



# Civil Info

Civil Engineering  
News Letter Volume-V Issue-I June-July (2018-2019)



**"THE ROAD TO SUCCESS IS ALWAYS UNDER CONSTRUCTION"**

After completion of even semester exams for AY 2017-18 and summer holidays, the college for AY 2018-19 has re-opened on 11<sup>th</sup> June 2018 for second, third and final year students.

## Revit Workshop by APSSDC

Revit is the design a building and structure and its components in 3d and access building information from the building model's database. It is the workshop conducted by the APSSDC for the students in Andhra Pradesh. The workshop is for 6 days from 11-6-2018 to 16-6-2018. The workshop was held by Mr. C Veerababu.

On the day 1, the installation, introduction, shortcut keys, basics of that software is been explained.

On the day 2, they started with a modeling of structure of columns, footings and beams and continued with reinforcement in columns and footings.

On the 3 day, the reinforcement of beams, stairs. Each candidate drew a building or structure. The doubts were been clarified by them.

On the 4 and 5 day, the design of slab, roof, lintels and collaboration of files and importing of CADD Files is been explained.

The Revit Structure is the most useful software for the Architecture purpose of the Civil Engineering now-a-days

## International Yoga Day Celebrations

On the eve of 4th International yoga day 21st JUN 2018, College NSS unit have organized Yoga Session at college Auditorium premises, the session have received encouraging response from student volunteers of NSS. The session was headed by Mrs.L.Shanthi secretary of women yoga for Krishna District.



During the Yoga Practice

## SWACHH DHANEKULA

NSS unit have organized SWACHH DHANEKULA on 31-07-2018 to promote healthy & hygienic atmosphere in the college. Towards this NSS student volunteers have collected and show cased the garbage in front of the canteen such students will be aware of the amount of garbage disposed outside the dustbin.



# INDUSTRIAL VISITS

## Andhra Pradesh Pollution Control Board Visit by Final Year Students

Driven by the vision to foster economic growth with efficient environmental management for an improved quality of life, the Andhra Pradesh Pollution Control Board has been playing a pioneering role in the field of environment protection. The Board works relentlessly in efficient implementation of environmental policies, laws, regulations, and develops frameworks to manage both wastes and natural resources of the State. APCCB as a state-wide presence with its Head Office at Vijayawada, and 3 Zonal and 9 Regional Offices covering the entire the State.

The Board is a statutory organization entrusted to implement Environmental Laws and rules within the state of Andhra Pradesh, India. The Board was constituted as State Board for Prevention and Control of Water Pollution, in 1976, under the Water (Prevention and Control of Pollution) Act, 1974, but was later rechristened as A.P. Pollution Control Board, subsequent to the enactment of the Air (Prevention and Control of Pollution) Act, 1981.

An Air Pollution Control Board of Andhra Pradesh was here to check the pollution percentage in the atmosphere. There are different areas around Vijayawada to check the air pollution at the regarding places.

There are two different types in the dust collecting one collects the particle matter of size 10microns and the other collects the particle matter of size 2.5microns .A filter paper is placed in the equipment which collects the dust particles, the air which is collected is left through the outlet by extracting the gases like sulphur,phosphate, Aluminium.



Final year Civil Engineering students at APCCB.

## Andhra Pradesh Mineral Development Corporation Limited Visit by Third Year Students

“APMDC” means Andhra Pradesh Mineral Development Corporation Limited. It was incorporated on 24<sup>th</sup>Feb,1961 as a wholly owned undertaking of the Government of Andhra Pradesh for the development of mineral resources and promotion of minerals leased industries in Andhra Pradesh including exploration, exploitation, conservation, processing beneficiation and conversion in to value added products.

The objectives of the corporation are:

1. Development of mineral resources including exploration and beneficiation.
2. Develop of minerals industry with private participation.



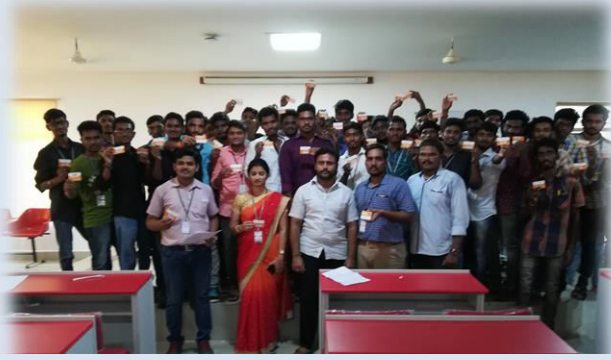
3. Best technology identification and investment for development of mineral resource.



