SREE NARAYANA INSTITUTE OF TECHNOLOGY, ADOOR

DEPARTMENT OF CIVIL ENGINEERING

CEPTA

NEWSLETTER

e-Newsletter

TECHNICAL KRITHI

AUGUST, 2022

"What we usually consider as impossible are simply engineering problems… There's no law of physics preventing them."

- Michio Kaku

Like every year, Sree Narayana Institute of Technology, Adoor, celebrated Independence Day with great pomp and splendor in a great fashion. After the Independence Day rally which started from the College Gate, our trust Chairman, Mr. K. Sadanandan hoisted the National Flag. The Principal- Dr. Shaji Mohan B. addressed the gathering appealing to their nationalistic spirit and urged them to take pride in being an Indian in Hindi paying respect to our national language. Our Academic Chairman- Dr. Keshav Mohan shared the relevance of 'Azadi Ka Amrit Mahotsav'. Vice Principal- Dr. M.D. Sreekumar updated the Independence Day memories and our Academic Coordinator- Prof. N. Radhakrishnan Nair delivered the Independence Day message. It was followed by cultural programme including skit, group song and dance by various departments that awakened everyone's feelings towards the motherland. Panchayat member Ms. Shanti Kuttan, Master Narun Abyin and Managing Director Er. Abyin Ambadiyil delivered messages on this special occasion. The program was concluded with a vote of thanks. At the end, sweets were distributed. In relation to 'Independence day', a quiz competition was also conducted on 13th August, 2022.

STUDENT'S PROJECTS

STUDENTS OF S8/CE PREPARED THE SOIL MAP OF PATHANAMTHITTA DISTRICT

സമ്പൂർണ സോയിൽ മണ്ണ് മാപ്പ് തയാറാക്കിയ അടൂർ തേപ്പുപാറ എസ്.എൻ.ഐ.ടി വിദ്യാർഥികൾ അധ്യാപകർക്കൊപ്പം

Jithin Jyohti, Muhsina H., Sunitha S. and K. Jayakrishnan, students of S8/CE, as a part of the final year project, prepared a complete soil map of Pathanamthitta district using GIS software, under the guidance of the faculties Ms. Gopika A.S. and Ms. Reshma C., Asst. Professors of Civil Engineering department.

ജില്ലയുടെ സമ്പൂർണ സോയിൽ മാപ്പുമായി എസ്.എൻ.ഐ.ടി വിദ്യാർഥികൾ

അടൂർ: ജില്ലയുടെ സമ്പൂർണ സോയിൽ മാപ്പുമായി എസ്.എൻ.ഐ.ടിയിലെ അവസാനവർഷ സിവിൽ എൻജിനീയറിങ് വിദ്യാർഥികൾ. ജിതിൻ ജ്യോതി, മുഹ്സിന, കെ. സുനിത, ജയകൃഷ്ണൻ എന്നിവർ അസി. പ്രഫസർമാരായ എ.എസ്. ഗോപിക, സി. രേഷ്മ എന്നിവരുടെ നേതൃത്വത്തിലാണ് സോയിൽ മാപ്പ് തയാറാക്കിയത്. ജി.ഐ.എസ് സോഫ്റ്റ്വെയറാണ് കുട്ടികൾ മാപ് തയാറാക്കുന്നതിനായി ഉപയോഗിച്ചത്.

ജില്ലയിലെ ഇരുപതോളം പോയന്റുകളിൽനിന്ന് സാമ്പിൾ ശേഖരിച്ച് അവയുടെ സവിശേഷതകൾ കണ്ടെത്തിയാണ് മാപ്പ് ഉണ്ടാക്കിയത്.

madhyamam Tue, 02 August 2022 https://epaper.madh

STUDENTS MADE TILES FROM WATER HYACINTH

As a part of B. Tech. final year project, students of Civil Engineering department made tiles using water hyacinth. Paste made from dried water hyacinth was used for this purpose. It can be used as a replacement of white cement which is more expensive. Akash Hari, Shijina Shaji, Devika S., Akhila Kumari P. were the group members and were guided by Ms. Chaithra S., Asst. Professor, Department of Civil Engineering.

