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THE
NEWSLETTER
OF THE
DEPARTMENT
OF CIVIL
ENGINEERING



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FROM HOD'S DESK



Dr.N.Sivakumar/Professor-HOD/Civil

With offline classes flourishing, we continue to shine even brighter over the past 6 months. It has been a period of glory and the achievements of our students have been on a wide spectrum including both academics and sports. The current academic year has seen progressive advancements with respect to both faculty and students.

I am delighted to inform you that the department of civil engineering, SSN College of Engineering has obtained recognition as Research Centre by Anna University. This opens door for the department to guide doctoral research scholars.

I am very happy to point out that we, the department of civil engineering, organized a few events on a wide spectrum of topics, keeping in mind student welfare and development. Among various events, INVENTE 7.0 in the month of December' 22, the first offline technical fest after the pandemic, happened to be a massive success with students from colleges across the state participating in technical and non-technical events conducted by our students.

Our students have associated themselves with various industries as a part of their internship program. This enabled them to be more prepared to face their placements at ease. Our Second-year student Benediction Rohit has participated and won gold, silver and bronze medals at international swimming competitions. Our congratulations to him.



I am delighted to share that more than 90% of our students have already been placed at various companies and a greater number of our students have paved their way into core companies.

I am pleased to report to you that our students, under the dedicated mentorship of our faculty members, are actively pursuing research under the Internally Funded Student Projects (IFSP). Our students have been more actively participating in various competitions and activities conducted by other colleges as well.

One such example includes, a couple of third year students participating in the 'Unleash Hackathon', representing our department, organized by Shiv Nadar University, Noida. This year our students also received scholarships under the categories of alumni, rural, merit, sports and Vidya Gyan.

Closing 2022 on a promising note, we, the department of civil engineering hope to start 2023 with the best of spirits and believe that it will be a very fruitful year for us.

Dr.N.Sivakumar
Professor-HOD/Civil





Dr. Srinath Rajagopalan, Associate Professor

Sustainability and Green Skills

Over population is one of the major crises in global environment. Human population, which was merely 4 million in 10,000 BCE gradually rose to 1 billion in early 1800 AD. In the next 200 years the population exploded to 8 billion. This increase was mainly due to advances in medical fields, a better standard of living, and the ability to extract resources at a large scale rapidly. The population is expected to peak at 14 billion by the end of this century and start declining.

Many of the challenges facing mankind, such as climate change, water scarcity, inequality, and hunger, can only be resolved at a global level and by promoting sustainable development. Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. The ravenous consumption of resources by ever increasing population and inequal distribution of resources will eventually lead to wars over the ever-dwindling resources.

The concept of sustainable development can be traced to the energy (especially fossil oil) crisis and environmental pollution concerns of the 1960s and 1970s. The green building movement in the U.S. originated from the need and desire for more energy efficient and environmentally friendly construction practices. There are several motives for building green, including environmental, economic, and social benefits. However, modern sustainability initiatives call for an integrated and synergistic approach to both new construction and in the retrofitting of existing structures. This



approach known as sustainable design, integrates the building life-cycle with each green practice employed with a design-purpose to create a synergy among the practices used.

Green building refers to both structural design and the application of processes that are environmentally responsible and resource-efficient throughout a building's life cycle: from cradle to grave of any project. This includes planning, design, construction, operation, maintenance, renovation, and demolition. This requires collaboration of the contractor, the architects, the engineers, and the client at all project stages. The Green Building practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building also refers to minimizing resource utilization and to the maximum extent, including energy saving, land saving, water saving, material saving, etc., during the whole life cycle of the building, protecting the environment and reducing pollution, providing people with healthy, comfortable and efficient use of space, and being in harmony with nature Buildings that live in harmony. Green building technology focuses on low consumption, high efficiency, economy, environmental protection, integration, and optimization.

Leadership in Energy and Environmental Design (LEED) is a set of rating systems for the design, construction, operation, and maintenance of green buildings which was developed by the U.S. Green Building Council. Other certificate systems that confirm the sustainability of buildings are the British BREEAM (Building Research Establishment Environmental Assessment Method) for buildings and large-scale developments or the DGNB System (Deutsche Gesellschaft für Nachhaltiges Bauen e.V.) which benchmarks the sustainability performance of buildings, indoor environments and districts. The Indian Green Building Council (IGBC) was formed in the year 2001. It was part of part of the Confederation of Indian Industry (CII). The vision of the council is, **"To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025"**.

The major goals of green designs are

- Life Cycle Assessment
- Siting and structure design efficiency
- Energy efficiency
- Water efficiency
- Material efficiency

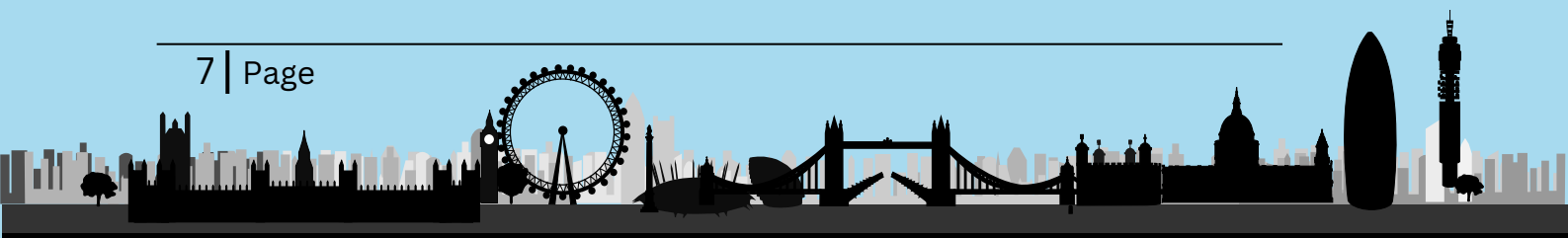


- Indoor environmental quality enhancement
- Operation and Maintenance optimization
- Waste Reduction.

On the aesthetic side of green architecture or sustainable design is the philosophy of designing a building that is in harmony with the natural features and resources surrounding the site. There are several key steps in designing sustainable buildings: specify 'green' building materials from local sources, reduce loads, optimize systems, and generate on-site renewable energy.

The most criticized issue about constructing environmentally friendly buildings is the price. Photovoltaics, new appliances, and modern technologies tend to be more expensive. Most green buildings cost a premium of <2%, but yield 10 fold returns over the entire life of the building. In regard to the financial benefits of green building, "Over 20 years, the financial payback typically exceeds the additional cost of greening by a factor of 4-6 times. And broader benefits, such as reductions in greenhouse gases (GHGs) and other pollutants have large positive impacts on surrounding communities and on the planet. The stigma is between the knowledge of up-front capital vs. life-cycle cost. The savings in money come from more efficient use of utilities which result in reduced energy bills. Also, higher worker or student productivity can be factored into savings and cost deductions.

Numerous studies have shown the measurable benefit of green building initiatives on worker productivity. In general it has been found that, "there is a direct correlation between increased productivity and employees who love being in their work space. Specifically, worker productivity can be significantly impacted by certain aspects of green building design such as improved lighting, reduction of pollutants, advanced ventilation systems and the use of non-toxic building materials. IGBC is very closely working with several Central and State Government agencies to promote the green building movement in the country. Some of the Central and State Government agencies have given recognition to IGBCs' Green Rating Systems.

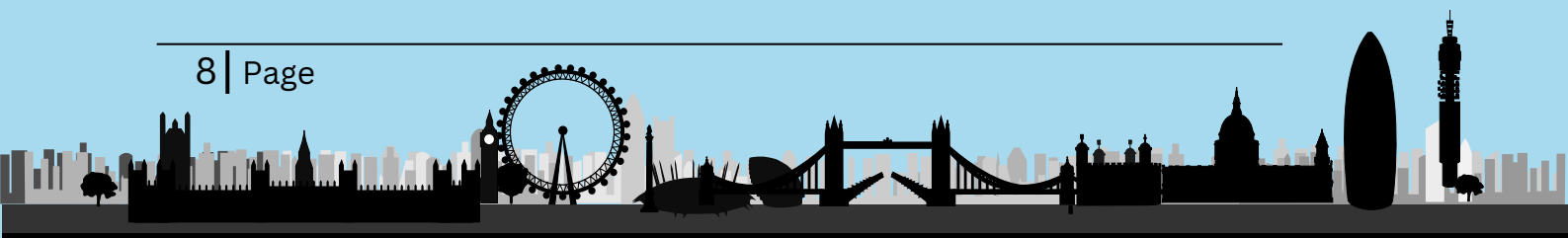


The Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, offers fast track environmental clearance for green building projects which are Pre certified/ Provisionally Certified by IGBC.

TN Industrial Policy 2021, offers a 25% subsidy on the cost of setting up environmental protection infrastructure, subject to a limit of Rs. 1 cr., for industrial projects that obtain IGBC green certification. Projects establishing or expanding industrial units, industrial parks, R&D projects, warehousing and logistics parks shall be eligible for availing this Green Industry Incentive.

TN Data Centre Policy 2021, offers Data Centre Units undertaking green and sustainable initiatives as per IGBC rating shall be eligible for a 25% subsidy on cost of undertaking such initiatives, subject to an upper limit of Rs. 5 Crore.

Dr Srinath Rajagopalan,



ACTIVITY ROUNDUP- STUDENT CHAPTER ACTIVITIES

I) ASSOCIATION OF CIVIL ENGINEERS (ACE)

In Association of civil engineering the events like: Election for The Academic Year 2022-2023, Inauguration Of The Association Of Civil Engineers, Webinar, Treasure Hunt, Invente

1. ELECTION FOR THE ACADEMIC YEAR 2022-2023

The department election was conducted for the academic year 2022-2023 and the different office bearers were nominated and elected. The following are the office bearers of ACE for the academic year 2022-2023.





2. INAUGURATION OF THE ASSOCIATION OF CIVIL ENGINEERS




Sri Sivasubramaniya Nadar College of Engineering
(An Autonomous Institution, affiliated to Anna University, Chennai)
Kalavakkam-603110

DEPARTMENT OF CIVIL ENGINEERING

ASSOCIATION OF CIVIL ENGINEERS-ACE

Cordially Invites You for the

Inaugural Function

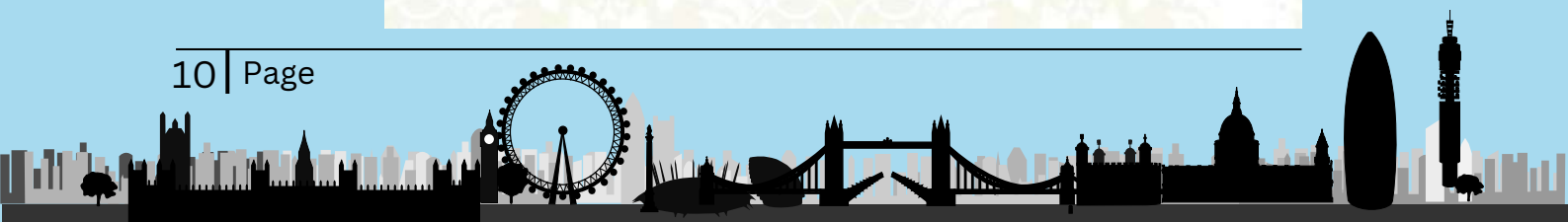
MONDAY, AUGUST 29 2022 - 11 AM
EEE Department Seminar Hall



Guest of Honour
Kondapalli Bairagi
Chief Engineering Manager
Head - Geotechnical Division
Water & Effluent Treatment IC
L&T Construction, Chennai

Dr. S V Sivapriya
Faculty Co-ordinator

Dr. N Sivakumar
Head of the Department



The inauguration of ACE was done by Thiru Kondapalli Bairagi, The Chief Engineering Manager, Head of the Geotechnical Division, water, and effluent treatment IC, L&T Construction, Chennai. The lecture mainly focussed on various ground improvement techniques. The speaker elucidated the use and application of each ground improvement technique. He also shed light upon different challenging projects undertaken and led by him. It was a very informative session and there was a great response from the student's side to gain more knowledge about the company and to grab the vast knowledge of the speaker.

3. WEBINAR BY MS. NEELAM KUMARI

The poster is for a webinar titled "Paint-Give Your Home The Extra Edge". It is organized by the Department of Civil Engineering, Association of Civil Engineers - ACE, at Sri Sivasubramaniya Nadar College of Engineering. The event is scheduled for Tuesday, 20 September 2022, from 2.30 to 3.30 PM. The speaker is Ms. Neelam Kumari, Assistant Manager, Relationship Marketing, Nippon Paint India Private Limited. The poster also lists the Faculty Co-ordinator as Dr. S V Sivapriya and the Convenor as HoD, Dr. N Sivakumar. A circular portrait of Ms. Neelam Kumari is featured on the left side of the poster. The ACE logo is in the top left corner, and the SSN logo is in the top right corner. A "LINK TO JOIN" button is located in the center-right area.

ACE
Sri Sivasubramaniya Nadar College of Engineering
(An Autonomous Institution, Affiliated to Anna University, Kalavakkam, Chennai - 603110)

DEPARTMENT OF CIVIL ENGINEERING
Association of Civil Engineers - ACE
Cordially invites you to the webinar on
"Paint-Give Your Home The Extra Edge"

TUESDAY, 20 SEPTEMBER, 2022
2.30 - 3.30 PM

[LINK TO JOIN](#)

SPEAKER
Ms. Neelam Kumari
Assistant Manager, Relationship Marketing,
Nippon Paint India Private Limited.

FACULTY CO-ORDINATOR
Dr. S V Sivapriya

CONVENOR
HoD, Dr. N Sivakumar

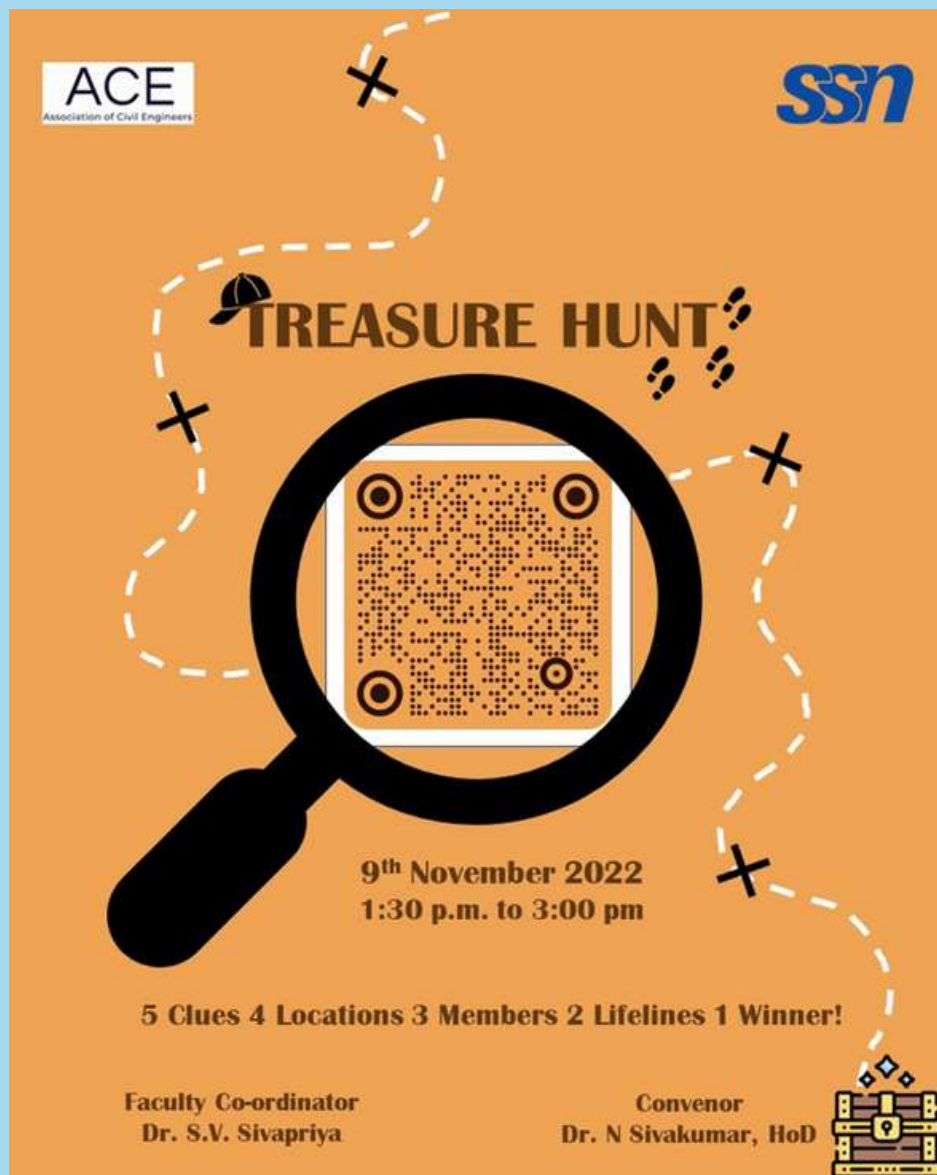
We organized a webinar on "Paint – Give your home the Extra Edge" on 20th September 2022. The expert speaker was Ms. Neelam Kumari, Assistant Manager, Relationship Marketing, Nippon Paint Private India Limited



The session started with the welcome address followed by the speaker's presentation. The presentation started with information on Nippon Paints, a Japanese company. They focus on green and Sustainable products. Then the speaker spoke about the composition of paint i.e Binder, Solvent, Pigment, Extender and Pigment, followed by the preparation of paint from the raw material and mixing to quality control, packing and delivery. Then she gave us an insight into the various types of paint failures and their causes. The speaker then explained the broad classification of paint products in Nippon. The session concluded with vote of Thanks.

The participants found the session to be interactive and enlightening. The session was intriguing and benefited the final and pre-final year students.

4. TREASURE HUNT



We organized a "Treasure Hunt" on 09th November 2022.

The event started with the welcome of participants and the rules were explained. Each team was assigned a word which is a technique or process in civil engineering. The clues pertaining to the assigned word were pasted in five different locations. A total of 4 chits were hidden in the department. Each chit consisted of a clue (for the word) and a hint for the next location where they can find the next clue. At the start of the treasure hunt, each team was given the first chit. After finding all the clues, the team that first found the word assigned to them was declared the winner. Path-finders, Sunshine, and Treasure make pleasure were the winners of the event. They were awarded a cash prize of rupees hundred each.

The participants found the event very engaging and exhilarating.

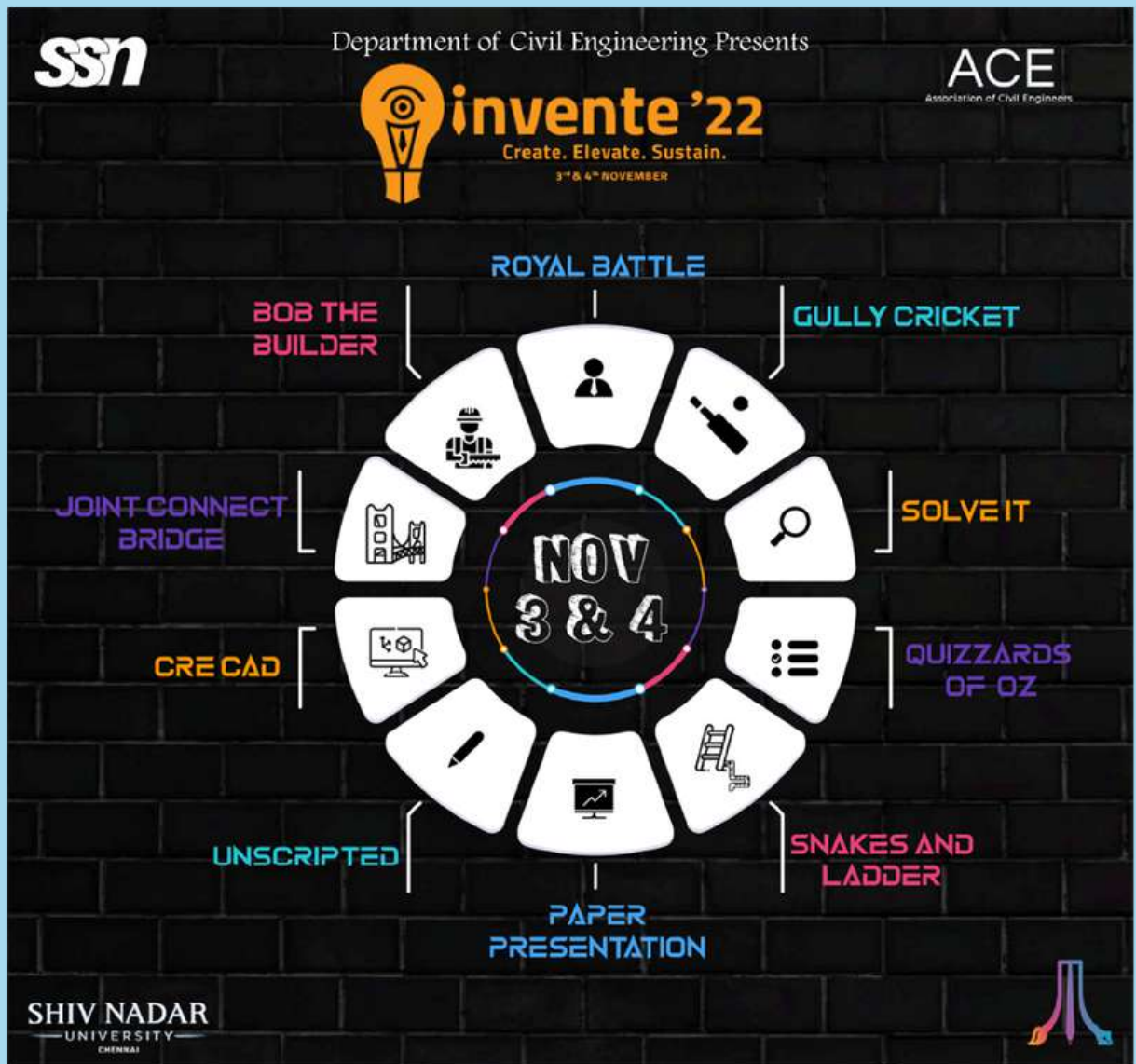
5. INVENTE 7.0



invente'22

Create. Elevate. Sustain.

