# **EDIFICE**

Vol. 5 Issue 1

**JULY 2020** 

Newsletter of the Department of Civil Engineering



Medical workers in protective suits help transfer the first group of Coronavirus patients into the Huoshenshan temporary field hospital (completed in 10 days) in Wuhan, China.

Photograph: Xiao Yijiu/AP

As the world faces an unprecedented pandemic, Civil Engineers around the globe have been forced to unlearn traditional construction techniques and adopt faster, cheaper and sustainable methods like prefabrication.



# **EDIFICE**

# **JULY 2020**INSIDE THIS ISSUE

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In this issue of Edifice – the halfyearly Newsletter of the Department of Civil Engineering, we present to you the updates of the activities in the department, faculty, staff and students during the first half of this year.

Though the world this year has come to a grinding halt after the first quarter, we have made use of this lockdown period to enhance and update our knowledge with several online resources made available to us by the institute and are preparing to face the evolving challenges in the civil engineering industry.

#### **EDITORIAL TEAM**

#### Dr. N. Sivakumar

**Head of the Department** 

#### Ms. Sumetha R

**Assistant Professor** 

#### Vishvaa R S

IV year

#### Janani J

III year

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# Let's talk about Recession and Construction

- Dr. Y.K. Sabapathy, Professor

#### Let me take you through this topic, with a very relatable scenario.

Say, you are a manager of a construction firm. Your job is to manage your company, employees and make them execute the construction activities of the new building project you have been working on, which was designed by the design consultant as per your client's requirement. When the construction work of the building was going fine, there came the outbreak of a deadly virus. It brought the whole world to a great lockdown, which initiated the recession we face today.

The client's expectation jumps up. Naturally, he would be in a lot of pressure. For a client, the definition of the project given by **Prof. Peter Barrett** is "...a means to a means to an end". It means, a project is something like an organisation mean to result in a physical entity (like building, dam, technoproduct etc.), that in-turn will be a mean to get what clients actually wants (profit, service, facility etc). The client is more concerned about the result, than the process it takes to get the result. But for a constructor (or an engineer or a consultant), the process is what he is most concerned about.

And now, you know what's going to happen. As expected, you receive a call from your client.

Client: Hey Tom, listen, we're impressed by your construction work. We like the design and everything. We want to collaborate with your company in our next upcoming project too. But, we really want you to reduce your fee for this project by 10%. You know right, we all are on the verge in this downturn. So what do you say?

(Now, you make a rational decision with the information you have)

**You:** Ahh... Uhh...Okay, sure! We will make that happen.





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#### What had happened?

Your client is raising his expectation, in terms of making more value for the profit that he makes from the building and also by cutting your fee. Clever right!

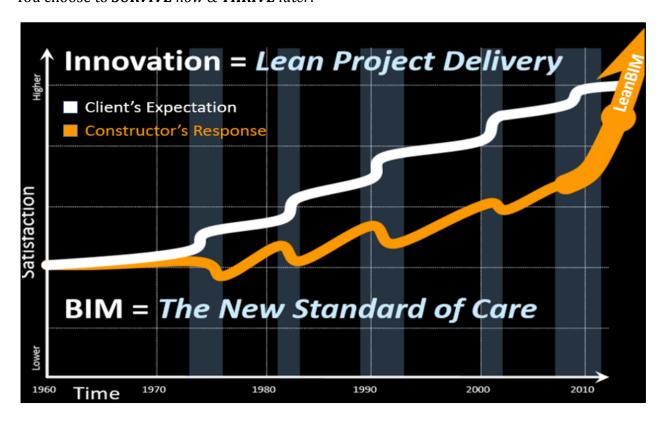
Now you decide what you're going to do after the lockdown lifts. You see two options here.

# Option 1: You pour in all the money, material, labour and all other resources. You promise a boost in the salary for your employees and labour, for working extra hours a day. You do all this to increase the productivity of the construction work. And the result, yes, you can catch up to the expectations of your client but end-up running a huge progressive loss, that's quite difficult for your firm to survive.

Option 2: A bitter solution. You stop investing in new technology. You lay-off your mediocre employees and drop huge workloads on your finest employees, and convince them to work extra time for the same salary. Else, you know what. The result may or may not be satisfactory as expected. You might end up taking more time than the assured date of completion, you might have used second-grade material and so on. But the important thing is, you succeed in the completion of the construction and didn't face loss. Your firm survives the recession.

Rule no. 1 of the universe is "To Survive in the times of vulnerability".

You choose to **SURVIVE** now & **THRIVE** later.





#### Let's analyse now

During the recession, the expectation of clients is spiking up, whereas the ability of the constructors to respond to those expectations is dropping down simultaneously.

After the recession, one can see the construction industry taking off, clawing up to get better than before. Trying to step up and close the gap between the two curves.

But the fact is, our industry could never catch up the gap and over time we see that gap has been enlarging between the expectations and the ability of the two parties respectively.

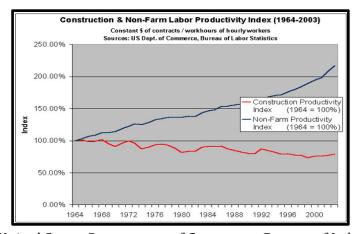
What can be done? Well in history, at the tail end of every major recession, there has been, 'The Change', for better.

Year	Introduction of 'The Change', for better
1970s Recession	Construction Management
1980s Rust Belt Recession	Fast-track for Major Capital Project
1990s Recession	Guarantee Maximum Pricing
Early 2000s Recession	Program Management

All these changes phased the construction industry better, but the rate of betterment was still not enough to meet the growing demands.

#### Why! What's the problem? Where's the problem?

Well, the sad truth is, our industry went declining for 4 decades (1960-2000; stats. below), letting technology to update itself, so that it would help our industry later in the *The Great Recession-2008*.

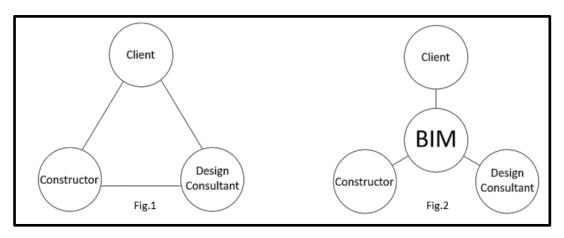


~ Source: United States Department of Commerce, Bureau of Labor Statistics



#### **Building Information Modelling (BIM)**

Yes, I'm talking about the technological advancement: "Building Information Modelling" (BIM). Since 2008, the U.S. Army Corps of Engineers has begun use of BIM for all military construction projects to improve construction time and costs. But, what did BIM do that made it too impeccable? It simply changed the structure of interaction from Fig. 1 to Fig. 2 (refer image below), which favoured in Integrated Project Delivery (IPD), that results in speedy and efficient construction.



#### **LeanBIM**

Now, we are at another test of vulnerability: Covid-19 Global Recession. And I fear BIM alone is not enough to help us. This made me surf on the web and ended up in a relatively whole new concept, called "LeanBIM".

*"LeanBIM*: Unleash *BIM* Possibilities and Make *Lean Construction*." is what a famous blog, <u>leanconstructionblog.com</u> says. To check the authenticity, I did check it on <u>researchgate.net</u> and found some surprising strong studies on this topic.

**Lean** is a performance improvement technique specially developed for the manufacturing industry and later adopted in construction. Lean is the method you adopt to make the process (project) to meet your goal. Your goal can be anything like low wastage production, fast work phase, improved quality, and etc.

In my perspective, a lean technique will give a convincing answer to the workers for the question, "What's in it for me? What's in it for my firm? What's in it for my client?", and by making it work for the designated goal. I strongly believe **LeanBIM** will be the next change for the better, for the construction industry.



## FACULTY UPDATES – RESEARCH

#### **JOURNAL PUBLICATIONS**

- Y K Sabapathy, K Sooraj\*, K Sai Likitha Krishna\*, V Nithish\*, and S Vishnu Vardan\* (\*2016-20, B.E. Civil Engg.), "A study on influence of magnetic water on the strength characteristics of concrete", Research Journal of Pharmaceutical, Biological and Chemical Sciences, Vol. 10, No. 3, 2019, pp 247-253.
- **Y K Sabapathy**, and R Vijayakumar, "A biological approach on the study of bacteria based concrete", *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, Vol. 10, No. 5, 2019, pp 6-12.
- Makendran C, Vignesh Kumar M, B Mahalingam et al, "Roughness prediction models based on variable distress parameters using neural network and MLRA for PMGSY roads", International Journal of Advanced Science and Technology, Vol. 29, No. 7, 2020, pp 2208-2218.
- R Nirmala, **Rajkumar R**, and S Manigandan, "Comparative study of nanoparticles with saline water for effective PV/T and buried UPVC water distribution", *Desalination and Water Treatment*, Vol. 184, 2020, pp 51-56.
- **Rajkumar R,** Kavya L\*, Vishvaa R S\*, and Kamaleswari T\* (\*2016-20, B.E. Civil Engg.), "Construction of multistoreyed buildings in india with environmental perspective", *TEST Engineering & Management*, Vol. 83, 2020, pp 5137-5142.
- **Rajkumar R,** Priyadharshini K P\*\* (\*\*2015-19, B.E. Civil Engg.), Kamaleswari T\*, Kavya L\*, and Vishvaa R S\* (\*2016-20, B.E. Civil Engg.), "Performance of concrete partially replaced with seashells and coconut shells and coarse aggregates", *TEST Engineering & Management*, Vol. 83, 2020, pp 5197-5203.
- **Vijayalakshmi R**, and **Ramanagopal S**, "Compression behaviour of polypropylene fibre reinforced cellular light weight concrete masonry prism", *Civil and Environmental Engineering Reports*, Vol. 30, No. 1, 2020, pp 145-160.
- **Vijayalakshmi R**, and **Ramanagopal S**, "Experimental investigation on banana fiber reinforced light weight concrete masonry prism sandwiched with GFRP sheet", *Civil and Environmental Engineering Reports*, Vol. 30, No. 2, 2020.
- **Sivapriya S V**, Sudharasan C\*\*\*, Suraj R\*\*\*, and Abinaya K\*\*\* (\*\*\*2014-18, B.E. Civil Engg.), "A preliminary comparative study of seepage behaviour behind retaining walls with crumb rubber and geocomposite", *Civil and Environmental Engineering Reports*, Vol. 30, No. 1, 2020, pp 171-184
- **Sivapriya S V, Srinath Rajagopalan**, Duraimurugan A\*\*, Rakesh S\*\*, Ravikumar P\*\*, and Suryaprakash S\*\* (\*\*2015-19, B.E. Civil Engg.), "Physio-chemical properties of contaminated soil under the influence of industrial and municipal wastewater", *International Journal of Environmental Science and Technology*, 2020.



#### **JOURNAL PUBLICATIONS contd.**

- **Jijo James**, and Saraswathy R, "Performance of chemically stabilized lateritic soil blocks using flyash-lime subjected to alternate cycles of wetting and drying", Civil and Environmental Engineering, Vol. 16, No. 1, 2020, pp. 30-38.
- **Jijo James,** "A micro-level investigation of optimum lime content stabilized expansive soil amended with coconut shell powder", *Slovak Journal of Civil Engineering*, Vol. 28, No. 1, 2020, pp 1-10.
- Saraswathy R, **Jijo James**, et al, "Valorization of crushed glass as a potential replacement for sand in cement stabilized fly ash bricks", *Civil and Environmental Engineering*, Vol. 15, No. 1, 2019, pp 48-57.