Mathrubhumi മാതൃഭൂമി

കുളവാഴയിൽനിന്ന് ടൈൽ നിർമിച്ച് വിദ്യാർഥികൾ

...ത്തനംതിട്ട ▸ കുളവാഴയിൽ...ന്ന് ടൈൽ നിർമിച്ച് അടൂർ...സ്.എൻ.ഐ.ടി.യിലെ വിദ്യാർ...കരം. സിമിൻറ്, എം സാൻഡ്,...ളർ ഓക്സൈഡ് എന്നിവയ്ക്കൊ...മാണ് കുളവാഴയും ചേർത്ത...കുളവാഴ ഉണക്കിയെടുത്ത്...തിന്റെ പരുപ്പാണ് ഇതിന് ഉപ...യോഗിച്ചിട്ടുള്ളത്. സാധാരണ...ടൽ നിർമിക്കുമ്പോഴാണ് ഉപയോ...ക്കുന്ന വൈറ്റ് സിമിൻറിനെ ഒഴി...ക്കിയാണ് കുളവാഴ ഉപയോ...ച്ചത്. സാധാരണ ടൈലിനെ...പേക്ഷിച്ച് ഇങ്ങനെ നിർമി...ുന്ന ടൈലുകൾക്ക് കൂടുതൽ ഉറപ്പുണ്ടെന്നും വിദ്യാർഥിക...പറഞ്ഞു. സിവിൽ എൻജിനീ...റിങ് അവസാനവർഷ വിദ്യാർ...കളായ ആകാശ് ഹരി, ഷിജി...ഷാജി, എസ്. ദേവിക, അഖി...കുമാരി എന്നിവർ ചേർന്നാ...ഇത് നിർമിച്ചെടുത്തത്. പേറ്റ...ഡിനായി തയ്യാറെടുക്കുകയാ...വിദ്യാർഥികം.

കുളവാഴയിൽനിന്ന് ടൈൽ നിർമിക്കുന്ന ആശയം തയ്യാറാക്കിയ അടൂർ എസ്.എൻ.ഐ.ടി.യിലെ വിദ്യാർഥികളും അധ്യാപികയും

സിവിൽ ഡിപ്പാർട്ട്മെന്റ് മേധാവി എം.എസ്. റിയാന...അസിസ്റ്റൻറ് പ്രൊഫസർമാരാ...എസ്. ചൈത്ര, രശ്മി എം. രാ...എന്നിവരുടെ മേൽനോട്ടത്തി...ണ് ഇത് വികസിപ്പിച്ചെടുത്ത...

INTERNSHIP DIARIES

SITE EXPERIENCE WITH IIIC, CHAVARA

Amal Anand
Lecturer, Dept. of CE

Starting from 22/08/2022, I participated in a six day visit at Indian Institute of Infrastructure and Construction, Chavara. The objective of the visit was to give appropriate exposure, that would facilitate the updation of current trends and practices in infrastructure and construction industry. Interaction with industrial experts on the topic 'Occupational Health and Safety' and 'Industrial Health and Safe' was conducted.
On the following days, the construction site of Alappuzha- Changanassery semi elevated highway and Fathima Island bridge were visited. I got the opportunity to learn various works such as pile work, girder work, ground improvement and prestressing. Overall it was such an informative and wonderful experience.


Indian Institute of
Infrastructure & Construction

CERTIFICATE

Er. Amal Anand

Assistant Professor, Sree Narayana Institute of Technology
has successfully completed the

INDUSTRY IMMERSION PROGRAM

for

Faculties of Technical Institutions

conducted by,

Indian Institute of Infrastructure and Construction
Chavara, Kollam I www.iiic.ac.in
22nd to 27th August 2022

CERTIFICATE No.: F0122112

COURSE CODE: F012201

KASE ULCCS Ltd.

Prof. (Dr.) Sunil Kumar B.
Director
Indian Institute of Infrastructure & Construction

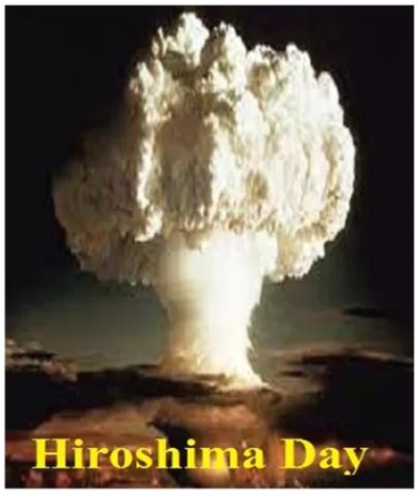
ADD ON COURSES

Students of M. Tech. SECM (2021-'23 batch) have successfully completed add on courses: PRIMAVERA and ETABS.
Congratulations to the students- A.R. Sreelekshmi, Arya Satyan, Athira Surendran, Devika Dev S., Karishma Kathiresh, Mekhana Gopal & Sneha J on the successful completion of the course.