1st & 2nd DECEMBER

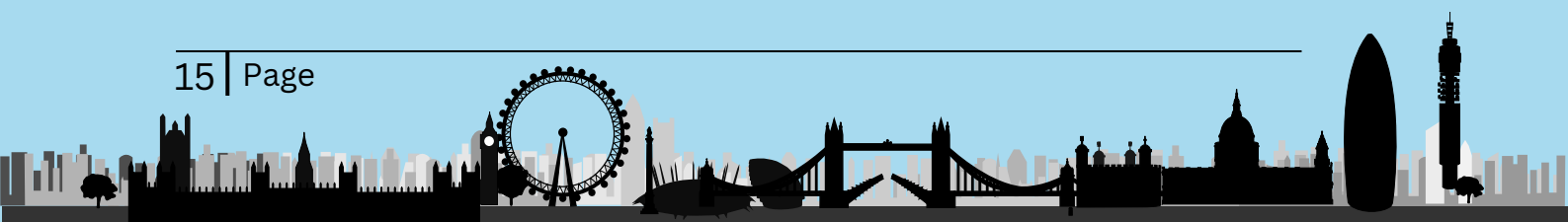


 ssn.snuc_invente

 www.ssnucinvente.com

 ssn_ace







6.APPRECIATION DAY

Academic appreciation day was conducted on 11-6-2022 to felicitate bright students. E cert of appreciation was given by HOD on this occasion to encourage the students. Students from each year were invited for this function.

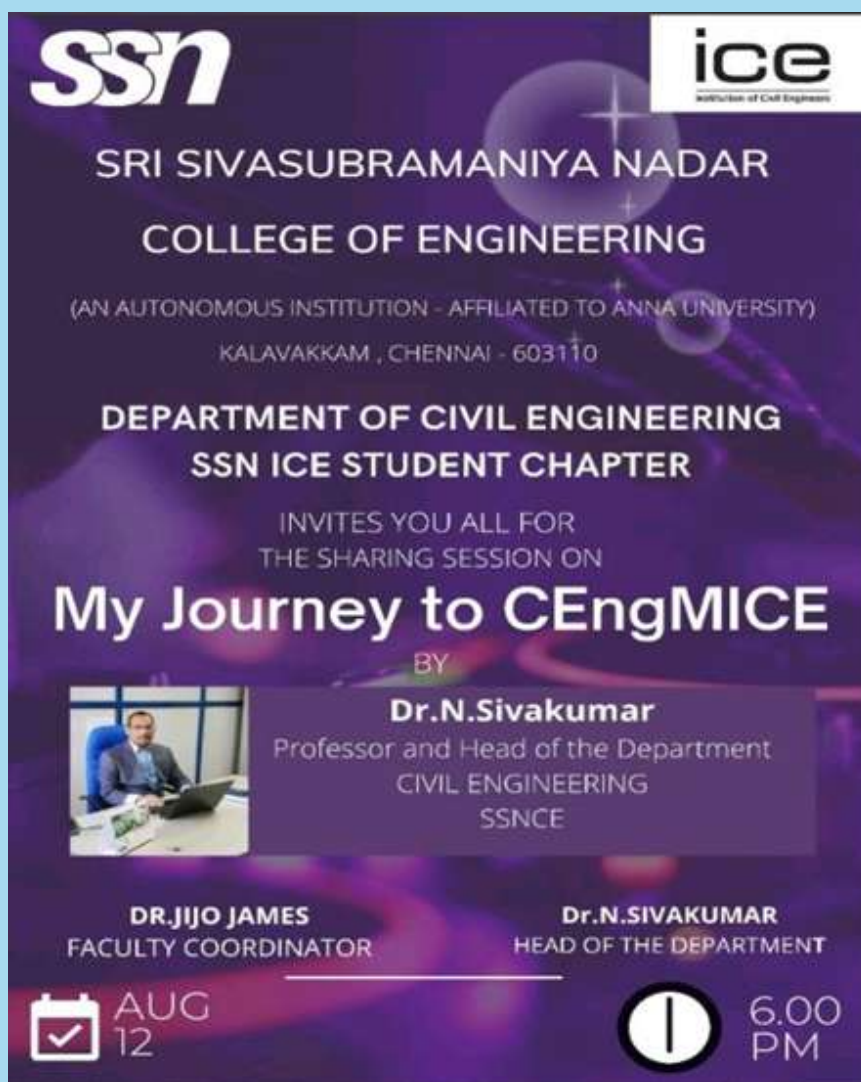


II) ICE (UK)-STUDENT CHAPTER

This chapter organized various events like opportunities, industrial site, site visit

1. “MY JOURNEY TO CENG MICE”

-Dr. N. Sivakumar



Our honorable Head of the Department Dr.N.Sivakumar conducted a sharing session through the ICE student chapter on how he achieved the CEng MICE title from Institution of Civil Engineers (ICEUK) on 12th August 2022.

The speaker for the day started the session by sharing the importance of acquiring the CEng MICE title and how it can take us forward in our career. He also gave a detailed explanation on the three stages required to acquire the title such as Educational Base, Initial Professional Development and finally the Professional Review. Followed by that he talked about various attributes that one must develop in order to be qualified for the title like Understanding and Practical Application of Engineering, Management and Leadership, Commercial Ability etc.



This session enabled the students to learn more about the various opportunities that are present overseas which can take their career forward in a global scale.

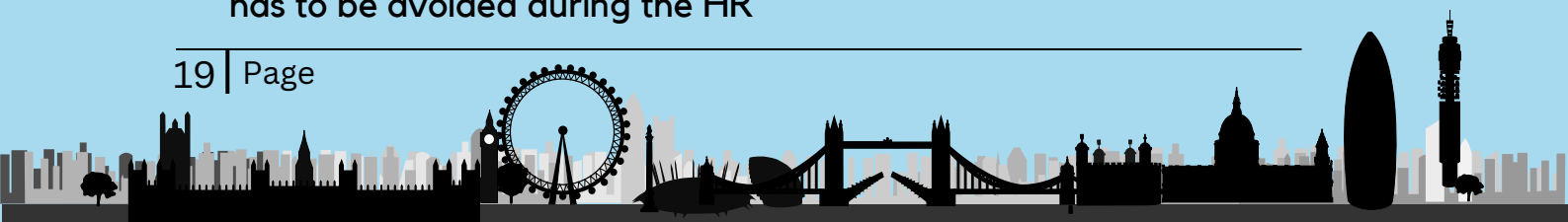
2. LEADERSHIP QUALITIES AND PLACEMENT EXPERIENCE

-Jyothir Adithya Skandan



The ICE(UK) Student chapter hosted yet another informative sharing session on Leadership Qualities and Placement Experience by our beloved Alumnus Jyothir Adithya Skandan on 17th september 2022.

The speaker gave a brief information on various placement tips, important topics to focus while preparing for interviews and how to go about in preparing for a particular field of company(like core, IT, Management etc..). He then shared his personal placement experience and common mistakes that has to be avoided during the HR



round. He also brushed up on the typical interview questions and how to go about in answering them. The meeting was concluded after a long Q&A session.

Students have acquired all the basic information regarding placements from an alumnus point of view and their doubts have been clarified through this Alumni Interaction.

3. SITE VISIT – SNU LAW SCHOOL

The ICE(UK) Student chapter organised a Site Visit – SNU LAW School on 24th November 2022, This was organised for 2021-2025 batch to make them aware of site construction and execution.

SNU LAW SCHOOL is under construction adjacent to SSN Management School. The project is undertaken by Coromandel Engineering. The site engineer briefed the students about the plan of the building, undergoing wall masonry in ground floor and reinforcement binding for second floor slab.

The event was a massive success as the students showed enthusiasm in knowing about site execution. The ICE (UK) student chapter is thankful for Dr.N.Sivakumar sir, Dr.B.Mahalingam sir and Dr.Jijo James for their guidance to organise this event.

III) ICI STUDENT CHAPTER

The ICI student chapter organized events like webinar, alumni interaction, site visits, quiz competitions, workshops and also receives best student awards

1. The student chapter organized a webinar on special concrete on 30th June 2022. The presenter was Dr. Jegathish Kannadasan from YTL Cement, Malaysia. The session enlightened the students on the vast topic of special concrete especially with the use of LECA.





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(AN AUTONOMOUS INSTITUTION - AFFILIATED TO ANNA UNIVERSITY) KALAVAKKAM - CHENNAI

INDIAN CONCRETE INSTITUTE CHENNAI CENTRE, TAMILNADU

DEPARTMENT OF CIVIL ENGINEERING
SSN-ICI STUDENT CHAPTER

CORDIALLY INVITES YOU FOR THE WEBINAR ON

"SPECIAL CONCRETE"

30th JUNE 2022, WEDNESDAY, 11.00 AM - 12.00 PM

PRESENTER



Dr. JEGATHISH
YTL Cement, Malaysia

Meeting Link:

<http://meet.google.com/bxn-zoor-bzt>

Dr. P SANGEETHA
CO-ORDINATOR

Dr. N SIVAKUMAR
HEAD OF DEPARTMENT/CIVIL

For any query, contact Student Co-ordinator - Sathya Shree T R / 9361314379
- Hrushikesh Ba J / 7358726366

2 .The student chapter organized a chit chat session with alumni on 29th July 2022. The presenter was P Naveen Kumar, PhD scholar, alumnus batch 2011 - 2015. The session enabled the students to learn more about further career in civil engineering, how to face the placements, how to cope with the trail of higher studies and how to develop a career with civil engineering. It was interesting as the presenter anecdotes his own personal experiences on the same.



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INDIAN CONCRETE INSTITUTE CHENNAI CENTRE, TAMILNADU

DEPARTMENT OF CIVIL ENGINEERING
SSN-ICI STUDENT CHAPTER

CORDIALLY INVITES YOU FOR THE

CHIT CHAT SESSION WITH ALUMNI

29th JULY 2022, FRIDAY, 11.00 AM - 11.30 AM

PRESENTER



P NAVEEN KUMAR

PhD Scholar

Alumnus, Batch 2011 - 2015

E - Certificates will be issued to all the attendees

Dr. P SANGEETHA

CO-ORDINATOR

Dr. N SIVAKUMAR

HEAD OF DEPARTMENT/CIVIL

For any query, contact Student Co-ordinator - Sathya Shree T R / 9361314379
- Hrushikesh Ba J / 7358726366

3. The student chapter organized a site visit to CSIR – SERC (Structural Engineering Research Centre), Taramani, Chennai on its foundation day celebration on 26 September 2022. There around 10 laboratories, of which students visited four of them. It included fatigue and fracture laboratory, wind engineering laboratory, advanced seismic testing and research laboratory, concrete composite laboratory. The students were exposed to various structural models like beams, earth moving machine tyres which were subjected to various fatigue experiments, how the structures are tested and modified for the wind considerations in wind tunnel, testing for seismic loads with actuators, and 3D modelling using concrete. It was very informative and enlightened the students with various testing procedures.



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DEPARTMENT OF CIVIL ENGINEERING
SSN-ICI STUDENT CHAPTER

VISITS

**"CSIR FOUNDATION DAY
CELEBRATION -
OPEN DAY"**

VENUE:
CSIR CAMPUS
Taramani, Chennai - 600113

On 26th SEPT 2022, MONDAY

Dr. P SANGEETHA
CO-ORDINATOR

Dr. N SIVAKUMAR
HEAD OF DEPARTMENT/CIVIL

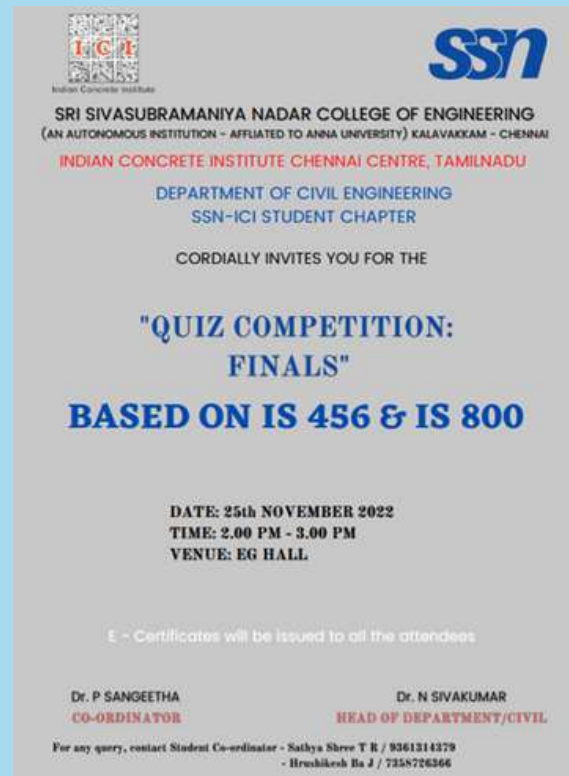
For any query, contact Student Co-ordinator - Sathya Shree T R / 9361314379
- Hrushikesh Ba J / 7358726366



Earth moving tyre under static loading (Fatigue and Fracture Lab)



4. The student chapter also organized a quiz on IS 456 and IS 800 during the month of November 2022. The quiz happened in two rounds. The first one was conducted in the first week of November and more than 25 students participated of which ten students qualified for the finals. The final round of quiz was conducted on 25th November 2022. It was conducted physically via Kahoot. The students found it to be a platform for exposing themselves with the major IS code books and with the placement preparations.



5. Also, the student chapter one new jury appreciation award in ICI UltraTech best student chapter award 2022.



ICI UltraTech best student chapter award 2022.

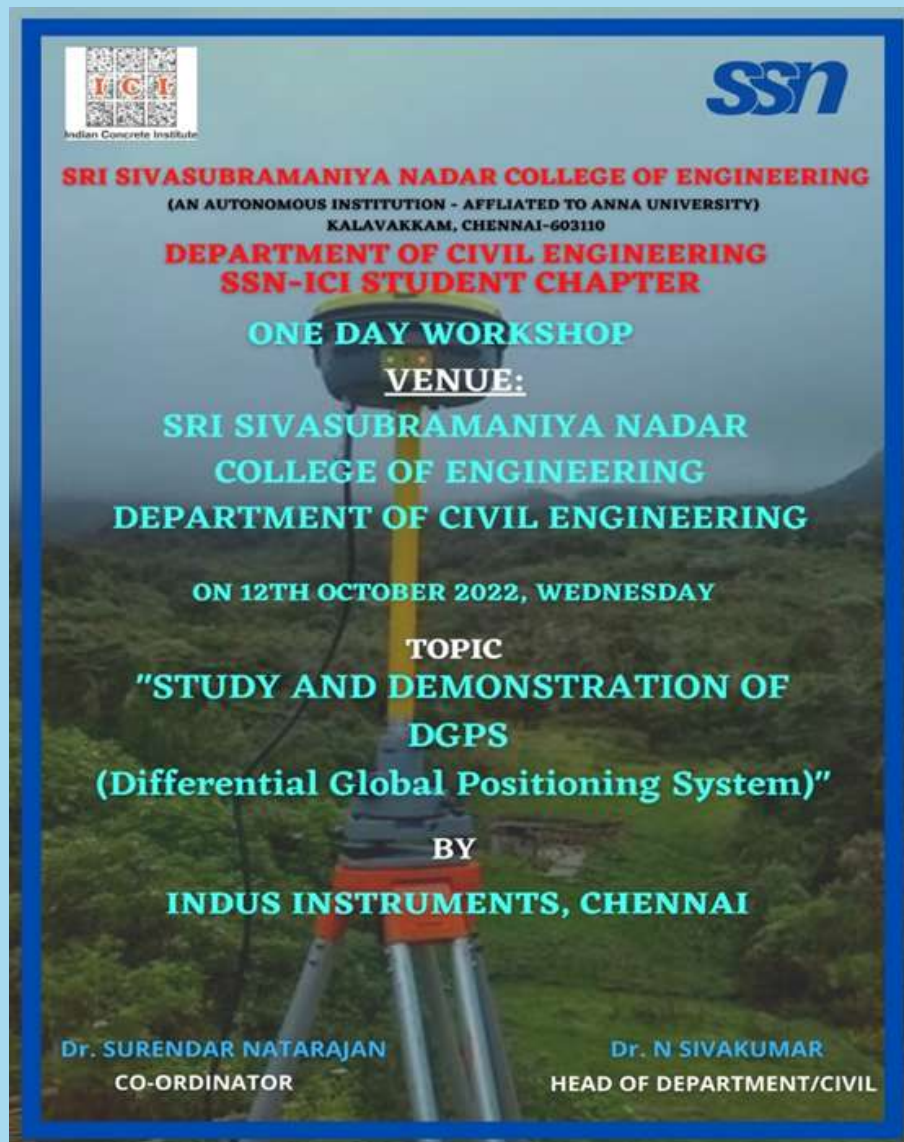
**A ONE DAY WORKSHOP ON STUDY AND DEMONSTRATION OF
DGPS (DIFFERENTIAL GLOBAL POSITIONING SYSTEM),
CONDUCTED ON 12TH OCTOBER 2022 BY INDUS INSTRUMENTS
CIVIL ENGINEERING DEPARTMENT.**

CO-ORDINATOR: DR. SURENDAR NATARAJAN

Industrial Expert: was Mr. K. Jaishankar

Workshop Organizer: Dr. Surendar Natarajan, AP/Civil

- The Demonstration and experiment of DGPS is studied during the workshop
- The fixing and tracking of points were demonstrated to students and they themselves had also worked with it
- The participants were from 3rd Year civil Engineering Students



IV) IEI STUDENT CHAPTER

IEI – SSN Student chapter has been instrumental in pooling resources from all facets of academia to enable students with information and knowledge useful for their future. The webinar interactions were designed in such a way that students get inputs on placements, higher studies and working requirements of core companies. These inputs are shared by students who are either working in those companies or placed wherein their experiences are shared with student community. Interaction with educational consultants were also planned and conducted so that students get to know the information of what is required and how can the students equip themselves.

Alumni interaction: **Ms. Yuvaltha**
and **Ms. Deepika (20.08.2022)**



Outcome of the interaction:

- Initiated the alumni interaction with students with amazon placed students.
- Highlighted the role of behavioural pattern questions and their importance in selection process.
- Discussed on how to solve a problem in apti section without wasting time or stuck in single problem.
- Explained the work postings and work setup of amazon and nature of internships during 8th semester.

Alumni interaction: **Ms. Rakshitha**
(11.09.2022)



Outcome of the interaction:

- Ms. Rakshitha shared her experience with Technip Energies.
- Highlighted the importance of core-apti questions in a core company placement process.
- Stressed on the importance of knowing field facts and thumb rules of site practices.
- Guided students' general queries on the interview process.

Alumni interaction: **Mr. Nijanthan (04.10.2022)**



Outcome of the interaction:

- Mr. Nijanthan shared his experience with Wood LLC.
- Indicated the general selection criteria of Wood and what they are looking for in a student and how he/she can stand out.
- Discussed his experience in GD and HR rounds and how these things can stress a student if not prepared well enough.
- Highlighted the work assignments that he gets in Wood.

Alumni interaction: **Ms. Amrutha Udayakumar (18.10.2022)**



Outcome of the interaction:

- Ms Amrutha shared information on general admission requirements for US universities.
- Briefed on the protocols of **Georgia Institute of technology**.
- Disseminated information on the differences between masters and integrated PhD.
- Stressed on the importance of stipends, scholarships and teaching assistance.





Outcome of the interaction:

- Higher Studies in Abroad-Experience Sharing Session.
- Discussed on following topics:-
 - o Applying to the College/Universities abroad
 - o Filtering your options (cost, quality, exposure, countries vision on infrastructure)
 - o Experience in the university of Ottawa (Civil Engg.)
 - o Scholarships/Bursary
 - o Life in Canada (Personal & work) - Perks / difficulties
 - o Communication skills (Intellectual/body language)

EDUCATIONAL CONSULTANTS INTERACTIONS:

Consultant interaction:

Mrs. Karpagam – Pyramid Academy
(23.11.2022)



Outcome of the interaction:

- Highlighted the importance of Civil Engineering and its potential for various job opportunities in PSUs, Masters both in India and Abroad, Research through Integrated and direct PhDs in both India and abroad.
- Stressed on the importance of starting to study in-depth and understanding rather than solving the problem.
- Major job opportunities currently in Tamil Nadu government and showcased various job offers bagged by Pyramid Academy and SSN alumni students.



Outcome of the interaction:

- Discussed on the following questions:
 - o Why Should You Pursue MS Overseas After B.Tech?
 - o Which countries should you consider?
 - o What would be the total cost incurred?
 - o MS or MBA – which is better?
 - o Is GRE necessary to apply?
 - o The concept of GRE at home.

V) SSN IGBC STUDENT CHAPTER

IGBC student chapter organized a webinar, guest lectures, field visit, Hands on training and alumni interaction for higher studies.

1. The student chapter organized a webinar on special concrete on 19th August, 2022. The presenter was Ms. Janani Jaisankar, Alumnus SSN Batch 2017-21. The session enlightened the students on the "Introduction of IGBC AP Certification"



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KALAVAKKAM - CHENNAI

DEPARTMENT OF CIVIL ENGINEERING
SSN IGBC STUDENT CHAPTER

Invites you all for the sharing session on

An Introduction to IGBC AP Certification



Ms. Janani Jaisankar
Data Analyst, LatentView Analytics
SSN Alumnus Batch 2017-2021
On 19th August, 2022, Friday 6:00 PM

Meeting Link : meet.google.com/wzs-ixzo-cjc

Dr.R SRINATH
CO-ORDINATOR

Dr. N SIVAKUMAR
CONVENOR

2. The student chapter organized a webinar on special concrete on 16th September, 2022. The webinar was conducted on behalf of the celebration of World Green Building Week 2022. The presenter was Girish R Viswanathan, Director-Technical at Earthonomic Engineers Pvt.Ltd. The session enabled the students to learn more about the green buildings and energy saving methods by adopting this system during the construction.



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INDIAN GREEN BUILDING COUNCIL (IGBC)
DEPARTMENT OF CIVIL ENGINEERING
SSN-IGBC STUDENT CHAPTER
Celebrates World Green Building
Week 2022

SSN IGBC CORDIALLY INVITES YOU FOR THE WEBBINAR ON
**“DIGITAL TWIN TECH FOR ENERGY
EFFICIENT BUILDING DESIGN”**
SPEAKER



Girish R Viswanathan
Director-Technical ,at Earthonomic Engineers Pvt.Ltd
On 16th September 2022, Friday 10:30 AM– 11:30 AM

Dr. R .Srinath CO-ORDINATOR	Dr. N SIVAKUMAR CONVENOR
---------------------------------------	------------------------------------

For any query, contact Student Co-ordinators – Ashwin kumar /7601871999
– C.Adarsh / 6379006209

3. The student chapter organized a webinar on special Guest Lecture on 22nd November, 2022. The speaker was Dr. Parimala Renganayaki, Associate Professor at Vellore Institute of Technology. It was an eye-opening session as the presenter gave a well explained and structured speech on Managed Aquifer Recharge which was an important method that should be adopted in replenishing aquifer.



SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION – AFFILIATED TO ANNA UNIVERSITY) KALAVAKKAM – CHENNAI

INDIAN GREEN BUILDING COUNCIL (IGBC)
DEPARTMENT OF CIVIL ENGINEERING
SSN-IGBC STUDENT CHAPTER

SSN IGBC CORDIALLY INVITES YOU FOR THE GUEST LECTURE ON

**“MANAGED AQUIFER RECHARGE : A
REPLENISHING TOOL FOR AN AQUIFER”**

SPEAKER



Dr.S.Parimala Renganayaki
Associate professor, Environmental and Water Resources Engineering,
Vellore Institute of Technology .

On 22nd November 2022, Tuesday 12:35 PM– 1:35 PM

Dr. R .Srinath
Dr N. Surendar
CO-ORDINATORS

Dr. N SIVAKUMAR
CONVENOR

For any query, contact Student Co-ordinators – Ashwin kumar / 7601871999
– C.Adarsh / 6379006209



4. The student chapter organized a site visit to Campus Composter at SSN College of Engineering, Chennai 25th November, 2022. The students were exposed to various methods of composting and the importance of doing this method for greener Environment.



SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
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INDIAN GREEN BUILDING COUNCIL (IGBC)
DEPARTMENT OF CIVIL ENGINEERING
SSN-IGBC STUDENT CHAPTER

SSN IGBC in association with SSN-Institution's Innovation Council (SSN-IIC 5.0)
CORDIALLY INVITES YOU FOR THE

FIELD VISIT

**VENUE : CAMPUS COMPOSTER
AT
SSN COLLEGE OF ENGINEERING**

ON 25th NOVEMBER 2022, FRIDAY

CONDUCTED BY

DEPARTMENT OF CIVIL ENGINEERING

Dr. R .Srinath
CO-ORDINATOR

Dr. N SIVAKUMAR
CONVENOR

For any query, contact Student Co-ordinators – Ashwin kumar / 7601871999
– C.Adarsh / 6379006209



5. The student chapter organized a chit chat session with Mr. Manimanickam Ramasamy on 27th November, 2022. The session was about pursuing Higher Studies abroad. The students who were interested in pursuing their higher studies got their doubts cleared by him. The knowledge he shared was very helpful for the students and the procedures were made quite simple.

SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
(An Autonomous Institution affiliated to Anna University)
Kalavakkam - Chennai

DEPARTMENT OF CIVIL OF ENGINEERING



**IEI SSN STUDENT CHAPTER
&
IGBC STUDENT CHAPTER**

Invites you all for the webinar session
On
Higher Studies in Abroad-Experience Sharing Session
On
27.11.2022 , Sunday, 8:00 PM IST

SPEAKER



Mr. Manimanickam Ramasamy
Deputy Project Manager, Canada

Meeting Link : <http://meet.google.com/qbc-qefa-hhv>

Co-ordinators:
Dr. B. Mahalingam
Dr. Aswin Sriram G
Dr. R. Srinath

HOD
Dr. N. Sivakumar

6. The IGBC Student Chapter organized a workshop on the Topic "Entrepreneurship and Career Development" on 29th November, 2022. The presenter was Er. Ashok Kumar, Founder & CEO of CMTI, Bangalore. The presenter was himself an entrepreneur who decided to open a startup and inspired the students. He gave various ideas related to civil engineering startups and offered some free courses that can be enrolled in their CMTI app



SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
(AN AUTONOMOUS INSTITUTION - AFFILIATED TO ANNA UNIVERSITY) KALAVAKKAM - CHENNAI

SSN-Institution's Innovation Council (SSN-IIC 5.0)
DEPARTMENT OF CIVIL ENGINEERING
SSN-IGBC STUDENT CHAPTER

SSN-Institution's Innovation Council (SSN-IIC 5.0)
in association with SSN-IGBC CORDIALLY INVITES YOU FOR
THE WORKSHOP ON

**"Entrepreneurship and Career
Development"**

SPEAKER



Er. Ashok Kumar, B.E,PMP,IGBC-AP
Founder & CEO of Construction Management Training Institute

On 29th November 2022, Tuesday 11:00 AM

MEETING LINK: https://teams.microsoft.com/j/19:3ameeting_M1Y5ZjgyM0cyWFMy00KtGjLWjYTYNzRmMGVjZmI4M2Q540thread.v2?0=context=%7b%22id%22%3a%2250eb351c-3fb6-48f6-b82-fe35ace96e73%22%2c%22cid%22%3a%2249eaf9f8-189c-482a-b0dd-6a0bae89abdb%22%2d

Dr. R .Srinath CO-ORDINATOR	Dr. N SIVAKUMAR CONVENOR
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For any query, contact Student Co-ordinators - Ashwin kumar / 7601871999
- C.Adarsh / 6379006209

HANDS ON TRAINING & WORKSHOP ON ELECTRICAL RESISTIVITY METER

CO-ORDINATOR DR. SURENDAR NATARAJAN

- A One-day workshop on Electrical resistivity Meter was conducted by Department of Civil Engineering on 15-11-2022
- A Team of final years and third year students attended the hands-on Training.
- The site chosen for the hands-on training: football ground.
- The workshop was conducted under the IFFP/December 2021/1-21/17



VI) KRACIVA

Kraciva is a chit chat session conducted among students regarding placements, stress buster and work management

CHIT CHAT SESSION:

We conducted a chit chat session with Narenthiran A. an alumnus who completed his Bachelor's in civil engineering and got placed in latent view analytics working as analyst on 26 August 2022 in google meet regarding placement process and his experience

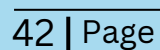
LOGO QUIZ:

We conducted a logo quiz on 28 September 2022 at the department classroom. 10 teams participated in the quiz, so we conducted prelims where general question were asked and we selected four teams for the final round. In the final round we showed the logo of different companies, and they identified the companies. Later certificates were provided to participants and to winner's cash prize of 100 and certificate also provided.

CHIT CHAT SESSION:

Our next event was a chit chat session conducted on 18 October 2022 as an offline session and the speaker was Abhinaya from fourth year who is placed in Technip FMC and she shared her experience in interview and she gave tips and tricks to prepare for an interview and how to prepare for different aptitude tests conducted by different companies.



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STUDY TOUR INDUSTRIAL VISIT-GOA

CLASS TRIP TO GOA

Vaishnav Krishnan. C



Class Photo, Basilica of Bom Jesus, November 8th

Our class the, batch of 2019-23 are going through the last year of our college life and this might be the last year that all of us can be together as a class as from next year onwards most of us will be busy with internships and Project. Hence, we decided to go as class for trip one last time before the semester ends, and we decided to head to Goa between 5th November to 9th November. And these days certainly marked one of the best days in our college life.

All of us met at Chennai Central at around 2pm including our accompanying faculty Dr Ashwin G Sriram and Dr R. Sangeetha and our tour guide Sriram. Our route to Goa included a 6-hour train journey from Chennai to Bangalore where we'll have our dinner and by bus ride to Goa which is a 15-hour journey. We caught our train around 3.30 and left for Bangalore. At around 9.30 we reached KSR Bangalore station. From here we were hushed into our bus which was waiting outside the station for us. Once we loaded the bus with our bags, we left the station at around 10. We got a first-hand experience of the infamous Bangalore traffic. Under any circumstance this was bound for boredom. But the aisle of our bus turned



into a mini dance floor, we partied until we were tired. At around 11.30 we stopped over for dinner. After lunch all of us went to sleep which marked the end of Day-1 in our trip

Next day morning we woke up in rural Karnataka. The Scenery was beautiful and at the same time our hunger at its peak. We decided to stop over a small hotel on the way. This also where most of us freshened up. After which we got a assorted breakfast which included poori, idly, Dosa along with Bhaji and Karnataka's famous sweet sambhar. Some of us liked it, others didn't. We left the hotel and headed to Goa. The Road to Goa was just beautiful. The state where the western ghat ended was just surreal.

We reached the resort at around 2pm. We headed to our rooms and freshened up, after which we had our lunch which was really good. Mindful that most of us were tired we decided to go to place which was near us, so went to Vagator Beach. We were there for a solid 4 hours and had so much fun. We got our first look at goa and we loved it. After spending some time at the beach, we went to Anjunna beach, but since it was night, the beach was pretty dark but we saw and assortment of pubs and clubs. After which we headed back to the resort which marked day-2 of our Goan trip.

For Day-3, the group split most of them went for water sport, for which we had to travel around 2 hours. Some of us had reservations for travelling even more, Mindful of that some of that, us stuck with the itinerary. Not wanting to do both, me and my friend, Naveen Prasad Rented a scooter and headed to Panaji which was half an hour away. Both of us wanted a relaxed trip and wanted to eat what goa has to offer. We had a blast. We roamed around Panaji visiting Immaculate Conception Church, Panjim and we also went to some famous Goan hippy restaurants such as Josephs Bar. We had our lunch at a famous restaurant called Masak where we had Goan Fish Thali meals and Ros Omelette. After which we headed back to the resort where we met up with group which stuck with the itinerary. They also had a blast, visiting places such as Aguada Fort and Jail. We played in the pool for some time and at around 4 we headed to Baga Beach. The Vibe at Baga Beach was nothing but immaculate. We started from the end of the Baga beach and decided to walk for 4km from where our bus will be waiting for us.

Since me and Naveen came in the scooter that we rented in the morning, and since we parked it at the place, we started from we decided to walk with for 2km and just chill there in the beach for some time, else we have to walk for 8km in total. We were there in the beach just sitting and enjoying till 7.30pm. Decided to head back to resort after our professor told us dinner was about to be served. When we reach the resort, we met up with the group that left for water sports. They shared their experience with us and which sounded really fun. They went for para gliding, rafting scuba diving, Jet ski, Banana Riding, Boat Ride etc. After Lunch most of us wanted to go out hence again the group split. Most of the people who went for water sports wanted to go to Baga Beach and hence they headed for it while, some of us wanted to have some seafood and hence we headed to this restaurant called Taste of India. We had everything form Crabs to Lobsters. We were also accompanied by Ashwin Sir which was really fun. Overall, the Day -3 was really nice.

Next day morning all of us got ready as we have to vacate our rooms by 10am. After having breakfast, we headed again headed to Baga beach as some of us wanted to do some shopping and we proceeded with it. After which we headed to Basilica of Bom Jesus which was a 17th Century Church constructed by the Portuguese. The church and its surroundings were really beautiful and we clicked a lot photos there. After 9pm we have had our dinner and headed for Bangalore.





(Clockwise from top left) 1. Baga Beach, 2. Group Photo from Basilica of Bom Jesus, 3. A group at "I Love Goa" Sign, Baga Beach, 4. Water sport.

After our 12-hour bus journey at 10.30 we reached outskirts of Bangalore we stopped over for breakfast. After we wrapped up our breakfast, and headed to KSR Bangalore Railway station. We reached there at 11.30pm even though our train was at 3pm. To kill some time, we headed to a gaming arcade in the station and played a lot of games such as WWE, Sim racing and FIFA. Ashwin sir was also with us and that was really fun. While some went to nearby Lulu Mall and some even went to Cubbon Park. After we had our lunch, our train came. We boarded the train and train left on time. We had some much fun in the train and also had a birthday party for Sangeetha Ma'am in the train. We got her a cake and had a small party for her. At 9.30 pm we reached Chennai.

The Trip was really fun, and it made a lot of memories which would stick with us when we leave the college next year. I would never forget these four days as these were some of the best days in my college days. We as a class would like to thank HoD, Ashwin sir and Sangeetha Ma'am making this day possible. Along with Dhanush, Hariharan, Jegajit and other members of ACE for coordinating this trip and making it possible.

SITE VISITS

1) Field visit to a residential building near Kauvery Hospital, Alwarpet

A field visit to a residential building near Kauvery Hospital, Alwarpet was organized by Dr. S.V. Sivapriya, Associate Professor, under the banner of Association of Civil Engineers, for the students of Ground Improvement Technique to see the ongoing grouting process. The structure on the soil which was being stabilised was a load bearing structure and not a framed structure, so the structural cracks on those walls called for an urgent stabilisation. We were told that the crack pattern was monitored for one complete cycle i.e., summer and winter and it was concluded that they were active cracks. The soil was a clayey soil which was prone to swelling and shrinking. So, cement cannot be used, lime was used instead. Lime mortar has a property to store water. Since the building was built around 42 years ago there weren't any proper blueprints or records available, so they chose the parameters for grouting arbitrarily.

The following procedure was followed. A hole of diameter 15cm (6 inch) and 3m (10 feet) depth was dug using a hand auger and the spacing between the holes were 1m. A perforated pipe of 90mm diameter and 3m length, with 10mm diameter perforations is placed into the hole.

The lime mix which was a mixture of lime, water and lignosulfonate (admixture) was made in batches and fed into the grouting pump. The mix was pressured and fed into the hole with the perforated pipe through a valve. The pumping is stopped when the mix overflows from the pipe. After allowing the lime to harden for some time the perforated pipe was removed. The hole was filled with the excavated soil. Watering the hole's during summer was advised to maintain the effectiveness of the lime piles. It was an informative visit since we were able to visually see the entire process.



2) Site visit to Poondi Reservoir

The Department of Civil Engineering organized a Site visit to Poondi Reservoir on the 6th of September 2022. The Buses started from college by 8.30 am from SSN College of engineering campus. The visit was guided by Mr. Sai Charan, Assistant engineer at Indian institute of Hydrology and hydraulics Research. The site visit started with a brief introduction of what is a reservoir and types of reservoirs and also the guide explained the difference between Hydrology and Hydraulics. The Poondi reservoir dam was built in 1944 along with the hydrology research institute, which is the first research institute for hydrology in India.





3) Construction site of Academic Block 4 of Shiv Nadar University

A site visit to the construction site of Academic Block 4 of Shiv Nadar University was organized by the IEI and ICI student chapters of the department of Civil Engineering for III Year B.E., Civil Engineering Students on the 29th of September 2022. The students were accompanied by Dr. Y.K. Sabapathy and Dr. B. Mahalingam. The project is being undertaken by M/s. GRC constructions. The project manager of the project Er. Saravana Kumar was also present at the site. During the site visit, the project manager and the faculty explained the design and major aspects of the building.



They also explained about the reinforcement provided on the slab and columns.



4) SITE VISIT TO THE STAFF QUARTERS CONSTRUCTION SITE OF SHIV NADAR UNIVERSITY

A site visit to the Staff quarters construction site of Shiv Nadar University, Chennai was organized under the banner of the IEI student chapter on the 19th of October 2022. The students were accompanied by Dr. B. Mahalingam and Dr. G. Aswin Sriram. 297 piles, 84 pile caps and 97 columns are planned to build for a strong support. Each pile was made with a diameter of 500 mm and has a cut off level of 7.5m. Students gained the knowledge of pile foundation, pile cap, soil testing, vertical load test, Integrity test on pile, eccentricity of pile test and laying of reinforcement for column.



5) CAMPUS COMPOSTER IN THE PREMISES OF SSN COLLEGE OF ENGINEERING

A Site Visit was arranged for the students of III Year B.E., Civil Engineering to the Campus Composter in the premises of SSN College of Engineering on the 25th of November 2022 under the SSN-IGBC Student Chapter of the Department of Civil Engineering, SSN College of Engineering. The visit was coordinated by Dr. R. Srinath and Dr. N. Surendar. The students of III Year BE Civil Engineering were accompanied by three Civil Engineering Faculty to the composter in use in SSNCE Campus. The operator explained the process of collecting food waste from college canteen and mess and garden trimmings from campus. He explained the procedure of feeding the composter with 50 kg waste per day for five days along with microbial culture seed to kick start composting.

After two weeks of composting the dry compost is collected from the machine and used as fertilizer to maintain landscaping in the campus.



6) CONSTRUCTION SITE OF THE SNU LAW SCHOOL

A Site Visit was arranged for the students of II and Final Year B.E., Civil Engineering to the construction site of the SNU Law School on the 24th of November 2022 under the SSN ICE(UK) Student Chapter of the Department of Civil Engineering, SSN College of Engineering. The visit was coordinated by Dr. B. Mahalingam and Dr. Jijo James

The students were shown the different types of construction activities going on at site including masonry work and reinforcement detailing. The site engineer explained the different structural components and their functions. He also showed the students how reinforcement bars were placed for roof slabs.



WORKSHOP

1. A workshop on Study and Demonstration of Differential Global Positioning System was organized by the Department of Civil Engineering, on the 12th of October 2022. The event was coordinated by Dr. Surendar Natarajan, Asst. Professor, and Mr. K. Jai Shanker, Proprietor, M/s. Indus Instruments was the guest speaker. The Demonstration and experiment of DGPS was studied during the workshop. The fixing and tracking of points were demonstrated to students.



2. A One-day Hands on Training and Workshop on Electrical resistivity Meter was conducted by Department of Civil Engineering on 15-11-2022. A Team of final years and third year students attended the hands-on Training. The site chosen for the hands-on training is football ground. The workshop was conducted under the IFFP/December 2021/1-21/17. The device is used to identify the underground geological structures through resistivity measures. Its applications include salinity control, shallow groundwater exploration, depth to rock determination, depth and thickness of aquifers apart from other areas including environmental studies, groundwater investigation, civil engineering, archaeology.



ELECTRICAL RESISTIVITY-HANDS ON TRAINING AND WORKSHOP

SURVEY CAMP

For the Advanced Surveying lab, A Survey camp was conducted outside of the campus. The III-year students visited Kayar village in Chengalpattu district and carried out surveying works from (26-7-2022 to 6-8-2022)

The main objective of this camp is

- To enable the students to get practical training in the field work
- To work on a larger area of more than 40 acers
- To record all original field observations, calculations, and plots



FACULTY CORNER

FACULTY ACTIVITIES

RESEARCH CENTRE

Glad to share that our dept has received the research centre recognition from Anna University -Centre for Research- Quote No 4131505. This means that we can recruit scholars and guide them for PhD. We have many attractive schemes for assistance. Those who are interested to pursue PhD can contact us.

CATEGORY 1: EXTERNAL RECOGNITION

The Department of Civil Engineering, Sri Sivasubramaniya Nadar College of Engineering was awarded Overall first place in the "Oratorical competition for Civil Engineering Students" organized by Builders' Association of India, Southern Centre on 15.10.2022.

- Department of Civil Engineering has obtained "ICI Best Student Chapter Award" in the ICI-UltraTech Awards-2022. Dr. P. Sangeetha coordinated this chapter.
- Dr. N. Sivakumar has acted as Member of Inspection committee for affiliation of Institutions by Anna University 2022-2023.
- Dr. N. Sivakumar has been appointed as Thesis External Examiner at University Teknologi PETRONAS, Malaysia.
- Dr. N. Sivakumar has secured membership and chartered engineer CEngMICE with the Institution of Civil Engineers (UK).
- Dr. N. Sivakumar has delivered an expert talk on "My Journey to CEngMICE" in a national webinar organized by the Institution of Civil Engineers (UK) SSN-Student Chapter on 12.08.2022.

- Dr. N. Sivakumar obtained "IGBC Accredited Faculty" award by Indian Green Building Council Unique ID IGBC-FDP-001-220001
- Dr. B. Mahalingam was given Expert Talk at National Institute of Teachers Training and Research, Taramani, Chennai during 20-24 June 2022 on online mode.
- Dr. R. Srinath obtained "IGBC Accredited Faculty" award by Indian Green Building Council Unique ID IGBC-FDP-001-220001.
- Dr. S. V. Sivapriya has appointed as Session Chair in ICRASCE – 2022 conducted B.S. Abdur Rahman Crescent Institute of Science and Technology Chennai on 16th June 2022.
- Dr. Jijo James joined the editorial board of the journal Frontiers in Built Environment, Geotechnical Engineering section as Review Editor.
- Dr.S.Ramana Gopal As a member attended the 30th Board of Studies meeting of the Faculty of Civil Engineering for the Non-autonomous colleges affiliated to Anna university at the University campus on 26.7.2022.
- Dr.S.Ramana Gopal Attended the special BoS meeting for the University departments and Non-autonomous colleges affiliated to Anna university on 27.9.2022 through Online.

CATEGORY 2: RESEARCH ACTIVITY

- Sabapathy, Y.K, Sangeetha P, Jayakarthish J, Babu S, Mohammed Duraid Falih, Shreeram P (2022), "An experimental study on interconnected shear connector in steel-concrete composite structure", Materials Today: Proceeding, Vol. 64, pp. 948–955.
- Vijayalakshmi. R., Vaishnavi. M., and Geetha. R (2022), "study on the workability, mechanical properties of fish tail palm fiber reinforced concrete -emphasis on fibre content and fibre length", European journal of environmental and civil engineering, DOI: 10.1080/19648189.2022.2086178

- R. Vijayalakshmi (2022), "The compressed strength of confined concrete stub column reinforced with GFRP-bars effect of reinforced bar and diameter" ", Lecture Notes in Mechanical Engineering, pp. 275-290,
- Sivapriya S.V., Jijo James, Yuvaraj Karunanithi, Sushritha Gunipati, (2022), "Durability performance of a lime stabilized expansive soil with egg shell ash as a subsidiary admixture", Building Materials and Structures, Vol. 65, No. 2, pp. 65-71, 10.5937/GRMK2202065V.
- Sivapriya S. V, "Behaviour of Geo composite as a packing material in the back of weepholes" in Materials Today: Proceedings, 2022, doi: 10.1016/j.matpr.2022.08.217. (Scopus).
- Sivapriya S.V and Ganeshkumar S., (2022), "Modulus of laterally loaded pile in cohesionless slope crest with varying condition", Civil and Environmental Engineering Reports, Vol. 32, No.3 pp. 133 - 142, (10.2478/ceer-2022-0032), E-ISSN 2450-8594
- Arunthathi S, Balaji D and Sivapriya S.V (2022), "A short review on feedstock characteristics in methane production from municipal solid waste", Architecture Civil Engineering Environment, Vol. 3, pp. 75–85, WoS, DoI : 10.2478/ACEE-2022-0032, ISSN - 1899-0142.
- P. Sangeetha, M. Shanmugapriya , R. Manjula , Aparna P. Vijay & K. Sooraj, (2022), "Study the effect of intermediate and closer stiffener on the behaviour of the cold - formed steel lipped channel section under axial compression", Journal of Materials and Engineering Structures, Vol. 9, pp. 49–60.
- P. Sangeetha, R. Sundareswaran, M. Shanmugapriya, M. Thaga Shriff, M. Benasir, A. Shri Thrisha, R. Sathyaprakash, (2022), "Assessment of structural cracks in buildings using single-valued neutrosophic DEMATEL model", Materials Today: Proceedings, Vol. 65, pp. 1078–1085.

