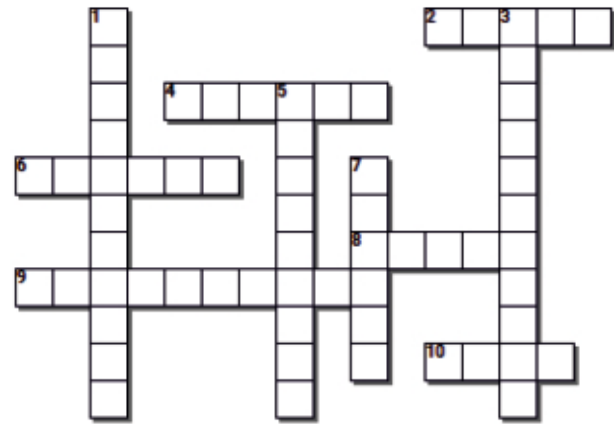


CROSSWORD



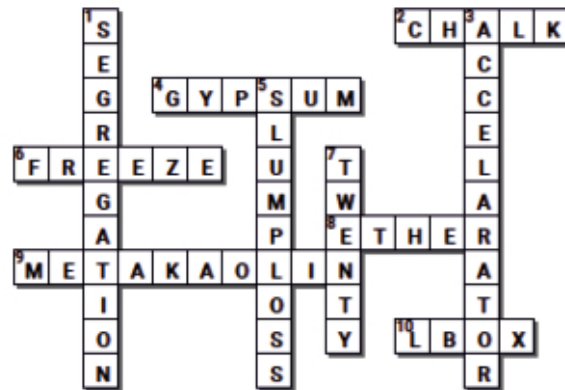
Across

2. The water proofing admixture which act as inert pore fillers
4. The most commonly used admixture which prolongs the setting and hardening time is
6. The air entraining admixture improves the resistance of concrete against
8. super plasticizer is which is widely used for self compacting concrete
9. which is added to make white concrete
10. The passing ability of SCC in lab can be determined by_____test

Down

1. separation of coarse aggregate from mortar during transportation in known as
3. To permit earlier removal of formwork _____ admixture is added to the concrete
5. The fresh concrete mixes with silica fume are prone to _____
7. the maximum size of aggregate for SCC is limited to _____mm

Solution



SONA COLLEGE OF TECHNOLOGY
Learning is a Celebration!

Convenor : Dr. R. Malathy, Ph.D.
Dean(R&D), HoD/Civil
Co-ordinator: Prof. M. Arivoli
Chairman: M. Vanmathi
Secretary: R. Srihari
Joint Secretary: S. Anand
Treasurer: A. Rasheeda Fathima
Office Bearers
K.Kaviya | Janani Paranthaman |
S.Monisha | A.Ravidass |
L.M.Mustaffa | M.Nandhini |
DHA.Mythra | M.Jeyashri
A.P.Nithyanandhan | P.Kavina
A.Haneefi | R.P.Kanishka

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

To enable the students,

PEO 1: To perform their/duties efficiently, effectively and ethically at individual level and also at group level in a multidisciplinary team, contributing to the welfare of the society.

PEO 2: To analyze data and technical concepts pertaining to the development of infrastructure, design, sustainability, construction management and any other related field of civil engineering.

PEO 3: To adopt new innovative technology by continuously updating their knowledge through life-long learning achieving personal and organizational growth.

SONA CREA

Fifteenth Issue | January 2020



DEPARTMENT OF CIVIL ENGINEERING



Dr. S.R.R. SENTHIL KUMAR
Principal

I am exhilarated in establishing the eleventh issue of the magazine "SONA CREA" of our Civil Engineering Department, which is a reference of the most recent trends and activities in construction field. This magazine should be a good source of guidance for faculty and coming batches of students in choosing activities of their choice in their future for building their careers.

I appreciate the efforts of the Editorial team who have done an excellent job in compiling activities over the semester and disseminate them through this Magazine as well as on the website.

