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# FISAT- ICI STUDENT CHAPTER ANNUAL REPORT 2023



**DECEMBER 29, 2023**

**Department of Civil Engineering  
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# Add on course on Waterproofing and Insulation

13 February 2023

The department has taken up a new initiative this semester - provide add on courses to students by associating with reputed Industry and training organisations. The main objective is to make the students industry ready and improve their employability. The inaugural function of the Add on Course on "Waterproofing and Insulation" was held on 13th February in the department seminar hall. The course is offered in association with SIWIN and CIDC from 13th to 27th February 2023.

The target audience of the add on program is the students of the final year B.Tech program. The course intends to introduce the students to the domain of water proofing and insulation, focus on the importance of it and the various methods and procedures practiced in the Industry.



The inaugural function saw quite a few professional from the Industry, including Mr. Sudhish M S - Director, SIWIN, Er. Babu Varghese, Director of Projects, Lulu Group, Er. Ramachandran Menon, Principal Consultant, Menon Associates, Er. SRC Nair - Guest Lecturer in CUSAT & VP of Kunnel Engineers and Contractors Pvt Ltd, Mr. Sunilkumar,

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Managing Director, Asset Homes Pvt Ltd. and Dr.Priya Ranjan Swarup - Director General - CIDC (through online). It was a great opportunity for students to interact with them.

The speakers emphasized on the need to understand the relevance of waterproofing and also gave an insight into the course contents and its relevance in the current scenario. They shared their experience while working in the industry and difficulties caused by the leaks and other maintenance issues after the construction of a building. They also encouraged the students to utilise the opportunities given to them to make themselves industry ready.

## Civil FISAT @ Manorama Parpidam Exhibition

20 February 2023

The students of the department participated in the model making competition at "*Parpidam*" Build Expo organised by Malayala Manorama and LENSFED from 18-20 Feb 2023.



The event was a platform to exhibit the innovative materials and construction techniques. The students from the department participated in the modelling competition organised as part of the exhibition. The theme for the competition was Muziris.

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The five member team from fourth semester comprising of Mr. Rehan N, Mr. Mohammed Ali, Mr. Nandagopan P Joshy, Ms. Nandhana Prasad and Ms. Thesna P created a the model of Kizhthali Siva Temple, Kottappuram. They also made a two minute presentation on the significance and history of the temple.

The event was an opportunity for the students to interact with the construction world and to experience the importance of being a civil engineer.

## **Tetrapods @ Chellanam**

04 March 2023

*Chellanam* is the costal village in the district of *Ernakulam*. During the past few years, the sea shore near *Chlleanam* has witnessed erosion. To mitigate this threat, the *Kerala* state government has come out with a project - construction of seawall using tetrapods along the stretch between *Chellanam* harbour and *Puthanthodu*. Tetrapods are being laid on 2.5m foundation of granites and a height of 6.1m from the sea level.

The aim is to complete the construction of the 7.3m long sea wall before April 2023. The work is progressing very fast and ULCC is engaged in the manufacturing of tetrapods based on the study conducted by NCCR (National Centre for Coastal Research). The project is supervised by Anti Sea Erosion Project Management unit under the irrigation department.



The students of sixth semester B.Tech had a chance to visit Chellanam on 4 March 2023. The visit was organised in association with ICI Kochi Chapter. The visit was amply supported by Er.Ashwin , AE - Irrigation Dept, Er. Sajith J P, Er. Shyju Nair from ICI and the engineering team from ULCC. The team gave a complete walk though of the project and explained the various stages of construction in detail.



Students got an opportunity to see the moulds used for casting of tetrapods, the process of casting, compaction using needle vibrators and rubber hammer. They could also get to see the process of lifting, transporting and placing the tetrapods in the seawall. The aggressive nature of the marine environment demands special care in the selection of materials, maintaining quality of construction and design of the mix.



