SREE NARAYANA INSTITUTE OF TECHNOLOGY, ADOOR

DEPARTMENT OF CIVIL ENGINEERING

CEPTA

NEWSLETTER

"TECHNICAL KRITHI"

e-Newsletter
SEPTEMBER 2021

TEACHERS DAY CELEBRATION

"If you were successful somebody along the line gave you some help. There was a great teacher somewhere in your life." - Barack Obama

SNIT Adoor celebrated Teachers day on 5th September 2021 remembering and honouring teachers for their significant contributions in shaping the life of students.

In India, Teachers' Day is celebrated annually on September 5 to mark the birthday of the country's former President, scholar, philosopher and Bharat Ratna awardee, Dr Sarvepalli Radhakrishnan, who was born on this day in 1888. Dr Sarvapalli Radhakrishnan who was the first Vice President of India (1952–1962) and also a highly-respected teacher, philosopher and prolific statesman. Dr Radhakrishnan went on to become the second President of India (1962-1967) and was of the opinion that **"Teachers should be the best minds in the country."**

"Engineers … are not mere technicians and should not approve or lend their name to any project that does not promise to be beneficent to man and the advancement of civilization."

-John Fowler

NSS DAY CELEBRATION

NSS unit of SNIT Adoor conducted 'Campus Cleaning drive' on 24th September by cleaning the campus area as part of NSS Day celebration.

The National Service Scheme is a public service program conducted by the Ministry of Youth Affairs and Sports. Every year, NSS day is observed on **September 24** across India. The National Service Scheme was launched in 1969, the birth centenary year of Mahatma Gandhi in 37 universities involving 40,000 students.

STUDENTS CORNER

Haneetha
M2 SECM

GEOGRID REINFORCED CONCRETE SLABS

Reinforced concrete (RC) structures are often subjected to extreme dynamic loading conditions, mainly caused by effects of impact loading. A countable studies have been carried out on the structural behaviour of RC slabs under static and dynamic loadings.

Reinforced concrete (RC) slabs are one of the widely used structural elements in building structures. In other hand, polymeric materials like glass, carbon and steel fiber composites and Geosynthetics composites that include geogrid, geocells are used as reinforcement to enhance the properties of structural concrete elements . The RC Slabs are most commonly designed by considering the static loading provisions alone. In most of the cases, for designing the RC slabs, both static and dynamic vertical load effects are not taken into the account. In specific, the impact loading is ignored or it is infrequently considered only for the specific problems in the design stage of slabs. The impact performance of RC slabs is still not well understood due to the marginal specific research work done in this field. However, a wide range of solicitations inspires to know the complete knowledge about the impact performance of RC slabs. Accidental loading scenarios like falling dense soil or rock, vehicle and ship collisions, wave current impact force on offshore structures are examples of impact effects that affect the need for impact resistance design process.

The RC slab specimens embedded with combined geogrid and steel reinforcement behaved with a better performance by improving the resistance to the impacted shear stress through dowel action. This combined reinforcement layout also helps to spread the tensile stress from the impact loading to a large area, thus avoiding the accumulation stress at a specified loading point. As a result, the combined geogrid and steel reinforcement embedded RC slab specimens sustained for higher counts of impact loading blows which influences the enhanced impact performance in terms of impact energy absorption and impact ductility index. In particular, the slab specimens embedded with the single layer of geogrid reinforcement in both tension and compression side in addition to conventional steel reinforcement influence the enriched performance under impact loading. It also noticed that, the RC slab specimens embedded with steel reinforcement alone or geogrid reinforcement alone is not significantly increases the impact performance due to the sudden concrete crushing failure.

DO YOU KNOW ??