#### **CONFERENCE PRESENTATIONS**

- S Tharanyaa\*, Sabareeshwaran P\* (\*2016-20, B.E. Civil Engineering), **B Mahalingam, N Sivakumar, P Sreehari**, and M Kavitha# (#SoM, SSNCE), "Construction and demolition waste management for a sustainable environment", National Web Conference on Advances in Civil Engineering for Sustainable Environment, on 1 Jun 2020, organised by Department of Civil Engineering, SRM Eswari Engineering College, Chennai.
- David Arunraj B^, Madhan Kumar D^, Sathish Kumar. P^, Selvam^ (^2017-21, B.E. Civil Engineering), and B Mahalingam, "A study on expanded clay aggregate", National Web Conference on Advances in Civil Engineering for Sustainable Environment, on 1 Jun 2020, organised by Department of Civil Engineering, SRM Eswari Engineering College, Chennai.
- A Anne Sherin<sup>^</sup> (^2017-21, B.E. Civil Engineering), B Mahalingam, and N Sivakumar, "Contour crafting – pushing the limits", National Web Conference on Advances in Civil Engineering for Sustainable Environment, on 1 Jun 2020, organised by Department of Civil Engineering, SRM Eswari Engineering College, Chennai.
- P Prabhakaran^^, P G Vikram^^, G Vel Kruthik^^ (^^2018-22, B.E. Civil Engineering), B Mahalingam, and N Sivakumar, "Design of water-bodies facing urbanization: A case study of Vandiyur lake", International Web Conference on Smart Engineering Technologies, on 26 & 27 Jun 2020, organised by Department of Civil Engineering, Ramco Institute of Technology, Rajapalayam.
- **Sivapriya S V, Srinath Rajagopal**, David Arunraj^, and Rajarajan T^ (^2017-21, B.E. Civil Engineering), "An experimental analysis of a various combination of sustainable material as partial replacement of aggregates in concrete with varying curing type", 5<sup>th</sup> International Conference on Recent Advancements in Chemical, Energy and Environmental Engineering, RACEEE 2020, on 13 & 14 Feb 2020, organised by Department of Chemical Engineering, SSN College of Engineering.



# **FACULTY UPDATES - EXTERNAL RECOGNITION**

#### Dr. N Sivakumar



- reviewed four manuscripts for Construction and Building Materials (Elsevier) in Jun 2020.
- reviewed three manuscripts for Ain Shams Engineering Journal (Elsevier) in Apr and Jun 2020.
- reviewed a manuscript for Journal of Environmental Management (Elsevier) in Apr 2020.
- reviewed a manuscript for Journal of Steel Structures and Construction in Feb 2020.
- reviewed a manuscript for ACI Structural and Materials Journals (American Concrete Institute) in Feb 2020.

#### Dr. Y K Sabapathy



- reviewed the newly framed syllabus for M.E. Structural Engineering, Copperbelt University, Kitwe, Zambia.
- reviewed two manuscripts for Materials Today: Proceedings (Elsevier) in Jun 2020.

#### Dr. S Ramanagopal



- attended the second Board of Studies meeting on Jun 26, 2020 as a member for Velammal Engineering College (Autonomous), Chennai.
- attended the Doctoral Committee meeting of Ms. Sathiya, Ph.D. scholar, on Feb 24, 2020 at SRM institute of Science Technology, Chennai.

#### Dr. Mahalingam B



• obtained the membership of Institution of Engineers (India) and obtained Chartered Engineer Certification.



#### Dr. R Rajkumar



- enrolled as a Fellow of the Institution of Engineers (India) and was certified as a Chartered Civil Engineer.
- attended the DC meeting of Mr. Pandian, Research Scholar at Sathyabama Institute of Science and Technology on Feb 7, 2020.
- attended the DC meeting of Mr. Dhanraj, Research Scholar at Sathyabama Institute of Science and Technology on Feb 14, 2020.
- attended the Extension Meeting of Mr. Ganesamuthy, Research Scholar at St. Peter's Institute of Science and Technology on Mar 6, 2020.
- attended the Synopsis Meeting of Mr. Ganesamuthy, Research Scholar at St. Peter's Institute of Science and Technology on Mar 17, 2020.

Dr. S V Sivapriya



- obtained the membership of Institution of Engineers (India) and obtained Chartered Engineer Certification.
- reviewed a manuscript for Advances in Civil Engineering (Hindawi Publishers, Egypt) in Mar 2020.
- delivered an expert talk in the one day national workshop on "Problematic Soils – Mitigation and Case Histories", organised by Rajalakshmi Engineering College, Chennai on 5 Mar, 2020.







#### Dr. P Sangeetha



- was appointed as the Anna University nominee for the Board of Studies at Sri Sai Ram Institute of Technology (Autonomous), Chennai.
- reviewed a manuscript for Acta Polytechnica Journal of Advanced Engineering (Czech Technical University, Prague) in Apr 2020.
- attended DC meetings of Research Scholars at VIT, Vellore and Bharath University, Chennai.

#### Dr. Jijo James



- obtained the membership of Institution of Engineers (India) and obtained Chartered Engineer Certification.
- reviewed two manuscripts for Environment, Development and Sustainability (Springer Nature) in Dec 2019.
- reviewed two manuscripts for Journal of Solid Waste Technology and Management (Widener University, USA) in Jan and Jun 2020.
- reviewed one manuscript for Frontiers of Earth Science (Springer Nature) in Feb 2020.
- reviewed one manuscript for Marine Georesources and Geotechnology (Taylor and Francis) in Feb 2020.
- is appointed as the DC member for a Research Scholar at SRM Institute of Science and Technology, Kattankulathur.

#### 3D PRINTED BUILDING

The 3D Print Canal House is a three-year, publicly accessible "Research & Design by Doing" project in which an international team of partners from various sectors worked together on 3D printing a canal house in Amsterdam. It was completed in 2014. The house was constructed by a fused deposition modeling printer developed by DUS: the Kamermaker ("Room builder"), able to print elements of up to  $2.2 \times 2.2 \times 3.5$  metres. It is a movable pavilion with the size of a shipping container.





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# FACULTY UPDATES - CONTINUOUS LEARNING

#### Dr. N Sivakumar

- ~ participated in the "Virtual conference for the best minds in learning to reboot and redesign higher education in India", from Jun 24 to 26, 2020, organised by Ashoka University and The Republic of Letters.
- attended the webinar on "Flooring and Coating in Construction", on Jun 24, 2020, organised by the Dept. of Civil Engineering and IEI (student chapter), SSN College of Engineering, Chennai.
- attended the webinar on "Project Management and Design Documentation", on Jun 16, 2020, organised by the Dept. of Civil Engineering and IGBC (student chapter), SSN College of Engineering, Chennai.
- ~ participated in the one week online Faculty Development Programme on "Effective Online Teaching Methods", from Jun 8 to 14, 2020, organised by the Department of Civil Engineering, Dr. N.G.P Institute of Technology, Coimbatore.
- ~ attended the three day national level online FDP on "Outcome Based Education, OBE-2020", organised by the Department of Civil Engineering, Narsimha Reddy Engineering College, Hyderabad, from May 27 to 29, 2020.
- ~ attended the webinar on "Special Concrete for Special Structures", on May 8, 2020, organized by Indian Concrete Institute-Bangalore Chapter.
- attended the one day workshop on "Recent advances in technology of concrete", conducted by IIT Madras and RILEM, on May 2, 2020.

#### Dr. Y K Sabapathy

- attended the webinar on "Tips to face technical interview", organised by the Association of Civil Engineers, SSNCE and ICE (UK) on May 25, 2020.
- attended the webinar on "Self-compacting concrete for skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- attended the webinar on "Concrete framed buildings", organised by MPA, UK on May 6, 2020.

#### Dr. S Ramanagopal

- ~ attended the webinar on "Acoustics as a Career: Exclusive Session on Acoustics and NoiseMapping", organised by the ICE (UK) (student chapter), SSNCE on Jun 30, 2020.
- attended the webinar on "Self-Compacting Concrete in Skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- ~ attended the webinar on "Soft Computing in Civil Engineering Scopes and Benefits", organized by the Association of Civil Engineers, SSNCE on May 20, 2020.



#### Dr. B Mahalingam

- ~ attended the webinar on "Civil Engineering A Challenging Profession, Evolution and Current Status", conducted by ICI Chennai Chapter, on Jun 27, 2020.
- ~ participated in the "Virtual conference for the best minds in learning to reboot and redesign higher education in India", from Jun 24 to 26, 2020, organised by Ashoka University and The Republic of Letters.
- completed the online FDP on "Technologies for Infrastructure, Planning, Design, Monitoring and Management", organised by the Department of Civil Engineering, Nalla Malla Reddy Engineering College, Hyderabad, on Jun 16-20, 2020.attended the webinar on "Flooring and Coating in Construction", conducted by IEI (Student Chapter), Department of Civil Engineering, SSNCE, on Jun 24, 2020.
- attended the webinar on "Future of Education Post Covid", conducted by McGraw Hill, on Jun 18, 2020.
- ~ attended the webinar on "Project Management and Design Documentation", conducted by IGBC (Student Chapter), Department of Civil Engineering, SSNCE, on Jun 16, 2020.
- attended the webinar "To promote good quality and preservation", conducted by KHRI, Kerala, on Jun 9,11 and 13, 2020.
- ~ attended the webinar on "Role of Marketing in terms of Pandemic", conducted by McGraw Hill, on Jun 11, 2020.
- ~ attended the two days workshop on "Revit Architecture", organised b the Department of Civil Engineering, SRM Esawari Engineering College, Chennai, on Jun 9 and 10, 2020.
- attended the webinar on "Open Access Educational Resources", organized by Department of Library Sciences, Ramco Institute of Technology, Rajapalayam, on Jun 6, 2020.
- ~ participated in the one week online FDP on "Role of EduTech in Classroom Teaching and Learning", from Jun 5 to 11, 2020, organised by the Annamalai University.
- ~ attended the webinar on "Computational Fluid Dynamics", conducted by Dept. of Mathematics, SSN College of Engineering, Chennai, on Jun 4, 2020.
- attended the webinar on "Conflict Minerals An E waste perspective", conducted by ICI Student Chapter, Ramco Institute of Technology, Rajapalayam, on May 30, 2020.
- ~ attended the three day national level online FDP on "Outcome Based Education, OBE-2020", organised by the Department of Civil Engineering, Narsimha Reddy Engineering College, Hyderabad, from May 27 to 29, 2020.
- participated in the online FDP on "Sustainable Planning and Construction", conducted by St. Peter's Institute of Higher Education & Research, from May 25 to 29, 2020.
- ~ attended the webinar on "Research without Border and Faculty Development", conducted by IEI and Dept. of Civil Engineering, SRMIST, Chennai, on May 26, 2020.
- attended the webinar on "Sustainable Building Materials: Timber and Bamboo", conducted by ICI Student Chapter, Ramco Institute of Technology, on May 25, 2020.
- attended the webinar on "Self-Compacting Concrete in Skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.



#### Dr. B Mahalingam (contd.)

- ~ attended the webinar "An Introduction to AI", conducted by Dept. of Civil Engineering, SSN College of Engineering, Chennai., on May 21, 2020.
- attended the webinar on "Use of Online Resources in Teaching and Learning Process", conducted by Department of Chemistry, UkaTarsadia University Gujarat, on May 20, 2020.
- completed the two day online FDP on "R Programming", conducted by IIT Bombay and VIT Chennai, on May 14 and 15, 2020.
- ~ attended the webinar on "Concrete Cathodic Protection", conducted by Vector Corrosion Technologies, on May 11, 2020.
- ~ participated in the training program on "Introduction to ANSYS for Civil", conducted by Skyfi lab, on May 11, 2020.
- ~ attended the webinar on "Building Employability Skills", conducted by NITTR, Chennai, on May 11, 2020.
- ~ attended the webinar on "Achieving concrete through the use of mineral admixtures", conducted by ICI Bangalore Chapter and JSW, on May 8, 2020.
- ~ attended the one day workshop on "Recent advances in technology of concrete", conducted by IIT Madras and RILEM, on May 2, 2020.
- ~ attended the "Powerpoint Learning Session", conducted by HCL, Noida, on Apr 30, 2020.
- ~ attended the webinar on "Data, Analytics and AI Hot Hotter, Hottest", conducted by NPTEL, on Apr 29, 2020.
- ~ attended the webinar on "What Companies expect while hiring a candidate?", conducted by NPTEL, on Apr 28, 2020.
- ~ attended the webinar on "Technology in Education", conducted by McGraw Hill Education, on Apr 23, 2020.
- attended the webinar on "E-learning Demo", conducted by McGraw Hill Education, on Apr 13, 2020.