- P. Sangeetha, M. Vaishnavi, A. Modhagapriyan, T. Rajarajan (2022), "T Effect of batten plates on the unlipped channel CFS built-up column under axial compression", Materials Today: Proceedings, Vol: 66 (2022), pp. 1796-1804. (Indexed in Scopus).
- James, J., and Sivakumar, V.L., (2022), "An Appraisal on the Parameters Influencing Lime Stabilization of Soils", Journal of Materials and Engineering Structures, Vol. 9, No. 2, pp. 221-236
- Aswin Sriram, G., and Anish Nair (2022), "Feasibility Studies on the Removal of Rose Bengal Dye Through Electrolytic Degradation", Indian Journal of Environmental Protection, Vol 42, No. 10, pp. 1178-1185.33.

CATEGORY 3: PROJECT NEWS

- Dr. R. Srinath as PI, Dr.N.Sivakumar as Co-PI & Dr.B.Mahalingam Co-PI submitted a research proposal "Sustainable Incorporation of Waste Quarry Dust Fines and Agro Ash into Development of Bricks" at SURE-SERB vide Reference No.: 132022007394 on 20.09.2022.
- Dr. R. Vijayalakshmi PI, Dr. Dhanalakshmi J Co- PI submitted a research proposal "Enhancement of Recycled Plastic aggregate concrete properties with natural fiber composites for a sustainable environment" at SERB-POWER vide Reference No.: SPG/2022/000393 on 29.09.2022.

- Dr. P. Sangeetha (PI), Sathya Shree T R, Rakshna S N, S. Sadhana (Co-PI) have applied a Student Project Proposal titled "Structural Behaviour of Deficient hollow steel stub columns strengthened using GFRP" for an amount of Rs.10,000 at Tamilnadu State Council for Science and Technology and the tenure is 1 year.
- Dr. P. Sangeetha (PI) and V.E. Annamalai (PI) submitted a research proposal for an amount of "Rs. 29,60,650" to "SERB-SURE", titled "Strength and morphological characteristics of concrete with abrasive industrial waste: Exposed to marine environment" for a period of "3 Years" on "19/09/2022".
- Dr.K.Kaythry(PI), Dr. P. Sangeetha(Co-PI) and Dr.R.Kishore(Co-PI) submitted a research proposal "Design and Development of IoT solution for offshore heterogeneous monitoring using distributed sensing system" at SERB-POWER vide Reference No.: 162022001364 on 27.09.2022.
- Dr.S.Ramana Gopal (PI) and Dr.P.Sangeetha (Co-PI) A research proposal on the topic 'Experimental and Analytical study on seismic assessment of FRP-Steel hybrid tubular columns infilled with fibre reinforced recycled aggregate nano concrete" was submitted to SERB under the SURE scheme vide reference no. SUR/2022/002691 on 29.9.2022.
- Dr. Aswin Sriram G as PI and Dr. Srinath Rajagopalan Co-PI submitted a research proposal titled " Quantification of microplastics and their impacts in aquatic sediments" for Rs. 20,22,000/- to SERB SURE vide ref. no: 132022006935

CATEGORY 4: SCHOLAR RELATED

- Dr. N. Sivakumar has appointed as DC member at SRM Institute of Science and Technology, Chennai. for the Research Scholar Mr. Rajendran R
- Dr. N. Sivakumar has attended the first Doctoral Committee meeting for the Research Scholar Mr. Rajendran R at SRM Institute of Science and Technology, Chennai.
- Dr. B. Mahalingam was participated in Doctoral Committee meeting for Confirmation of Provisional Registration – Ms. V. Kalpana Priya (Full time) Reg. No. RA2013001011003 at SRM Institute of Science and Technology.
- Dr. R. Rajkumar has attended the first Doctoral Committee meeting for the Research Scholar Mr. J. Vanjinathan at Sathybama University, Chennai.
- Dr. R. Rajkumar has attended the first Doctoral Committee meeting for the Research Scholar Mr. C. Sivathanupillai at Sathybama University, Chennai.
- Dr. R. Rajkumar was nominated as Doctoral Committee Member for the research scholar M. R. Ganesamoorthy at St. Peters College, Chennai.
- Dr. R. Rajkumar has attended the Doctoral Committee meeting for the submission of Synopsis for Mr. V. Pandian (Reg. No. 2014196104).

CATEGORY 5: (A) WORK SHOP/WEBINAR ATTENDED

- Dr. N. Sivakumar has participated in the 7th Edition of IGBC Green League (IGL), a five-day training program on Green Buildings organized by CII - IGBC between 2 to 6 August 2022.
- Dr. N. Sivakumar Successfully participated on the webinar "An Introduction to IGBC AP Certification" organized by SSN IGBC Student Chapter on 19th August, 2022.

CATEGORY 5: (A) WORK SHOP/WEBINAR ATTENDED

- Dr. Sivapriya S V has attended online webinar on "The Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.
- Dr. S. V. Sivapriya attended Online Webinar on "Enhancing the Performance and Durability of Concrete through Nanotechnology" held on 11th June 2022, organized by Ultra Tech., India.
- Dr. N. Sivakumar attended an online webinar on Material characteristics and structural applications of engineered cementitious composites organized by UltraTech on Sep10 2022.
- Dr. N. Sivakumar has participated in the Two-Days National webinar on Recent Advances in Building Materials and Construction Methods (RABMCM_2022) held on 29.09.2022 & 30.09.2022 organized by The Gandhigram Rural Institute, Dindigul.
- Dr. R. Srinath has undergone Innovation Ambassador (IA) "Foundation Level" Total 15 sessions of 30 hours conducted in online mode by MoE's innovation cell and AICTE during the IIC calendar year 2021-22.
- Dr. Sivapriya S V has attended online webinar on "Net Zero Buildings" held on August 06, 2022, organized by UltraTech cement Ltd.
- Dr. S. V. Sivapriya attended Online Webinar on "Sustainability of Heritage Structures, Issues & Challenges - Case study of some important Monuments of Odisha" held on 25th June 2022, organized by Ultra Tech., India.

CATEGORY 6: FDP

- Dr. Srinath Rajagopalan from Sri Sivasubramaniya Nadar College of Engineering, Chennai has participated and successfully completed the 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 19th September to 23rd September 2022.
- Dr. R. Vijayalakshmi participated one-week national level Faculty Development Programme "Futuristic Research Programme in Civil Engineering" organized by CK College of Engineering, Cuddalore from 23.10.22 - 27.10.22.
- Dr. S. V. Sivapriya attended a Faculty Development Program on 'Futuristic Research Scope in Civil Engineering' held from 23rd to 27th August 2022, organized by Dept. of Civil Engineering, CK College of Engineering and Technology, Cuddalore, Tamil Nadu 607003.
- Dr. S. V. Sivapriya attended Five days FDP on 'Inculcating universal Human Values in Technical Education' held from 19th to 23rd September 2022, organized by All India Council for Technical Education, India.
- Dr. Aswin Sriram completed 5-day Online FDP titled "Inculcating Universal Human Values in technical Education" organized by All India Council for Technical Education (AICTE) from 19th September to 23rd September.
- Dr. Surendar Natarajan Attended GIAN Course on Spatial Analysis for Water Resource Modelling and Management (SAWRMM) from June 13, 2022, to June 17, 2022, at Sardar Vallabhbhai National Institute of Technology, (SVNIT), Surat.

CATEGORY 7: EVENTS CONDUCTED

- Dr. R. Srinath organized a seminar on "Importance of Internships" SSN-IGBC student chapter in association with SSN-Institutions' Innovation Council (SSN-IIC 4.0). Resource Person Er. Ashok Kumar, Founder & CEO of Construction Management Training Institute (CMTI), on 30.05.2022.
- Dr. R. Srinath organized webinar "Angel Investment/VC funding opportunity for early-stage entrepreneurs" on 27.05.22; Sachin Amarnath, Certified Metaverse Expert, CEO, Skillbind Education, Founder, Ascend School of Construction Business gave a talk (organized by SSN-IGBC Student Chapter in collaboration with SSN-IIC 4.0).
- Dr. R. Srinath conducted an Online webinar titled "Digital Twin Tech for Energy Efficient Building Design" on the 16th of September 2022, organized by SSN-IGBC student chapter.
- Dr. R. Srinath Organized a guest lecture titled "Managed Aquifer Recharge for Sustainable Water Management in India" delivered by Dr. Parimala Renganayaki, Associate Professor, Environmental and Water Resources Engineering, VIT, Vellore on 22nd November 2022 at III Year Civil Engineering Classroom for V Semester Civil Engineering Students under the banner of SSN-IGBC Student Chapter.
- Dr. S. V. Sivapriya organized "Inauguration of Association of Civil Engineers' for the Civil Engineering Students through physical mode on 30.08.2022. it is inaugurated by Thiru. Kondapalli Bairagi, Chief Engineering Manager Head Geotechnical Division Water and Effluent IC L&T Construction, Chennai at EEE Seminar Hall from 11.00 am. Followed by the inauguration he gave a guest lecture on 'Project site Enabling Works'.
- Dr. S. V. Sivapriya Organized an event "Appreciation Day" under the banner of Association of Civil Engineers on 11.06.2022 at Seminar Hall, Civil Engg., Dept to felicitate the members of various associations and the semester toppers.

- Dr. S. V. Sivapriya conducted an Online Chit-Chat Session on 26th of August 2022, organized by Kraciva.
- Dr. S. V. Sivapriya Organized a guest lecture titled "Paint - Give your home the extra edge" delivered by "Ms. Neelam Kumari, Assistant Manager, Relationship Marketing, Nippon Paint India Private Limited, India" on "20.09.2022" held via "Online platform" for "2,3 and 4th years of students" under the banner of Association of Civil Engineers.
- Dr. S. V. Sivapriya Organized a Chit-chat session "18.10.2022" for "II year of study of students" under the banner of "Kraciva", SSN College of Engineering, Chennai.
- Dr. S. V. Sivapriya, Dr. B. Mahalingam and Dr. G. Aswin Sriram organized a webinar on "Higher Studies and Career Opportunities for Civil Engineers" delivered by Er. C S Karpagam, Director, Pyramid IAS Academy, Karaikudi on 23rd November 2022.
- Dr. P. Sangeetha, conducted the Chit-Chat session with Alumni student Mr. P. Naveenkumar & Juniors on 29.07.22 under ICI student chapter at CADD lab.
- Dr. P. Sangeetha, Dr. R. Rajkumar and Dr. Jijo James have conducted the Annual Programme Review 27.07.22 & 29.07.22 via online platform.
- Dr. P. Sangeetha Organized a Quiz Competition titled "Based on IS 456+ & IS 800 (Prelims) by Google forms on 01.11.2022.
- Dr. P. Sangeetha Organized a Quiz Competition titled "Based on IS 456+ & IS 800 (Finals) by Google forms on 25.11.2022.
- Dr. Jijo James organized a webinar titled "My Journey to CEngMICE" delivered by Dr. N. Sivakumar, Professor and Head, Civil Engineering, SSN College of Engineering on the 12th of August 2022 under the banner of the ICE (UK) SSN Student Chapter.

- Dr. Aswin Sriram conducted an Online placement discussion session titled "Placement Preparation strategies – Episode 2 - Non – Tech Companies" on the 11th of September 2022, organized by SSN-IEI student chapter.
- Dr. Surendar Natarajan organized a research seminar titled "Hierarchical Processes in River Corridor Research: A summary of approaches from satellite remote sensing to laboratory scale" on the 9th of September 2022 at 10 am. Electrical Resistivity Meter (15-11-2022) by AIMIL Ltd.
- Dr. Aswin Sriram G organized the Value Added Course titled "Quality Control In Construction for third year students during April-June 2022 in hybrid mode.
- Dr. Surendar Natarajan organized the One-day Workshop titled "Study and Demonstration of DGPS (Differential Global Positioning System" by Indus Instrument, Chennai on 12.10.2022.
- Dr. Surendar Natarajan organized One Day workshop On Hands on Training & Workshop on Electrical Resistivity Meter (15-11-2022) by AIMIL Ltd.

CATEGORY 8: INDUSTRY COLLABORATION

- Dr. N. Sivakumar has collaborated with Larsen & Toubro Ltd and arranged a group of students to use their research lab for casting and testing of concrete to be used for the the national level ASCE Canoe competition conducted by SRM Kattankulathur. The duration of testing was one week starting from 24-08.2022
- Dr. B. Mahalingam and Dr. Y. K. Sabapathy have organized a Site visit at shiv Nadar university, Chennai academic block-4-program organized by student chapter of IEI and ICI on 29/09/2022 and 55 students participated.
- Dr. B. Mahalingam and Dr. Aswin Sriram G have organized an industrial visit to SNU campus near MBA Block by student chapter of IEI and ICI on 19/10/2022 and 60 students participated.

- Dr. S. V.Sivapriya has organized a Site visit at HITECH Civil Engineering Services(M), Pvt.,Ltd. Chennai, India for III-year students on 30.05.2022 (9.00 to 14.00 hours).
- Dr. P. Sangeetha organized a site visit to "CSIR-SERC" on "26/9/2022" for "IV-Year and III -Year students" under the banner of "ICI Student Chapter".
- Dr. B. Mahalingam and Dr. Jijo James organized a site visit to the construction site of "Law School of SNU" on 24th November 2022 for III and VII Semester Civil Engineering Students under the aegis of the ICE student chapter.
- Dr. R. Srinath organized a site visit to the "Campus Composter at SSN College of Engineering" on 25th November 2022 for V Semester Civil Engineering Students under the banner of SSN-IGBC Student Chapter.
- Dr. N. Surendar and Dr. R. Vijayalakshmi organized a site visit to the Poondi reservoir for students of III Year on the 6th of September 2022.
- Mr. B. Dhanasekaran, Chief Engineering Manager, and, Mr. D. Muthukumar, Chief Engineering Manager (Civil), Larsen & Toubro Ltd are guiding two groups of semester 7 (2019-2023 batch) students of Civil engineering for the innovative design project with Dr. N. Sivakumar acting as the Internal guide.
- Mr. S. Raja, Managing Director, SWAN Connecting Civil Engineer, Pondicherry is guiding one group of semester 7 (2019-2023 batch) students of Civil engineering for the innovative design project with Dr. R. Rajkumar acting as the Internal guide.

CATEGORY 9: ALUMNI INTERACTION

- Dr. B. Mahalingam organized an online Alumni interaction session by Alumini Er. Sudesh Krishnakumar, Site Manager, Aspen Creations LLC, Dubai SSN CIVIL 2016 Batch, "Topic: 'Career Opportunities for Civil Engineers in Gulf Nations' on 08.10.22 and 22 students participated.

- Dr. B. Mahalingam organized an online Alumni interaction session by Alumini Er. Sudesh Krishnakumar, Site Manager, Aspen Creations LLC, Dubai SSN CIVIL 2016 Batch, "Topic: 'Career Opportunities for Civil Engineers in Gulf Nations' on 08.10.22 and 22 students participated.
- Dr. B. Mahalingam, Dr. Aswin & Dr. R. Srinath have arranged a sharing session with our Alumni Mr. Manimanickam R M, Deputy Project Manager, Ottawa General Contractors (Design & Build) on 27.11.22.
- Dr. B. Mahalingam & Dr. Aswin have arranged a sharing session with our Alumni Ms. Annesherin A, Associate BIM Modeller, COWI India Private Limited, Chennai on 26.11.22.
- Dr. R. Srinath has Organized a sharing session on "An Introduction to IGBC AP Certification" Ms. Janani Jaisankar, Data Analyst, Latent View Analytics, SSN Alumnus Batch 2017-21civil engineering on August 19th 2022 Friday.
- Ms.P.Shobana , alumnus of 2015-2019 batch (civil) currently working as engineer in DOW chemicals is guiding one group of semester 7 (2019-2023 batch) students of Civil engineering for the innovative design project with Dr. R. Srinath acting as the Internal guide.
- Dr. S. V. Sivapriya Organized a Chit-Chat Session "24.11.2022" for "II, III and 4th year of study of students" under the banner of "KRACIVA", SSN College of Engineering, Chennai.
- Dr. Jijo James organized an Alumni interaction session with Jyothir Aditya Skandan (Batch 2018-2022) and Past President of the ICE (UK) student chapter on "Leadership Qualities and Placement Experience" on the 17th of September 2022 under the banner of the ICE(UK) student chapter.
- Dr. Aswin Sriram G has organized the sharing session on Alumni Interaction titled "Placement Preparation Strategies (Non-Tech companies)" given by Ms. Yuvalatha and Ms. Deepika D, SSN Alumnus (Civil) batch 2018-22 on 20.08.22.

- Dr. Aswin Sriram G organized an online Alumni interaction with Mr. Nijanthan, (2018-22 batch), Graduate Engineer Trainee, WOOD on 04.10.2022 under IEI student chapter.
- Dr. Aswin Sriram G organized an online Alumni interaction with Ms. Amrutha Udayakumar, Post Graduate Student – Georgia Institute of Technology on 18.10.22.

CATEGORY 10: NOTABLE VISITORS

- Mr. Kondapalli Bairagi, Chief Engineering Manager and Head of Geotechnical Division Water and Effluent IC L&T Construction, Chennai visited the Department for the inauguration of the Association of Civil Engineering Activities for the academic year 2022-2023.
- A University Inspection Team from Anna University, Chennai visited the Department of Civil Engineering, Sri Sivasubramaniya Nadar College of Engineering for Recognition of the Department as a Research Centre for Doctoral Research on the 27th of October 2022. The Inspection team comprised of Dr. R. Saravanan, Dr. E. Arun Babu and Dr. V. Lenin Kalyanasundaram, from the Centre for Water Resources, Anna University, Chennai. The team arrived in the campus at 11.15 am and were welcomed by the Vice Principal, Dr. S. Radha. Following this, they assembled in the discussion room of the Department of Civil Engineering. The Head of the Department, Dr. N. Sivakumar gave a presentation to the visiting team in the presence of the Vice Principal, Dr. S. Radha, on the research facilities and potential of the department in guiding doctoral candidates. The visit was coordinated by Dr. S.V. Sivapriya and Dr. P. Sangeetha with inputs from the Faculty of the Department of Civil Engineering. The team inspected the supporting documents and visited the research facilities, laboratories and the library before leaving the campus in the afternoon.

CATEGORY 11: OTHER ITEMS

- Dr. N. Sivakumar reviewed one manuscript for JEMA.
- Dr. N. Sivakumar reviewed one manuscript for ACI.
- Dr. N. Sivakumar reviewed one manuscript for Jordan Journal of Civil Engineering.
- Dr. N. Sivakumar reviewed one manuscript for the Journal, Construction and Building Materials.
- Dr. N. Sivakumar reviewed one manuscript for the Journal, Construction and Building Materials.
- Dr. N. Sivakumar reviewed one manuscript for the Journal of Environmental Management.
- Dr. N. Sivakumar reviewed one manuscript for the Journal, Construction and Building Materials.
- Dr. N. Sivakumar reviewed one manuscript for the Journal, Construction and Building Materials.
- Dr. N. Sivakumar reviewed One paper reviewed for construction and building materials.
- Dr. N. Sivakumar reviewed One paper reviewed for construction and building materials.
- Dr. N. Sivakumar reviewed One paper reviewed for Jordon journal of civil engineering.
- Dr. N. Sivakumar reviewed One paper reviewed for Scientific Reports- Nature.
- Dr. N. Sivakumar reviewed one manuscript for the journal Construction and Building Materials.
- Dr. N. Sivakumar reviewed one manuscript for the journal of Environmental Management.

- Dr. N. Sivakumar reviewed one article for Ain Shams Engineering Journal.
- Dr. N. Sivakumar reviewed one article for Construction Building Materials.
- Dr. R. Srinath reviewed 15 Project proposals submitted to YUKTI - National Innovation Repository an initiative by MoE's Innovation Cell.
- Dr. R. Vijayalakshmi reviewed one manuscript for the journal Advances in Civil Engineering, published by Hindawi Publishing Corporation.
- Dr. S. V. Sivapriya reviewed one manuscript for International Conference on Materials and Sustainability in Civil Engineering (2022) organized by SRM Institute of Science and Technology, Chennai.
- Dr. S. V. Sivapriya reviewed one manuscript for the Journal, Ocean Engineering.
- Dr. S. V. Sivapriya reviewed one manuscript for the Journal, Hindawi – Advances in Civil Engineering.
- Dr. S. V. Sivapriya Reviewed a manuscript for the journal Physics and Chemistry of the earth (Elsevier Publisher).
- Dr. S. V. Sivapriya Reviewed a manuscript International Journal of Housing Markets and Analysis (Emerald Publisher).
- Dr. S. V. Sivapriya reviewed four manuscripts for the Indian Geotechnical Conference, IGC Kochi - 2022.
- Dr. S. V. Sivapriya Organized a Quiz session "28.09.2022" for "II and III year of study of students" under the banner of "KRACIVA", SSN College of Engineering, Chennai.

- Dr. S. V. Sivapriya organized the Felicitation event for the Best - Out going student of 2018 - 2022 batch students on "15.10.2022" in "CADD lab", under the banner " Association of Civil Engineers", Department of Civil Engineering, SSN College of Engineering, Chennai.
- Dr. Sivapriya S.V. reviewed one article for the journal Geotechnical and Geological Engineering published by Springer Nature.
- Dr. Sivapriya S.V. was invited as a review examiner for the April 2022 Examinations held by Anna University, Chennai.
- Dr. S. V. Sivapriya, Organized a Treasure Hunt "09.11.2022" for "II and III year of study of students" under the banner of "ACE", SSN College of Engineering, Chennai.
- Dr. P. Sangeetha reviewed one manuscript for the Journal, Applied Computational Intelligence and Soft Computing published by Hindawi Publishing Corporation.
- Dr. P. Sangeetha reviewed one manuscript for the Journal, Applied Computational Intelligence and Soft computing.
- Dr. P. Sangeetha reviewed one manuscript for the Journal, Steel and Composite Structures.
- Dr. P. Sangeetha reviewed one manuscript for the journal of Materials and Engineering Structures, published by Mouloud Mammeri University of Tizi-Ouzou.
- Dr. P. Sangeetha reviewed one manuscript for international journal of Steel Structures on 27.10.22
- Dr. P. Sangeetha reviewed one manuscript for international journal of Steel Structures on 03.10.22
- Dr. Jijo James reviewed one manuscript for the Journal of Materials and Engineering Structures published by Mouloud Mammeri University, Algeria.

