

team



News Letter Volume-V Issue-IV December-January (2018-2019)



### "GOOD, BETTER, BEST. NEVER LET IT REST. TIL YOUR GOOD IS BETTER AND YOUR BETTER IS

A NIKHIL SATYA SAI (178T1A0101) of the second year was selected for JNTUK Cricket Team.

EENADU Cricket Tournament has held from 26.12.2018 and 02.01.2019 at DJR college our college won runners under the captaincy A.Nikhil Satya Sai Congratulations to all the members of the cricket team



Volley Ball - VITOPIA has on 29.12.2019 at VIT Amaravathi our college won runners under the captaincy of J Rja Kumar Congratulations to all the members of the volley ball

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**YOUTH EMPOWERNMENT** On January 5th 2019, College NSS unit have organized a session on Youth Empowerment.



Almost 500 above Students have participated along with NSS Program officer and staff coordinators have participated in this and made the session fruitful. The session was headed by Prof Viswanathan - Osmania University.





DHANUSH-2K18 was held on 2018 December 14<sup>th</sup> and 15<sup>th</sup>. 237 students from 60 colleges took active participation in technical events conducted by Civil department. The non-technical events are conducted by Samskruthi in the college level. The following are the technical events conducted by Civil Department in the department level. **Technical Events** 

S.No	Events	No. of students Participated
1	Paper Presentation	55
2	Tech Trix (Technical Exhibition)	13
3	Theme Ballet (Postar Presentation)	15
4	Technical Quiz	34
5	Spot Model Making	56
6	CAD Expertise	24



#### **Sankranti Celebrations**









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On January 11th 2019, SAMSKRUTHI unit have organized Sankranti Celebrations. They conducted Rangoli and kite flying competitions.

#### **Industrial visit to Polavaram Irrigation Project** Total 110 students are attended from IV year to polavaram Irrigation Project



Polavaram is a multi-purpose irrigation project which is under construction and located on river Godavari near Ramayyapet village of Polavaram Mandal of West Godavari district in Andhra Pradesh. The project has been on cards for almost 75 years. This project is a dream for the 5 crore people of Andhra Pradesh. The project will be a one-stop solution for all the water needs of the state.

The project reservoir has live storage 75.2 TMCs at canal's full supply level of 41.15 metres (135 ft) MSL and gross storage of 194 TMCs thereby enabling irrigation of 23,20,000 acres (including stabilisation of existing irrigated lands).

## Polavaram will benefit all the 13 districts of A.P, directly and indirectly.

Polavaram project dam being built on River Godavari can help divert and utilise Godavari water to Krishna and other rivers. If executed well, this project can make the state drought-free forever.

AP Government is very keen to finish this mammoth project by 2019 at any cost. The progress of the project is being monitored at the highest levels of Government on weekly basis

#### Industrial visit to PattiseemaLift Irrigation Project

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Total 110 students are attended from IV year to Pattiseema Lift Irrigation Project



The project has one of the largest pump houses in Asia with 24 pumping units spread across an area of 7,476 sq m. The project has a combined capacity to discharge 240 cumecs of water. These pumps deliver water drawn from the river Godavari in Pattiseema into the Polavaram Project Right Main Canal for the benefit of farmers in the Krishna river delta. Under the Bachawat tribunal and inter-state agreement between Maharashtra, Madhya Pradesh and Andhra Pradesh, 100 tmc of water can be diverted from River Godavari to River Krishna. Pattiseema project will bring the 100 TMC water to River Krishna. This project has faced lot of hurdles in initial days as it was opposed by YSRC party citing that it had no storage component. Though there were objections from opposition parties chief Minister of Andhra Pradesh Nara Chandrababu Naidu has decided to take up this project. The bold decision taken by chief Minister has helped thousands of farmers cultivating 1.3 million acres in krishna delta which faces water shortage in the period June to August. The water pumped into canal from River Godavari would take 7 – 8 days to reach Prakasam Barrage after travelling by Gravity for about 160 km.

# **TECHNICAL TOPICS**

#### **Pollution-Absorbing Cement**

It's a health concern that's easy to ignore because we often can't see it, but air pollution kills roughly 4.6 million people each year. In Italy alone, nearly 100,000 people died in 2012 as a result of poor air quality. For this reason and more, Italian scientists have teamed up with the building company Italcementi to create a type of concrete that draws pollutants right out of the air.