Third year Civil Engineering students at APMDC

## Awareness Program on Stem Cells Donation

An Awareness Program on STEM CELLS DONATION was organized by Dhanekula NSS Unit in Association with DATRI Foundation on July 20<sup>th</sup> 2018. Almost 400 students voluntarily have participated and registered as donors



## Awareness Programme Conducted On Smart City Amaravathi-People's Capital

An awareness programme conducted on smart city Amravati-people's capital in diet auditorium. The speaker has delivered future prospects of **GREEN-BLUE, Energy Efficient and digital capital city**. A power point presentation and videos showed on Layout and present developments happenings in the CRDA region.

**Govt** has taken a special day- **Wednesday** for review meetings and visits to **Amravati City** Developments. A lecture on voluntary land pooling process and benefits for the land donors. Details of CRDA area, Network of roads and Infrastructure, Population, Govt. policy support initiatives to mitigate risks, 27,577 no of farmers given 33,740 acres of land for CRDA. 25% of pooled land given as plots by APCRDA to farmers. 8,275 acres of land was ear marked by APCRDA for investment grounding.

Various smart initiatives undertaken for economical development in this region is also explained. Various upcoming employment opportunities and start-up companies' details highlighted. Opportunities for ease of doing of business in future have been explained. APCRDA planned Amravati city with **Happiness** through various path breaking initiatives. Also discussed about the various agencies associated with APCRDA. APCRDA planned higher FAR (Floor Area Ratio) up to 5 to ensure developer returns. Amravati capital region economy will be INR 120,000 Cr in the next 25 years.



## Seminar On Water Resources Development And Management

The seminar is on the **present challenges and issues in Water Resources Development and Management**. The seminar is being held by **P Lakshmi Narayana** on 25/7/2018 on Wednesday.

The seminar was conducted by the college *Dhanekula Institute of Engineering and Technology*. In seminar the main discussed topics where about the water scarcity in India by the year 2050 and implementation of water for the people by 2050.

India has 18% of World Population in which it consist of 2 percent of land and 4 percent of freshwater. By the year 2025 3.4 billion people will be living in water scarce countries.

The seminar explains about the water supply in the present new capital of Andhra Pradesh, Amravati and usage in it with modified Technology. The seminar also explains about the usage of water from the past decades of the years in India. It also explains about the groundwater, increase in groundwater quality problems, issues, future increase in water pollution.

Presently India uses 230- 250 cubic kilometer per year of groundwater. More than 60% of irrigated and surface water is of 60 to 75 mg per litre and groundwater is of 100 200 300 mg per litre.

Groundwater quality problems such as floor problem arsenic problem nitrate problem salinity pollution problems. Attenuation of pollution filtration, sorption, chemical, dilution and general.



### Parents Meet

The Department of Civil Engineering had conducted a PARENTS MEET on 21 - 07 - 2018 for 2nd, 3rd and 4th year students of CE. The Parents meet was conducted at the CE department seminar hall which is started at 02:00 Pm and completed by 04:30 PM evening. Head of the department Dr. P. Siva Prasad garu, addressed the parents for an hour addressing different activities, policies and procedures following in the department and later parents interacted with the respective class in charges, counselors and the subject teachers and collected suggestions and feedback forms from parents.



### Faculty Research COLLOQUIA

Research Colloquia seminar on the topic ' Dynamics of Compliant Piled Tower (CPT) ' was presented by Dr. P. Siva Prasad on 31.7.2018. CPT is a slender, bottom-founded, non guyed platform supporting a drilling & production deck for oil & gas exploration. They are adopted for water depths in the range of 300 - 600 m. They are stabilized against sway by Flex legs, with a natural period of about 20 to 35 s. Related to CPT, the topics covered include basic features, analysis, design, fabrication, launching, installation and model studies of the structure.



### Career Guidance

The mission of the Howard R. Hughes College of Engineering is to educate the future leaders, innovators, and entrepreneurs while discovering, integrating, and applying new engineering and computer science knowledge in service to society. The overarching goals of the College of Engineering are to: Enable students to achieve excellence in engineering, informatics, computer science, and construction management.