- Dr. Jijo James reviewed one manuscript for the journal Songklanakarin Journal of Science and Technology, published by the Prince of Songkla University, Thailand.
- Dr. Jijo James reviewed one manuscript for the journal Construction and Building Materials published by Elsevier.
- Dr. Jijo James reviewed one manuscript for the Journal of Natural Fibers published by Taylor and Francis.
- Dr. Jijo James handled one manuscript as the Academic Editor of Advances in Civil Engineering published by Hindawi Publishing Corporation.
- Dr. Jijo James handled one manuscript as Academic Editor for the journal Advances in Civil Engineering published by Hindawi Publishing Corporation.
- Dr. Jijo James reviewed one manuscript for the journal Advances in Materials Science and Engineering published by Hindawi Publishing Corporation.
- Dr. Jijo James handled one manuscript as Academic Editor for the Journal Advances in Civil Engineering on 17th October 2022, published by Hindawi Publishing Corporation.
- Dr. Jijo James reviewed one manuscript for the journal Frontiers of Structural and Civil Engineering published by Springer Nature.
- Dr. Jijo James reviewed one manuscript for the Journal of Natural Fibres published by Taylor and Francis.

- Dr. Jijo James handled one manuscript as Academic Editor for the Journal Advances in Civil Engineering on 22nd October 2022, published by Hindawi Publishing Corporation.
- Dr. Jijo James reviewed one article for the journal Advances in Material Science and Engineering published by Hindawi Publishing Corporation.
- Dr. Jijo James reviewed one article for the journal Advances in Civil Engineering published by Hindawi Publishing Corporation.
- Dr. Surendar Natarajan has become a Member for IEEE vide number is 98549675.
- Dr. Surendar Natarajan has become a Member for IA Eng., International Association of Engineers vide number is 317097.

DEPARTMENTAL IQAC AUDITING ON 23-09-2022

The external auditor was satisfied with the overall performance of the department activities. The external auditor also discussed with all faculties and staffs in the department. He also visited some of the civil Engineering Classrooms. The best practices and opportunities for civil engineering department is discussed.

ISO -EXTERNAL AUDITING 9-11-2022

The Department ISO External Auditing was held on 9th November 2022. The Inspection went on a success. A tour to all labs in Civil Engineering department was taken and the all the documents pertaining to the auditing process is displayed. The audit was closed on 15th November 2022.



FARE WELL

"All the best in finding new opportunities elsewhere—we will all miss you!" "This is not goodbye, just farewell for now! Thank you for all you have done." "I hope this has been an enjoyable time at the SSN CE and that we'll see you again someday!"

We truly appreciate you and your time you spent helping me on many occasions. Thank you very much for the course.

Farewell to Dr.P. Sreehari was conducted on 30-6-2022. Dr.P. Sreehari was one of the founding faculty in the SSN CE. He has more than 30 years of experience in teaching.

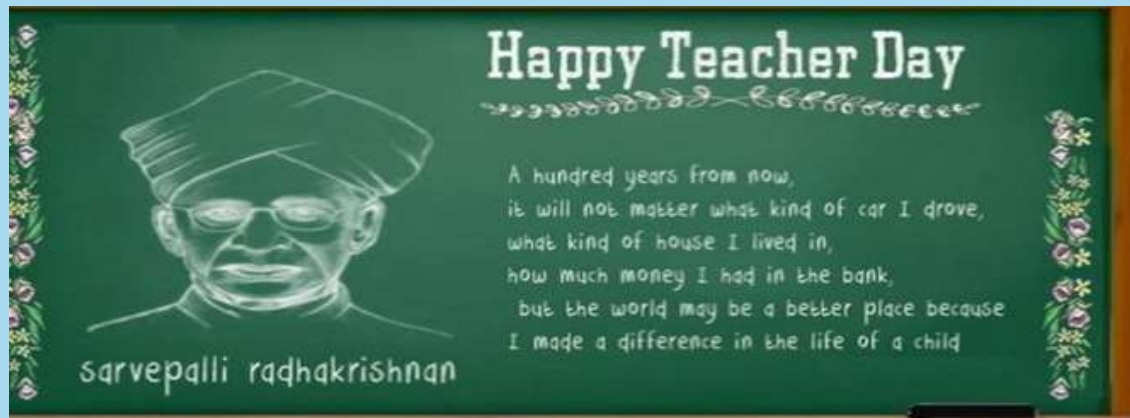


Dr.Y.K. Sababathy has more than 32 years of experience in teaching. His service to the SSN CE is almost 12 years.



TEACHERS DAY CELEBRATION

- Teachers Day Celebration was done by students on 5-9-2022
- The students welcomed the teachers and addressed the event.
- This Year (2021-2022) the best teacher award was received by Dr.P.Sangeetha and Dr.J.Jijo James





STUDENTS CORNER

STUDENT ACTIVITIES

CATEGORY 1: STUDENT EXTERNAL RECOGNITION CO-CURRICULAR

- Magendra Kamalnath S A, II Year has Completed training for GDC FieldOps Cadet Training Program by Pupil first.
- Nitesh M, II Year has Completed training for GDC Field Ops Cadet Training Program by Pupil first.
- Nitesh M, II Year has completed an online training programme on "Metro Construction in the month of June 2022 offered by Construction Management Training Institute.
- Nitesh M, II Year is hereby awarded this certificate of achievement for the successful completion of The Fundamentals of Digital Marketing certificate exam on 17-06-22.

- C. Adarsh II Year has attended online webinar on "Durability and microstructure of concrete" held on June 4, 2022 organized by UltraTech cement Ltd.
- C. Adarsh II Year has attended online webinar on "Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.
- C. Adarsh II Year has attended online webinar on " Standards Makes Cities Smarter" held on June 18, 2022 organized by UltraTech cement Ltd.
- C. Adarsh, II Year has completed an Online course on "Design of reinforced concrete structures " in the month June Organized by Udemy.
- Kuchi Phani Soumika, II Year has Received Ugadi Puraskar Award for performing kuchipudi in INDIAN Cultural Arts Festival.
- Abinaya D, III Year has completed an Online course on "Design of Steel Structures" in the month June Organized by Udemy.
- Nitesh M, II Year is has participated and won third prize in "CADPLOT" event conducted by Moments'22 at NIT Trichy on 09-04-22.
- Magendra Kamalnath S A, II Year has participated and won third prize in "CADPLOT" event conducted by Moments'22 at NIT Trichy on 09-04-22.
- Abinaya D, III Year has been awarded Merit Scholarship for the year 2021-2022.
- Kalaimagal V P, II Year has been awarded Merit Scholarship for the year 2021-2022.
- Kalaimagal V P, II Year has been awarded Rural Scholarship for the year 2021-2022.

- Kuchi Phani Soumika, II Year has been awarded Merit Scholarship for the year 2021-2022.
- Harish C, III Year has been awarded Merit Scholarship for the year 2021-2022.
- Sreeharini S T, III Year has been awarded Merit Scholarship for the year 2021-2022.
- Vignesh M, II Year has been awarded Gold Medal for securing First Rank in II Sem held in May 2021.
- Charanya S, IV Year has been awarded Merit Scholarship for the year 2021-2022.
- Charanya S, IV Year has been awarded Gold Medal for securing First Rank in VI Sem held in May 2021.
- Charanya S, IV Year has been awarded Silver Medal for securing Second Rank in V Sem held in December 2020.
- C. Adarsh II Year has attended online webinar on "Sustainability on heritage structures, issues and challenges case study of some important Monuments of Odisha" held on June 25, 2022, organized by UltraTech cement Ltd.
- C. Adarsh II Year has attended online webinar on "Quality control and Quality assurance in concrete construction" held on July 2, 2022, organized by UltraTech cement Ltd.
- C. Adarsh II Year has attended online webinar on "Advances in use of cement in precast concrete industry" held on July 9, 2022, organized by UltraTech cement Ltd.
- C. Adarsh II Year has attended online webinar on "New Techniques for prevention and mitigation of disasters triggered by Earthquake and Tsunami" held on July 16, 2022, organized by UltraTech cement Ltd.

- C. Adarsh II Year has completed a course on Building Design (Revit and STAAD Pro) from CADD Centre Velachery, Course includes Revit Architecture and STAAD Pro, from May 31 to June 30, 2022.
- Ashwin Kumar KT III Year has completed a course on "Design of Steel Structures as per IS 800" in Udemy in the month of July 2022.
- Nitesh M, II Year has completed a course on "How to Set Goals When Everything Feels Like a Priority" Course completed on Jun 23, 2022, through LinkedIn Learning.
- Nitesh M, II Year has completed a course on "Leadership Mindsets" Course completed on Jun 23, 2022, through LinkedIn Learning.
- Nitesh M, II Year has completed a course on "Construction Industry: Safety" Course completed on Jun 23, 2022, through LinkedIn Learning.
- Nitesh M, II Year has completed a course on "Project Management Foundations" Course completed on Jun 30, 2022, through LinkedIn Learning.
- Nitesh M, II Year has completed a course on "Sustainability for Design, Construction, and Manufacturing" Course completed on Jun 23, 2022, through LinkedIn Learning.
- Nitesh M, II Year has Participated in the online Training programme on "Sketchup for Beginners held in the Month of June 2022, organized by Construction Management Training Institute (CMTI).
- Nitesh M, II Year has completed a course on "Google Ads for Beginners" Course completed on July 25, 2022, through Coursera.
- Nitesh Kumar M, has completed a course on "Deep Learning" Course completed on July 30, 2022, through Coursera.

- Nitesh M, III Year has successfully Completed the Internship Programme in "Corporate Ambassador" in the period of 15-06-22 to 01-08-22 by IFORTIS WORLDWIDE.
- Nitesh M, III Year has successfully completed "Foundations of Project Management" an online non-credit course authorized by Google and offered through Coursera in the month of Aug 22.
- C. Adarsh, III Year has successfully participated on the webinar "An Introduction to IGBC AP" Certification organized by SSN IGBC Student Chapter on 19th August,2022.
- C. Adarsh, III Year has attended online webinar on "Need for comprehensive repair and rehab code in India and some advanced techniques and case studies for retrofitting bridges" held on July 30, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended online webinar on "Net Zero Buildings" held on August 08, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended online webinar on "Self-Curing Concrete – A Better Solution for the Sustainable Development" held on August 13, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended online webinar on "Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.
- Ashwin Kumar K T, III Year has completed a course "Design of Steel Structures as per IS 800" in the month of July 22 by Udemy.
- Abinaya D, Iv year has successfully completed a project, Developing Responsive Layouts using Bootstrap in Full stack Development, while learning with Unschool from 11/04/2022 to 14/04/2022.
- Magendra Kamalnath S A III Year has participated in Smart India Hackathon 2022 conducted by AICTE In Manipal University, Jaipur.

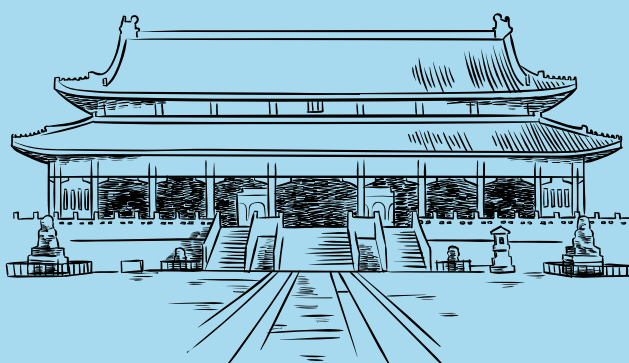
- C. Adarsh, III Year has attended online webinar on "Monitoring lifecycles of Concrete Structures" held on August 27, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended online webinar on "Relevance and importance of ISG" held on September 03, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended online webinar on "Material Characteristics and Structural application of engineered cementitious material" held on September 10, 2022, organized by UltraTech cement Ltd.
- C. Adarsh, III Year has attended the RECONNIN 22, Symposium conducted by St. Joseph's College of engineering, held on August 17, 2022.
- Sonika M IV Year has has participated in the Online Training Programme on "Rate Analysis" from 20th to 26th Aug 2022 organized by Construction Management Training Institute.
- Bharathi M Iv Year has has participated in the Online Training Programme on "Rate Analysis" from 20th to 26th Aug 2022 organized by Construction Management Training Institute.
- Adarsh C, III Year has attended online webinar on "Precast Technologies In Construction" held on October 01, 2022, organized by UltraTech cement Ltd.
- Adarsh C, III Year has attended online webinar on "Effect of magnetic water in Concrete" on October 08, 2022, organized by UltraTech cement Ltd.
- Adarsh C, III Year has attended online webinar on "Glamour in Concrete" held on October 22, 2022, organized by UltraTech cement Ltd.
- Adarsh C, III Year has been awarded IInd Prize in the Oratorical competition on "Construction Industry – Turning Waste to Wealth" held on October 19, 2022, organized by Builders Association of India.

- Adarsh C, III Year has completed a course on "Design of steel structures using IS800" From Udemy on 21.10.2022.
- Bharathi M IV Year has participated in the Round 1 - Tata Brand Assessment of Tata Imagination Challenge 2022 organized by Tata.
- Vedajanani, III year has completed an online course on "Industrial Safety Engineering" from NPTEL during the month of July to October 2022 (12-week course).
- Nishta M N II year had a chit chat session with Dr. Raj Reddy on 22nd November 2022.
- Nishta M N II year had a chit chat session about "Higher Studies and Career Opportunities in Civil Engineering" by Pyramid Academy - 23rd November 2022.
- Nishta M N II year had a chit chat session about "Why should you pursue MS in overseas after Undergrad" by Jamboree - 25th November 2022.
- Srinidhi Seran II year had a chit chat session about "Why should you pursue MS in overseas after Undergrad" by Jamboree - 25th November 2022.
- Srinidhi Seran II year had a chit chat session about Career opportunities in BIM by Er. Anne Sherin A .
- Hemalatha R II year has successfully completed the workshop on "Tame your Market Nerves" organized by SSN Lakshya (EDC) in Collaboration with Vittae, held on 31st Oct 2022.
- Anuvarshini V R II year has successfully completed the workshop on "Tame your Market Nerves" organized by SSN Lakshya (EDC) in Collaboration with Vittae, held on 31st Oct 2022.
- B.Thrufiga, II year had a chit chat session about "Higher Studies and Career Opportunities in Civil Engineering" by Pyramid Academy - 23rd November 2022.

- B.Thrufiga, II year had a chit chat session about "Why should you pursue MS in overseas after Undergrad" by Jamboree - 25th November 2022.
- N. Annamalai II year had a chit chat session about "Higher Studies and Career Opportunities in Civil Engineering" by Pyramid Academy - 23rd November 2022
- N. Annamalai II year had a chit chat session about "Higher Studies and Career Opportunities in Civil Engineering" by Pyramid Academy - 23rd November 2022.
- N.Annamalai II year had a chit chat session about Higher Studies by Manimanickam Ramasamy from Canada.
- Kalaimagal V P III Year has completed a course on "Design of steel structures as per IS800" From Udemy on 05.11.2022.
- Kalaimagal V P III Year has completed a course on" Design of Reinforced Concrete Structures" From Udemy on 31.10.2022.
- Vanaja M J III Year has participated in "Quiz on IS 456 and IS800" held on 25.11.2022.
- Adarsh, III Year has attended online webinar on "New Age Additives for Concrete and Cement" held on Oct 21, 2022, organized by QCRETE READYMIX (INDIA) PVT LTD.
- Adarsh, III Year is the winner of "Treasure Hunt" held on 9th November 2022 organized by ACE, SSNCE
- Adarsh, III Year has secured FIRST PLACE in "Quiz on IS 456 and IS 800" held on 25.11.2022.
- Adarsh, III Year has secured SECOND PLACE in the Event 'Bestowment LPPT' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.

- Adarsh, III Year has participated in the "Online Quiz on India – the mother of Democracy" on 24th November 2022 Conducted by Government of India.
- Adarsh, III Year has participated in the Event 'Bottle Walker' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.
- Adarsh, III Year has participated in the Event 'Clue Pagans (Cross word)' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.
- Adarsh, III Year has participated in the Event 'Bestowment LPPT' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.
- Adarsh, III Year has participated in the Event 'Seek 'N' Sieve (tech event)' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.
- Adarsh, III Year has participated in the Event 'Poster Presentation' in the Symposium CIVISTA 22 on 5th November 2022 organized by Jerusalem college of Engineering.
- Adarsh, III Year has attended an online webinar on "Dealing with Failures in Concrete Structures" held on Nov 05, 2022, organized by UltraTech cement Ltd.
- Adarsh, III Year has attended online webinar on "Engineering Perfection: Noida Twin Towers Demolition" held on Nov 12, 2022, organized by UltraTech cement Ltd.
- Adarsh, III Year has attended Workshop on "Problem solving and ideation", Conducted by Veltech Institution, held on 28.11.2022.
- Adarsh, III Year has won II position in the event Bestowment (PPT) in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.

- Adarsh, III Year has won II position in the event Bestowment (PPT) in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Adarsh, III Year has participated in the event Poster Presentation in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Abishek Srinivas, IV Year has won II position in the event Bestowment (PPT) in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Abishek Srinivas, IV Year has participated in the event Poster Presentation in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Abdullah Mohamed Muhajirin, IV Year has won II position in the event Bestowment (PPT) in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Abdullah Mohamed Muhajirin, IV Year has participated in the event Poster Presentation in the symposium titled "Civista'22" on 05th November 2022 organized by Jerusalem College of Engineering, Chennai.
- Kuchi Phani Soumika, II Year has been awarded Gold Medal for securing First Rank in I Sem held in December 2020.
- Rathan N Rishi, II Year has been awarded Merit Scholarship for the year 2021-2022.



- Ashwin Kumar K T, III Year has been awarded Merit Scholarship for the year 2021-2022.
- Vanaja M J, II Year has been awarded Rural Scholarship for the year 2021-2022.
- Rathana N Rishi, II Year has been awarded Gold Medal for securing First Rank in II Sem held in May 2021.
- C. Adarsh II Year has attended online webinar on "A case study on construction of Jamalpur-Ratanpur tunnel in connection with doubling work of eastern railway" held on July 23, 2022, organized by UltraTech cement Ltd.
- Vanaja M J III Year has successfully participated on the webinar "An Introduction to IGBC AP" Certification organized by SSN IGBC Student Chapter on 19th August, 2022.
- Adarsh C, III Year has participated in the Online Training Programme on "Project Planning Using MSP" From 4th to 11th October 2022 organized by Construction Management Training Institute.



STUDENTS ACHEIVEMENTS

EXTERNAL RECOGNITION EXTRA-CURRICULAR ACTIVITIES

REPORT ON ETERNAL LIFE COMPETITION

Eternal Life competition was conducted by SRM Institute of Technology on behalf of their annual symposium, AARUSH 2022. The competition was held on 7th November 2022. Students from the Civil engineering department of SSN college of engineering participated in the Eternal Life competition. The participants consisted of five members Magendra Kamalnath, Nitesh.M, Naresh Mohan, Sailesh and C.Adarsh. The objective of the competition was to design a hospital more environment friendly and many green building concepts must be included in it. The judging criteria is about how sustainable the design is and what are all the new green building ideas implemented in it. The students SSN Civil Department won Second Place in the Eternal Life competition with their wonderful Green Building design. The design included green building ideas such as Solar Energy, Cooling Towers, Rooftop Gardens, Rainwater Harvesting, Triple Glazed Windows, Pergolas, Sustainable Materials and Demolition Waste Aggregates. The submission of the competition comprised of a PowerPoint presentation and a detailed walkthrough of the Hospital Design. The results were announced through mail within a week after submission. The main aim of the competition was to expose the students to the concept of green building and to implement them in future constructions.



SPORTS ACHEIVEMENT -INTERNATIONAL LEVEL

- Benediction Rohit B, 1st year, has been awarded the silver medal for Men 4x200m Freestyle Relay held at 17th Singapore National Swimming Championships 2022 during June 2022.
- Rohit Benediction B, 1st year, won a total of 8 medals across various categories at an international swimming competition in Maldives.
- Rohit Benediction also secured one silver, one bronze and one gold and one silver in team event in National Games 2022 held in Gujarat



REPORT ON SMART INDIA HACKATHON (SIH)

Smart India Hackathon (SIH) is a nationwide initiative to provide students with a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. The first four editions SIH2017, SIH2018, SIH2019 and SIH2020 proved to be extremely successful in promoting innovation out-of-the-box thinking in young minds, especially engineering students from across India. The event is conducted by All India Council of Technical Education (AICTE) and Ministry of Education (MoE)'s innovation cell (Government of India) Team Challengers consisting of Magendra Kamalnath S A (Civil – III) , Nitesh M(Civil – III), Sailesh R(IT – III), Adyant Srinivasan(ECE – III), Bhavwana U(IT – III), Vineet Kumar Gupta(IT – III) and mentored by Dr. N Sivakumar and Dr. R Vijayalakshmi from Department of civil engineering, SSN College of Engineering participated in Smart India Hackathon with a solution "smart waste management system" for the problem statement(PS) given by the Ministry of housing and urban affairs to maximize solid waste collection in urban areas (PS ID : BV805)

The team was among the 10 teams out of 84 teams nominated by SSN College of Engineering after a 12-hour internal hackathon. The next round involved submitting a detailed explanation and competing with teams from other colleges submitting solutions for the same problem statement. Out of 65 other solutions, team Challengers were selected among the Top 5 teams selected for the grand finale which was held Manipal University, Jaipur.

The grand finale was a 36-hour hackathon involving multiple rounds of evaluation and mentoring. Shri Narendra Modi (Prime Minister of India) was also present to interact with the students. It was a closely contested finals, although the team did not get the win, it was truly an enriching experience for the students and they were felicitated by certificates and mementos.

NON-TEACHING STAFF ACTIVITY

Jegan K has attended online webinar on " Challenges faced during construction of signature Bridge New Delhi" held on May 28,2022 organized by UltraTech cement Ltd.

Jegan K has attended online webinar on " Durability and microstructure of concrete" held on June 4, 2022 organized by UltraTech cement Ltd.

Jegan K has attended online webinar on " Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.