Transporting and lifting using cranes also requires planning since the tetrapods are unreinforced. Any small ignorance in the process can lead to failure of the section. It was also interesting to understand the reason behind the shape of tetrapod. The visit was a great opportunity for the students to get a first hand experience of a large project, the various aspects of managing it in an aggressive marine environment.



The student team from FISAT was accompanied by Dr. Kavitha P E, Ms. Rinu J Achison, Ms. Beena B R, Mr. Jawahar Saud S and Mr. Sreerath S.



# ICI Ultratech Awards

21 February 2023

Indian Concrete Institute (ICI) Kochi Centre conducted its annual award ceremony this year on 21 February 2023 at Crowne Plaza Kochi. This high profile event was sponsored by Ultratech and attracted the members from Industry as well as academia. This was one of the largest event of ICI this year and saw a long list of professionals from the field of construction industry. Though it was an award ceremony, the violin concert and musical extravaganza at the start set a great mood for the evening.



In addition to announcing the awards, an invited lecture on the topic “Improvements in Concrete Processing Leading to 3D Concrete Printing” by Prof. Kollur V.L.Subramanian,

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IIT Hyderabad was also organised as a part of the event. The talk was very informative and brought out the significance of Self Compacting Concrete and its applications in the field. The significance of 3D Concrete Printing and its numerous promising applications in the future was also elaborated by the speaker.

From ICI, the Awards were convened by Dr Anil Joseph (Chairman of ICI Kochi Centre), Dr Job Thomas (Secretary of ICI Kochi Centre), Er. Shyju Nair (Treasurer ICI Kochi Centre), Er. Sajith Bhaskar (Regional Head Technical Services Ultratech Cement Ltd) and Mr Ani George (Regional Head Marketing Ultratech Cement Ltd).

The ICI FISAT Students Chapter was among the five nominations under the category of “Best Students Chapter” in Kerala. AISAT won the award this time. There were also other awards in different categories like Best M.Tech thesis, Outstanding Concrete Engineer, Best Commercial Building, Best Residential Building with sub categories. There was also on display a Virtual Reality walk through which was a unique experience.

Dr. Kavitha P.E., Ms Neeraja Nair, Afrin Mubarack and Catherine Joby of the ICI FISAT student Chapter attended the award ceremony.

The most exciting and a big surprise was to meet out alumni during the event. We had a great time meeting and interacting with them. The sumptuous dinner followed, we had big trouble choosing from the long array of dishes.

It was indeed a day well spent, meeting and interacting with the people from Industry and gave us a great networking opportunity..





## Professional Ethics - Invited Talk by Er. Mathews David

27 April 2023

"If you've got the confidence and the work ethic, you can make any dream come true."  
- Bret Hart

Our ASCE & ICI student chapter organised an invited talk today, 27 April, on the topic "Professional Ethics" by the Mr. Mathews David, who is the practitioner advisor of our ASCE student chapter. He has extensive experience in the Management, Preparation, Review and/or Supervision of Review in the Design, Rating, Modification and Rehabilitation of Highways, Bridges, Culverts and other transportation related structures in the USA. The session was a highly informative and insightful discussion on the importance of ethics in the workplace.

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Mr. David started his talk with an introduction to the concept of ethics and its importance in professional life. He emphasised that ethical behaviour is not just a matter of personal choice, but it is also a requirement of professional conduct. He explained that the ethical behaviour of an individual can have a significant impact on their organisation's success and reputation.



The talk also covered various aspects of ethical behaviour, such as honesty, integrity, responsibility, and fairness. Mr. David explained that these values are essential in building a strong foundation of ethical behavior in the workplace. He also gave several real-life examples to illustrate the importance of ethical behaviour in various scenarios.

Ms. Mariam Jumana, S2 CE, welcomed the gathering and introduced the speaker. Dr. Jiji Antony, HoD, Dr, Mini P R, Dean, spoke on the occasion. Both of them congratulated the student coordinators of the event Mr. Sivaraj, S6 CE, Ms. Nandana S, S6 CE and Mr. Aravind S Kumar, S4 CE for organising the event and the choice of the topic. Amna Fathima, S2 CE proposed the vote of thanks. John Shaju, Ginto Pauly Loveson and Abel Cherian Georly all from S2 CE also volunteered and contributed to the success of the event.