IMPORTANT DAYS

6 August – Hiroshima Day

Hiroshima Day is observed on 6th August, every year. This is the day when the atomic bomb was dropped on the Japanese city of Hiroshima. American bomber Enola Gay dropped an atomic bomb on the Japanese city of Hiroshima on August 6, 1945. The bomb was equivalent to the power of 12-15,000 tons of TNT and known as Little Boy. It reduced four square miles of the city to ruins, killing almost 80,000 people and injuring about 35,000. After three days another atomic bomb was dropped in Nagasaki, Japan. As a result, Emperor of Japan Hirohito announced unconditional surrender in World War II on the radio on August 15 by informing the devastating power of a new and most cruel bomb.



8 August- Quit India Movement

The Quit India Movement is also known as August Kranti or August Movement. On 8th August, 1942, the Bharat Chhodo Andolan or Quit India movement was launched by Mahatma Gandhi and gave a call 'do or die'.

In April 1942, the Cripps mission failed. Within less than four months, the third great mass struggle of the Indian people for freedom started. This struggle is known as the Quit India movement.

On 8th August, 1942, at the Bombay session of the All India Congress Committee by Mahatma Gandhi during World War II, passed a resolution of the Quit India Movement. This resolution declared that the immediate ending of the British rule in India was an urgent necessity for the sake of India and for the success of the cause of freedom and democracy, for which the countries of the United Nations were fighting against fascist Germany, Italy, and Japan.

13 August- World Organ Donation Day

Thousands of people are in extreme need of critical organs across the world. Eight lives can be saved from chronic illness by donating organs by one person including the heart, kidney, pancreas, lungs, liver, intestines, hands, face, tissues, bone marrow, and stem cells.

The objective behind celebrating the day is to encourage more people to become registered organ donors and pledge to donate their organs after death which will save the lives of various people. About organ donation, there are myths and fears in people's minds due to a lack of awareness.

BIRTHDAY

Alexander Brebner

19th August, 1883

Sir Alexander Brebner CIE (19 August 1883 – 5 March 1979) was a British Civil Engineer who spent most of his career in India. Brebner was born in Edinburgh, where he was educated at George Watson's College and the University of Edinburgh. He joined the Indian Public Works Department as an Assistant Engineer in 1906 and was promoted to Executive Engineer in 1912. He was appointed Under-Secretary in Bihar and Orissa in 1919 and Under-Secretary to the Government of India later the same year, a position he held until 1923 when he was promoted to Superintending Engineer. He served as Chief Engineer to the Government of India from 1931 until his retirement in 1938.

Returning to his native Scotland, Brebner served as Chief Divisional Food Officer for Scotland with the Ministry of Food from 1940 to 1942 and Licensing Officer for Scotland with the Ministry of Works from 1942 to 1954. He also served on the Council and Executive of the National Trust for Scotland until 1961 and on the Board of the Scottish Special Housing Association from 1954 to 1961, and was Acting Secretary of the Royal Scottish Academy from 1954 to 1955. From 1957 to 1964, he served on the ruling council of the influential Edinburgh conservationist body the Cockburn Association.

Brebner was appointed Companion of the Order of the Indian Empire (CIE) in the 1920 New Year Honours and was knighted on his retirement from India in 1938.

Dance performance by faculties of Civil Engineering department on 15th August, 2022

STUDENT'S CORNER

A grand Engineering statement, the Falkirk Wheel is the only rotating boat lift (boat elevator) in the world. Since the opening in 2002, the Falkirk Wheel became undoubtedly one of the most important things that happened in the region and is located near the town Falkirk in Central Scotland. Designed to last 120 Years, the Falkirk Wheel project was taken over by 1000 people who took part in construction, including several ICE members. Early challenges included tar and mercury contamination as the ground had previously been used as a mine and tar works. Other early-stage work included laying 600 m of access to roads to get plant and materials to the site.