Jegan K has attended online webinar on " Standards Makes Cities Smarter" held on June 18, 2022 organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Sustainability on heritage structures, issues and challenges case study of some important Monuments of Odisha" held on June 25, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Quality control and Quality assurance in concrete construction" held on July 2, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Advances in use of cement in precast concrete industry" held on July 9, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "New Techniques for prevention and mitigation of disasters triggered by Earthquake and Tsunami" held on July 16, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "A case study on construction of Jamalpur-Ratanpur tunnel in connection with doubling work of eastern railway" held on July 23, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "The Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Introduction to Green Concrete" held on August 19, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Jegan K has attended online webinar on "Monitoring lifecycles of Concrete Structures" held on August 27, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Relevance and importance of ISG" held on September 03, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Material Characteristics and Structural application of engineered cementitious material" held on September 10, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Forensic Engineering – Concept & Cases" held on September 17, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Applications of Fibres in Concrete" held on September 02, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Jegan K has attended online webinar on "Precast Technology in Construction: Benefits, Challenges & Potential Solutions" held on Oct 01, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Effect of Magnetic water in Concrete" held on Oct 08, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Crack Prevention Techniques for RCC Slabs" held on Oct 15, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "New Age Additives for Concrete and Cement" held on Oct 21, 2022, organized by Qcrete Readymix (India) Pvt Ltd

Jegan K has attended online webinar on "Dealing with Failures in Concrete Structures" held on Nov 05, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Engineering Perfection: Noida Twin Towers Demolition" held on Nov 12, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Artificial Intelligence & its Applications in Civil Engineering" held on Nov 19, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on " Durability and microstructure of concrete" held on June 4, 2022 organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on " Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on " Standards Makes Cities Smarter" held on June 18, 2022 organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Advances in the use of cement in precast concrete industry" held on July 9, 2022 organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Need for a Comprehensive Repair and Rehab code in India and some advanced Techniques and case studies for Retrofitting Bridges" held on July 30, 2022 organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "The Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Monitoring the Lifecycle of Concrete Structures Using Piezo Sensors " held on August 06, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Forensic Engineering – Concept & Cases" held on September 17, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Applications of Fibres in Concrete" held on September 02, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Anbazhagan K has attended online webinar on "Newly Abandoned Railway Station from Substructure to Superstructure" held on October 29, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Dealing with Failures in Concrete Structures" held on Nov 05, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Engineering Perfection: Noida Twin Towers Demolition" held on Nov 12, 2022, organized by UltraTech cement Ltd.

Anbazhagan K has attended online webinar on "Performance based concrete Floors" held on Nov 26, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on " Challenges faced during construction of signature Bridge New Delhi" held on May 28, 2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on " Durability and microstructure of concrete" held on June 4, 2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on " Standards Makes Cities Smarter" held on June 18, 2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Sustainability of Heritage Structures, Issues & Challenges – Case Study of some Important Monuments of Odisha" held on June 25,2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Quality Control & Quality Assurance in Concrete Construction" held on July 2,2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Advances in the use of cement in precast concrete industry" held on July 9,2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "New Techniques for prevention and Mitigation of Disasters Triggered by Earthquake and Tsunami" held on July 16,2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "A Case study on Construction of Jamalpur-Ratanpur Tunnel in Connection with Doubling work of Easter Railway" New Techniques for prevention and Mitigation of Disasters Triggered by Earthquake and Tsunami" held on July 23,2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Need for comprehensive repair and rehab code in India and some advanced techniques and case studies for retrofitting bridges" held on July 30, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Net Zero Buildings" held on August 06, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Self-Curing Concrete – A Better Solution for the Sustainable Development" held on August 13, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "The Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Introduction to Green Concrete" held on August 19, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Kalatharan M has attended online webinar on " Relevance & importance of ESG (Environment, social responsibility & governance) for sustainable development goals of organization" held on sep 3, 2022 organized by Ultra Tech cement Ltd.

Kalatharan M has attended online webinar on "Materials characteristics & structural applications of engineered cementitious materials" held on sep 10, 2022 organized by Ultra Tech cement Ltd.

Kalatharan M has attended online webinar on "Forensic engineering - concept & cases" held on Sep 17, 2022 organized by Ultra Tech cement Ltd.

Kalatharan M has attended online webinar on "Applications of fibres in concrete" held on Sep 2, 2022 organized by Qcrete Readymix (INDIA) PVT.Ltd.

Kalatharan M has attended online webinar on " Monitoring the lifecycle of concrete structures using piezo sensors" held on AUG 27, 2022 organized by Ultra Tech cement Ltd.

Kalatharan M has attended online webinar on "Inside Story of Concrete Block Industry" held on September 23, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Kalatharan M has attended online webinar on "Precast Technology in Construction: Benefits, Challenges & Potential Solutions" held on Oct 01, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Effect of Magnetic water in Concrete" held on Oct 08, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Glamour in Concrete" held on Oct 22, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Newly Abandoned Railway Station from Substructure to Superstructure" held on Oct 29, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "New Age Additives for Concrete and Cement" held on Oct 21, 2022, organized By Qcrete Readymix (India) Pvt Ltd.

Kalatharan M has attended online webinar on "Dealing with Failures in Concrete Structures" held on Nov 05, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Engineering Perfection: Noida Twin Towers Demolition" held on Nov 12, 2022, organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Artificial Intelligence & its Applications in Civil Engineering" held on Nov 19, 2022, organized by UltraTech cement Ltd.

Jegadheesan K has attended online webinar on " Standards Makes Cities Smarter" held on June 18, 2022 organized by UltraTech cement Ltd.

Jegadheesan K has attended online webinar on " Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.

Jegadheesan K has attended online webinar on "Advances in the Use of Cement in Precast Concrete Industry" held on June 9, 2022 organized by UltraTech cement Ltd.

Jegadheesan K has attended online webinar on "New Techniques for Prevention and Mitigation of Disasters Triggered by Earthquake and Tsunami" held on June 16, 2022 organized by UltraTech cement Ltd.

Jegadheesan K has attended Online Webinar on 'Monitoring the Lifecycle of Concrete Structures Using Piezo Sensors' held on 27th AUG 2022, organized by ULTRA TECH CEMENT LTD.

Jegadheesan K has attended Online Webinar on 'Forensic Engineering - Concept & Cases' held on 17th AUG 2022, organized by ULTRA TECH CEMENT LTD.

Jegadheesan K has completed on line course "Beginner level English – Foundations" conducted by Alison on 27.08.2022.

Jegadheesan K has attended online webinar on "Effect of Magnetic water in Concrete" held on Oct 08, 2022, organized by UltraTech cement Ltd.

Jegadheesan K has completed a online course on "Beginner Course in Managing Employees" Effect of Magnetic water in Concrete" held on 28 .10.22 by Alison.

Jegadheesan K has completed online course titled "ISO/IEC17025:2017 Laboratory Management Systems by Alison.

Prasath R has attended Online Webinar on "Sustainability of Heritage Structures, Issues & Challenges - Case study of some important Monuments of Odisha" held on 25th June 2022, organized by Ultra Tech., India.

Prasath R has attended online webinar on " Challenges faced during construction of signature Bridge New Delhi" held on May 28,2022 organized by UltraTech cement Ltd.

Prasath R has attended online webinar on " Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "Quality Control & Quality Assurance in Concrete Construction" held on July 2,2022 organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "The Critical foundations of Signature Buildings, Delhi" held on August 20, 2022, organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "Net Zero Buildings" held on August 06, 2022, organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "Need for comprehensive repair and rehab code in India and some advanced techniques and case studies for retrofitting bridges" held on July 30, 2022, organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "Crack Prevention Techniques for RCC Slabs" held on Oct 15, 2022, organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "Forensic Engineering - Concept and Cases" held on September 17, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Need for comprehensive repair and rehab code in India and some advanced techniques and case studies for retrofitting bridges" held on July 30, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Net Zero Buildings" held on August 06, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Self-Curing Concrete – A Better Solution for the Sustainable Development" held on August 13, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Glamour in Concrete" held on Oct 22, 2022, organized by UltraTech cement Ltd.

Jegan K has attended online webinar on "Inside Story of Concrete Block Industry" held on September 23, 2022, organized by Qcrete Readymix (India) Pvt Ltd.

Jegan K has attended online webinar on "Newly Abandoned Railway Station from Substructure to Superstructure" held on Oct 29, 2022, organized by UltraTech cement.Ltd

Anbazhagan K has attended Online Webinar on "Sustainability of Heritage Structures, Issues & Challenges - Case study of some important Monuments of Odisha" held on 25th June 2022, organized by Ultra Tech., India.

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Anbazhagan K has attended online webinar on "Introduction to Green Concrete" held on August 19, 2022, organized by QCRETE READYMIX (INDIA) PVT LTD.

Kalatharan M has attended online webinar on " Enhancing the Performance and Durability of Concrete through Nanotechnology" held on JUNE 11, 2022 organized by UltraTech cement Ltd.

Kalatharan M has attended online webinar on "Crack Prevention Techniques for RCC Slabs" held on Oct 15, 2022, organized by UltraTech cement Ltd.

Prasath R has attended online webinar on "New Techniques for prevention and Mitigation of Disasters Triggered by Earthquake and Tsunami" held on July 16,2022 organized by UltraTech cement Ltd.

PLACEMENTS IN AY 2022-23

The placements in AY2022-2023 have been progressing in our Department of Civil Engineering. With guidance from CDC and alumni interaction with seniors, the students have equipped and prepared themselves for the interview procedures and protocols thereby leading to good placements. Our Department of Civil Engineering can proudly announce now that we have successfully placed 39 students out of 53 registered students, roughly 88% effective placement for 2018-22 batch. Similarly, a total of 20 offers out of 49 registered students have been received by the 2019-23 batch. All the credit goes to our students who have not deterred in their effort and their continuous momentum in pursuing the milestone come what may. The ardour of our Head of Department in improving the placements are in no small measures and they are visibly evident through this diligence and perseverance in bringing core civil engineering companies for placements. Notable companies like Mahindra Consulting Engineers, Aarvi Encon, TUV, J&F (Hochtief), Savils, Cowi, Conserve solutions, Perfect Steel, Auger Engineers were contacted, briefed about our department and requested for taking our students as trainee engineers by our HOD. Around 10 students have been successfully placed in these companies with a total of 49 offers were received. Apart from placements, our 2018-22 students have also secured admissions from prestigious overseas universities like Sheridan College Institute of Technology, Reyerson University Canada, UC Davis and Purdue University, United States for Master's in Civil Engineering, while one student from 2019-23 Batch has secured Graduate admission in New York University. We wish all the students a bright future ahead in their life.

Dr. Aswin Sriram G.

Faculty Placement Coordinator - Civil

ARTICLES

STUDENTS ARTICLE

NEW INVENTIONS IN CIVIL ENGINEERING

N. Annamalai
2nd Year Civil Department

Civil engineering and the Military engineering are the first engineering departments in the world. These two are the origins of the other engineering departments like Mechanical Engineering, Electrical Engineering, etc. but now the technology in Civil engineering has been developed to a very high standard and many inventions have been done in Civil engineering. New technologies, methods and inventions are now being used in the construction of buildings.

The current hot topic in Civil engineering is 3D printing in construction. It is similar to a 3D printer which develops the object in a 3D manner. In Civil engineering the 3D printer converts the model or design of building in AutoCAD to a real model in the field. In these printers, the concrete paste has been inserted or filled and it prints along the layout of the building. It places the concrete paste in layers. After that it is finished as a complete building.



The advantages of this are listed below,

- Duration of construction will be reduced.
- The wastage of materials is reduced.
- Safety of workers is ensured.
- High level of accuracy in building concrete structures.

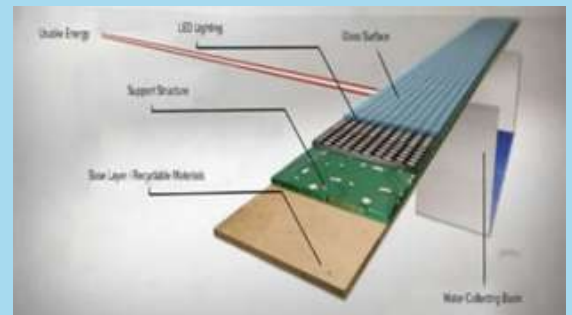
It not only has the advantages; it also has the other face like 2 sides in a coin. So, the disadvantages are,

- The cost of this is very high.
- We need a skilled labor to operate this.

The next invention in Civil Engineering is the Solar Road Ways. The purpose of this road way is to produce a clean renewable energy on roadways. It was formulated by Scott Brusaw and Julie Brusaw. It was first built in France in 2016. It consists of photovoltaic cells which used to generate electricity. They were constructed in parking lots, sideways, bike paths, driveways, tarmacs, etc. The construction process involves furnishing and wiring the base plate, placement and connection of solar photovoltaic cells with the previously placed layers, and finally, the positioning of the glass layer.



(Solar roadway)



(Components of solar roadway)

The advantages of the solar roadway are listed below,

- Decrease in global warming.
- It generates electricity which can be used for recharging the electric cars.
- The solar base plate is completely reusable.
- They do not soften at high temperatures.
- It does no required painting work.

The disadvantages of the solar roadway are listed below,

- The construction cost is high.
- It is not suitable for heavy vehicles since it cannot carry heavy load.
- The requires sunny weather to work best.
- The disposal of old solar cell or panel will affect the environment.

Technology is improving each day, after a few years the same technology will be at a higher level. when we use technology, we should use it in a good manner. Since the technology has two sides, it could either be our friend or our foe. So, we need to use it accordingly and carefully. The inventions are good but it depends on how we use it.

"Necessity is the mother of inventions"

ANCIENT CIVIL STUDY – ANGKOR WAT

Karthick Vikraam I
II-YEAR (CIVIL)

INTRODUCTION:

We're going to see the world's largest religious structure. When people ask: "What is the largest religious structure in the world?" it's located in Cambodia. And this is not a recent structure either, it was built many centuries ago. And this is very big, so let us go take a look and see how it looks.

MOAT:

We have to cross this massive lake, we see this lake, it is huge, we cannot even see the land on the other side, and it is in the way of the temple. we walk for nearly 5 minutes, and then we observe something very strange. We look on the banks of the lake, and we are shocked. Even though the banks are completely covered with bushes and trees, we can see neatly cut, giant rectangular stone blocks, aligned all around the bank. This is NOT a natural lake.

This is an artificial water body called moat, created by ancient builders. This is extraordinary, how were they able to create such a large moat, which almost looks like a lake? The moat completely surrounds the temple on all four sides. And how big is this moat?

Normally, when we talk about manmade structures, we use units like feet or meters, but this is the largest structure in the world, these units are too small, we have to use Kilometres and miles for this one. The moat stretches for 1.3 kilometres from South to North, and 1.5 Kilometres from East to West. So, it is approximately 1 mile each way and it surrounds the temple on all four sides with a perimeter of a whopping Five and a half kilometres, that is about three and a half miles. Our first thought is, how could they dig such a moat with human hands? According to historians, this was created at least 900 years ago with no more than digging sticks, spades, and shovels. And experts claim it was built in just a few years. How is this possible? May be this moat was possible because it is only one or two feet deep, this would have reduced the amount of manual work. It looks like lake because we see it from the land, but maybe it is only 1 or 2 feet deep, we cannot see the depth of it from the outside.



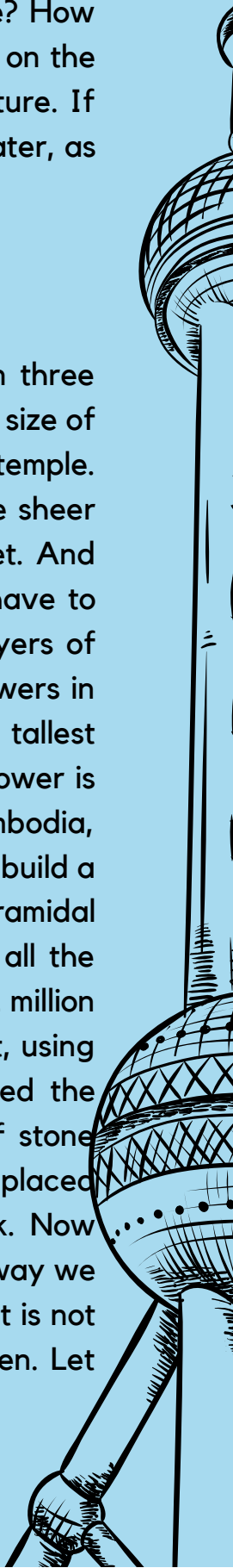
We are very curious to find the depth of the moat, so we walk around the moat to see if we could find more evidence. Most people you see are tourists, so we need to find Cambodians who work here, so they can give us authentic information about its depth. They tell us that the moat is 12 to 25 feet deep, this is an astounding depth, and to dig a moat of this magnitude, with such depth is just insane. Imagine digging an artificial lake which stretches for one Mile each way that is 12 to 25 feet deep, 900 years ago.



. And some experts will argue that ancient people of Cambodia were barbarians, so they captured millions of slaves, and they forced them to dig this moat with brute force. But this moat was not constructed crudely or hastily, it was built with perfection in mind, the workers must have been talented artisans, not unskilled slaves. How did they construct such a giant structure, which still fools most of the tourists into believing that they are looking at a beautiful natural lake? How did they arrange giant stone blocks all around the moat, both on the outer side, and on the inner side, creating a perfect architecture. If we look carefully, we can see the stone steps going into the water, as far as we can see. How deep do these stone steps go?

QUANTITY OF STONES USED:

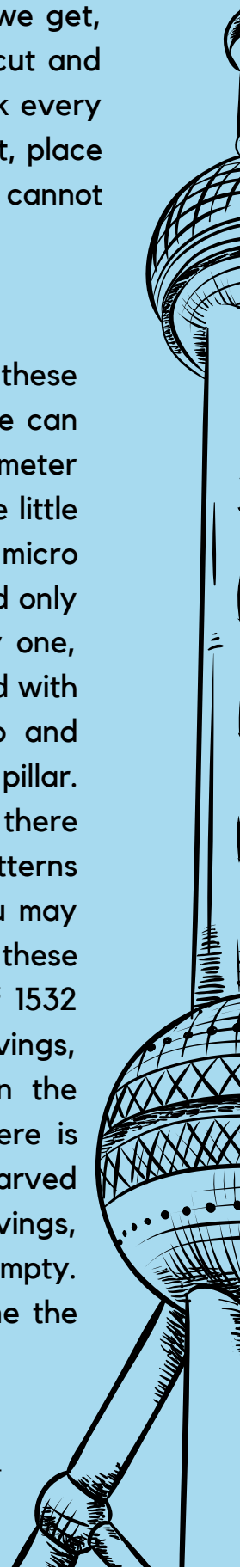
The temple stretches more than 400 acres, that is more than three times the size of the entire Vatican City, or about 300 times the size of an American football field. So, you can imagine the size of this temple. Even if we take out all the walking space and empty land, the sheer area covered by stone blocks is at least 10 million Square Feet. And we are not looking at just a 2-dimensional ground area, we have to look at the volume in 3D because it is made of layers and layers of stone blocks, pillars, ceiling, and towers. The Iconic central towers in the middle, which almost look like drill bits, they are still the tallest structures in this city, even after all these years. The central tower is 213 feet tall, and this view is actually printed on the Flag of Cambodia, so imagine what would be the sheer volume of rocks needed to build a temple which stretches for 10 million square feet and has a pyramidal height of more than 200 feet. If we calculate the weight of all the sandstone blocks which make up this pyramid, we get about 52 million tons of rock. we have used a calculator to calculate this weight, using the density of sandstone. Now, we have already not included the rocks in the foundation, we have not included the millions of stone blocks going many feet deep in the moat, and the rocks placed around the moat. And that is already 52 million tons of rock. Now what I am going to do is take only 20% of this number, so this way we know this is a very conservative estimate, because Angkor Wat is not a true solid pyramid, there are lots of hollow spaces in between. Let us take even less than 20%, we will only take 10,000,000 tons.



. So, this way we know at least this much of rocks would have been used to build the temple Now let us assume that these people worked from sunrise to sunset every day for 37 years. So they worked straight for 12 hours with no breaks, they don't eat, they don't even blink, and no rainy days, no war, no festivals for 37 years. That is a total of 162,060 hours. So, if you do the math, if you divide the number of rocks by the number of hours, this is the answer we get, approximately 60 tons. This means that they would have to cut and place at least 60 tons of rock every hour. This is 1 Ton of rock every minute. So, for every minute they must measure, cut, carve, lift, place and align one ton of rock. This is simply IMPOSSIBLE. We cannot accomplish this even today, even with modern machinery.

CARVINGS:

Here are carvings of various animals, but look at the details of these carvings, they are so small. For example, look at this deer we can even see its eyes, and its mouth opening, this is only a milli meter long. we can see that the entire column is full of these strange little carvings. It must have been quite a task to carve such micro carvings all over this column. But are these tiny carvings found only on this one column? We start examining the columns one by one, and it is interesting, because each and every column is covered with these micro carvings. All this is carved in an inch or two and repeated with perfection to create an insane matrix on the pillar. There are columns which show apes doing various activities, there are micro carvings which show many other interesting patterns which completely fill up the entire facets of the columns. You may not believe this, but every column I look at, is covered with these carvings. This is insane because today, there are a total of 1532 columns in Angkor Wat temple, and all of them have these carvings, and there are also many columns destroyed, and lying on the ground, and they are also covered with Micro carvings. Here is another fascinating detail on the columns, even if they carved deities, they covered the rest of the column with micro carvings, they carved flowers, leaves, and they never left any space empty. Forget about building the largest temple in the world, imagine the task of carving every inch on every column of this temple.





But are these carvings found only columns? Everything is filled with these carvings. Zoom in and we will see various types of flowers, leaves, creepers, ornamental hangings. Every inch of the world's largest temple is covered with carvings. You cannot even find one inch in this entire temple that is blank, that is not carved. So, imagine building a temple that stretches for 400 acres and filling every inch with tiny little carvings. This would have been a monumental task. But did they really carve every inch of it?

Here we can see a figure riding an elephant, but look, this elephant has 4 tusks. we can see 2 tusks on the left side, and 2 tusks on the right. This is crazy, because we don't have elephants with 4 tusks today, but 4 tusked elephants actually existed a long time ago. Experts say these 4 tusked elephants became extinct about 2 million Years ago. And archaeologists say that Angkor Wat was built just 900 years ago. If both these are true, how could the sculptors living 900 years ago, carve an animal that vanished 2 million years ago?



Some people who believe in strict models of evolution will obviously be flustered by this carving, and dismiss it as mere imagination, or a mere exaggeration by the sculptor, but believe it or not, a 4 tusked elephant fossil has been found in the same ancient kingdom. In today's map, this fossil is found in Sulawesi of Indonesia, but during ancient times, this belonged to the same Hindu kingdom which included Cambodia and Indonesia. This pillar is full of micro-carvings of various animals, but here, you can see this strange animal. We can clearly see that it does not resemble any animal that exists today. It has a flat snout, strong short legs and a long-pointed tail. This animal is almost identical to another extinct animal called Hyaenodon. The Hyaenodon not only had a flat snout, and a long-pointed tail, it even had stripes on its body. Look at the carving, even though the entire carving is only one inch long, the sculptor has put stripes on its body. There is no doubt that this is a Hyaenodon, however, these animals also became extinct millions of years ago.