Here's how it works: When the sun's ultraviolet light comes in contact with the cement, it interacts with a titanium catalyst. This chemical reaction pulls in toxins and forms harmless salts that wash away when it rains. "Additionally, the mortar is made from 80% recycled aggregates, part of which consist of scraps from the cutting of Carrara marble, and therefore provide a superior brilliance compared to traditional white cements," the company said in a statement.

This invention isn't just in its early stages either. Designers built the Palazzo Italia in Milan in 2015 using the pollution-absorbing cement in an attempt to reduce the city's apocryphal smog levels. According to innovation director Enrico Borgarello, the building used 9,000 square meters (or 2,200 tons) of the cement, which can remove the equivalent of smog emitted by 300 gas-powered cars each year. As an added bonus, the building uses 40% less energy than other high-rises and generates its own energy with the help of a solar-panel roof. According to early projections, using the material on 15% of Milan's light-exposed surfaces could reduce the city's smog levels by half.

On top of all that, the building looks as futuristic as its materials would imply. With a bright white webbed design on its surface, the building is a novel addition to Milan's stone-paved streets. Looking at it, you'd never know it is cleansing the air of harmful particles.

By P Seshidhar(158T1A01A6)

#### **Remote Sensing Techniques in Water Resources Quality Monitoring**

Remote sensing techniques are been used extensively for solving the real-world problems in many aspects. One among them is the water resources monitoring, which gains its importance in recent advancements. The remotely sensed images are captured by sensors fitted to satellites (and at times below aircrafts) that work on two basic technologies. One of these, the Passive System, records the reflected electromagnetic energy of the earth, the source of the energy being the radiation of the Sun. The other, called the Active System, employs its self-generated pulses and records the reflected pulse. These two systems may be compared to taking photographs in sunlight and with flashlight respectively. The active remote sensing systems mostly use radars that emit radiation in the microwave band of the electromagnetic spectrum. This system is useful in cases where passive systems do not give enough information.

Here are the few water quality issues and corresponding techniques adopted to measure them. Colour/material isolation can be recognized by LASER SPECTROMETER which may not be possible to detect through satellite imagery, ground based LASER spectrometers can be used for identification of chemical composition of the solution/water. Municipal and industrial discharges (effluents) are exposed by the satellite/air borne TIR imagery. Oil pollution can be spotted by ultraviolet (UV) photography, thermal infrared (TIR) scanners and passive microwave sensors. Good weather condition and low altitude aerial survey is required to monitor oil pollution, limited to day time monitoring. Water depth can be identified by blue/green portion of visible spectrum by using LASER profile technique (LIDAR). Apart from these, change in vegetation can be identified, monitored through colour infrared photography(CIR), B&W IR image also be used to detect the agricultural pollution.

## **Semester Toppers**





Look around you. You see buildings and roads; you drink clean water and breathe clean air. Civil engineers, together with other disciplines, make these aspects of everyday life possible! Be a part of it! As a civil engineer, find creative solutions to problems while working on a wide range of local, regional, and/or global projects. Apply cutting edge math, science, and technology to make a difference in the world. Find a civil engineering career path that best suits you.

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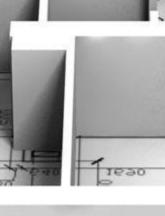
#### Government

Positively impact our public infrastructure, influence public policy, and affect codes and regulations. This career path shows many of the options available for civil engineers who havechosen acareer in government, such as local, state and federal agencies. Someleave the technical engineering path as they progress and move into governmentmanagement. At this level, additional leadership training and education in publicadministration or business management is recommended. Whether planning tostay on the technical track or not, government engineers should seek additionaltraining in their area of technical expertise to advance within their organizations.Government engineers are often involved in developing policy and standards for theprofession and general public.

#### Education

Shape the future ofcivil engineeringand prepare thenext generation of professionals. Civil engineers in academia are involved with teaching the next generation of engineers and developing engineering curriculum that prepares students with the knowledge they need to succeed in their careers. This career path requires an advanced degree, including a doctorate in most cases. Engineering educators write grants to obtain research funding and work with graduate students to conduct research aimed at developing advancements in the field of engineering. At many academic institutions, publishing research findings and obtaining grant funding for your academic institution are key elements to success. Additionally, facilitating student learning and achieving recognition as a top performing teacher help make this a fulfilling career choice

Further career paths in upcoming news letter



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#### **DESIGN TEAM**

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