Asst. Prof., Prof. K. S. Sai Ram, 'Strengthening of Axially Loaded Reinforced Concrete Rectangular Columns with GFRP Strips' Materials today: Proceedings, Vol.18, No. 7, November 26, 2019, pp. 3758-3765 (Elsevier; Scopus Indexed).
- K. Leela Krishna, Asst. Prof., Prof. N. V. Umamahesh, Prof. A. Srinivasa Prasad, 'Multi – Objective Reservoir Operating Strategies by Genetic Algorithm and Non-Linear Programming (GA-NLP) Hybrid Approach', Journal of The Institution of Engineers (India): Series A, December 21, 2019, pp. 1-11.
- Professor A. Srinivasa Prasad, K. Leela Krishna, Asst. Prof., 'Optimal design of looped water supply network by GA-NLP hybrid approach', Journal of Physics: Conference Series, December 30, 2019, pp. 1-12. (Scopus Indexed)

Paper Presentations in Conferences

- K. Leela Krishna, Asst. Prof. presented a paper on 'Best compromised multi-purpose reservoir operating policy by Fuzzy Linear Programming' in the International conference Hydro-2019, organised by Osmania University in association with Indian society for hydraulics during December 18-20, 2019.

PhD Awarded

- Mr. B. Kesava Rao was awarded doctorate in July 01, 2019, for the thesis "Cohesive Zone Model for Fracture Characterisation in Composites", from National Institute of Technology Karnataka.
- Ms. J. UshaKranti was awarded doctorate in December 27, 2019, for the thesis "Experimental Investigation on Strength of Concrete by the Replacement of Fine-Aggregate with Copper Slag", from Acharya Nagarjuna University

➤ Mr. N. VenkataSairam Kumar was awarded doctorate in December 27, 2019, for the thesis “Sustainable use of crushed rock dust as filler material in concrete”, from Acharya Nagarjuna University.