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The audience was inspired and asked several questions. Mr Mathews provided valuable insights and practical tips based on the real life experience. The event was a very engaging and the attendees were inspired and motivated.



## ICI Student Chapter – Inauguration

12 April 2023

Our department has been a lifetime member of Indian Concrete Institute (ICI) since 2014. Yesterday, on 12 April, we officially inaugurated the ICI Student Chapter with 38 student members.



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The chapter was inaugurated by Dr Anil Joseph, Chairman of ICI Kochi Centre and Managing Director of Geostructurals Private Ltd. In his inaugural address, he encouraged the students to work in the core stream of Civil Engineering and to be a part in modernizing the construction practices. An engineer with vast experience in handling large projects across the world, Dr Anil was very eloquent about the opportunities for young engineers in building the country. He shared his dream of making India a dream destination for people to visit iconic structures.

The meeting was also attended by Dr Elson John, Vice Chairman, ICI Kochi Centre and Head of Department, MA College of Engineering, Kothamangalam. He also encouraged the students to utilize every opportunity they get to be exposed to the trends of the industry.

The meeting was attended Mr. Shimith P R, Chairman, Governing body FISAT, Dr Manoj George, Principal and Dr. Mini P R, Dean Academics. Dr. Jiji Antony, HoD welcomed the the gathering and emphasized the importance of being a part of professional bodies. Certificates were also handed over to the student members during the event.

Dr. Kavitha P E and Ms. Rinu J Achison are the Faculty coordinators of the student chapter at FISAT and Mr. Abhishek Rajesh Nair and Ms. Catherine Joby are the students coordinators.

The inaugural session was followed by two keynote lectures. Dr. Anil Joseph discussed on the latest construction practices across the world and sustainability. He also spoke on incorporating virtual reality in Civil Engineering and on the upcoming area of BIM. Dr. Elson John gave a brief insight on the present and future of Concrete and the Special types of concrete.



The sessions were well received by the students of BTech and MTech and the department looks forward to organizing more such events in collaboration with ICI Kochi chapter with the aim to bridge the industry Institute gap and improving the employability of students.

# ETABS - Two day hands-on training

25-26 April 2023

ETABS is an engineering software product used for multi-storey building analysis and design. ETABS is the abbreviation of “Extended 3D Analysis of building system”. The software can be used to analyse simple or complex systems under static or dynamic conditions. A two days hands on training on ETABS was conducted on 25th and 26th of April 2023 for First year M.Tech (SECM) students. The sessions were handled by Prof. Sujisha V, Head of the department, Civil Engg., Jai Bharath College of Management and Engineering Technology.

The training covered the various aspects of modelling, analysis and design of structures using the software. Since it was a hands on training, every student got an opportunity to try the modelling, analysis and design process along with the resource person. A standard two storied building was modelled step by step and analysed. Adding beams, columns, slabs, sunshades, water tank, stairs were all discussed. After modelling, the structure was analysed with all the loads and designed. The most common errors and how to handle it were also discussed in detail.



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The hands-on training was really good and beneficial. Prof. Sujisha made sure that the students understood each step while carefully explaining each one. She also patiently waited for us to practice the steps and assisted in clearing everyone's doubts. The session concluded by giving feedbacks and thanking Prof. Sujisha ma'am for the wonderful class.



## **SECON'23 - International Conference**

7-9 June 2023

It was yet another proud moment for our department, the annual conference SECON'23 was held 7th to 9th June 2023 in hybrid mode. This was the seventh edition and the fourth international edition of SECON.

