Volume 5 Issue 2 Jan-June 2020

SANKALAN (संकलन)

Department of Civil Engineering Academic News Letter

Vision of the Department

To prepare civil engineering professionals with an ability to develop designs and initiate innovative thoughts focusing on infrastructural needs with a social responsibility.

Mission of the Department

M1:To enhance technical skills among the students by adopting effective teaching-learning processes.

M2:To impart knowledge of emerging infrastructural needs of the society for developing eco-friendly designs.

M3:To inculcate technical competencies among the students to enable them to meet present and future challenges.

M4:To prepare for life-long learning with professional ethical practices.

Inside this issue:

MATRUSRI ENGINEERING COLLEGE
Approved by AICTE & Affiliated to Osmania University
16-1-486,Saidabad,Hyderabad-500059

DEPARTMENT ACTIVITIES

1. **Survey camp** was conducted for VI semester students at **Kanchan Bagh** from 25th January, 2020 to 28th January, 2020
2. **National Science day** was organized by **T. Raja Ramanna,** Assistant Professor on 28th February, 2020 for first year students and the chief guest was **Sri Raghuram Vemaraju Garu,** CEO, DURA Auto motives.
3. A **Guest lecture** on **Seismic analysis and design of mineral processing facilities using Staad Pro** by **Miss. Anusha GVL, Project engineer** was organized by **Mrs. Vrushali Kamalakar**, Assistant Professor on 7th March, 2020.
4. A seminar on "**You walk this way only once**" by **Major General Dr. S. S Dasaka** is organized by **T. Raja Ramanna, Assistant Professor** on 12th March, 2020

FACULTY ACTIVITIES

1. **Dr. G. Manohar,** successfully completed **12 weeks course** in SWAYAM NPTEL in **NBA Accreditation and Teaching-Learning in Engineering (NATE) with 74%.**
2. **T. Raja Ramanna,** Assistant Professor got admission for Ph.D. at Annamalai University , Chidambaram.
3. **P. Ashveen Kumar,** Assistant professor attended **Five day FDP** on Design of Tall Building structures at **Vasavi college of engineering** from **27th January, 2020 to 31st January, 2020**.
4. **M. Srividya** Assistant professor attended **Five day FDP** on Foundation Engineering at **JNTUH, Kukatpally Hyderabad** from **3rd February, 2020 to 7th February, 2020**
5. **Dr. P. Rajashekar** has given a guest lecture on **Overview of Civil Engineering** at **Malla Reddy Institute of technology** on **14th February, 2020**.

FACULTY PUBLICATIONS

1. **Dr.G.Manohar** published a paper with the title " Blast response of a structure subjected to large TNT Explosives "in the **International Research Journal** of Management science and Technology in the month of June 2020.

2. **Dr. P. Rajasekhar, Associate Professor** published a paper with the title "**Dynamic Analysis of Foundations subjected to machine Induced vibrations"** in the International Journal of Science and Technology in the month of **March, 2020**
3. **Dr. P. Rajasekhar, Associate Professor** published a paper with the title "**Challenges in Design and Construction of Worlds tallest Rail Bridge in India"** in the International Journal of Science and Technology in the month of **March, 2020**

STUDENT ACHIEVEMENTS

The following students qualified in GATE 2020 Examination

1.	**Sreeja**	1608-16-732-008
2.	**Gopal Krishna**	1608-16-732-017
3.	**Anil Kumar**	160816732034
4.	**Srisailam**	160816732301
5.	**Sreenu**	160816732302
6.	**Harish**	160816732304

ATAL TUNNEL

Atal Tunnel (previously known as Rohtang Tunnel) is a highway tunnel built under the Rohtang Pass in the eastern Pir Panjal range of the Himalayas on the Leh-Manali Highway. the tunnel is one of the longest road tunnels in World and is expected to reduce the distance between Manali and Leh by 46 km .Atal Tunnel is the horseshoe shaped single-tube, double-lane tunnel .the tunnel will provide all-weather connectivity to remote border areas of Himachal Pradesh and Ladakh which otherwise remain cut-off from the rest of the country for about six months during winters. This will be not only important from the strategic point of view but also give a boost to tourism in Lahaul-Spiti, creating employment opportunities.