PILLARS:

Look at the pillars here, there is something very strange about them, yes, these marks called turn marks can be achieved only using lathe technology, but look at the other operations here, they did complex processes like thread cutting, this is the only way to achieve several little cylinders in the same shaft, they did another process called chamfering, so one part becomes bulgy while the other part is narrow. Imagine doing these complicated machining at least 900 years ago on solid sandstone blocks.



But ancient builders were not satisfied even after processing them in a lathe machine, after this, they then carved on the faces of the pillars, there are carvings in millimetres on them everywhere, but all this is not crazy, the real crazy part is that vertical groove. The vertical line that goes from top to bottom. This is impossible to achieve even with lathe technology.



We cannot make vertical grooves like this, unless we use another advanced machine like an angle grinder or a circular saw today. But it is not even the vertical groove that bothers us, what is really crazy is that, this line goes from the top to the bottom, and look at the depth of that groove. This is not a fancy groove made for beauty. This is a cut, that was made deep enough to open the pillar into 4 equal halves lengthwise. Look, this is incredible, they made straight, deep lines that go from top to bottom, so they could cut the pillar open into 4 equal halves.

SANDSTONES:

We have estimated that Angkor Wat would have needed at least 10 million tons of sandstone blocks to build the temple. As you can see, Angkor Wat is entirely made of sandstone, and it is so big that it would have needed at least that many rocks. But there is a fundamental problem with this, if you look at the quarry sites of Angkor Wat, we can be sure that 10,000,000 tons of rocks were not removed from here. And experts confirm there are no other sandstone quarries nearby from which the rocks have been taken. So where did ancient builders magically get these sandstone blocks from? These are the sandstone blocks that made the temple and we can see a bunch of them here and there is a pile of blocks which goes all the way and this is all sandstone. These are sandstone blocks, parts of pillars, we can tell right away, some make up the other structures. But you see those rocks there, that is where it gets interesting



Cambodians call this Lava Rock; we see how porous it is. Let us go take a look and see how this was used. See how these rocks are, right? we can tell right away that we cannot put these rocks as front pieces of a temple right? Because we see how porous they are and how rough they are. If they are carved, this is not going to look good. But why do we see these huge rectangular blocks right? This entire area is full of these "Lava Rocks". But these rocks were also used in the construction of the temple. Nobody understands this, people think it is made of sandstone but these rocks were key to the construction of the Angkor Wat temple. So, let's go take a look and see where these were used." We are on the other edge of the temple, we can see tourists and tour guides walking into the temple, but remember, the information is always in places where people do not look. So we start exploring the woods nearby, normal people do not venture into this area. And you can see something very exciting, the Angkor Wat.

CONCLUSION:

This article has focused on the narrative creation of Angkor, and on the physical creation of Angkor Historical Park. These works had a tremendous impact on the way in which Cambodia was understood and viewed in the rest World, while also exposing the motivations and beliefs of those who created them. The writings, drawings, and photographs of early explorers, and interwar novelists all created and codified the Worlds vision of Angkor. The world's largest religious structure consists of many structural details. This article is just a pinch of salt from the ocean.

IMPORTANCE OF GREEN BUILDING

-C. ADARSH
III YR CIVIL

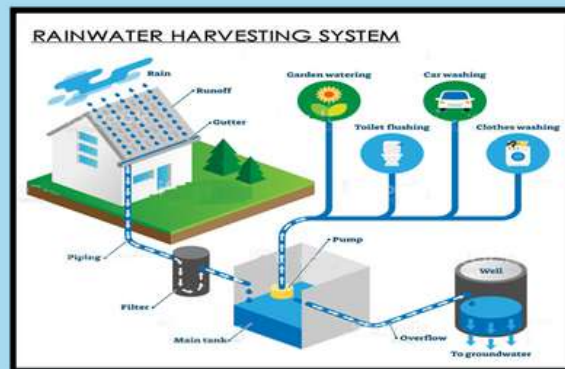
Green Building in the point of view of a Civil Engineer, is the construction of structures without harming the environment and to use the resources wisely, keeping in mind the need of the future generation.

Green Building is an approach to designing, constructing, and operating the building that promote efficient use of energy and to reduce the impact of the building towards the environment during its lifespan.

Green Construction can save immense amount of money, create jobs, and protect the natural environment. The principles of green building are, the efficient use of energy, efficient use of materials, efficient use of water resources and sustainable development. In construction, one of the most important aspects we must consider is the environment. Green Building use less energy and have less impact to the environment, this means they contribute very less towards global warming and other environmental problems.



Green buildings not only improve the quality of living outside but also inside the building. The air quality inside a green building is relatively less polluted and has very less amount of dust inside. This may help the people with allergies or any other respiratory related diseases to lead a healthy life.



Another many reasons for choosing green construction are, it saves large amount of money during as well as after the construction of a building. It helps us to save money from buying new materials by using the renewable materials. Another aspect of green building is water conservation and reuse, which means we can reuse waste water and collect rainwater which can be stored and used for later purposes. In Tamil Nadu it is mandatory for all the apartment or commercial houses to have rain water conservation systems installed in them. This will help the ground water to regenerate quickly and during the time of scarcity, the stored water can be used for the domestic purposes. The houses built with the help of green construction have higher value than that of a traditional one.

Usage of renewable energy is one of the fundamental parts of a green building. Renewable energy such as solar energy, wind energy and biomass can significantly reduce the impact on environment, and it also reduces the amount of money spent on the energy usage. Air quality indoors are significantly increased due to the less toxic or non-toxic building materials used inside the building. This enhances occupant health and gives peace to the mind and body. Many organizations around the world such as LEED, FITWELL, USGBC and IGBC focus on implementing green building construction and they also certify the buildings which satisfy the guidelines of a green building. Those buildings with Green Building certifications perform better in the longer run and have higher resale value.

Engineers are also certified by these agencies through exams and other qualifications required to be a green engineer. These Certified engineers work for different construction firms and they act as a green building advisor for the construction of green buildings.

AI IN CIVIL ENGINEERING

S. PRASHANT, 3rd YR CIVIL

WHAT IS ARTIFICIAL INTELLIGENCE:

Artificial Intelligence (AI) is a specialised system that can recognise intelligent entities, make decision-making easier, faster, and more efficient. Artificial intelligence is concerned with the roboticization of intelligent behaviour that thinks and acts the same way people do.

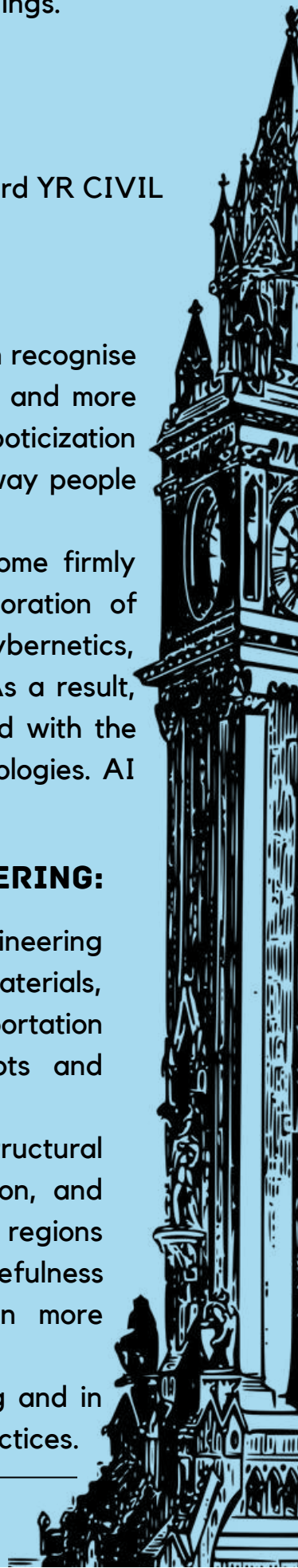
Artificial intelligence is a broad concept that has become firmly ingrained in our daily lives. It is built on the collaboration of numerous fields, including computer science, cybernetics, information theory, psychology, and neurophysiology. As a result, artificial intelligence is a discipline of science concerned with the study, design, and implementation of time-saving technologies. AI is concerned with machines that carry out tasks.

ARTIFICIAL INTELLIGENCE IN CIVIL ENGINEERING:

Artificial Intelligence is mostly used in civil engineering applications like construction management, building materials, hydraulic optimization, geotechnical and transportation engineering, and is also useful in developing robots and automated systems.

Computerized reasoning is a brilliant opportunity for structural architects as it covers regions like Design, Construction, and choices to settle the obstacle enroute. It will be useful in regions like Data Assortment and Data Analysis to expand usefulness and diminish the expense and make the interaction more powerful and effective.

The use of AI is very helpful and efficient in designing and in material management, map building and construction practices.





AI models in civil engineering can be used for accurate, cheaper, and less disruptive construction projects. In modern structures, artificial intelligence is being utilised to plan the routing of electrical and plumbing systems.

Artificial intelligence (AI) is being used to track real-time interactions between personnel, machinery, and items on the job site and supervisors for potential safety hazards, construction errors, and productivity concerns. Simulated intelligence makes it simpler for those who engage with the development business by making it more sensible. It gives more open doors in a structural design by making it an appealing field of work



AI TECHNIQUES:

- Pattern Recognition
- Deep Learning
- Fuzzy Logic
- Neural Networks

ADVANTAGES OF AI IN CIVIL ENGINEERING:

- Pattern Recognition
- Deep Learning

- Fuzzy Logic
- Neural Networks

ADVANTAGES OF AI IN CIVIL ENGINEERING:

- AI is used to Reduce the Risk of Accidents.
- AI is used to Prevent Cost Overruns.
- AI empowers contractors and project managers to monitor and prioritize risks on the job site and allows the team to focus on them.
- AI is used for Efficient Project Planning.
- AI is used to Increase Productivity on Job Sites



CONCLUSION:

- The use of artificial intelligence will undoubtedly make life easier for humans in the future and may even encourage humans to expand their skill sets.
- The work for the constructors and architects is getting much simpler due to AI techniques.
- Artificial intelligence has been effectively applied to a variety of civil engineering applications, including prediction and risk management.
- Artificial intelligence used in Civil engineering is important in the construction, maintenance, and management of several components of civil infrastructure



Construction industry is responsible for about 40% of carbon emission in the world. It becomes major responsibility for the Engineers in construction to work more sustainably and work without harming the environment. In every construction activity, carbon emission must be taken into mind before the commencement of that activity. Every engineer must work for a better future keeping in the mind that every development must be done without harming the environment. Sustainability is the actual need of the hour and practicing green building can pave the way for a better future.

Thank you.



IV YEAR WRITE UP

MENTAL HEALTH AND PLACEMENTS

-By

D. JEYASHREE, Final year

Although placements season is a very fruitful one, no one really talks about the stress and the hardships associated with it. Placements process starts from around August and goes on till March. Company turnouts increase year by year, thanks all the placement coordinators and the CDC.

Alongside giving tests and interviews, us students must learn to cope with the overwhelming feeling of rejection. Rejection is an inevitable part of placements, and we just have to come up with coping mechanisms for the same. This is coming from a person who almost cut her hair short after she didn't get a company that she really wanted. Thinking about that point of time, now, it's funny. But when I was going through that phase it wasn't this easy.

There are two simple things one can do to not let the stress consume you. a) build a good resume in order to keep your self-confidence high.

This ensures that you can be calm and motivated even after being rejected by a couple of companies because if you have a nice portfolio, then what do you have to worry about? There's lots of companies out there. b) believe in yourself and convert the dejection into motivation.

Don't give up easily and find ways to restart after every time you fall down. There are going to be times when you feel that the situation is getting out of hand, but remember it will be all worth it at the end. There are going to be times where you wouldn't have even been shortlisted for the first round, some random person would've gotten the literal role and company that you've always wanted and there's going to be this constant feeling to prove yourself to yourself and especially your family. Power through this and you'll be so happy and relieved at the end.

There's plenty of fish in the sea :)

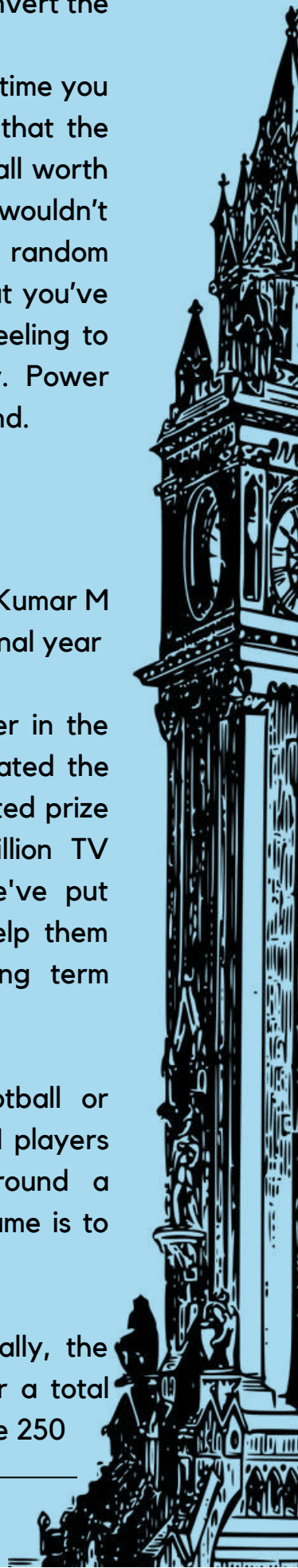
FOOTBALL 101

By : Naveen Kumar M

Final year

The FIFA WC 2022 concluded on the 18th of December in the Lusail Stadium in Qatar, where Messi's Argentina defeated the reigning World champions, France to win the most coveted prize in all of football. The final drew in a record 1.5 billion TV audience, resulting in a lot of first-time viewers. We've put together the most basic deets for the 1st timers to help them understand the basics of the game and become long term enjoyers of the game.

Association football, more commonly known as football or soccer, is a team sport played between two teams of 11 players who primarily use their feet to move the ball around a rectangular field called a pitch. The objective of the game is to score more goals than the opposition by moving the ball beyond the goal line into a rectangular framed goal defended by the opposing side. Traditionally, the game has been played over two 45 minute halves, for a total active match time of 90 minutes. With an estimated active 250



million players in over 200 countries and territories, it is considered the world's most popular sport.

Gameplay:

Association football is played in accordance with a set of rules known as the Laws of the Game. The game is played using a spherical ball of 68–70 cm (27–28 in) circumference, known as the football (or soccer ball). Two teams of eleven players each compete to get the ball into the other team's goal (between the posts and under the bar), thereby scoring a goal. The team that has scored more goals at the end of the game is the winner; if both teams have scored an equal number of goals, then the game is a draw. Each team is led by a captain who has only one official responsibility as mandated by the Laws of the Game: to represent their team in the coin toss before kick-off or penalty kicks.

The primary law is that players other than goalkeepers may not deliberately handle the ball with their hands or arms during play, though they must use both their hands during a throw-in restart. Although players usually use their feet to move the ball around, they may use any part of their body (notably, "heading" with the forehead) other than their hands or arms. Within normal play, all players are free to play the ball in any direction and move throughout the pitch, though players may not pass to teammates who are in an offside position.

You are offside when you are in the opponents' half and any part of your head, body or legs is closer to the opponents' goal line than both the ball and the second-last opponent.

One of those two opponents is almost always the goalkeeper, so usually if either the ball or one outfield opponent is not between you and the goal line, you will be offside. You are not offside if you are level with the second-last opponent (or both opponents).

During gameplay, players attempt to create goal-scoring opportunities through individual control of the ball, such as by dribbling, passing the ball to a teammate, and by taking shots at the goal, which is guarded by the opposing goalkeeper. Opposing players may try to regain control of the ball by intercepting a pass or through tackling the opponent in possession of the ball; however, physical contact between opponents is restricted.



Football is generally a free-flowing game, with play stopping only when the ball has left the field of play or when play is stopped by the referee for an infringement of the rules. After a stoppage, play recommences with a specified restart.

The Laws of the Game do not specify any player positions other than goalkeeper, but a number of specialised roles have evolved. Broadly, these include three main categories: strikers, or forwards, whose main task is to score goals; defenders, who specialise in preventing their opponents from scoring; and midfielders, who dispossess the opposition and keep possession of the ball to pass it to the forwards on their team. Players in these positions are referred to as outfield players, to distinguish them from the goalkeeper.

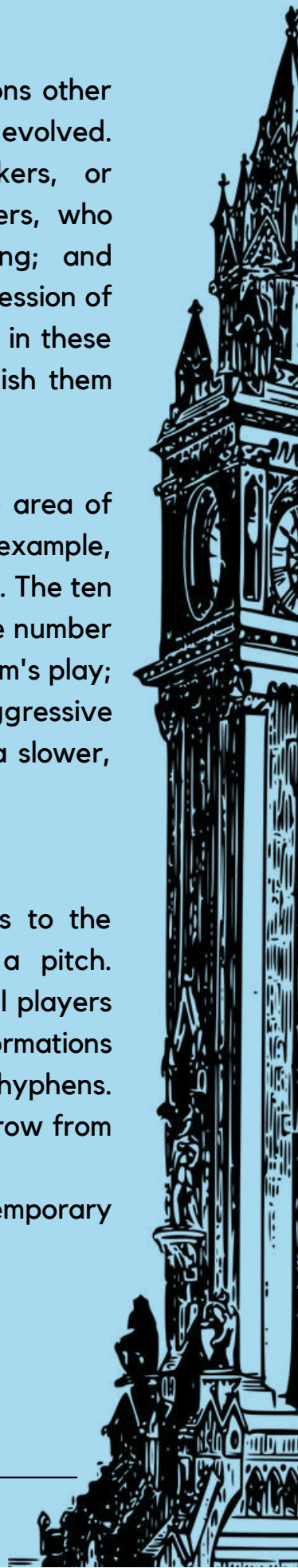
These positions are further subdivided according to the area of the field in which the player spends the most time. For example, there are central defenders and left and right midfielders. The ten outfield players may be arranged in any combination. The number of players in each position determines the style of the team's play; more forwards and fewer defenders creates a more aggressive and offensive-minded game, while the reverse creates a slower, more defensive style of play.

Formations:

In association football, the formation of a team refers to the position players take in relation to each other on a pitch. Formations in football provide a general positioning of all players on the field of play except the goalkeeper. Typically, formations are denoted by three or four numbers separated by hyphens. These numbers represent the number of players in each row from closest to the goalkeeper to further out.

Some of the most commonly used formations in contemporary football are:

1. 4-3-3
2. 4-4-2
3. 4-2-3-1
4. 4-4-2 diamond
5. 3-5-2



Football being a highly dynamic and fluid game, teams take up different formations during attack, transitions and defence. Still formations provide a useful framework from which we can understand and form an idea of how a certain team or manager plays.

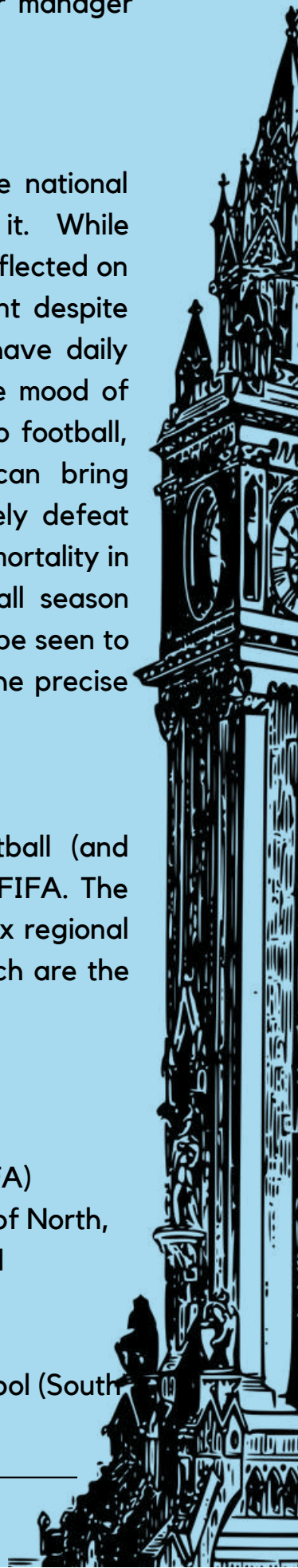
What makes the game so appealing:

In many countries, football has ingrained itself into the national culture, and many parts of life revolve around it. While incarcerated in Robben Island prison, Nelson Mandela reflected on how playing football "made us feel alive and triumphant despite the situation we found ourselves in". Many countries have daily football newspapers, as well as football magazines. The mood of regions and countries has been seen to be connected to football, especially during major tournaments where victory can bring happiness to the local community or country. Conversely defeat can lower spirits, and has been seen to be connected to mortality in the population. Withdrawal symptoms when the football season finished have also been reported. The economy can also be seen to be connected to major football tournaments, although the precise association is disputed.

Governing bodies:

The recognised international governing body of football (and associated games, such as futsal and beach soccer) is FIFA. The FIFA headquarters are located in Zürich, Switzerland. Six regional confederations are associated with FIFA; these are which are the continental governing bodies:

- Asia: Asian Football Confederation (AFC)
- Africa: Confederation of African Football (CAF)
- Europe: Union of European Football Associations (UEFA)
- North/Central America & Caribbean: Confederation of North, Central American and Caribbean Association Football (CONCACAF)
- Oceania: Oceania Football Confederation (OFC)
- South America: Confederation Sudamericana de Fútbol (South American Football Confederation; CONMEBOL)



National associations, which are under the regional confederations oversee football within individual countries. These are generally synonymous with sovereign states, (for example: the Cameroonian Football Federation in Cameroon) but also include a smaller number of associations responsible for sub-national entities or autonomous regions (for example the Scottish Football Association in Scotland). 209 national associations are affiliated both with FIFA and with their respective continental confederations.

International competitions:

1. Continental Football Cup:

The Continental Football Cup (CFC) is football's World Cup for the Continents. Each football confederation under FIFA assembles an all-star team of players from its member countries that will compete for

the championship. There will therefore be six teams competing: Europe (UEFA), South America (CONMEBOL), North and Central America (CONCACAF), Africa (CAF), Asia (AFC) and Oceania (OFC + Australia).

How will the Continental Football Cup work?

The CFC will run for two weeks every four years, with the host continent determined on an equal rotation basis. The entire tournament will consist of nine games, all in a single country.