CLEAR COVER TO MAIN REINFORCEMENT

Footing = 50mm

Raft foundation:

top=50mm

Bottom = 75mm

Side = 75mm

Beam = 25mm

Strap beam = 50mm

Column = 40mm

Slab = 15mm

Flat slab = 20mm

Stair case = 15mm

Retaining wall

= 20- 25mm

Water retaining structures = 20-30mm

HAPPY BIRTHDAY

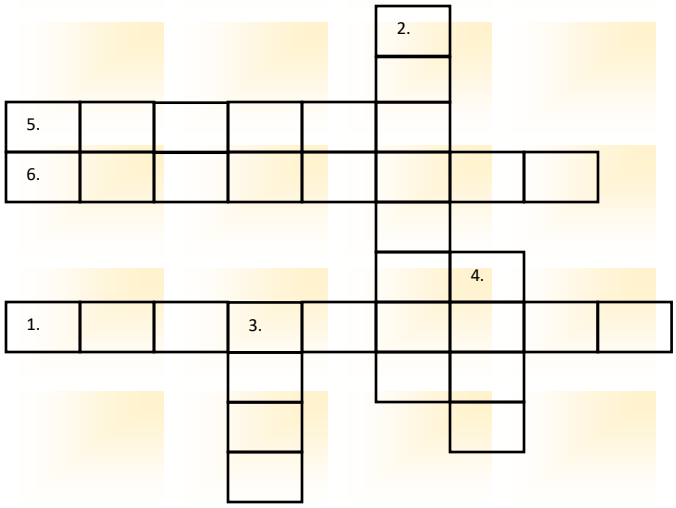
Sir Mokshagundam Visvesvaraya
(15 September 1860 – 14 April 1962)

Sir Mokshagundam Visvesvaraya (15 September 1860 – 14 April 1962), more commonly known as Sir MV, was an Indian civil engineer, statesman and the 19th Diwan of Mysore, serving from 1912 to 1919.He started his primary education in Bangalore, still that stands as United Mission School and he pursued his degree from one of the best and the 3rd oldest engineering college in Asia, College of Engineering, Pune. He received India's highest honour, the Bharat Ratna, in 1955. He was knighted as a Knight Commander of the British Indian Empire. His birthday, 15 September, is celebrated as Enginers' Day in India, Sri Lanka and Tanzania in his memory.

He was the Chief Engineer of Krishna Raja Sagara dam in the north-west suburb of Mysuru city, Laxmi Talav dam in the south-west Maharashtra Radanagari Kolhapur and also served as one of the Chief Engineers of the flood protection system for the city of Hyderabad.

REENU RAJAN
M2, SECM

LET'S FIND OUT



HORIZONTAL:

1) Wedge shaped units forming the arch

5) Stone slightly projected that surmounts the pier and voussoirs

6) Triangular space between one side of outer curve of an arch, a wall and ceiling or framework

VERTICAL:

2) Outer surface of an arch

3) Clear horizontal distance between supports

4) Vertical distance between springing line and highest point on intrados

PANAMA CANAL

RISHNA

M2 SECM

Airport type	Public
Operator	Kansai Airports (Orix and Vinci Airports)
Serves	Greater Osaka Area
Location	Izumisano, Sennan, & Tajiri Osaka Prefecture
Opened	4 September 1994 (27 years ago)
Hub for	All Nippon Airways FedEx Express Japan Airlines Jetstar Japan Nippon Cargo Airlines Peach Aviation
Focus city for	Singapore Airlines
Elevation AMSL	5 m / 17 ft

Kansai International Airport is the primary international airport in the Greater Osaka Area of Japan and the closest international airport to the cities of Osaka. It is located on an artificial island in the middle of Osaka Bay off the Honshu shore, 38 km (24 mi) southwest of Ōsaka Station, located within three municipalities, including Izumisano (north), Sennan (south) and Tajiri (central), in Osaka Prefecture.

Kansai opened on 4 September 1994 to relieve overcrowding at the original Osaka International Airport, referred to as Itami Airport, which is closer to the city of Osaka and now handles only domestic flights. It consists of two terminals: Terminal 1 and Terminal 2. Terminal 1, designed by Italian architect Renzo Piano, is the longest airport terminal in the world with a length of 1.7 km. The airport serves as an international hub for All Nippon Airways, Japan Airlines, and Nippon Cargo Airlines, and also serves as a hub for Peach, the first international low-cost carrier in Japan.