This year, the conference was inaugurated by Dr Albert Thomas, Assistant Professor, Construction Technology and Management, Department of Civil Engineering, IIT Bombay. The inauguration ceremony was presided by Mr Shimith P R, Chairman of governing body of FISAT. The event was graced with the presence of Mr Sachin Jacob

Paul, Vice Chairman of governing body of FISAT, Principal Dr Manoj George, Vice Principal, Dr P R Mini, Head of the Department. Dr. Jiji Antony and members of Professional bodies like Dr. Vijayakumar K, Chairman, ISTE Kerala Section, Er. P A Salahudheen FIE, Chairman, IEI Kochi Local Centre, Dr. Elson John, Vice Chairman, ICI Kochi Centre, Er. Jolly Varghese, State Chairman, BAI.



Around 400 abstract submissions and 150 full paper submissions were received for the conference. From which selected 94 papers presented in the three day conference in 5 different parallel sessions. The selected papers will be published in Lecture Notes in Civil Engineering, Scopus indexed Springer publication.

Five keynote sessions by eminent speakers across the globe catalyzed the glory of the conference. Dr. Albert Thomas Assistant Professor, Department of Civil Engineering IIT Bombay presented the topic Academia and Industry collaboration towards Sustainable construction.



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Dr R Sathish Kumar Professor and Dean School of Construction and Technology, NICMAR, Hyderabad delivered a keynote on Green building concepts and Sustainable construction practices.

Prof. Moncef L. Nehdi Professor and Chair Department of Civil Engineering, McMaster University, Canada discussed the topic "Doing it right when no one is looking" : Needed paradigm shifts for sustainability and quality in construction.



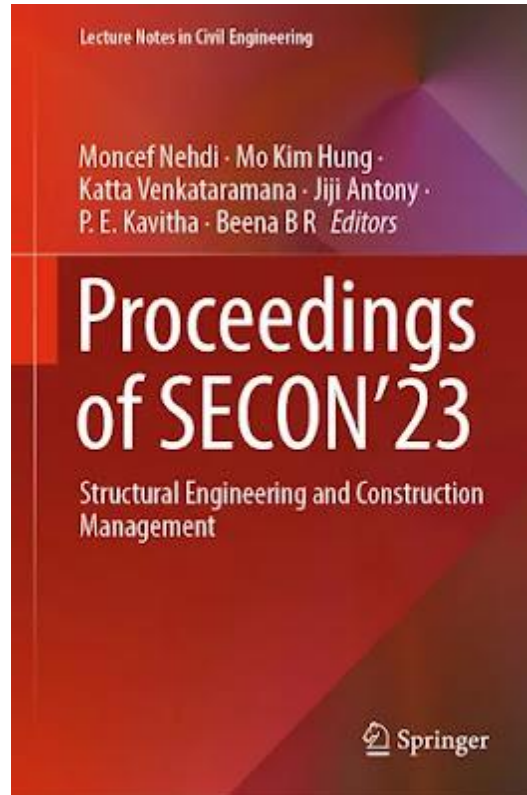
Dr Sharath S Assistant Professor, Faculty of Engineering, Institute of Ocean Energy, Saga University, Japan presented Emerging Technologies in Ocean Renewable Energy - Towards a Carbon Free Society.

Prof Mohammad Najafi Director - Centre for Underground Infrastructure Research and Education & Dr. Vinayak Kaushal Assistant Professor of Instruction Department of Civil Engineering The University of Texas at Arlington, Texas, USA delivered a lecture on Environmental Impact Assessment of Trenchless Cured-in-Place Pipe Renewal Method for Sanitary Sewer Applications.

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The conference came to an end with a valedictory function on 9th June. Along with the FISAT team, the presence of session chairs and authors made the programme a special.

The paper id 201 Experimental Evaluation of Structural Properties of Circular Scrap Tyre Pad (CSTP) Base Isolator authored by Asif Basheer and Ancy Mathew and paper id 254 Characterisation of Pyro-oil Modified EVA and SBS Bitumen using Variation in MSCR Test authored by Nikita Bhagat were selected as best papers in the conference.



## Hands on Training in Q-GIS

5 August 2023

Our department conducted a two-day hands-on training in QGIS on 4th and 5th August 2023. The training program aimed at providing participants with the knowledge and skills necessary to use QGIS, a free and open-source geographic information system,

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for spatial analysis and data visualisation. The program targeted MTech students and BTech Honours students along with interested faculty members.