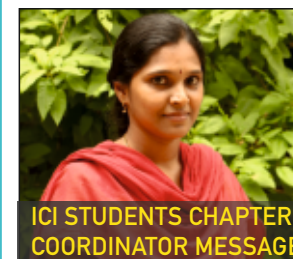
I am glad to welcome students with more interest in bringing the article with more bright concepts and innovative ideas in the next issue. I wish them to experience victory in all of their future endeavours.



HOD'S MESSAGE

Dr. R. MALATHY
HoD / Civil

Convenor/ ICI Student Chapter



ICI STUDENTS CHAPTER COORDINATOR MESSAGE

M. ARIVOLI

AP/ CIVIL | ICI Students Chapter Coordinator

This issue marks the eleventh issue of our Newsletter SONA CREA, that aims to keep our students past and present updated about the happenings at our Civil Engineering Department.

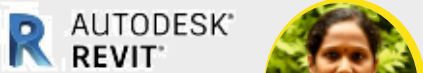
This newsletter will feature updates about our programs, articles, success stories from our students and faculty members, event information as well as research activities. We have particularly designed the newsletter also as a platform for the students to update their knowledge in civil engineering and to expose their talents with us. Therefore, I humbly encourage all of you to make use of this platform to remain active and vibrant. Let me reiterate that we welcome all contributions from faculty members and students so that we can make this newsletter a place for our collective voices.

VISION & MISSION OF THE DEPARTMENT

To become a school of excellence that brings out civil engineers with high technical competencies and promotes high-end research to meet the current and future challenges in civil engineering.

- MD1 :** To offer Under-Graduate, and Post-Graduate programmes in civil engineering and other skill development courses that adds value to student competencies
- MD2 :** To promote quality education, research and consultancy for industrial and societal needs
- MD3 :** To inculcate moral and ethical values among the students
- MD4 :** To impart knowledge with emphasis on the development of leadership qualities in students
- MD5 :** To provide state-of-the-art resources that contribute to a congenial learning environment
- MD6 :** To encourage students to pursue higher education and take competitive exams and various career enhancing courses.
- MD7 :** To establish centres of excellence in emerging areas of research
- MD8 :** To have regular interaction with industry and offer solutions to their problems.

BIM: AUTODESK REVIT – TO CIVIL ENGINEERS



Ms. A. Meenachi
Assistant Professor/CIVIL

Building Information Modeling (BIM) is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals and the industry the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure and thus benefit in projects in terms of money and time by efficient planning and reducing the errors in all stages of construction.

Autodesk has developed Revit as building information modelling software for architects, landscape architects, structural engineers, mechanical, electrical, and plumbing (MEP) engineers, designers and contractors. It is a very powerful collaboration tool between different disciplines in the building design sphere. The different disciplines that use Revit approach the program from unique perspectives. Each of these perspectives is focused on completing that discipline's task.



A Glimpse of BIM tools

Autodesk Revit includes three modules namely Architecture, Structure and Service Systems (MEP) and as required many public and private sector industries have started using building information modeling (BIM) component in new construction projects.

Revit MEP is extensively used in large buildings like shopping malls and commercial buildings, services/ systems need to be provided namely three systems – Mechanical, Electrical and Plumbing (Revit MEP) for the comfort of the users and the easy maintenance of the buildings. It starts from the architect with approved plan (Revit Architecture) and structural engineer (Revit Structure) designed for the plan and then for the system and services. About the building system, it will be either load bearing or framing system or a combination of both. In either model, the system services need to be run through a common duct outside the building and access to each floor. In that case the plumbing and electrical lines need to take care that it not clashing. These services will run either on the base of the floor or on the bottom of the ceiling called plenum. Maximum of 2 feet provision is considered in the building floor itself for these services to run and to be executed.

The projects vary from providing services/ systems to existing buildings, renovated buildings or the new buildings. In detail, it starts from the requirement of the client which includes all the scope of the



An REVIT MEP model for a multistory building

services to be provided to them. The output of the service is drawings along with the backup load calculations.

The mechanical portions covers the air conditioning system which in turn calculates the heat and cooling load calculations according to the geographical location of the building and the codal provisions need to be followed for the comfort of the users adding the client requirements. The electrical part covers the lighting fixtures, transformer requirement, fire alarm systems and the earthing provisions. The plumbing portion covers the supply of domestic water, hot water, natural gas (some cases) and collection of drainage water and storm water.