In 2016, 25.2 million passengers used the airport making it the 30th busiest airport in Asia and 3rd busiest in Japan. The freight volume was 802,162 tonnes total, of which 757,414 t were international (18th in the world), and 44,748 t were domestic. The 4,000 m × 60 m (13,120 ft × 200 ft) second runway was opened on 2 August 2007. As of June 2014, Kansai Airport has become an Asian hub, with 780 weekly flights to Asia and Australasia, 59 weekly flights to Europe and the Middle East, and 80 weekly flights to North America.

IMPORTANT DAYS

SEPTEMBER 16

OZONE DAY

September 16 was designated by the United Nations General Assembly as the International Day for the Preservation of the Ozone Layer. This designation had been made on December 19, 2000, in commemoration of the date, in 1987, on which nations signed the Montreal Protocol on Substances that Deplete the Ozone Layer.In 1994, the UN General Assembly proclaimed 16 September the International Day for the Preservation of the Ozone Layer, commemorating the date of the signing, in 1987, of the Montreal Protocol on Substances that Deplete the Ozone Layer. The closure of the hole in the ozone layer was observed 30 years after the protocol was signed. Due to the nature of the gases responsible for ozone depletion their chemical effects are expected to continue for between 50 and 100 years.

1st -7th September

National Nutrition Week

National Nutrition Week is observed from **September 1 to September 7** annually in India. The theme of the 2021 National Nutrition Week is 'feeding smart right from start'. The week is observed to raise awareness about nutritional and adaptive eating habits. Food and nutrition are mandatory for overall physical and mental health and ever since the pandemic has wreaked havoc, awareness about healthy food and nutrition has started to spread in every nook and corner.

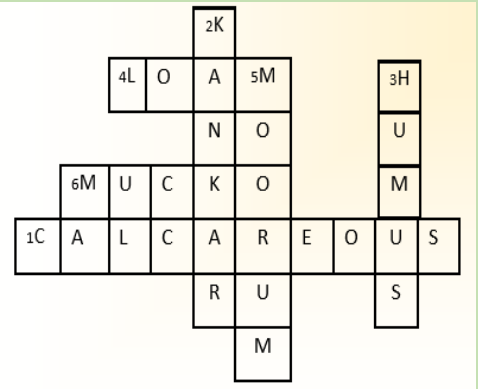
"The first wealth is health." Emerson

Answers

Last month Sudoku

9	5	7	6	1	3	2	8	4
4	8	3	2	5	7	1	9	6
6	1	2	8	4	9	5	3	7
1	7	8	3	6	4	9	5	2
5	2	4	9	7	1	3	6	8
3	6	9	5	2	8	7	4	1
8	4	5	7	9	2	6	1	3
2	9	1	4	3	6	8	7	5
7	3	6	1	8	5	4	2	9

Cross Words



LET'S CHECK IT OUT

	7			2		9		
	4		8		6			
	1	2				3		
						8	7	
	6		9	7	2		5	
	2	5						
		1				2	9	
			5		4		3	
		7		6			1	

HAPPY BIRTHDAY

Shone Varghese (S2)

3rd September

Vishnu V Nair (S2)

12th September

Parvathy Vijayan (S2)

24th September

Farshana A (S2)

2nd September

Saniya Nizam (S4)

10th September

Akhila Radhakrishnan (S4)

25th September

Ammu Vijayan (S7)

Nihana. N (S7)

JOURNAL PUBLICATIONS

Meenu Prasad (2021) - "Analysis of coconut shell concrete in the Sandwich Beam using ANSYS", International Journal for Research in Applied & Technology, Volume 9, Issue 6

Sajina K (2021) - "Assessing the Damage Mechanism in Reinforced Concrete Beams under Respective Low Velocity Impact Loading", International Journal for Research in Applied & Technology, Volume 9, Issue 6

Jisha S (2021) - "Finite Element Modelling and Analysis of Hollow and Concrete Infilled Spun Pile", International Journal for Research in Applied & Technology, Volume 9, Issue 6

CONGRATULATIONS

Congratulations to our honourable Principal Shri. Radhakrishnan Sir on achieving this invaluable Guru Ratna Award. You are truly an inspiration to many and this token of appreciation will add feathers to your crown.

Entries invited from students before 25th of every month

Comments related to this newsletter can also be sent to the mail id provided

Mail Id:

ceptatechnicalkrithi@gmail.com

THANK YOU

ADMISSION STARTED…