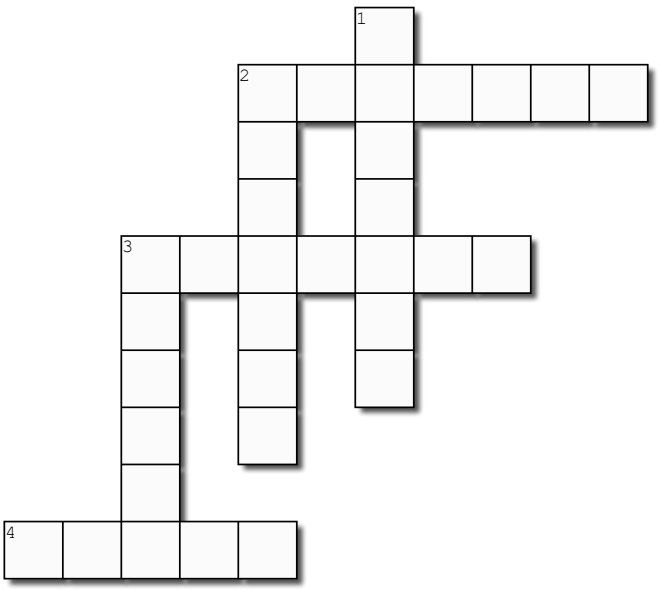
Once the area was cleared, engineers dug deep foundations for the structure and used 22 m concrete piles socketed onto the bedrock for support. The wheel was constructed and fully assembled at the Butterley Engineering plant in Derbyshire. It was then dismantled and driven to Falkirk in 35 lorry loads. Workers reassembled it into 5 sections which were lifted into place. As the wheel rotates in alternate directions, the changing load can cause stress to parts of the structure. To avoid fatigue-weakening caused by repeatedly applied loads, engineers bolted sections together instead of welding them. The uniqueness of the structure required innovative and unconventional design methods. UK design codes for bridges, buildings and floating vessels were utilised, as well as Norwegian, German and American codes for such criteria as thin-walled cylinder behaviour, barge impact and constrained ice loading.

Each boat enters the rough castle tunnel to the Union Canal. The upper trolley is lowered with water that they float in, to the basin below and at the same time, an equal weight rises up, lifted in the other trolley.

Each trolley runs on small wheels that fit into a single curved rail fixed on the inner edge of the opening on each arm. In theory, this should be sufficient to ensure that they always remain horizontal, but any friction or sudden movement could cause the trolley to stick or tilt. The Wheel was analysed using finite element techniques including non-linear solid continuum modelling for movement sensitive connections. The rotation of the wheel undergoes full directional reversal up to 40 times per day. This constant wear out became the compelling influence over the design of the structure. A visitor centre is located on the east side of the lower basin. Boat trips on the wheel depart approximately once an hour. Since the wheel opened, around 5.5 million people have visited and 1.3 million have taken a boat trip, with around 400,000 people visiting the wheel annually.

GAME CORNER

CROSSWORD



ACROSS

2. A word meaning bending
3. A mark that spoils the way something looks
4. A receptable for runoff water or storm water

DOWN

1. The supporting section of a beam length or area
2. A dividend arterial highway with full control ofaccess
3. Road joining two parts of an older road to avoid atown or village