The tunnel has consumed 14,508 metric tons of steel and 2,37,596 metric tons of cement, and excavated out 14 lakh cubic meters soil and rocks, using the drill and blast technique for excavation and the New Austrian Tunneling method for construction. The tunnel has consumed 14,508 metric tons of steel and 2,37,596 metric tons of cement, and excavated out 14 lakh cubic meters soil and rocks, using the drill and blast technique for excavation and the New Austrian Tunneling method for construction.

The most challenging task was to continue the excavation during heavy snow-fall in winter. Excavation for tunneling was done from both ends. However, as Rohtang pass closes during the winter, the north portal was not accessible during winter and the excavation was being done only from the south portal in winters. Only about one-fourth of the entire tunnel was excavated from the north end and three-fourths was excavated from the south end. There were more than 46 avalanche sites on approaches to the tunnel.

Salient features of the proposed Rohtang Tunnel are as follows:

* Length of Tunnel: 9.02 km (5.6 mi)
* Shape (cross-section) of Tunnel: Horseshoe
* Finished width: 10.00 m (32.8 ft) at road level. (8m pavement and 1m footpath on both sides)
* General altitude of the tunnel: 3,000–3,100 m or 9,840–10,170 ft
* Designated vehicular speed: 80 km/h (50 mph)
* Temperature variation in the area: 25–30 °C (77–86 °F) during May–June, −30 to −20 °C (−22 to −4 °F) during Dec–Jan.
* Construction technique proposed: Drill & Blast
* Tunnel ventilation: Semi-transverse system of ventilation has been proposed.
* A 2.25 m high and 3.6 m wide emergency tunnel will be integrated in the tunnel cross-section beneath the main carriageway.

The tunnel provides a telephone facility on every 150 meters, fire hydrant on every 60 meters, emergency exit on every 500 meters, turning cavern on every 2.2 km, air quality monitoring on every one km, broadcasting system and automatic incident detection system with CCTV cameras on every 250 meters.

By

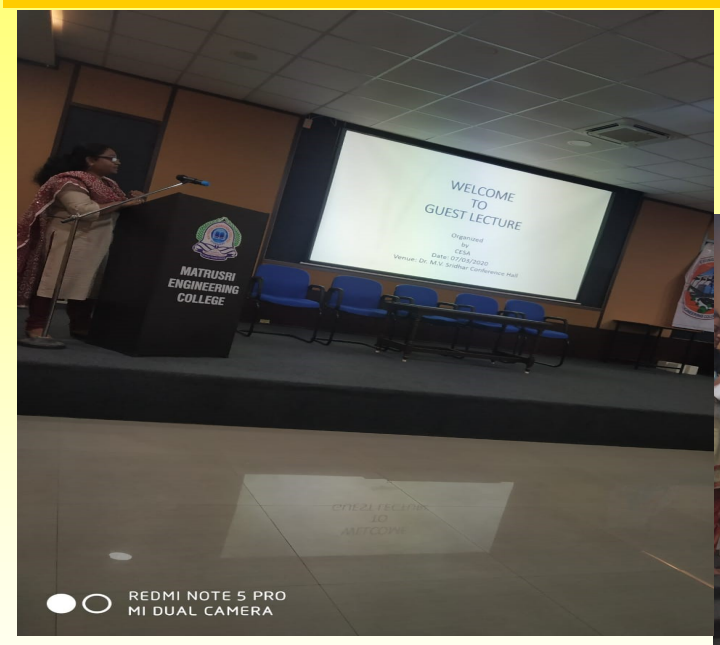
Smt. P. Dhanamma
Assistant Professor,
Civil Engineering Department.

GALLERY

SURVEYING CAMP AT KANCHANBAGH

GUEST LETURE BY MAJOR GENERAL DR. S. S DASAKA ON TOPIC YOU WALK THIS WAY ONLY ONCE

GALLERY



GUEST LECTURE BY MISS. ANUSHA GVL, PROJECT ENGINEER

GUEST LECTURE BY DR. P. RAJASHEKAR, AT MALLA REDDY EENGNEERING COLLEGE ON "OVERVIEW OF CIVIL ENGINEERING"