The resource person for the two day intensive training program was Er. Bibin Hezakiel V, a GIS Analyst. Er. Bibin was very dynamic and energetic and brought his real world knowledge and experience to create truly enjoyable and enlightening all day sessions. Ms Abhiya Abbas Mundol, our faculty member who is also an expert in GIS tools assisted Mr. Bibin equally enthusiastically and made sure that we stuck to the schedule to complete the work.

During the training, participants were introduced to the basics of QGIS, including its interface, tools, and capabilities. The training covered the basics of QGIS, including data handling, vector and raster analysis, map production, and spatial analysis. The hands-on nature of the workshop enabled participants to gain confidence in utilising QGIS effectively, exploring the potential of geospatial data in solving complex problems.



**The training was well-received by participants, who appreciated the opportunity to learn about this powerful tool and its potential applications in their work. They even requested for another training!**

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# Waterproofing and Insulation - Add on course

26 September 2023

After the remarkable success of the add-on course on Waterproofing and Insulation and its excellent placement outcomes in the 2023 passout batch, the department decided to do a rerun of the course to final year students for the current academic year as well. The Inauguration of the add on course was held on September 26, 2023. This add on is conducted in association with SIWIN. The course aims to equip civil engineering students with practical skills and knowledge in the domain of waterproofing and insulation. Mr. M S Sudhish, Director and Ms. Bijimol Prajul, CEO of SIWIN gave a very detailed insight into the various aspects of waterproofing and insulation in the construction industry and job opportunities in the domain during the inauguration and the session that followed.

The event began with a formal inaugural session, which included a brief introduction by Dr. Jiji Antony, the Head of the Department, welcoming Mr. Sudhish, Ms. Bijimol and the attendees.



**M S SUDHISH**

## TECHNICAL SEMINAR WATERPROOFING & INSULATION

IT'S JOB OPPORTUNITIES FOR  
CIVIL ENGINEERING STUDENTS



Federal Institute of Science And Technology  
Hormis Nagar, Mookkannoor P O, Angamaly,  
Ernakulam Dt. Kerala, India, Pin - 683 577

**FRIDAY 08/09/23**  
10.30 AM to 11.30 AM

- ➔ Co-founder and Ex- Whole Time Director of Nina Percept Pvt.Ltd, India's largest Waterproofing Services Company.
- ➔ Managing Director of Percept Waterproofing Services Limited, a group company of Pidilite Industries Ltd.
- ➔ National head of designs & specifications wing of Dr.Fixit - India's largest waterproofing brand.
- ➔ Member of waterproofing sub-committee of Bureau of Indian Standards



[www.siwinonline.com](http://www.siwinonline.com)

Ms. Bijimol started the session with an engaging presentation on the fundamentals of waterproofing and insulation. She explained the critical role these practices play in maintaining structural integrity and energy efficiency in modern construction. Later, Mr. Sudhish, who is founder of SIWIN detailed about their mission and their role in promoting expertise in waterproofing and insulation across India.



A significant focus of the session was on the promising career opportunities for civil engineering graduates in the field of waterproofing and insulation. Mr. Sudhish shared success stories of SIWIN alumni and discussed the wide range of job prospects available, emphasizing the growing demand for skilled professionals in these sectors. The presentation highlighted the market trends, projected growth, and emerging opportunities, giving students a sense of the industry's future.

To illustrate the practical application of waterproofing and insulation, Mr. Sudhish presented various real-world examples and case studies from projects in India. These case studies offered an in-depth look at how waterproofing and insulation technologies were employed to solve construction challenges.

The seminar concluded with a lively Q&A session where students and faculty had the opportunity to engage with Mr. Sudhish and seek clarification on various aspects of waterproofing and insulation.

The event successfully concluded at 11.30 AM with a vote of thanks delivered by Ms. Rinu J Achison.