CROSSWORD: July, 2022

ACROSS
4. SUSPENSION
8. KEYSTONE
10. BENDING
12. TORSION
13. BEAM
14. LIVELOAD
15. ABUTMENT

DOWN
1. STEEL
2. TENSION
3. COMPRESSION
5. SHEARING
6. DEADLOAD
7. DIAGONALBRACE
9. TRIANGLE
11. TRUSS

SUDOKU

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

SUDOKU: July, 2022

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

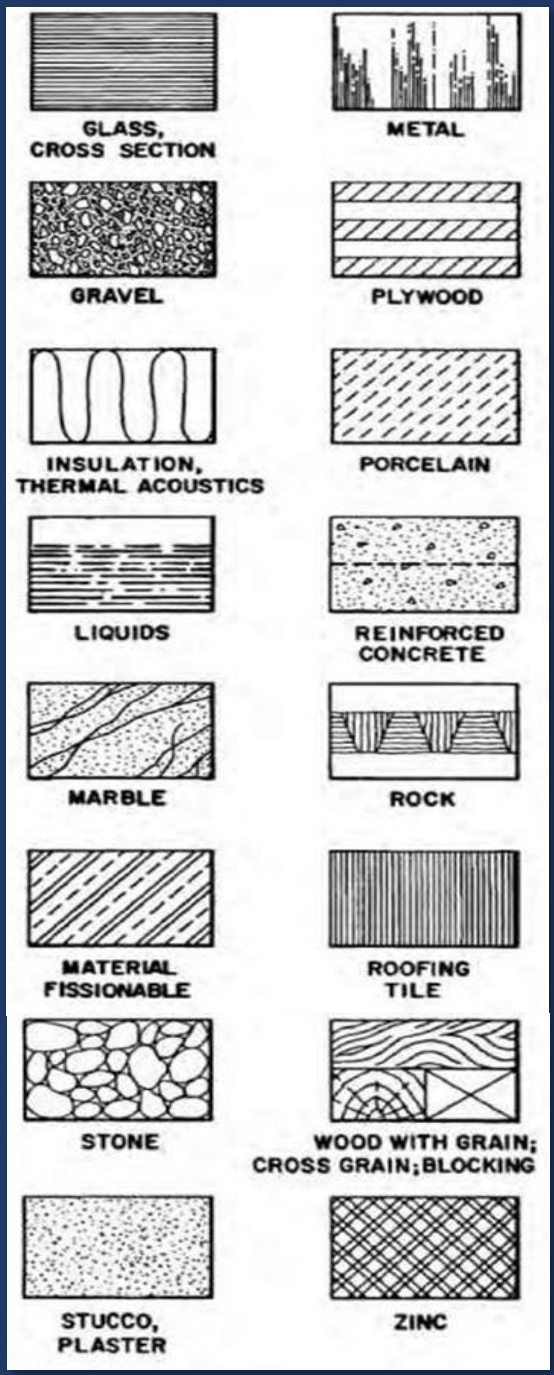
KNOWLEDGE CORNER

DID YOU KNOW?

CLEAR COVER TO MAIN REINFORCEMENT

FOOTINGS	50 mm
RAFT FOUNDATION TOP SIDE	50 mm
RAFT FOUNDATION BOTTOM SIDE	75 mm
SLAB	15 mm
COLUMN	40 mm
SHEAR WALL	25 mm
BEAMS	25 mm
STAIRCASE	15 mm
WATER RETAINING STRUCTURES	20/30 mm
RETAINING WALL	20/25 mm

VARIOUS SYMBOLS FOR MATERIALS IN CIVIL ENGINEERING



ARTIST'S CORNER

A.R. Sreelekshmi
S3/SECM

Athira Surendran
S3/SECM

ALUMNI CORNER

DENSY JOHNSON
M. Tech. SECM (2018-'20 batch)
B. Tech. Civil Engineering (2014-'18 batch)
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1.5 Year's Experience

- ✓ Working as Assistant Professor in Mount Zion Engineering Institute of Science and Technology, Kozhuvalloor

ABHIRAM S.
B. Tech. Civil Engineering (2015-'19 batch)
engineer.abhirams@gmail.com

3 Year's Experience

- ✓ Worked as Engineer at SH BUILDERS & DEVELOPERS, Kollam
- ✓ Worked as QC Engineer at EAMCO, Bahrain
- ✓ Working as Engineer (Ready-Mix concrete) at A R ALJALAHAMA & BROS, Bahrain