#### Dr. R Rajkumar

- ~ attended the webinar on "Flooring and Coating in Construction", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on Jun 24, 2020.
- attended the webinar on "Concrete Technology Past, Present and Future", organised by the Department of Civil Engineering, NIT Trichy on Jun 15-26, 2020.
- completed the two part "SIG Workshop: Geotechnical Analysis Working With 3D Deep Excavation in PLAXIS", conducted by Bentley Institute, in May-June 2020.
- participated in the 3 day national level online FDP on "Outcome Based Education, OBE-2020", on May 27-29, 2020, organized by Narasimha Reddy Engineering College, Hyderabad.
- ~ attended the webinar on "Case Studies on Repair and Rehabilitation of Structures", organised by Dept. of Civil Engineering, SSNCE on May 27, 2020.



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#### Dr. R Rajkumar (contd.)

- ~ attended the webinar on "Self-compacting Concrete for Skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- attended the webinar "From Structural to Geotechnical. Deep Foundations Analysis in PLAXIS 3D from a STAAD.Pro Model", conducted by Bentley Institute, in May 2020.

#### Dr. R Srinath

- ~ attended the webinar on "Water Quality Monitoring Sensors and Systems", organized by Global Waters on Jun 30, 2020.
- ~ participated in the "Virtual conference for the best minds in learning to reboot and redesign higher education in India", from Jun 24 to 26, 2020, organised by Ashoka University and The Republic of Letters.
- ~ attended the webinar on "Flooring and Coating in Construction", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on Jun 24, 2020.
- ~ attended the webinar on "How Dissolved Oxygen Sensors Work", organized by Global Waters on Jun 16, 2020.
- ~ attended the webinar on "Water Sampling Solutions", organised by Global Waters on Jun 8, 2020.
- ~ attended the webinar on "Environmental and Sustainable Development", organised by Vidyavardhaka College of Engineering, Mysore on Jun 5, 2020.
- ~ attended the webinar on "Computational Fluid Dynamics", conducted by Dept. of Mathematics, SSNCE, on Jun 4, 2020.
- ~ participated in the 3 day national level online FDP on "Outcome Based Education, OBE-2020", on May 27-29, 2020, organized by Narasimha Reddy Engineering College, Hyderabad.
- attended the webinar on "Self-Compacting Concrete in Skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- ~ attended the webinar on "Latest trends and technology in Green buildings", organized by the Indian Green Building Council, on May 15, 2020.

#### Dr. R Vijayalakshmi

- participated in the one week online Faculty Development Programme on "Application of Construction Techniques and Practices in Civil Engg. Industry", from May 25 to 31, 2020, organised by the Department of Civil Eng.g, Dr. N.G.P Institute of Technology, Coimbatore.
- attended the webinar on "Self-compacting concrete for skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.



#### Dr. R Vijayalakshmi (contd.)

- ~ attended the webinar on "Soft Computing in Civil Engineering Scopes and Benefits", organized by the Association of Civil Engineers, SSNCE on May 20, 2020.
- ~ attended the webinar on "Latest trends and technology in Green buildings", organised by the Indian Green Building Council on May 15, 2020.
- completed a Coursera course on "Learning How to Learn: Powerful mental tools to help you master tough subjects", offered by McMaster University and University of California San Diego.



#### Dr. S V Sivapriya

- ~ attended the webinar on "Maccafferi's Mining Solutions for India", organized by Maccafferi India on Jun 24, 2020.
- ~ attended the webinar "An Overview of Reinforced Soil Structures", organized by the Rajalakshmi Engineering College, Chennai on Jun 24, 2020.
- ~ participated in the online Faculty Development Programme on "Foundation Engineering", from Jun 23 to 25, 2020, organised by the Department of Civil Engineering, Saveetha Engineering College, Chennai.
- attended the webinar on "Regional Rapid Transit System in National Capital Region (NCR)", organized by Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on Jun 22, 2020.
- attended the webinar on "Development of Geosynthetics Reinforced-soil Structure for Japanese High-Speed Bullet Train Shinkansen", organized Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on Jun 8, 2020.
- ~ attended the webinar on "Improving the Performance of Flexible Pavement Structures", organized by Tensar International Ltd., UK on Jun 4, 2020.
- attended the webinar on "Challenges in the Geootechnical Investigations of Hydroelectric Projects", organized by Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on May 26, 2020.
- attended the webinar on "Self-compacting concrete for skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- ~ attended the webinar on "Case Studies on Geotechnical Failures", organised by the IGS (student chapter), SRM Institute of Science and Technology, Chennai on May 18, 2020.
- ~ attended the national workshop on "Significance of case studies in Geotechnical Engineering", conducted as part of the National Workshop on Recent Advances in Geotechnics for Infrastructure, by The Ramco Cements Limited on May 16, 2020.
- ~ attended the webinar on "Emerging Ground Improvement Techniques: Liquefiable Soils", organised by Genstru Consultants Pvt. Ltd., Pune on May 16, 2020.
- ~ attended the webinar on "Ground Improvement Techniques I", organised by Genstru Consultants Pvt. Ltd., Pune on May 15, 2020.



#### Dr. S V Sivapriya (contd.)

- attended the webinar on "Learning from civil engineering in the Harappan Civilisation", organised by Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on May 11, 2020.
- ~ attended the webinar on "Sustainable water resources manage Water scarcity to security", organised by the Alumni Association, IIT Delhi on May 9, 2020.
- attended the webinar on "Performance evaluation of backfill soils partially replaced with building derived material", organised as a part of the Indo-China Research Webinar Series in Civil and Environmental Engineering on May 8, 2020.
- ~ attended the webinar on "Response of different geo-materials subjected to cyclic loadings", organised by IGC, Guntur Chapter on May 7, 2020.
- attended the webinar on "Innovative Geosynthetic Applications in Hydraulic Structures", organised by Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on May 4, 2020.
- ~ attended the webinar on "Piles in soft clay-field experience", organised by IGC, Guntur Chapter on May 3, 2020.
- completed a Coursera course on "Learning How to Learn: Powerful mental tools to help you master tough subjects", offered by McMaster University and University of California San Diego.

#### Dr. Sangeetha P

- ~ participated in the one week online FDP on "Structural Health Monitoring and its Implications", organized by BMS College of Engg., Bengaluru, in association with Indian Society for Technical Education from Jun 15 to 19, 2020.
- ~ attended the webinar on "Impact of AI during Pandemic times", organised by McGraw Hill on Jun 4, 2020.
- attended the webinar on "New Innovations and material system for High Performance Concrete", organised by ICI-Bangalore Centre in Association with ACI-Malaysia Chapter on May 30, 2020.
- ~ attended the webinar on "Evolution of Machine Learning & Deep Learning", organised by ICI-Bangalore Centre in association with Don Bosco Institute of Technology and Curl Analytics, Bangalore on May 30, 2020.
- ~ attended the webinar on "Challenges in Concrete Technology", organised by ICI-Head Quarters Chennai with ICI Bangalore Centre on May 29, 2020.
- attended the three day national level online FDP on "Outcome Based Education, OBE-2020", organised by the Department of Civil Engineering, Narsimha Reddy Engineering College, Hyderabad, from May 27 to 29, 2020.
- attended the webinar on "Structural Health Monitoring in the Construction Industry Introduction & Business", organised by ICI-Bangalore Centre in association with Dr. TT Institute of Technology, Bangalore on May 21, 2020.



#### Dr. Sangeetha P (contd.)

- ~ attended the webinar on "Mathematics in Machine Learning", organised by Dept. of Mathematics, SSNCE on May 20, 2020.
- ~ attended the webinar on "Recent Developments in Remedial Engineering for Concrete Structures", organised by ICI-Bangalore Centre in association with SJ College of Engineering, Bangalore on May 14, 2020.
- attended the webinar on "Performance of High Strength Concrete", organised by ICI-Bangalore Centre in association with RV College of Engg., Bangalore on May 12, 2020.
- attended the webinar on "Achieving Sustainable Concrete through use of Mineral Admixtures", organised by ICI-Bangalore Centre in association with JSW Cement Ltd. on May 8, 2020.
- ~ attended the "One day Training Programme for NSS Programme Officers", at MIT Campus Anna University on Mar 5, 2020.
- completed a Coursera course on "Design thinking and innovation", offered by University of Virginia
- ~ completed a Coursera course on "AI for Everyone", offered by Deep learning.ai.
- completed a Coursera course on "Mechanics of Materials III", offered by Georgia Institute of Technology.
- completed a Coursera course on "Learning Leadership and Emotional Intelligence", offered by Indian Business School.

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#### Dr. Jijo James

- ~ attended the webinar on "Maccafferi's Mining Solutions for India", organized by Maccafferi India on Jun 24, 2020.
- ~ attended the webinar "An Overview of Reinforced Soil Structures", organized by the Rajalakshmi Engineering College, Chennai on Jun 24, 2020.
- attended the webinar on "Flooring and Coating in Construction", on Jun 24, 2020, organised by the Dept. of Civil Engineering and IEI (student chapter), SSN College of Engineering, Chennai.
- ~ participated in the online Faculty Development Programme on "Foundation Engineering", from Jun 23 to 25, 2020, organised by the Department of Civil Engineering, Saveetha Engineering College, Chennai.
- attended the webinar on "Regional Rapid Transit System in National Capital Region (NCR)", organized by Initiative for Geotechnical Research & Innovative Practices – IIT Gandhinagar on Jun 22, 2020.
- attended the webinar on "Project Management and Design Documentation", on Jun 16, 2020, organised by the Dept. of Civil Engineering and IGBC (student chapter), SSN College of Engineering, Chennai.
- ~ attended the webinar on "Pile Design and Construction Practices for Metro Projects", organised by Goa College of Engg., and IGS, Goa Chapter on Jun 15, 2020.



#### Dr. Jijo James (contd.)

- ~ attended the webinar on "Development of Geosynthetics Reinforced-soil Structure for Japanese High-Speed Bullet Train Shinkansen", organized Initiative for Geotechnical Research & Innovative Practices IIT Gandhinagar on Jun 8, 2020.
- ~ attended the webinar on "Improving the Performance of Flexible Pavement Structures", organized by Tensar International Ltd., UK on Jun 4, 2020.
- attended the webinar on "Ground Improvement and Pavement Stabilization Techniques for Road Embankments on Soft Soil", organised by Kerala Highway Research Institute on May 30, 2020.
- attended the webinar on "Fundamentals of Remote Sensing", organised by Mar Baselios Christian College of Engineering and Technology, Kerala on May 29, 2020.
- ~ attended the webinar on "Case Studies on Repair and Rehabilitation of Structures", organised by Dept. of Civil Engineering, SSNCE on May 27, 2020.
- ~ attended the webinar on "Mega Tunnel Projects", organised by Prayojana Construction Management Training Institute, Bengaluru on May 28, 2020.
- attended the webinar on "Self-compacting concrete for skyscrapers (A Malaysian Case Study)", organised by the Association of Civil Engineers and IEI (student chapter), SSNCE on May 22, 2020.
- ~ attended the webinar on "Emerging Ground Improvement Techniques: Liquefiable Soils", organised by Genstru Consultants Pvt. Ltd., Pune on May 16, 2020.
- ~ attended the webinar on "Emerging Ground Improvement Techniques: Expansive and Soft Soils", organised by Genstru Consultants Pvt. Ltd., Pune on May 15, 2020.
- ~ attended the webinar on "Analytical Study of Pore Water Pressure Distributions", organised as a part of the Indo-China Research Webinar Series in Civil and Environmental Engineering on May 11, 2020.
- ~ attended the webinar on "Quick Estimation of Foundation Settlement for Alluvial Soils", organised as a part of the Indo-China Research Webinar Series in Civil and Environmental Engineering on May 11, 2020.
- ~ attended the webinar on "Sustainable water resources manage Water scarcity to security", organised by the Alumni Association, IIT Delhi on May 9, 2020.
- ~ attended the webinar on "Response of different geo-materials subjected to cyclic loadings", organised by IGC, Guntur Chapter on May 7, 2020.
- ~ attended the webinar on "Testing of Cement and Concrete Durability and High Performance Aspects", organised by The Ramco Cements Limited on May 1, 2020.
- participated in the one day National Workshop on "Problematic Soils Mitigation and Case Histories", organized by the Dept. of Civil Engineering, Rajalakshmi Engineering College in association with Indian Concrete Institute and Institution's Innovation Council on Mar 5, 2020.