Promote the discovery, integration, dissemination and employment of new engineering, informatics, computer science, and construction management knowledge in service to society; Enable economic growth while increasing the quality of life and maintaining the ecosystem. Our core strategy for undergraduate learning in engineering, computer science, and informatics and construction management embraces four distinct objectives:

Graduates will be technically competent in core areas within their discipline and related mathematics and sciences. Graduates will be able to work within a team and communicate effectively through oral, graphical, and written modalities. Graduates will be able to synthesize diverse information to develop creative design solutions. Graduates will be able to function effectively in an evolving profession. Visit this site for more information Howard R. Hughes College of Engineering [engineering.unlv.edu](http://engineering.unlv.edu) Student & Professional Associations Students are encourages getting involved with these organizations early on by joining the student chapters at UNLV. American Society of Civil Engineers (ASCE) [www.asce.org](http://www.asce.org) National Society of Professional.

Under Samskruthi, we are organizing music training classes in the college campus every Monday and Tuesday

# TECHNICAL TOPICS

## White Portland Cement

White Portland cement or white ordinary Portland cement (WOPC) is similar to ordinary, gray Portland cement in all aspects except for its high degree of whiteness. Obtaining this color requires substantial modification to the method of manufacture, and because of this, it is somewhat more expensive than the gray product.

### Uses of white cement

- 1-White cement is used for joining marbles and ceramic tiles of wall and floors.
- 2- It can be used for preparing joints of sanitary wares.
- 3- It is also used for architectural works.
- 4- It is used in manufacturing of mosaic tiles.
- 5- White cement is used to manufacture the colored cement by adding some color dye into it.
- 6- It can be used as waterproofing agent.

### Chemical composition of white cement

- The resulting white cement has the following chemical composition:

Table YYY: Cement compositions

Composition	Percent by weight, for various cements			
	Gray (type I)	White (textbook)	Aalborg White (types I, II, III, V)	Middle East White
C <sub>3</sub> S	45 – 55	59.4	62	48.5
C <sub>2</sub> S	20 – 30	23.5	25	30.5
C <sub>3</sub> A	8 – 12	12.9	4	13.4
C <sub>4</sub> AF	6 – 10	0.6	1	0.8

### Points to be noted

Strength of white cement lower than opc but Price of white cement higher than opc. It is also known as snowcrete.

By

Ch.Prakhya (168T1A0116)

## Photo-catalytic Cement

This is a patented Portland cement developed by Italcementi Group. The photo-catalytic components use the energy from ultra-violet rays to oxidize most organic and some inorganic compounds. Air pollutants that would normally result in discoloration of exposed surfaces are removed from the atmosphere by the components, and the residues are washed off by rain. This cement can be used to produce concrete and plaster products that save on maintenance cost while they ensure a cleaner environment.

In addition to Portland cement binders, the product contains photo-catalytic titanium dioxide particles. The cement is already being used for sound barriers, concrete paver blocks and façade elements. Other applications include pre-cast and architectural planners, pavements, concrete masonry units, cement tiles etc.

BY

J.V LAHARI (158T1A0192)

## Central Park Tower Is To Be 'Super-Sustainable'

Construction works began: 2014

Expected completion date: 2020

Defining feature/innovation/emerging technology/new technology: Currently under construction, the new Central Park Tower in New York has been designed under the philosophy of Global Environmental Contextualism. Its construction is taking advantage of cutting-edge engineering to reduce emissions, optimize air circulation and internal climate control.



BY

ABDUL RASHID KHAN(158T1A0102)

## Footfall energy harvesting floor

An emerging technology in the industry is the footfall energy harvesting floor, which generates energy from the routine human activities, such as walking, running, jumping, dancing etc. The technology works on the basic principle of converting kinetic energy, obtained from the pressure applied on the floor surface, into electrical energy. The “footfall energy harvesting floor” comprises a floor covering that encloses a transducer mechanism for converting the applied pressure into electrical energy and a means for transmitting the electrical energy for storage or load consumption. Among the other technologies that promote sustainable energy, energy harvesting floor is considered to be the most productive as it does not depend on any of the natural resources, such as wind, water or sun that are not consistently available. Energy harvesting floors, which take input from human footsteps without affecting pedestrians’ normal life, are easy to install, environment friendly, and are truly sustainable.



-Ch.Hema Sindhusa Asst.Prof.

## Semester Toppers:

J.Venkata Lahari of batch 2015 secured First place in III-II results with 87.88%



Gopilli Naveen of batch 2015 secured Second place in III-II results with 83.1%



M V V N D Yeswanth Kumar of batch 2016 secured First place in II-II results with SGPA 9.59



CH Yamini of batch 2016 secured Second place in II-II results with SGPA 8.64



## EDITORIAL FACULTY

**MR. M JEELANI, ASST PROF.**

**MR. ABDUL RASHID, ASST PROF.**

## DESIGN TEAM

**P.N. UNNATH KUMAR II YEAR**

**V GIRIDHAR II YEAR**

**CONTACT**

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