BIRTHDAY BASH

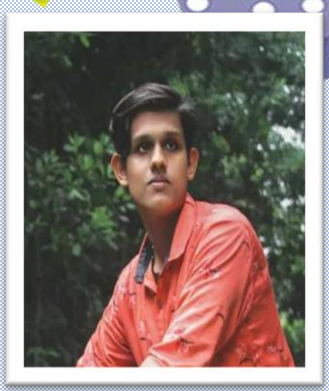
Sruthi S.
S6/CE
7th August

Shyma Shareef
S6/CE
8th August

Akshaya G.
S6/CE
26th August

Abhiram Vinod
S5/CE
3rd August

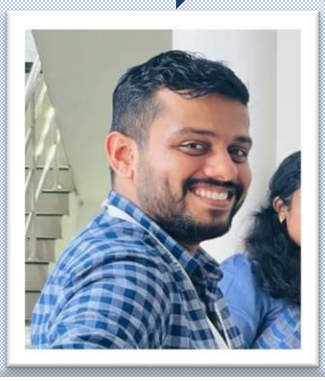
Mahima Mohan
S5/CE
8th August



Gokul S.
S5/CE
18th August

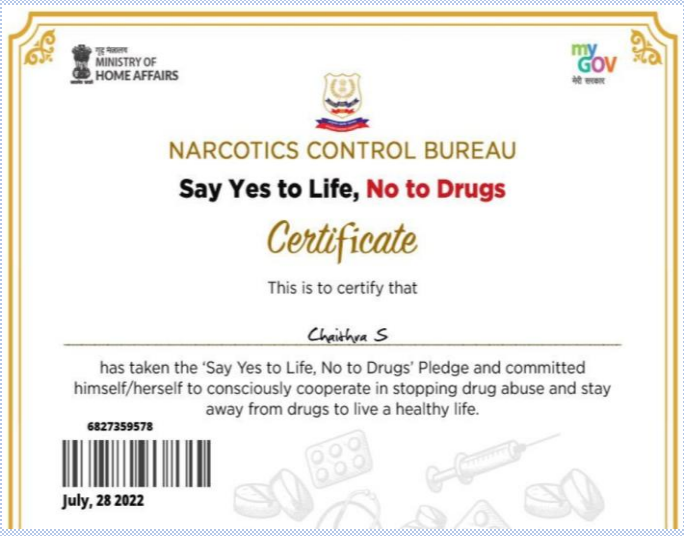
FAREWELL TO FACULTIES

Ms. Rajalakshmi P.
Asst. Professor



Mr. Jinu Darsh M.S.
Asst. Professor

ACHIEVEMENTS


MINISTRY OF HOME AFFAIRS

mygov

NARCOTICS CONTROL BUREAU

Say Yes to Life, No to Drugs

Certificate

This is to certify that

Chaithra S

has taken the 'Say Yes to Life, No to Drugs' Pledge and committed himself/herself to consciously cooperate in stopping drug abuse and stay away from drugs to live a healthy life.

6827359578

July, 28 2022


SREE NARAYANA INSTITUTE OF TECHNOLOGY, ADOOR

National Conference on

Advanced Trends in Engineering & Sustainable Innovations

Certificate of Appreciation

This is awarded to

Ms. Mekhana Gopal.

In honor of your excellence work as a student Committee member and your significant contribution to the success of the 'NCATES-22'.

Ms. Riyana M. S. — Convenor, Organizing Committee

Ms. Lekshmi Priya R. — Co-ordinator, Organizing Committee

Dr. Shaji Mohan B. — Principal


SREE NARAYANA INSTITUTE OF TECHNOLOGY, ADOOR

National Conference on

Advanced Trends in Engineering & Sustainable Innovations

Certificate of Appreciation

This is awarded to

Ms. Arya Satyan.

In honor of your excellence work as a student coordinator and your significant contribution to the success of the 'NCATES-22'.

Ms. Riyana M. S. — Convenor, Organizing Committee

Ms. Lekshmi Priya R. — Co-ordinator, Organizing Committee

Dr. Shaji Mohan B. — Principal


SREE NARAYANA INSTITUTE OF TECHNOLOGY, ADOOR

National Conference on

Advanced Trends in Engineering & Sustainable Innovations

Certificate of Appreciation

This is awarded to

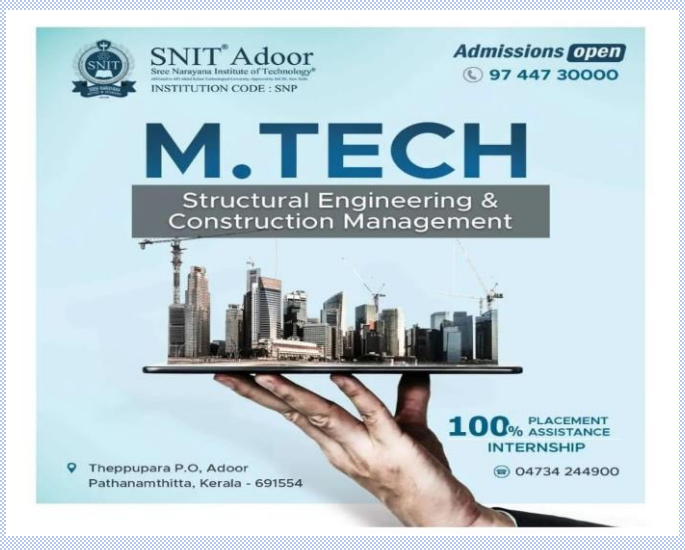
Mr. Adithyan S.

In honor of your excellence work as a student coordinator and your significant contribution to the success of the 'NCATES-22'.

Ms. Riyana M. S. — Convenor, Organizing Committee

Ms. Lekshmi Priya R. — Co-ordinator, Organizing Committee

Dr. Shaji Mohan B. — Principal



2022-'23 ADMISSION STARTED...

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