#### Ms. Sumetha R

- ~ participated in the one week online FDP on "Sustainable Smart Cities", organised by the Dept. of Civil Engg., Chennai Institute of Technology from Jun 15 to 19, 2020.
- ~ attended the leadership talk with Dr. Subrahmanyam, Secretary, Ministry of Social Justice and Empowerment, Chairman conducted by MHRD on Jun 13, 2020.
- attended the leadership talk with Dr. Pramod Chaudhari, Chairman, Praj Industries Ltd.
   and Dr. Abhay Jere Chief Innovation Officer, MHRD on May 16, 2020.
- participated in twelve online sessions to promote Innovation, IPR, Entrepreneurship and Start-ups among Higher Education Institutes conducted by IIC of MHRD's Innovation Cell from Apr 28 to May 22, 2020.
- completed the e-learning programme on "Measuring Instruments", organized by Tata Steel Capability Development.
- completed a Coursera course on "Learning How to Learn: Powerful mental tools to help you master tough subjects", offered by McMaster University and University of California San Diego.
- completed a Coursera course on "COVID-19 Contact Tracing", offered by John Hopkins University.



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#### **MODULAR BRIDGES**

Modular, prefabricated steel bridges, which were primarily used for temporary combat structures, are being considered in place of in-situ steel bridge construction to save construction time and costs in recent times. Bridge parts are manufactured in a facility and assembled onsite with minimum welding.

They are easy to assemble and built efficiently. Timing is especially important regarding bridge construction, since more than a quarter of all railway and pedestrian bridges across India have been deemed as "structurally deficient" or "functionally obsolete." Using steel as the primary material for short span bridges brings a host of benefits including reuse and recycling of scrap steel from construction demolition waste.





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# **EVENT UPDATES - NATIONAL CONFERENCE**

One day national conference on "Recent Advances and Innovations in Civil Engineering – RAICE – SSN 2020" was conducted on Mar 17, 2020. The conference was coordinated by **Dr. P Sreehari and Dr. B Mahalingam**.

Dr. R N Krishna, CEO, KC-CONTECH, Chennai inaugurated the conference and delivered a fascinating inaugural address on "Innovative materials in concrete consruction – Challenges and Opportunities". Keynote address was delivered by Dr. G Elangovan, HoD, University College of Engineering, Thirukuvalai.





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Papers for this conference were invited from all prospective authors including practicing engineers, academicians, research scholars and students. Papers were received in various fields of Civil Engineering from various parts of our country (Shiv Nadar University, Uttar Pradesh; Meenakshi Sundararajan Engineering College, Chennai; DCR University, Haryana; Bannari Amman Institute of Technology, Erode; Sona College of Technology, Salem; Panimalar Engineering College, Chennai; Jerusalem College of Engineering, Chennai; National Institute of Technical Teachers' Training and Research (NITTTR), Chennai). The conference served as a platform to share knowledge about the recent advances in civil engineering and also to initiate networking among the participants for the common good and development.

#### THE ROBOT THAT EATS CONCRETE

The ERO (short for erosion") robot proposes to use high pressure water jets to disassemble concrete, and then sucks all of the separate components – cement, sand, and aggregate – neatly into different packages for reuse. The prototype was designed by Omer Haciomeroglu, a student at Umeå Institute of Design in Sweden. With construction demolition waste estimated to pile-up in the coming decades, such an invention will promote sustainable reuse and recycle of the waste.





# **EVENT UPDATES - GUEST LECTURE - ACE**

A guest lecture for the benefit of the second and third year B.E. Civil Engineering students was arranged under the aegis of the Association of Civil Engineers (ACE) on Feb 11, 2020.

Mr. P K Sundaramoorthy, Vice President, Hunter Douglas, South-Asia delivered a lecture on "Concepts of urban and architectural planning". With his vast knowledge of leading a manufacturing company that supplies architectural products to major infrastructure projects, Mr. Sundaramoorthy was able to illustrate the principles and basic practices involved in urban planning and design. With this informative session, students gained valuable knowledge about the challenges and their role in urban and architectural planning.







# STUDENT CHAPTER OF ICE (UK)

The students of the Department of Civil Engineering came together under the guidance of Dr. N Sivakumar to induct a student chapter under the Institution of Civil Engineers (ICE-UK) with Dr. Jijo James as the faculty co-ordinator.

The Institution of Civil Engineers (ICE) is an independent professional association for civil engineers and a charitable body in the United Kingdom. Based in London, ICE has over 93,000 members, of whom three-quarters are located in the UK, while the rest are located in more than 150 other countries. ICE aims to support the civil engineering profession by offering professional qualification, promoting education, maintaining professional ethics, and liaising with industry, academia and government. Under its commercial arm, it delivers training, recruitment, publishing and contract services. As a professional body, ICE aims to support and promote professional learning (both to students and existing practitioners), managing professional ethics and safeguarding the status of engineers, and representing the interests of the profession in dealings with government, etc. It sets standards for membership of the body; works with industry and academia to progress engineering standards and advises on education and training curricula.

The aim of the student chapter is to promote the knowledge and understating on what is civil engineering and to help students gain the labyrinth of the ever evolving global industrial trends and practices. The induction programme was conducted successful after the students received the confirmation to induct the student chapter on Feb 5, 2020.

A formal inauguration of the Student Chapter was held on Mar 12, 2020. Mr. S Paulraj (Vice President, BGR Energy Systems) and Mr. Muthukumar Dorairaj (Chief Engineering Manager, L&T Construction), prominent members of ICE (UK), Chennai, graced the occasion and presented the ICE approval certificate to the Principal, SSNCE.



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The office-bearers of the Student Chapter are as follows:

• President - Vinothni S N (2017-21, B.E. Civil Engg.)

• Vice President - Kishore Kumar (2018-22, B.E. Civil Engg.)

• General Secretary - Janani (2017-21, B.E. Civil Engg.)

• Joint secretary - Jyothir Adithya (2018-22, B.E. Civil Engg.)

• Treasurer - Rebekah (2017-21, B.E. Civil Engg.)

• Assistant Treasurer - Vikram (2018-22, B.E. Civil Engg.)

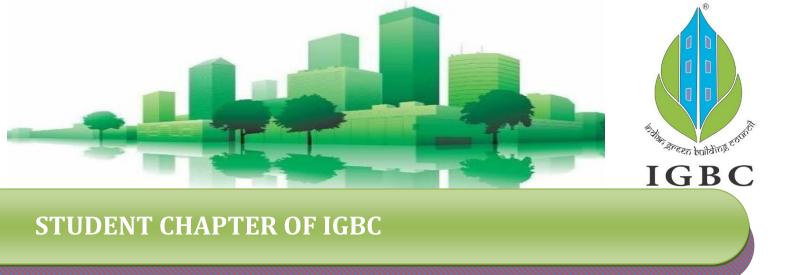
The formal inauguration was followed by informative discussion sessions with the two guests.

Mr. Muthukumar Dorairaj is currently the head of section of the civil and structural team with over 2 decades of experience in various fields. Mr. Muthukumar started his presentation on the topic "Leadership skills in civil engineering" by giving out 2 case studies, one was on the metro man of India, E Sreedharan on how he was assigned the task in completing the world famous Pamban bridge and also on how he was successful in designing and completing few stages of the Delhi Metro. The second one was on the Group Chairman of L&T, Mr. Anil Manibhai Naik, on how he started from scratch and how he ended up having a turnover of 141 crore rupees annually.

Mr S Paulraj spoke on "Professional development and why ICE?". He elaborated on the importance of ICE. He also gave us the ABCs of ICE: A-Activities to promote professional growth, B-Benefits of being a professional member and C-Competencies required for growth.

The students interacted with the two senior members of ICE, picking their brains on the challenges that lay ahead for a graduate civil engineer and how they should prepare themselves for the same.





SSN College of Engineering has been an honorary member of the Indian Green Building Council (IGBC), a CII initiative that aims to build an ecological India to promote the sustainable development in the built environment sector for a few years now. As part of this partnership, an "IGBC Student Chapter" has been established with Dr. Srinath Rajagopalan as the faculty mentor to spread awareness on Green Buildings amongst the student community and to ignite the idea of green in young minds. This association will primarily help to encourage and promote sustainability led initiatives amongst our students.

The Indian Green Building Council (IGBC), was formed in the year 2001 with the vision "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 council offers a wide array of services which include developing new green building rating programmes, certification services and green building training programmes.

As part of the student chapter activities, IGBC will provide students with literature such as newsletters, technical bulletins and reference guides of IGBC rating systems, for library reference and will also have visiting faculty educate students on related subjects.

The IGBC Student Chapter will benefit from activities such as:

- Training sessions for students
- Presentations and lectures by experts on Green Buildings
- Opportunities to participate in IGBC Events
- Internship opportunities for Students on Green Building
- Green Building Missions
- Design competition
- Participation in chapter meetings



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#### The office-bearers are as follows:

President - Anne Sherin A (2017-21, B.E. Civil Engg.)

• Vice President - J Nithyalakshmi (2018-22, B.E. Civil Engg.)

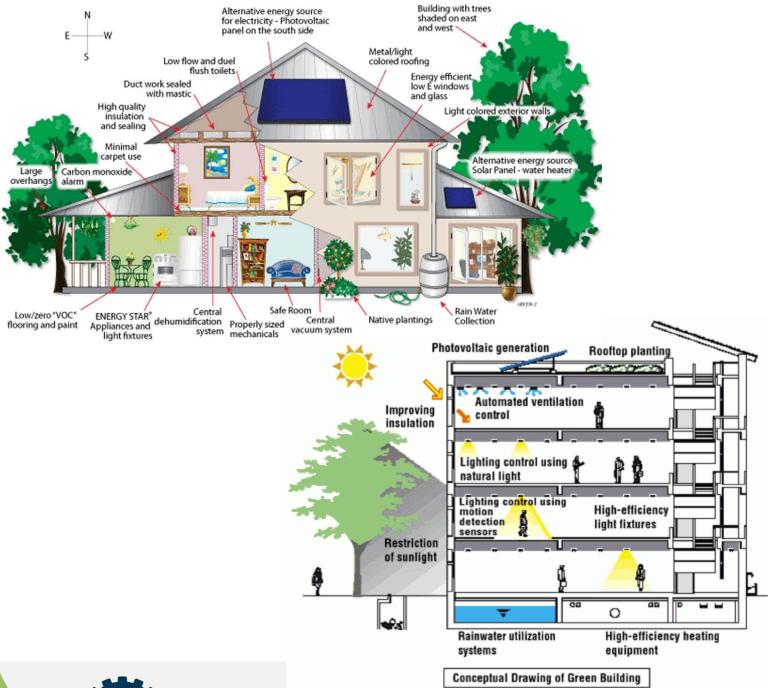
• Secretary - Sujitha Shrini G (2017-21, B.E. Civil Engg.)

• Additional Secretary - Prabhakaran P (2018-22, B.E. Civil Engg.)

Treasurer - Gopi T (2017-21, B.E. Civil Engg.)

Additional Treasurer - Vridi R Ahuja (2018-22, B.E. Civil Engg.)

Committee Member - Hrushikesh Ba J (2019-23, B.E. Civil Engg.)





# The Institution of Engineers (India)

# STUDENT CHAPTER OF IEI

The inauguration of the Student Chapter of the Institute of Engineers (IEI) was held on Feb 26, 2020 and was presided by Er. R. Ramdoss, Chairman, IEI, Tamil Nadu State Centre.

The Institution of Engineers (India) (IEI) is a statutory body to promote and advance the engineering and technology, established in 1920 and incorporated by Royal Charter in 1935. It is the largest multi-disciplinary professional body of engineers encompassing 15 engineering disciplines with a Corporate membership of over 2 lakhs, and serving the nation for more than 9 decades. It is imperative to note that the Institution of Engineers (India) is a pioneer body to introduce, starting from 1928, continuing engineering education programme, successful completion of which is recognized as equivalent to a degree in engineering by the Government of India, the Union Public Service Commission, the State Governments and many Public / Private Sector organizations in the country.

Dr. N Sivakumar received the certificate from Er. Ramdoss. Dr. B Mahalingam will serve as the faculty coordinator for the Student Chapter.