The six teams will be randomly drawn into two groups of three, and each team will play the other two teams in its group. The winner of each group will play the second-place team from the other group in the semi-finals, with the semi-final winner



2. The FIFA World Cup:

The FIFA World Cup organised by the Fédération Internationale de Football Association (FIFA), is the biggest and the most prestigious tournament, in which the 32 qualifying countries compete to be the world champions. It is the single most watched event on the planet drawing an audience of upto 4 billion.

The format involves a qualification phase, which takes place over the preceding three years, to determine which teams qualify for the tournament phase. In the tournament phase, 32 teams compete for the title at venues within the host nation over about a month. The host nation automatically qualify.

The final tournament format since 1998 has 32 national teams competing over the course of a month in the host nations. There are two stages: the group stage in which teams are divided into 8 groups of 4 teams, each team playing 3 matches followed, followed by the knockout stage in the form of quarterfinals, semi-finals, and a Final.

Guide to European Football

Club football in Europe draw most of the viewers and happen all year round and the most watched leagues are:

1. The English Premier League- England and Wales

The English Premier League is the undisputed leader in viewership across the globe. Considered the toughest league competition in the world, it also surpasses all others in terms of financial might. The big 6, Manchester United, Manchester City, Arsenal FC, Chelsea FC, Liverpool FC and Tottenham Hotspur, bring in millions of viewers every year.

The league enjoys an attendance of 38,181 people, reaches 643m viewers per game and has a worldwide television audience of over 3.2 billion people. Manchester United have won the competition 20 times, more than any other team.



2. LaLiga- Spain

The second most watched league in the world is La Liga. It includes legendary clubs like Real Madrid and FC Barcelona that have traditionally dominated the competition.

The Los Blancos are the most successful club in the league's history, winning it 34 times previously and also are the reigning champions of the competition, which enjoyed 76m viewers per game last season.

3. Serie A- Italy

The first division of the Italian league system includes iconic clubs like AC Milan, Inter Milan, Juventus and more. The league enjoys 24.7k average viewers from the stadiums and reached over 2m viewers, while Cristiano Ronaldo was playing in the competition. Juventus have won the league 36 times and AC Milan are the reigning champions of the competition.

4. Bundesliga- Germany

The Bundesliga is one of the most watched football leagues in the world because of its attacking gameplay. Bayern Munich have won the competition 31 times and are also enjoying a nine-year winning streak.

In addition to a global audience, the league also observes 43,458 average attendance, being one the best-supported leagues by fans. It also has an average viewership of 361,000 per game reaches over 1.7m households.

5. Ligue 1- France

Ligue 1 is one of the most watched football leagues in the world. AS Saint Etienne and Paris Saint-Germain remain the most successful club with 10 each followed by Olympique de Marseille, who have a total of nine titles.

PSG are the defending champions after winning it last season. The average stadium attendance is 22,484 coupled with 10.5m viewers per game, worldwide. The ratings have seen a boost since the arrival of Lionel Messi.



1. The league

Each country has its own league, in which 20 odd teams compete all round the year. A season runs from August to May in which each team face each other twice, a home and an away game. The game is played in 2 halves (45 min) of 90 minutes and at the end of the game, the winner is awarded 3 points or 1 point each if it ends in a draw. After each team plays each other twice, the team with the most points is crowned champions, which brings the season to an end. Before the commencement of the next season, the 3 teams who finished at the bottom are demoted to the 2nd/ lower division and the top 3 teams from the preceeding division is promoted to the division above.

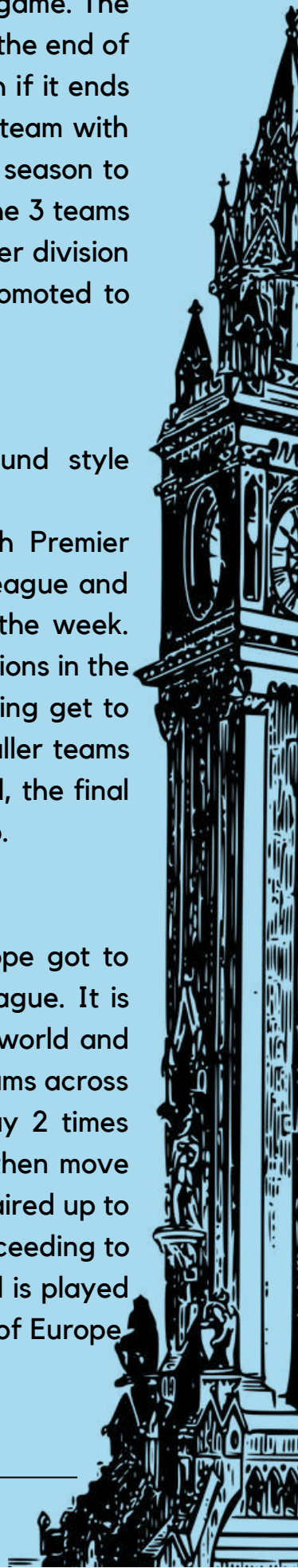
2. The Cup

Each country also hosts an everygame knockout round style domestic

tournament called the Cup (the FA cup in the English Premier League). They are simultaneously held in between the league and other games the Cup play, generally in the middle of the week. This is where it gets interesting, teams across all the divisions in the country get to play each other. Teams which keep winning get to move to the subsequent rounds, where occasionally smaller teams knock the biggest of the team's in the league. In the end, the final is played between the two undefeated teams for the Cup.

3. The Champions League

What if the best teams from each country across Europe got to play each other? Well, that would be the champions league. It is one of the most prestigious football tournaments in the world and the biggest club tournament in Europe. 32 of the Best teams across Europe are put in 8 groups of 4 where the get to play 2 times against each team in the mother of September. Teams then move on to the round of 16, in December, in which teams are paired up to play 1 home and and an away match, and the winner proceeding to the next round until there are only 2 teams left. The final is played as a single match. The winner is crowned the champions of Europe. The teams go on a break until next September.



Different Footballing philosophies:

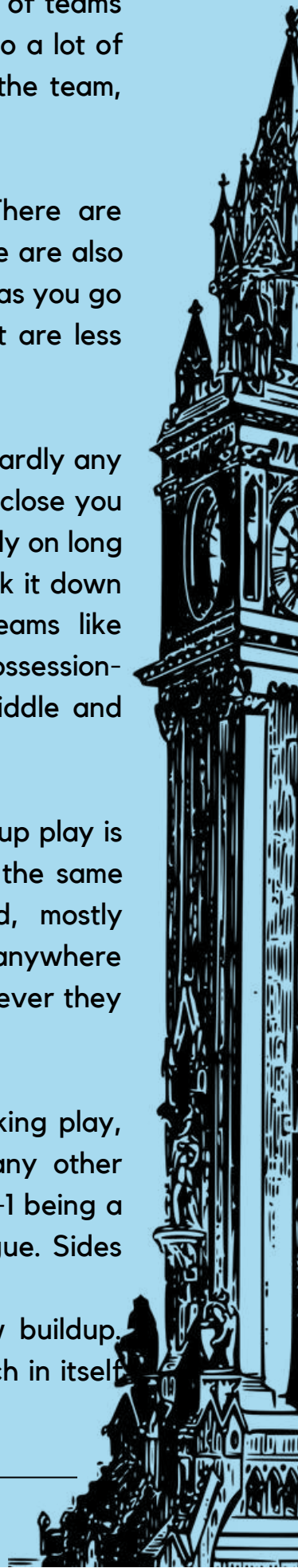
There's are some general ideologies that are found in each league, but there are exceptions, as we could see a lot of teams adopting to different philosophies or mixed styles due to a lot of reasons like the globalization of football, suitability to the team, etc.

1. In Spain, there's a big emphasis on possession. There are excellent passers and dribblers that facilitate this. There are also exceptions like Athletic Bilbao who are very direct, and as you go towards the bottom of the table, you'll find teams that are less fluid and more physical in their play.

2. In England, the play is very direct and fast. There's hardly any time on the ball as there is in Spain because defenders close you down much faster. Teams like to be very physical and rely on long balls to forwards who are good in the air and can knock it down to on-rushing attackers. However, you also have teams like Arsenal, Swansea, and Liverpool who are primarily possession-based sides. The best teams are somewhere in the middle and adapt well to either style like United, City, and Chelsea.

3. Italian Defenses are stereotypically strong and build up play is generally slower than in England although is at about the same pace as in Spain. The midfield is generally packed, mostly because there's such a variety of formations. Teams go anywhere from 3, 4, or 5 at the back and stuff the midfield whenever they can. The general trend is more toward tactical football.

4. Germany has a mix of styles. You'll find good attacking play, strong defensive play, physical play, tactics, and many other things. The reason for this is probably due to the 4-2-3-1 being a very flexible formation that's used throughout the league. Sides play possession, counterattacking, and long ball with fast and or slow buildup. There really is no one style throughout the league, which in itself is a stereotype.



5. Latin American teams traditionally play an open style of soccer. The style of play is free-flowing, and the focus is on attack. In comparison, the general view of European play is one of greater discipline and less freedom of expression.

Latin American soccer players are renowned for their technical abilities. They are confident with the ball at their feet and happy to take on opposing defenders one on one. Latin American soccer players move the ball spontaneously and with many individual-based plays.

Other things like awards (Individual and team), scouting and the transfer market which open biennially (in which, players are bought and sold) are the other facets of the game, which makes the game more entertaining and followable all year round.



ALUMINI ARTICLE

A LETTER TO MY PAST SELF

My name is Vikram, a recently passed-out student from the Civil Department-SSNCE, 2018-22 batch. I would like to share some of my present thoughts with my past self who is in his final year of college.

To
You,
Final year student,
Department of Civil Engineering, SSNCE.

1. THE FIRST AND FOREMOST

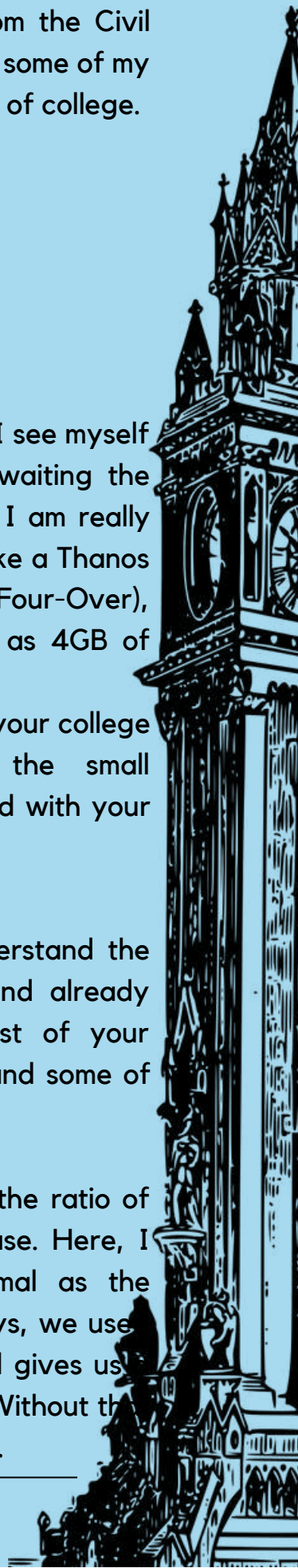
"It is very astounding for me that when I close my eyes, I see myself sitting at my class desk in front of the blackboard awaiting the faculty for the next period; but when I open my eyes, I am really sitting at my office chair in front of the computer. Just like a Thanos snap, the college days got completed (One-Two-Three-Four-Over), and the 4 years of the journey are now just present as 4GB of memories in google photos... [Sighing]".

So firstly, get up and start making the last few drops of your college days into colourful memories by setting aside the small misunderstandings you have now. All the fights you had with your friends will look silly one day.

2. GOOD BACTERIA

Being a recently passed-out student, I can easily understand the fear-mixed mind-set of you being in the final year and already started thinking about your post-college days. Most of your classmates would have opted for campus placements, and some of them have other plans to proceed.

As the days approaching the end of your college life, the ratio of fear about the future in your thoughts starts to increase. Here, I would like to say that this fear is completely normal as the statement, "The sky is blue". While traveling on roadways, we use to notice the speed limit boards on the sides. The board gives us warning to control our speed if we are driving too fast. Without the warning the chance of accidents is more. It's helping you.



At the same time, having control over the bacteria to not overpopulate and phagocyte your positivity and confidence are very important.

'Fear isn't bad, it's natural and important. And it's simply a warning we need to pay attention to.' – Jay Shetty

2. TWO EQUALS THREE

Often fear originates from comparing yourself with your fellow mates. Perhaps your friend has got an offer from a super dream company, but you still haven't even from a regular company. Does it either mean he wins or you lose?

In the final year, everybody is trying to get placed in their dream company; it seems like everybody is running in a marathon altogether, but it's not. Though all run together, everybody is running their own unique track, towards their own unique goal. Everyone is unique here, so please don't compare yourself with your friends. The comparison is like $2 = 3$, this doesn't make sense, right? How the comparison of two different unique numbers makes no sense, in the same respect, comparison of yourself with your friend makes no sense. You two are unique people, having unique talents (like 2 is the smallest even prime number, and 3 is the smallest odd prime number) and unique goals. And remember that, because your friend is winning, doesn't mean you are losing. You have your own timeline, and your success may be on the way towards you. So, please don't lose hope and keep trying.

"I don't want to be the next Bruce Lee; I want to be the first Jackie Chan"–JC

3. SHIFT + CTRL

If you are in one among them asking, "I have been placed in a company. I don't know if this is the right company for me. So how to take the decision?"

First, find your area of interest. It may be anything this world demands or need; and that need not to be within civil engineering



. Next, clearly analyse that can this job help you to get the right knowledge & skills you need, to reach your goal; also check that it satisfies the financial demands you have from your family side (if at all you have). If the answer is a 'Yes', then accepting the offer will not be a wrong decision. But please be serious in the analysing part and focus on the 'role', not the company name. If you say, "I haven't found my area of interested domain yet, how can I decide?"- Just go with the flow (not blindly but carefully) and do your part sincerely, eventually you will find what is your "Cup of Tea".

(Important note: If you got placed in a 'Day 1 company', then consider that as a last option and only accept the offer if you have no other choice).

If you ask, "I have found my that civil engineering is not my area of interest, so I am going to shift my career domain now. Then except the "B.E. degree", is everything I learned in civil engineering going to be useless for the rest of my career"?

Well, do you know the name 'Konrad Zuse'? He is a computer scientist who invented the world's the first programmable computer in 1941.

Interestingly, he has graduated in Civil Engineering. Elon Musk, the man who built a rocket company - One of the books he read during his early period is "Structures: Or Why Things Don't Fall Down", an elementary book on 'Structural Designing' (he has even mentioned this book in an interview). Without a doubt whatever the two men have achieved in their future, their one of the foundational knowledge areas is from civil engineering. (Note: Their foundation was strong).

So, think about how far you can go with what you have learnt. Transform your thoughts from, "With the civil engineering DEGREE I have got, what can I do in the new domain?" to "With the civil engineering KNOWLEDGE I have gained, what can ALL I do in the new domain?"

So, the decision to make a domain shift will be right, if you have a good control on which direction you are moving in your career track, whether towards or away from what you love. And always remember that you will be a builder of this world may not by constructing skyscrapers or megastructures but by your intellect and analytic way of thinking that this civil engineering education taught you.

"You get paid in direct proportion to the difficulty of problems you solve (not by the degree you have)." – Elon Musk

4. IT'S YOUR TIME NOW

Till the 3rd year, you would have got many helps from your elder friends whom you call Anna and Akka - your seniors. But now you have come to their place. Do you remember the day when you are in the first year, a unknown senior who helped you to take the printouts in reprography; in the second year, the senior who appreciated your small win in an event; in the third year, the senior who gave you the right advice you needed at that time and motivated you when you were in discouraged mindset, etc. But now, it's time to give it back to your juniors. Because they deserve it from you, as you deserved from your seniors. So, be helpful to them as much as you can, you will not know how the small help you are doing is going to impact them greatly in their life.

Finally, always remember the advice you heard from your teachers. Again, you will not know when the words they have told will mentor you at a point in life. So be respectful to them and grateful for everything you have learned from them in your entire college life.



From
Vikram P G (Alumni Civil Engineering Department)
Software Developer,
Metamotion Pvt Ltd.
(An R&D company in Sheet Metal CAD/CAM software Industry)

TRIPLE PLACEMENT IN CIVIL ENGINEERING



Dhanush J

2018-2022 Batch Civil Engineering

I thank all the faculty members of the Civil Engineering department, SSNCE, fellow students, and friends for their guidance and moral support, which was my dynamo and moving power throughout my journey at SSN, and for my achievements at SSN. My main motive to start at SSN is to make a better version of me in all aspects. I always believe that "Rome wasn't built in a day," so I used to take out a small time of the day after classes, and started to learn different skills which is apart from my domain like Management, Content developing skill, etc. through online courses which helped me a lot to attend the placement process. At the time of rejection, I felt low as if things were not going as they were meant to be, but there was no other go but to push myself. I am elated that everything paid off. Now I have three job offers in my interested domain. I am always grateful to everyone who believed in me and made me to achieve. The environment of our campus and department always supported in my advancement and overall growth.

Thank you SSN!!!

Three job offers

1. Company name : SIX PHRASE
Job role : Content Developer
CTC : 5.5 LPA
2. Company name : My captain
Job role : Business development executive
CTC : 4.5 LPA
3. Company name : Byjus
Job role : Subject matter expert
CTC : 6.5LPA



Grandhe Vishnu Prathap 2018-2022 batch has successfully completed the online, non-credit Professional Certificate from IBM

ALUMNI MEET

The Alumni Meet Conducted in the Civil Engineering Department involved the Students of Batch 2018-22, who interacted with the students of Batch 2019-23 and 2020-24 by sharing their knowledge, experience and other tips which will help the students to utilize the placement opportunities

One of the Alumni Ms. Yuvalatha of Batch 2018-22, who recently cracked the Amazon placement process and attained the Job of bring a Program Manager gave insights and shared her experience regarding the placement process.

The Process which she went through involved a written exam which was entirely based on general knowledge and critical thinking and the interview pretty much required the same set of skills and verbal communication. This Interaction was incredibly enlightening and useful for the juniors as they prepare for future job interviews and exams.

The other Alumni of Batch 2018-22 was Mr. Nijanthan Sivakumar who got placed in Wood. His experience involved cracking the exam with core civil engineering knowledge and attending the interview with good communication skills and proper attitude towards ther interviewer, he further stated that being strong with foundation as well as learning basics throughly is more important and handling interview under pressure and remaining calm with a good attitude is the key to success

"The Secret of Success is to believe in oneself and work hard without giving up"

-Ms. Yuvalatha (Batch 2018-22)

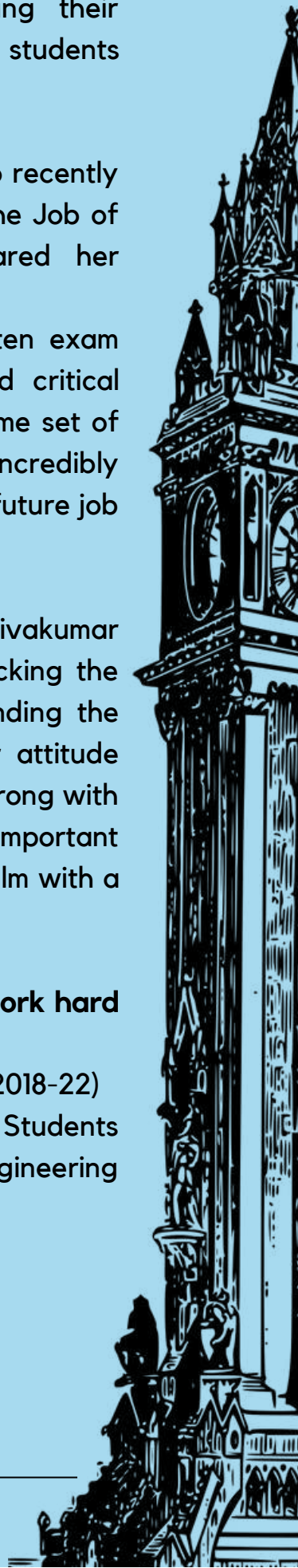
Students from 2018-2022 Batch also received Best Students awards on basis of the Industry SSN Civil Engineering Department Collaboration.

Yuvalatha P -Southern Chairman Centre

Yuvarani P-Mahindra Consulting Engineers

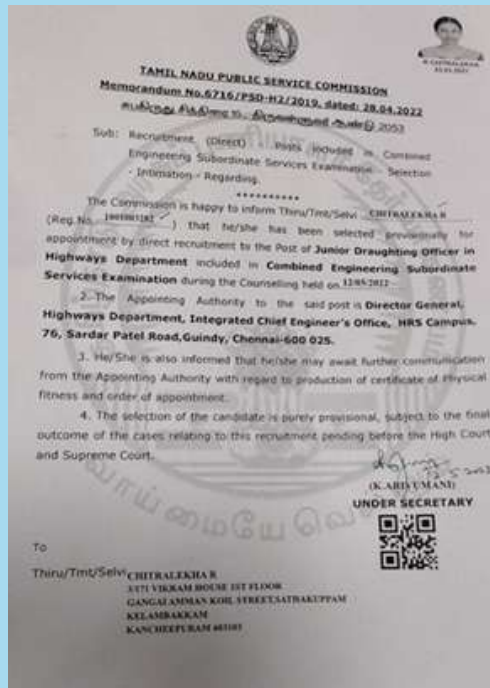
Nijanthan S-Larsen & Toubro

Vikram PG -ZEUS





OTHER ACHIEVEMENTS FROM ALUMNI



INDUSTRIAL ARTICLE

ADVANCEMENTS IN FOUNDATION

Significant progress has been made on this topic as more advanced technology and machinery has become available. In this article, advancements in formwork and excavation have been covered. Advancements in shuttering include Fabric formwork, Fabric formwork is a building technology that involves the use of structural membranes as the main facing material for concrete moulds. Unlike traditional formwork, the material is highly flexible and can deflect under the pressure of fresh concrete. And the advancements in excavation have developed in three different means, they are:

Mass Excavation: The land is removed of trees, topsoil, and other debris before a large hole is cut in the soil. The dirt is hauled away in trucks and leveled by bull dozers and other large machinery.

Foundation Excavation: This is done in preparation for laying the foundation. Rather than using a track loader like in primitive times, we use a hydraulic excavator with a laser to perform highly efficient digs and properly prepare the land for development.

Trenching Excavation: Digging trenches can be done with an excavator or backhoe, depending on the width and depth of the site needed. This form of excavation is usually done for things like sewer lines, water pipes, electric wires, telephone lines, and communication cables.

Though there are many more advancements in the foundation of the latest times, this article mainly covers the developments in formwork and excavation.

A. Goutham
Proprietor

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