April- June 2018, Issue-6

BHILAI INSTITUTE OF TECHNOLOGY, DURG
DEPARTMENT OF CIVIL ENGINEERING

ASPIRE TO EXCEL

ZIVILTECH

VISION: To create globally competent Civil Engineering professionals by delivering value based quality education to serve the society.

MISSION: To put in honest, sincere and focused efforts to create peace, prosperity and growth for all stakeholders and produce globally competent Civil Engineering professionals who will be able to exhibit teamwork, commitment and to excel in all areas of civil engineering.

ACHIVEMENTS

1) Vikram Singh, Aman Singh (8th Sem) secured an AIR 1193 & 1476 in GATE 2018 exam.

2) Ashish Agnihotri (8th Sem) got selected for interview in Vishakhapatnam for Navy commissioned Officer.

From Editor's Desk

Dear Readers,

Summer brings intense heat to the earth. The summer heat is analogous to the inside instinct of the man that he uses to complete his work. If this heat is more than nobody can stop him to melt his goal and if the season witnesses less heat than the goal is not achieved. So in this summer I hope u will be able to witness more & more heat towards your goal to achieve it.

500-year-old Leaning Tower of Pisa mystery unveiled by engineers

Despite leaning precariously at a five-degree angle the 58-metre tall Tower has managed to survive, undamaged. Research team of 16 members led by Professor Camillo Nuti at Roma Tre University has unveiled it. The considerable height and stiffness of the Tower combined with the softness of the foundation soil, causes the vibrational characteristics of the structure to be modified substantially, in such a way that the Tower does not resonate with earthquake ground motion. This has been the key to its survival. The unique combination of these characteristics gives the Tower of Pisa the world record.

Designed and developed in conjunction with Italian manufacturer Turbosol, the TB40/T is described as a lightweight, compact, road-towing trailer pump that is available exclusively in the UK. Its combination of powerful pumping and small size – 3.3 m long by 1.75 m wide make it suitable for contractors undertaking multiple pours in a day.

PMAY Project in Kota, Raipur Uses Latest Aluminum Mivan Technology for formwork

The Pradhan Mantri Awaas Yojna which aims at providing households to the people of India under the Mission Housing for All is all set in the construction site in Kota, Raipur to use the latest Mivan Technology Formwork. The Mivan Technology uses aluminum as a formwork material in which the formwork is made and cut in size the walls and then the formwork material is transferred to the site and the formwork is placed in the position of the walls so that casting take place. The Concrete is prepared using Batching Plant and the concrete placed using the Boom Placer.

INSHORTS

1) Nagpur Metro phase II delayed by 2 months.
2) Construction work of Dwarka Expressway to begin in one month: Nitin Gadkari.
3) Madhya Pradesh PWD sends notice to 300 contractors for not updating projects on site.
4) Over 3 lakh houses constructed under PMAY Scheme in Rajasthan.
5) The construction of Jewar Airport to Begin this Diwali.
6) No change in real Estate laws, housing minister to builders.

FACTS

1) The first self-proclaimed civil engineer was John Seamton who constructed the Eddystone Lighthouse.
2) The first private college to teach Civil Engineering in the United States was Norwich University, Vermont, Partridge.

QUIZ

1) What is the shape of kidney?
2) Who wrote the book "The Intelligent Investor"?
3) What was the theme of the 2018 World Earth Day?
4) Who is the father of modern oceanography?

Kalyani polymer develops FIBERCRETE the Next Gen Fibers that Empowers Modern Concrete

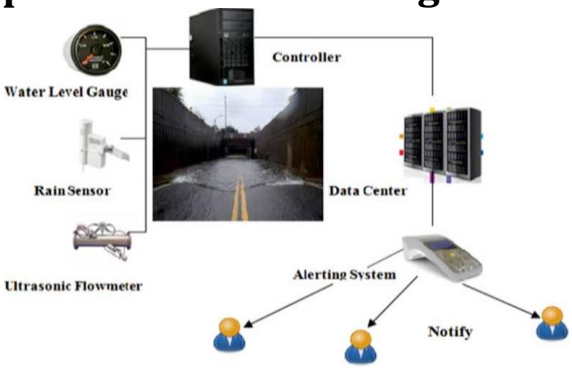
FIBERCRETE is the latest innovation in polymer extrusion product developed in south of Bangalore engaged in manufacture of niche polymer products which have been export replacements for the Indian market. FIBERCRETE FF and FIBERCRETE MF are the latest launches of the product in 2017 and has been welcomed unanimously by the Construction, Engineering and Infra Sectors adding value to the Concrete by mitigating its weakness like water bleed, shrinkage etc. and empowering the Modern day concrete enhancing the versatility of its usage.

U.P. CM inaugurates India's longest elevated road in Ghaziabad

Uttar Pradesh Chief Minister Yogi Adityanath on Friday, May 11 inaugurated a 10.3-km-long elevated road, touted to be the longest of its kind in the country, connecting UP Gate and Rajnagar Extension here. Built at a cost of ₹1,147 crore, the six-lane elevated road is supported on 227 pillars. As per its design, vehicle owners will be allowed to drive at an average speed of 80 kmph on the road. After inaugurating the Chief Minister took it to travel to Vasundhara.

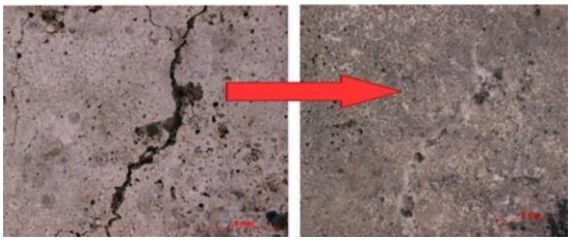
Answers of Quiz in the Next Issue.

Internet of Things (IOT) Application in Waterlogging prevention and Management



The Mechanism of urban flooding is location specific and very complex. Flash flood frequencies have increased that creates havoc in urban cities due to global warming. The application of urban flood control management system which is based on Internet of things technology provides comprehensive monitoring and pays more attention to the management of urban drainage and flooding prevention. The flooding Prevention Management System work in direction: Calculation of drainage flow, Rainfall and water level detection, Sending collected flooding information to data center for analysis and monitoring and alerting mechanism to precautions.

Self-Healing Concrete



A team at the University of Waikato in New Zealand has developed a form of self-repairing concrete. The process uses what is called "solid-state fermentation" to fill cracks as they develop. Waikato researchers Aydin Berenjian and student Mostafa Seifan add microorganisms and nutrients to the initial mix. These then create calcium carbonate when exposed to the air by cracking. Berenjian said the ability of the cells to keep producing calcium over time was crucial: "With the help of the unique fermentation system and nano-biotechnology, we have engineered a process that makes the calcium carbonate production very efficient even in a harsh environment.