The benefits of being a member of the students' chapter are the following:

- Various technical events like seminars, industrial visits, group discussions, technical quiz competitions, workshops and model/ poster competitions will be organized throughout the year with sponsor and banner of IEI.
- An Annual Students' Convention with a Seminar on a topical subject and Technical Session
  will be conducted to provide a platform for presentation of technical papers and building
  fellowship and opportunities for networking with peers and senior members to the
  Institution.
- Opportunity to participate in technical events organized by various IEI centres at State, National and International levels at a concessional rate of 20%.
- Scholarships for selected student members will be given by IEI.
- R & D grants from IEI.

#### The office-bearers are as follows:

President - David Arunraj (2017-21, B.E. Civil Engg.)

Vice President - Yuvalatha (2018-22, B.E. Civil Engg.)

General Secretary - Achuthavarman (2017-21, B.E. Civil Engg.)

• Joint secretary - Shashankar (2018-22, B.E. Civil Engg.)

Treasurer - Sathishkumar P (2017-21, B.E. Civil Engg.)

Assistant Treasurer - Charumathi (2018-22, B.E. Civil Engg.)

• Core Committee - Yuvarani (2018-22, B.E. Civil Engg.)

• Committee members - Nivethitha K.S (2018-22, B.E. Civil Engg.)

- Sagaya Angelin shalini R (2019-23, B.E. Civil Engg.)

- Yashovardhan V (2019-23, B.E. Civil Engg.)

- Kartheeswaran J (2019-23, B.E. Civil Engg.)





## **EVENT UPDATES - WEBINARS**

Title : Soft Computing in Civil Engineering - Scopes and Benefits

Date : 20 May 2020

**Resource person**: Dr. Md Shabbir Hossain, Assistant Prof. (EGIS), Heriot-Watt University,

Malaysia

**Under the aegis of** : ICE (UK) Student Chapter

**Coordinator** : Dr. Jijo James & Dr. Sivapriya S V

The webinar covered the fundamentals of Artificial Neural Networks and its applications in civil engineering material behaviour, geotechnical and structural engineering. The webinar attracted more than 350 registrations from students, academicians and research scholars from India as well as from overseas.

Title : An Introduction to Artificial Intelligence

Date : 21 May 2020

**Resource person**: Dr. S. Sheerazuddin, Associate Prof., Dept. of Computer Science & Engg.,

**SSNCE** 

**Under the aegis of** : Association of Civil Engineers, SSNCE

**Coordinator** : Dr. Sivapriya S V

Dr. Sheerazuddin briefed the participants about the basic principles and concepts of Artificial Intelligence and explained the fundamentals with real-time examples. The participants comprised of students, academicians and research persons with more than 150 registrations from India.



Title : Self Compacting Concrete for Skyscrapers - A Malaysian Case Study

Date : 22 May 2020

**Resource person** : Dr. Jegathish Kanadasan, Manager - Business & Product Development,

BuildCon Concrete, Malaysia

**Under the aegis of** : IEI Student Chapter

**Coordinator** : Dr. Mahalingam B

The expert discussed the properties, applications and intricacies of SCC. The speaker also explained the problems in the pumping of concrete on skyscrapers and how to mitigate it with the help of viscosity modifying agent and other admixtures. This event attracted more than 200 registrations from India and Malaysia.

Title : Flooring and Coating in Construction

**Date** : 24 May 2020

**Resource person** : Mr. Abdilla Mauladda Wilkah, Manager, Flooring and Coating Product

Segment, Fosroc Asia, Malaysia

**Under the aegis of** : IEI Student Chapter

**Coordinator** : Dr. Mahalingam B

Mr. Wilkah briefed about industrial flooring and need for flooring and coating systems, especially highlighting the adverse effect of carbonation on reinforced concrete. The participants comprised of students, academicians and industry personnel with more than 300 registrations from India, Malaysia and Indonesia.

Title : Tips to Face Technical Interview

Date : 25 May 2020

**Resource person** : Prof. G Augustine Maniraj Pandian, SRM Institute of Science and

Technology, Kattangulathur

**Under the aegis of** : Association of Civil Engineers, SSNCE

**Coordinator** : Dr. Sivapriya S V

Mr. Pandian gave a time-tight session on basics of Civil Engineering where the students and academicians were the major participants with 110 registrations.



Title : Case Studies on Repair and Rehabilitation of Structures

Date : 27 May 2020

**Resource person**: Dr. S Geetha, Professor, Rajalakshmi Engineering College, Chennai

**Under the aegis of** : Association of Civil Engineers

**Coordinator** : Dr. Sivapriya S V

Dr. Geetha introduced students to the area of repair and rehabilitation. The speaker explained grouting with a live example and also explained step-by-step procedure of structure lifting. The participants comprised of students, academicians and industry personnel with more than 200 registrations.

Title : QA/QC in Construction

Date : 03 Jun 2020

**Resource person** : Er. S.G. Ashok Kumar, PMP, IGBC and Executive Director PCMTI

**Under the aegis of** : IGBC Student Chapter

**Coordinator** : Dr. Srinath R

The expert gave an elaborate talk about the responsibility of an engineer for ensuring the quality of the products and services offered by the company. The speaker also emphasised the need for QA/QC in the construction field, which motivated the students. The participants comprised of students and academicians with more than 230 registrations from India and overseas.

Title : Project Management and Documentation

**Date** : 16 Jun 2020

**Resource person**: Mr. Kumar Madaswamy, IIA Vice President, Project Architect, HKS, Dallas TX

**Under the aegis of** : IGBC Student Chapter

**Coordinator** : Dr. Srinath R

Mr. Madaswamy gave an elaborate talk on the importance of managing a project and the necessity of documentation. The speaker explained the content with related case studies which helped the participants better visualize and understand. The participants comprised of students and academicians with more than 200 registrations from India and abroad.



Title : Light Gauge Steel Frame Technology – A Talk on the Next Big Thing

Date : 18 Jun 2020

**Resource person** : Mr. Shahid Badshah, Business Head, Mitsumi Housing Pvt. Ltd., Mumbai

**Under the aegis of** : ICE (UK) & IEI Student Chapters

**Coordinator** : Dr. Jijo James

Mr. Badshah spoke about a novel and modern construction technology-based use of light gauge steel frames in construction of low to mid-rise structures. The participants comprised of students and academicians with more than 400 registrations.

Title : Acoustics as a Career: Exclusive Session on Acoustics and Noise Mapping

**Date** : 30 Jun 2020

**Resource person** : Dr. Francesca Remigi Senior Acoustics Consultant Jacobs, Croydon, South

London, U.K.

**Under the aegis of**: ICE (UK) Student Chapter in collaboration with Jain University, Bangalore

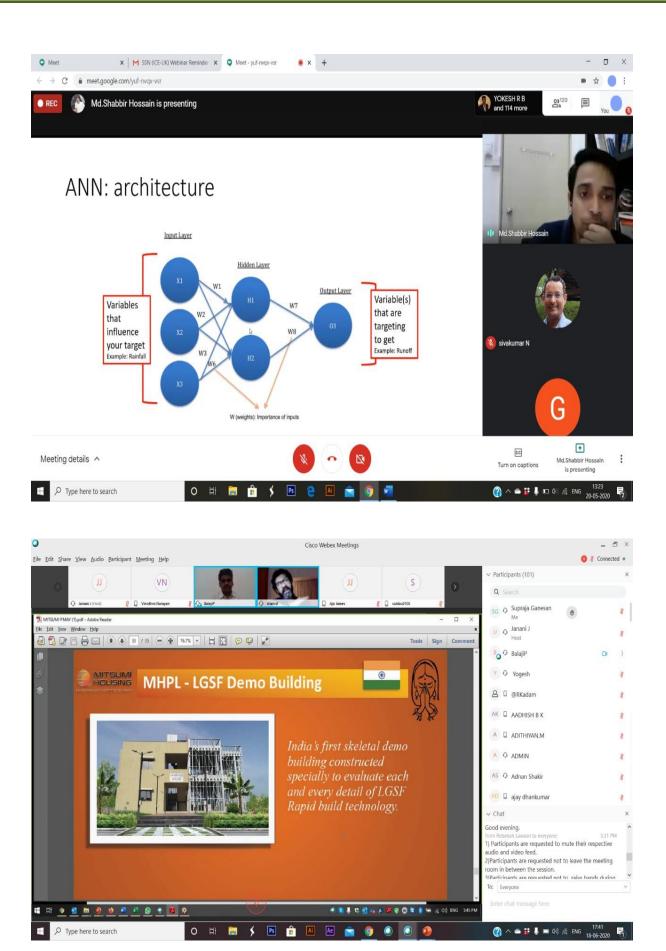
and KIIT, Bhubaneshwar

**Coordinator** : Dr. Jijo James

Dr. Remigi spoke about career prospects as an acoustics engineer dealing with the experiences of the speaker and projects describing methods and techniques adopted in noise mapping of urban localities. The participants comprise of students and academicians with more than 350 registrations across the world.

This is the first webinar as a part of the webinar series "My Life, My Passion".









# KRACIVA - THE FUN CLUB OF DEPT. OF CIVIL ENGG.

The department fun club "KRACIVA" was formally inaugurated on Jun 8, 2020.

This club will work to fulfil the following objectives:

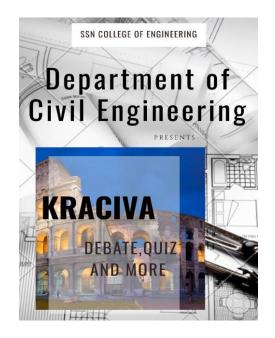
- To act as bridge between students of all years
- To organise debates and GDs on a weekly basis
- To conduct programmes to enhance student to student contacts as well as student to staff contacts within the department (one per semester such as model building, quiz etc.)

Patron : HoD

Coordinator : Dr. Sivapriya S V

Student Coord. : Priyadharsini Varma UM (2017-21, B.E.

Civil Engg.)





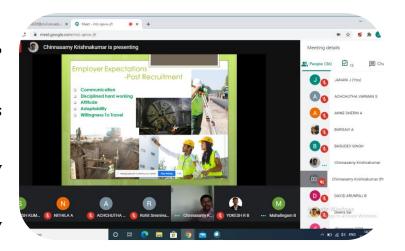


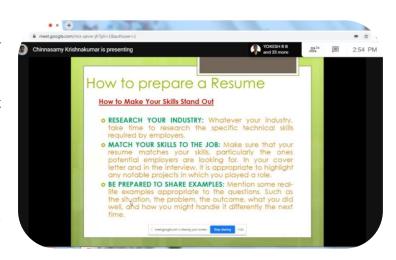
## **DOMAIN SPECIFIC PLACEMENT TRAINING**

Domain specific technical training for placement to third year students (2017-21, B.E. Civil Engg.) was conducted from Jun 8 to 23, 2020. In addition to sessions handled by our faculty expert talks were delivered by our alumni Mr. Sudesh, QA/QC Engineer, Truewood Interior Designers LLC, Dubai and Dr. C. Krishnakumar, Proprietor, SunGATEAcademi to help students prepare themselves to face the interviews and tackle competitive exams.

The sessions were as follows:

- Mechanics of Materials handled by Dr.
   S. Ramanagopal
- Surveying handled by Dr. Jijo James
- Structural Analysis handled by Dr. P
   Sangeetha
- Construction Techniques and Materials handled by Dr. R Vijayalakshmi
- Fluid Mechanics and Machinery handled by Dr. P Sreehari
- Transportation Engineering handled by Ms. R Sumetha
- Geotechnical Engineering handled by Dr. S V Sivapriya
- Environmental Engineering handled by Dr. R. Srinath
- Design of RC Elements and Brick Masonry by Dr. R Rajkumar
- Design of Steel Structures by Dr. B
   Mahalingam
- Construction Management by Mr.
   Sudesh
- Technical Questions in Interviews-Expectations and Preparation Strategy by Dr. C Krishnakumar







## **INNOVATION DAY**

The second edition of the SSN Innovation Day was inaugurated at the Justice Pratap Singh Auditorium by the Chief Guest Dr. Raj Reddy, Moza Bint Nasser University Professor of Computer Science and Robotics at Carnegie Mellon University, USA on Feb 8, 2020.

SSN Innovation Centre serves as a space for students to work on innovative ideas and projects with the theme "Walk in with an idea, Walk out with a product." Our students and faculty exhibited over 65 innovative projects on account of SSN Innovation Day.







## **ANNUAL PROGRAMME REVIEW**

Annual programme review was conducted to look into our programme by involving stakeholders, identify issues for improving the programme.

- An online Industry Advisory meet was conducted on May 14, 2020. Dr. B. Sivaram Sarma, Head R&D, Larson & Toubro Ltd, Dr. Balakumar, Senior Consultant, Simplex Piles Infrastructure Ltd., Dr. R. Senthil, HoD, Civil Engineering Dept., CEG, Anna University took part and gave their valuable suggestions. Dr. P. Sangeetha coordinated this programme.
- An online Alumni meet was conducted on May 15, 2020. Alumni across the five graduated batches in varied streams took part. Dr. R. Rajkumar coordinated this programme.
- An online Parents Meet was conducted on May 16, 2020. Parents of all the three year students participated in the programme. Dr. Jijo James coordinated this programme.

## **FAREWELL TO THE BATCH OF 2016-20**

An online farewell meet was conducted on May 25, 2020 for the batch of 2016-20 with all the faculty and students interacting after a long period.





## SENIOR-JUNIOR CHIT CHAT SESSIONS

In order to facilitate better and meaningful interaction between the students in the Department of Civil Engineering, Senior-Junior students interaction sessions are arranged regularly. This has enabled prolific discussion regarding a wide range of topics including academics, placements, securing internships, higher studies, co-curricular activities, etc.

- Ms.Kavya of final year had a chit chat session with second year students on Mar 14,
   2020 regarding internship opportunities and benefits.
- Ms.Manjula and Ms.Sruthi Reddy of final year had a chat session with second and third year students Mar 4, 2020 in their respective classrooms.
- Vishvaa R S and Madhumitha V of final year interacted with third years in Feb 2020, regarding higher studies.







## **GRADUATION DAY**

Our college celebrated its Twentieth Graduation Day on Friday, the 21st February. The Hon'ble Chief Minister of Tamilnadu, Dr. Edappadi. K. Palaniswami was the Chief Guest and delivered the Graduation Day address and distributed the degree certificates and medals to the graduands.







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## Rays of Sunshine amidst COVID-19

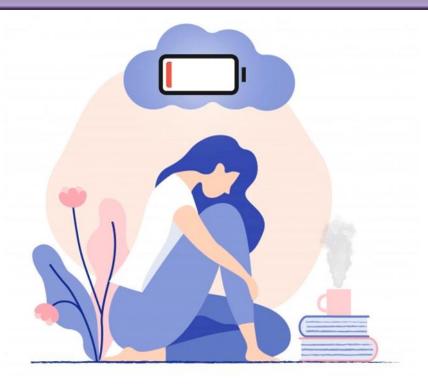
- Shrinidhi Ayyalusamy

Being a student is not quite easy with tons of assignments, projects and seminars peeking from the corners of your notebooks and needless to say, there is the pressure of exams mounting up the tension. Keeping track of these was itself a huge achievement but with the advent of the pandemic of Coronavirus, the nice little schedule we have formed has fallen hither and thither. As the virus has forced us back to our homes, it has thrown a new challenge for us to overcome and free ourselves from its grappling snare. So, how do you plan to tackle this situation?

We have always complained, at least for once that we are running out of time, haven't we? Each day new work piles up to the existing load and there never seems to be an end to it while you juggle between different roles and duties. Well, plenty of time is now at your disposal and all you have to do is gradually tick off the pending tasks and gain access to online learning. Stop bothering about the negativity that pervades in the air as we could exploit our chances to discoveries.

Just like the saying, "An idle mind is devil's workshop," we need to consistently nurture our minds with newfound hobbies and interests. The time has and never will be ever in our favour to dust off our inborn talents or discover new ones that we have never dreamed of. Let's paint our world like Picasso, scribble our thoughts like Anne Frank or give life to the reel characters in this time of adversity.





How often do we stride past the long corridors and winding stairs to mark our records or clear our doubts with the professors? Almost, every minute, right? While we are cooped inside our homes, the chances are nil that we amble past the rooms for any activity. So, it is necessary to stay physically fit by taking adequate steps each day. Instead of bothering our siblings to on/off the switch, why not try to stand up and stretch our legs by walking a few paces and planning a routine workout at our home?

Seeing that the current situation has defrayed our schedules, it is wise for students like us to adhere to keep notes of our tasks as the lack of it could easily deter us from the track and turn the world upside down. And adding to it, we should not overburden ourselves for it is delusive to roll on with the same vigor during this pandemic. But yes, just like the radiance of the splitting sunrise, if we tweak our lifestyle to accommodate these new changes, it would act as a carrier in these difficult times and fill the voids of drab with fresh and positive thoughts.

As students, we hold the key to indefinite answers that have sneaked up on the curious minds. Give it a little room for introspection in this COVID period and witness the emergence of novel ideas.

Alumnus **Shrinidhi Ayyalusamy** (B.E. Civil Engg. 2015-19) is currently pursuing her Master's Degree in Civil Engg. at Carleton University, Canada







## From College Student to a Global Volunteer

- Kavya Lakshminarayanan

It was just like any other day at office (AIESEC, Chennai) where I was assigned a job to call students whoever registered for an exchange program and pitch the product I was working for. As much as I remember I would have talked to around 15 to 20 people explaining how the organization works and benefits of going on an exchange. We used to show off our conversion rates to other departments of the organization. I came across one girl who was capable of convincing so many people to do this. Having a conversation with her made me realize that I should "Never convince people to do things I myself never dared to do". And that's when my thought of going on "an exchange" came to life.

The process alone turned out to be an extraordinary learning process. Be it visa processing, travel limitations, expenses, ticket booking, language, terminal maps and safety. I kind of became a travel agent within a month's time.

I still remember every little detail, vividly, the day I landed in Egypt. I had a coordinator named Kamal who came all the way to Cairo from Damietta which is around 200 kilometers. That probably was the scariest ride I ever have been.





It was the first time in a new country whose people speak a language (Arabic) that surprisingly seemed as if they were quarrelling (maybe it was just me). I ended up learning a few words as I had to converse with vendors. Looking back, I wish I had enjoyed that ride and interacted more.





I began my work as a site engineer, the very next day, in a startup in New Damietta which is around a 30 minute drive from my accommodation. I am grateful that we, as SSN students, have the privilege to carry out internal funded projects of our own and are given the freedom to chase what we believe in. If they had not encouraged, I don't know if I would have even thought of attending an internship in the first place.

I was in-charge of a residential building project which was being constructed using Flat slab Technique. Luckily, I had studied the very same concept the previous semester for my Design Project. My project guide always told me that I will understand the design better when I see it person. Not only did I understand the concept very well, I ended up teaching my co-workers certain aspects of the design. But it totally backfired when my manager made us design the entire building using SAP as a practice session. The very same turned out to be a wonderful learning experience.











I had one Brazilian and two Egyptians working alongside with me. The day of site visit used to be an interrogation session amongst the four of us. I got some peculiar questions, such as "How do you know English?"; "Why are you speaking a different language to your mother?"; "Why is your hair black & straight?"; "Why do some Indians eat non-veg while others don't?". These questions made me realize how diversified our environment is and how unique we ourselves are.









We used to get off during weekends (Friday & Saturday) during which AIESEC in Damietta and Cairo organized trips exclusively for the exchange students. That's when a real exchange experiences happened. Putting different nationalities into a single bus and listening to songs, dancing our own way, from talking about each other to world issues my time in Egypt flew faster than I could imagine.

It truly was one hell of an experience which is now etched my heart forever. I did not know education and fun could go hand-in-hand until I went on an exchange myself.

#### Lessons Learnt:

- An internship experience is a must for every engineer as it gives us insight to what we are actually dealing with.
- Never skip portions for semester exams. I remember skipping flat slabs for my semester exams but ended up studying it twice..
- It's important to keep updating our knowledge on both our subjects and world issues.
- If you think your classmate is your competition, I really am sorry to burst your bubble. Your classmates are your go-to people. While I was away, my classmates helped me stay updated. Vibe with your tribe.
- Regret is a stronger emotion. So get all the possible exposure while you still can.



A few words about AIESEC,



AIESEC [International Association of Students in Economic and Commercial Sciences] is a not-for-profit organisation completely run by youth. AIESEC is present in almost 120 countries and works effectively to provide young adults cross cultural leadership experience and volunteer exchange programs. They have three main products: Global Entrepreneur [GE], Global Talent [GT] & Global Volunteer [GV]. You don't need to be a member to go on an exchange. In case you want to work with AIESEC, there are two recruitment drives which will be published in their official website.

I really am grateful to SSN and AIESEC for giving me the nudge I required at the right time.

Kavya Lakshminarayanan IV year, B.E. Civil Engineering







My Biggest Fear

- Sweatha S

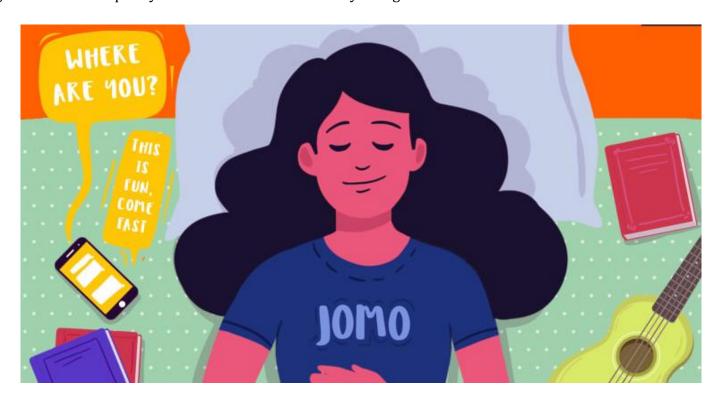
Fear is one of the most common human emotions. A feeling of fear can be brief or it can last longer, this completely depends on the individual and his/her attitude towards overcoming it. My biggest fear is the fear of being left out. This raises an immediate feeling of anxiety in my chest and creates a lot of emotional imbalance in my mind. I always feel the need to grab people's attention, but at the same time, I always feel I don't fit anywhere. Due to this attitude, I always have a reluctance to fully commit to someone.

It's always natural to want to be included wherever we go, it may look easy, but it is not. I always thought I was not cool enough. I was very shy, sensitive and felt awkward. This in turn reduced my self-confidence and people often think I'm rude. I faced a lot of issues due to this attitude. Toavoid these situations, I often try to make lot of friends but I really don't know how to initiate a conversation, but this doesn't mean I'm anti-social. I'm just listening and I love observing things in detail. I always end up with a small group of people who knows all my insecurities. I don't like to hang out with my friends at parties and malls, but I'd rather be home with a close friend. Social media always helped me to showcase myself, because it was much better than the reality.





This doesn't mean I'm an introvert, I love traveling and trying new things more often with my headphones plugged so that I can keep my experiences to myself without getting this feeling of being of left out. Even though I'm in a room full of people, I always feel alone. As we all know, there are two sides to a coin, this fear of being left out also helped to improve myself. This attitude actually makes me more empathetic. Many love to talk to me about their problems and insecurities because in this busy world it's very hard to find a person who listens to your lamentations, but I enjoy these emotional dramas because I get to have some quality time with them and share my thoughts with them.



I started accepting reality and I destroyed my self-pity with creative visualizations. Some stars will always stay alone in the corner of the sky but these stars won't leave you in the dark. My heart always craved for a person who can actually fill this emptiness but later I realized no one can really fill this void better than me because in the end, it's only you, all by yourself. To live without fear, we must first learn to live with it.

**Sweatha S** *IV year, B.E. Civil Engineering* 





Woken up by the roosters crowing, and sweet smell of crops ready for harvest...

Tired from the last night's merriment, but not enough to keep us bound to beds...

Joy kicks off with water fights while brushing...
Running wild, colourful baby chicks from us, and us from Granny and the milk...

Quick baths at the well,
shivering down our spine but with giggles all way...
'Shame shame puppy shame' a common phrase bursting around,
cheeks so red but not with embarrassment...
'Let's see who eats first' made eating too a game to earn Granny's praise...

Running amok on streets, teasing everyone passing by...
Games from dawn to dusk, playing till granny drags us back...

Forced to stay home, so that bogeyman doesn't take us...
Fed by granny under the starry night sky,
stomach full with warm food and lovely stories...
Retiring to beds with loads of happiness,
a typical day during the summers at Granny's...









# Advanced Course on 'Limit State Design Of Steel Structures as per Indian Code' at CSIR-SERC

- Janani

I had attended a course on "Limit State Design of Steel Structures as per Indian Code" organized by Council of Scientific and Industrial Research – Structural Engineering Research Centre (CSIR – SERC) under CSIR Skill Development Programme held between 12<sup>th</sup> to 14<sup>th</sup> February 2020.

The course started with a welcome address by the course coordinators Dr. P. Prabha, Senior Scientist, Steel Structures Laboratory and Dr. V. Marimuthu, Principal Scientist, Steel Structures Laboratory which was followed by the directorial address by Dr. Santhosh Kapuria, Director, CSIR-SERC.

The first session on day one was by Dr. M.B. Anoop, Senior Principal Scientist and Head of the Steel Structures Laboratory on 'Introduction to Limit State Design of Steel Structures as per Indian Code' where he had introduced the designed philosophies, comparison between Working Stress Method (WSM), Limit State Method (LSM) and Ultimate Load Design methods, uncertainties in design, concept of design strength and design load and future approaches in Limit State Design. The second session was by Dr. P. Prabha, Senior Scientist, Steel Structures Laboratory on 'Design of Tension Members' where she elaborated the properties of steel, types of structural steel and design of steel as a tension member as per IS 800:2007 Section 6. The third session was by Mr. A.K. Farvaze Ahmed, Senior Scientist, Advanced Materials Laboratory on 'Analysis and Design of Steel Column Bases' where he elaborated on base plate classification, column base loading, design methods namely Effective Area Method and Component Method. tension and shear failure in anchor.



During the afternoon session the team had organized lab visits at the campus. We visited the Steel Structures Laboratory (SSL), Fatigue and Fracture Laboratory (FFL), Advanced Seismic Testing and Research Laboratory (ASTaR) and Wind Engineering Laboratory (WEL).

The first session on day two was by Dr. V. Marimuthu, Principal Scientist, Steel Structures Laboratory on 'Compression Members and Interaction of Forces' where he discussed on failure modes in compression members with the help of steel column models, design of compression members as per IS 800:2007 Section 7, strength of practical columns and residual stress effects.



The second session was by Prof. S.R. Sathish Kumar, Indian Institute of Technology, Madras (IIT-M) on 'Introduction to Plate Buckling' where he introduced the basics of plastic theory, design of members subjected to bending as per IS 800:2007 Section 8, types of loads and lateral stability factors.

During the afternoon session we visited the Tower Testing and Research Station (TTRS), Tirusulam. Dr. Napa Prasad Rao, Senior Principal Scientist, TTRS explained about 'Influence of IS 800 on performance and design of towers'. The team also showed us the working of the station at the Control Room. We also visited the Test Pad, Transverse, Longitudinal and Vertical Ram Stations.







The first session on day three was by Mr. Nartu Manoj Kumar, Scientist, Steel Structures Laboratory on 'Design of Plate Girders' where he discussed on shear buckling in web and types of stiffeners with respect to Section 8 of IS 800:2007. The second session was by Dr. A. Cinitha, Senior Scientist, Steel Structures Laboratory on 'Performance of Steel Structures Under Fire and Corrosion' where she elaborated on Standard and Hydrocarbon fire curves, performance requirements for corrosion, forms and classification of corrosion, design considerations. She also quoted examples of her research at SERC where she worked with steel structures subjected to corrosion and elevated temperatures. The third session was by Mr. M. Saravanan, Senior Scientist, Fatigue and Fracture Laboratory on 'Seismic Performance and Ductile Design of Steel Structures' where he discussed on estimation of earthquake loads, seismic design according to Section 12 of IS 800:2007 and connections used. The fourth session was by Mr. M. Surendran, Senior Scientist, Steel Structures Laboratory on 'Fatigue Design of Steel Structural Components' where he elaborated on fatigue critical structures, fatigue life evaluation, fracture modes, inspection for crack growth and ways to repair fatigue in structures.

The last session for the day was by Mr. Ramesh Kumar, Scientist, SERC on 'Connections' where he discussed on types of connections and Section 10 of IS 800:2007. The day completed with a Valedictory function where the participants of the course where awarded with a certificate of participation and also were asked to share their experience on the course.

This course has indeed helped me understand the Indian Code of Practice IS 800:2007 and also the nuances of design of steel structures. The scientists at CSIR - SERC were extremely friendly and were always ready to clarify our doubts to enable us have a clear understanding on the topics covered.

Janani J III year, B.E. Civil Engineering







## STUDENT UPDATES – SKILL ENHANCING COURSES

Student	Year of Study	Course Title	Platform
Anne Sherin A	III year	Energy Efficiency - Acoustics and Daylighting in Buildings	NPTEL
		Design of Shallow Foundations	Udemy
Arulselvan S M III year		Successful Negotiations: Essential Strategies and Skills	Coursera
		Making Successful Decisions through Strategy, Law and	Coursera
		Ethics Model (enrolled)	
Ashwin S	III year	Artificial Intelligence	Accenture
S Gunalan	III year	Renewable Energy and Green Building Entrepreneurship	Coursera
Harika	III year	Maintenance and Repair of Concrete Structures	NPTEL
Madireddy		AutoCAD	Coursera
		Management of Smart Cities	Coursera
V. Haswanth	III year	Construction Project Management	Coursera
		Construction Scheduling	Coursera
		Construction Cost Control and Cost Estimating	Coursera
		Construction Finance (enrolled)	Coursera
Janani J	III year	GPS Surveying – SWAYAM, NPTEL	NPTEL
		Design of Reinforced Concrete Structures	NPTEL
Nithila A	III year	Career Guidance	TCSiON
		Python Programming (enrolled)	Udemy
		Financial Analyst (enrolled)	Udemy
Modhagapriyan A	III year	Microeceonomics (enrolled)	Coursera
Mugesh A	III year	Interpersonal Skills and Advanced English	NPTEL



Student	Year of Study	Course Title	Platform
Kamalesh R	III year	Introduction to HTML5	Coursera
		Introduction to CSS3	Coursera
		Interactivity with JavaScript	Coursera
		Advance Styling and Responsive Design	Coursera
		Initiating and Planning Projects	Coursera
		Introduction to Web Development	Coursera
		Machine Learning – BoltIOT (enrolled)	Coursera
		Data structures and algorithms (enrolled)	Coursera
		Managing Big data with MySQL (enrolled)	Coursera
		Applied Data Science with Python	Front-end
			web UI
		Oracle Cloud Infrastructure and Oracle Autonomous	Oracle
		Database	
		Fundamentals of Digital Marketing	Google
		Azure Cloud Computing	IITM &
			Verzeo
Madan Kumar	III year	How Things Work: an Introduction to Physics	Coursera
PD		Renewable Energy and Green Building	Coursera
		Fundamentals of Project Planning and Management	Coursera
		Business Analytics for Decision Making	Coursera
		Water resource management (enrolled)	Coursera
Madhan Kumar	III year	Teamwork Skills: Communicating Effectively in Groups	Coursera
D		(enrolled)	
		Work Smarter, Not Harder: Time Management for Personal	Coursera
		& Professional Productivity (enrolled)	
		Improve Your English Communication Skills (enrolled)	Coursera
		Excel Skills for Business: Essentials (enrolled)	Coursera
Nilesh K	III year	Making successful decisions through strategy,law and	Coursera
		ethics (enrolled)	
Priyadharshni	III year	Green Business Strategy	Coursera
Varma UM		Fundamentals of Project Planning and Management	Coursera
		Smart Cities - Management of Smart Urban Infrastructures	Coursera
Rebekah	III year	Global Environmental Management	Coursera
RubidhaLisha R		STAAD.Pro	Udemy
		IIT PAVE	Udemy



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Student	Year of Study	Course Title	Platform
Sathish Kumar P	III year	Improve your English Communication Skills	Coursera
		Programming for Everybody (Getting Started with Python)	Coursera
		Python Data Structures	Coursera
		Excel Skills for Business: Essentials	Coursera
		Successful Negotiation: Essential Strategies and Skills	Coursera
Sujitha Shrini.G	III year	Learning How to Learn	Coursera
		Write Professional Emails in English	Coursera
		Speak English Professionally (enrolled)	Coursera
		Introduction to Engineering Mechanics (enrolled)	Coursera
		Mastering bitumen for better roads and innovative	Coursera
		applications (enrolled)	
Supraja.G	III year	Adobe After Effects	Udemy
Sushritha.G	III year	Artificial Intelligence	Coursera
		BIM Modeling	Coursera
		Digital Marketing (enrolled)	Coursera
		AutoDesk Practise BIM (enrolled)	Coursera
M.Vaishnavi	III year	Leadership and Emotional Intelligence	Coursera
		Design Thinking for Innovation	Coursera
		Mindset: Breakthrough Obstacles to Learning and Discover	Coursera
		your Hidden Potential (enrolled)	
Varshini.B	III year	Maintenance and Repair of Concrete Structures	NPTEL
		Management of Smart Cities	Coursera
Vinothni.S.N	III year	Planning & Design of Sanitation Systems and	Coursera
		Technologies	
		Managing Building Adaptation: A Sustainable Approach	edX
		Circular Economy - Sustainable Materials Management	Coursera
		Renewable Energy and Green Building Entrepreneurship	Coursera
		Construction Management Specialization	Coursera
		Basic Statistics along with Basics of R programming	Coursera
		Virtual Experience Program by John Holland	Insidesherpa
Sabarish S	IV year	Construction Management Specialization	Coursera
		Six Sigma Yellow Belt Specialization	Coursera
		Problem Solving with Excel	Coursera
		Data Visualization with Advanced Excel	Coursera
Kavya L	IV year	Introduction to Digital Marketing	Coursera



Student	Year of Study	Course Title	Platform
Gokul Krishna J	IV year	Fundamentals of Project Planning and Management	Coursera
Sai Likitha	IV year	Programming for Everybody (getting started with python)	Coursera
Krishna R			
Ramasamy S M	IV year	Engineering Project Management: Initiating and Planning	Coursera
Deveshwar K	IV year	Artificial Intelligence for Everyone	Coursera
		Google Analytics for Beginners	Google
		BIM Fundamentals for Engineers	Coursera
		Design Thinking for Innovation	Coursera
Grandhe	II year	Introduction to Sustainability and Development	Coursera
Vishnu Prathap		Artificial Intelligence for Everyone	Coursera
		Introduction to HTML5	Coursera
		Initiating and Planning Projects	Coursera
		The Fundamentals of Digital marketing	Google
		Create a Resume and cover letter with Google docs	Google
		VR and 360 Video Production	
		Smart Cities	Open Learning
		Earthquakes	Open Learning
Thendral S	II year	Feminism and Social Justice	Coursera
		Speak English Professionally: In person, online & on the	Coursera
		phone	
P G Vikram	II year	Probability and Statistics: To p or not to p	Coursera
		Speak English Professionally: In person, online and on the	Coursera
		phone	
Vridi R Ahuja	II year	Digital Marketing	Coursera
Hari Priya R	II year	Energy Efficiency for Young Professionals	Coursera
Sidharath Shah	II year	Negotiation skills	Coursera



### STUDENT UPDATES - ACTIVITIES

#### Anne Sherin A, III year

- attended webinar on Seismic Design of Building on 13 May 2020 organized by S.A. Engineering college
- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Special Concrete for Special Structures on 08 May 2020 organized by ICI
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Construction of Building using Green Concepts on 26 May 2020 organized by Easwari Engineering College
- participated in the online workshop on Revit Architecture on 9 & 10 Jun 2020 organised by Easwari Engineering College
- participated in the online workshop on 3D building Printing technology on 18 to 23 May 2020 organized by Easwari Engineering College
- participated in the online workshop on BIM conducted by Anna University and L&T on Mar 5, 2020
- Won 2<sup>nd</sup> place in the CAD Protrayal Competition organised by Shri Vishnu Engineering College for Women in Jun 2020
- Participated in the CAD Drafting Competition organised by Akshaya College of Engineering and Technology in May 2020

#### Ashwin S, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering
- participated in E-quiz on Artificial Intelligence and Robotics by AVC College of Engineering in May 2020
- participated in the online Math Quiz by K. Ramakrishnan College of Technology in May 2020
- participated in the event on Arduino programming by Kongu Engineering College in May 2020
- participated in the national level online quiz by University College of Engineering Nagercoil in May 2020

#### Balaji A K, III year

• represented the dance crew of our college SSN N2K and secured 1<sup>st</sup> place in VIT Vellore, CIT Chennai, MIT, Saveetha University and 2<sup>nd</sup> place in SRMIST, Hindustan University



#### Barath P, III year

• participated in All India Inter University Squash Tournament in Manipal institute of Technology in Feb 2020.

#### David Arunraj B, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering
- attended webinar on Introduction to AI on 21 May 2020 organized by SSN College of Engineering
- attended webinar on Case Studies on Repair and Rehabilitation of Structures on 27 May 2020 organized by SSN College of Engineering
- attended webinar on Flooring and Coating in Construction on 24 May 2020 organised by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering
- attended webinar on Approach towards Civil Service Examination on 19 May 2020 organised by Sri Venkateshwara College of Engineering
- attended webinar on Building Random Forest Model on 14 May 2020 organised by Codegnan IT solutions
- attended webinar on Data Visualization with R Language on 15 May 2020 organised by Codegnan IT solutions
- attended the workshop on Advances in Civil Engineering for Sustainable Environment at Easwari Engineering College
- participated in E-quiz on Building Materials and Concrete Technology conducted by Arulmigu Meenakshiamman College of Engineering
- participated in the Virtual Assessment on Awareness about Alternative Fuels Research conducted by AVIT
- participated in E-quiz on Finite Elements Analysis conducted by AISSMS college
- participated in E-quiz on Composite Construction conducted by Mohamed Sathak Engineering College
- participated in E-quiz on Building the Future conducted by AVC College
- participated in E-quiz on Building Materials and Surveying conducted by Meenakshi College of Engineering
- participated in E-quiz on Geotechnical Engineering conducted by St. Joseph's College of Engineering



#### Dhinagaran M, III year

- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering
- participated in E-quiz on Building Materials and Surveying conducted by Meenakshi College of Engineering

#### S Gunalan, III year

participated in E-quiz on CETQ conducted by Mohamed Sathak Engineering College

#### Harika Madireddy, III year

- attended webinar on Project Management and Design Documentation on 16 Jun 2020 organised by SSN College of Engineering
- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering

#### Hariraj M J, III year

- attended webinar on Introduction to AI on 21 May 2020 organized by SSN College of Engineering
- attended webinar on Case Studies on Repair and Rehabilitation of Structures on 27 May 2020 organized by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun2020 organised by SSN College of Engineering
- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering

#### M. Harish Kumar, III year

- represented SSN College in the Revels '20 (Manipal Institute of Technology) and won laurels in Mar 2020.
- represented SSN College in the Breeze '20 (Shiv Nadar University) and won laurels in Feb 2020.

#### V. Haswanth, III year

- represented SSN College and won the SVCE Football Rolling Trophy
- attended webinar on Project Management and Design Documentation on 16 Jun 2020 organised by SSN College of Engineering

#### Madan Kumar P D, III year

participated in the online AutoCAD contest by Jai Shriram Engineering College



#### Janani J, III year

- attended the following webinars conducted by Geomax Positioning Systems in Apr & May 2020
  - 1. Photogrammetry Introduction and Basic Concept
  - 2. Satellite Systems and Frequencies
  - 3. X-PAD Fusion Webinar From Drawing to Plot
- attended the webinar on AutoPlotter General Applications conducted by Infycons Creative Software Private Limited, Bangalore on 22 Apr 2020
- attended the webinar on Ground Penetrating Radar and Cable Route Locators organised by Asian Contec Limited, New Delhi on 30 Apr 2020
- attended the following webinars conducted b Mar Baselios Christian College of Engineering & Technology in May 2020
  - 1. Sandwich Panels in Civil Engineering
  - 2. Air Pollution Health Effects and Exposure Assessment
  - 3. Recent Trends in GIS
  - 4. Water Quality Analysis A Case Study
  - 5. Fundamentals of Remote Sensing
  - 6. Sustainability in Civil Engineering
- attended the following webinars conducted by Sri Venkateswara College of Engineering, Chennai in May & Jun 2020
  - 1. A Deep Insight into Light Weight Concrete (Science, Technology and Applications)
  - 2. Basics of Precast Construction and Technology
  - 3. Introduction to Post-Tensioned Concrete Structures
- attended the webinar on Mega Tunnel Projects conducted by Prayojana CMTI, Bangalore
- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering
- attended webinar on Introduction to AI on 21 May 2020 organized by SSN College of Engineering
- attended webinar on Case Studies on Repair and Rehabilitation of Structures on 27 May 2020 organized by SSN College of Engineering
- attended webinar on Flooring and Coating in Construction on 24 May 2020 organised by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering



- completed the Advanced Course on Limit State Design of Steel Structures conducted by Structural Engineering Research Centre - Council of Scientific and Industrial Research (SERC-CSIR), Chennai in Feb 2020
- attended the workshop on Buried Pipe and Cable Locators conducted by Asian Contec Limited, Bangalore in Jun 2020
- attended the workshop on Aerial Surveying and Mapping using Drone Technology conducted by Mepco Schlenk Engineering College in Jun 2020
- undergoing an internship with Infycons Creative Software Private Limited, Bangalore related to AutoPlotter Software for Mapping
- as part of the SSN Classical Dance Team, won the 1st place in the Eastern Choreonite organized by SRM Milan 2020, SRM University

#### Madhan Kumar D, III year

- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- participated in E-quiz on Finite Elements Analysis conducted by AISSMS college
- participated in E-quiz on Composite Construction conducted by Mohamed Sathak Engineering College
- participated in E-quiz on Building Materials and Surveying conducted by Meenakshi College of Engineering
- participated in E-quiz on CETQ conducted by Mohamed Sathak Engineering College

#### Monika P, III year

- attended webinar on Contracts Management Overview conducted by Prayojana CMTI Engineers & Construction professionals on 19 Jun 2020
- attended webinar on Pre- Contracts Management conducted by Prayojana CMTI Engineers & Construction professionals on 20 Jun 2020
- attended webinar on Quantity Surveying- An Employment Perspective conducted by Prayojana CMTI Engineers & Construction professionals on 18 Jun 2020
- attended webinar on Case Study- Repair & Retrofitting of Structures conducted by Prayojana CMTI Engineers & Construction professionals on 15 Jun 2020
- attended the webinar series on Civil Engineering Applications conducted by Panimalar Engineering College from 18-20 Jun 2020

#### Nithila A, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Introduction to AI on 21 May 2020 organized by SSN College of Engineering
- attended webinar on Case Studies on Repair and Rehabilitation of Structures on 27 May 2020 organized by SSN College of Engineering

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- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering
- attended webinar on Being Employable in Construction Industry conducted b ICI on 18 May 2020
- participated in E-quiz on Finite Elements Analysis conducted by AISSMS college

#### Rebekah Rubidha Lisha R, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Flooring and Coating in Construction on 24 May 2020 organised by SSN College of Engineering
- attended webinar on QA/QC in Construction on Jun 3, 2020 organised by SSN College of Engineering

#### Shalini Devi M, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended 5 days webinar 5 days webinar on QS & Contracts Management conducted by Prayojana Institute of Construction Management in Jun 2020
- participated in Equiz on Foundation Engineering by KL University on 22 Jun 2020
- participated in Equiz on Hydraulics and Hydraulic Machines by KL University on 23 Jun 2020

#### Sujitha Shrini G, III year

- participated in E-quiz on CETQ conducted by Mohamed Sathak Engineering College
- participated in E-quiz on Building Materials and Surveying conducted by Meenakshi College of Engineering

#### Supraja G, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended Madrasters Short talks Webinar on Zodiac Series in May 2020
- attended Vaathi On Live SPI Strategy Sessions in May & Jun 2020
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering



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#### Sushritha G, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering
- attended webinar on BIM in Geotechnical Engineering organized by ICE Hong Kong
- bagged a virtual internship in Insidesherpa John Holland Learning about Railways, Building and Construction

#### Umar Rashid, III year

• secured an internship with Google

#### Varshini B, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Project Management and Design Documentation on 16 Jun 2020 organised by SSN College of Engineering

#### Vinothni S.N, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering

#### Yokesh R B, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Project Management and Design Documentation on 16 Jun 2020 organised by SSN College of Engineering

#### Deenadayalan G, III year

- attended webinar on Alumni Talk T20 Life After College Campus organised by PERI Institute of Technology on 13 Jun 2020
- participated in the digital online Covid-19 Quiz organized by National Service Scheme in Jun 2020
- participated in E-quiz on Artificial Intelligence and Robotics by AVC College of Engineering in May 2020
- participated in E-quiz on CETQ conducted by Mohamed Sathak Engineering College



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#### Gopi T, III year

• attended the webinar series on Civil Engineering Applications conducted by Panimalar Engineering College from 18-20 Jun 2020

#### Krishnakumar V, III year

• National silver medalist in Taekwondo

#### T Rajarajan, III year

- attended webinar on Soft Computing in Civil Engineering on 20 May 2020 organized by SSN College of Engineering
- attended webinar on Tips to Face Technical Interview 25 May 2020 organised by SSN College of Engineering
- attended webinar on Self Compacting Concrete for Skyscrapers on 22 May 2020 organised by SSN College of Engineering
- attended webinar on Introduction to AI on 21 May 2020 organized by SSN College of Engineering
- attended webinar on Case Studies on Repair and Rehabilitation of Structures on 27 May 2020 organized by SSN College of Engineering
- attended webinar on Flooring and Coating in Construction on 24 May 2020 organised by SSN College of Engineering
- attended webinar on Light Gauge Steel Frame Technology on 18 Jun 2020 organised by SSN College of Engineering
- attended webinar on Project Management and Design Documentation on 16 Jun 2020 organised by SSN College of Engineering

#### Vishnu Kumar S, III year

• participated in the Covid-19 Pandemic 'Building the Future' quiz organized by AVC College of Engineering, Nagapattinam on 13 May 2020

#### Blessy J, II year

• attended a webinar on Relaxation Techniques for Stress Management

#### Charanya S, II year

participated in the Environment Quiz conducted by SNS College of Technology

#### C K Suma Abivandhya, II year

- attended a webinar on Friendly Use of Fenton's Oxidation in Wash and Wastewater Management for Covid 19 Virus
- attended a webinar on Damage Plasticity Model to Simulate Ballistic and Dynamic Loads
- attended a webinar on Quantity Surveying An Employment Perspective



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- attended a webinar on IoT Applications in Smart City and Construction Industry
- attended a webinar on Leadership for Project Managers in Difficult Times of Covid 19
- participated in the E-Quiz on Hydraulics and Hydraulic Machines conducted by KL University
- participated in the E-Quiz on Water Resources Engineering by Dr. JJ Magdum College of Engineering, Maharashtra
- participated in the E-Quiz on Fluid Mechanic by KL University

#### Hari Priya R, II year

- attended a webinar on Repair and Rehabilitation of Bridges
- attended a webinar on Design of Flexible Pavements using IRC Specifications
- participated in the E-Quiz on Fluid Mechanics by KL University
- participated in the E-Quiz on Geotechnical Engineering by KL University

#### Lalith Venkatesh, IV year

internship as marketing analyst at Klentyindia Pvt Ltd.

#### Amrutha U, IV year

Internship with Charis Constructions



# STUDENT UPDATES - PLACEMENT

Ahalya S	TCS
Aparna P Vijay	TCS
Manjula R	TCS
Sweatha S	TCS
Swarna Varshini	TCS
Amrutha U	ACC RMC
Hema Naga Sri Pushpa Swetha	ACC RMC
Sajid Ali	ACC RMC
Nithish C N A	ACC RMC
J Gokul Krishna	L&T
Babu S	L&T
Bijivemula Sruthi Reddy	Wood
Sai Likitha Krishna	Wood
Deepika A	Infosys
Kishore	Infosys
K Deveshwar	TechnipFMC
Lalith Venkatesh	Pick Your Trail
Madhumitha	Pick Your Trail
Sasitharan P	Federal Bank
Sudhakar V	Valued Epistemics Pvt. Ltd.
Vishnu Vardhan	Friscone Group
P Umakanth	Cognizant
K. Mukeshwaraa	Byjus