Plumbing, in detail is deciding the sizes (diameter) of the pipes and the slope the drainage pipes need to be carried and to be connected with the common duct. The supply pipes will supply water (cold/ hot) under pressure and will be perfectly vertical and mostly follow International Plumbing Code (IPC) and in India follow National building Code (NBC).

A complete knowledge about Building information modeling

flowchart and work process and REVIT as a tool will help the undergraduate civil engineering students to possess skills for better employment.

LUCIDITY OF AR AND VR IN AEC- an Overview

As the technology continues to mature and become adopted, it paves way for many advanced technology in almost every field like Agriculture, Education, Construction, Medicine etc...



Akkalesh
II - BE (Civil)

One such field which synchronized its growth and career is, AEC technology (Architectural Engineering and Construction).

The construction job site is changing day-by-day. Paper drawings, sketches, and design plans paved way to technologies like drones, 3D models, IOT, AI, Augmented Reality and Virtual Reality and few others. By these technologies construction industry will achieve its utmost goals and make it better compared to other fields. We are going to discuss about the technology which includes Visualization, customization, Cost and Time saving. One such construction technology is Virtual reality and its sibling technology augmented reality, shortly known as VR and AR.

Augmented Reality

Augmented reality is an interactive experience of a Real

world environment where by the objects that reside in the real world are augmented by computer generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, somato-sensory, and olfactory. While this technology has been used in video games for years, this “augmented” experience is creating an impact in construction; it also offers immense opportunities to improve the project lifecycle. By combining digital and physical views, augmented reality is helping construction team to drive them more efficiently, accurately, and it creates overall confidence in their projects. The AR global market is expected to grow \$90 billion by 2020. Rather than replacing workers on the field, AR can be used to greatly enhance the ways humans and digital machines work together.

Devices used in AR

- Handheld Devices like smartphone
- Smart glasses
- Holographic displays
- Head Mounted displays

Benefits of Augmented Reality

- Increased Productivity
- enhanced decision making,
- reduced time development,
- improved outcomes,
- real-time inspection,
- increased productivity,
- earlier flaw detection,
- cost save

Applications of Augmented Reality used in AEC industry:

Augmented Reality applications can provide a more accurate view of what will be built, including all layers of materials and installations that are often complex to understand through drawings. For this, 3D plans and even virtual model holograms are used to improve the understanding of the project and facilitate the execution of projects. And even during construction, the ability to see through walls and understand the path of the technical installations facilitates the process, reduces the possibility of errors, and even guides the construction of complex geometries.

The Applications which are popularly used in construction are:

- Augment,
- Morpholio AR Sketch walk,
- DAQRI smart helmet,
- Measure Kit,
- Fologram
- Gamma AR,
- Waking App,
- Arki,
- Dalux build

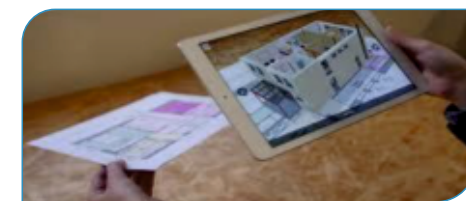


Fig.1. Augment



Fig.2. ARki

Virtual Reality

Virtual reality sometimes referred to as “IMMERSIVE MULTIMEDIA”, is a computer simulated environment that can simulate physical presence in places in Non-physical world (or) imagined world. Virtual reality can recreate sensory experiences, which include virtual taste, sight, smell, sound, and touch. VR can also greatly benefit the client by being able to experience the project in a virtual realm, enabling them to review the design and decide whether it meets their requirements. Small details can be picked up on that might be overlooked in a traditional computer-aided design (CAD) model or with Building information modelling.

Benefits of VR In AEC

Increase sales, Decrease cost i.e., you can save money, Time saving, Improve collaboration, Communicate design more effectively, Discover and correct design problems, Better Perception, Safety ahead, Raise the creditability of your design, Unleash your creativity.

Devices of Virtual Reality in AEC Industry

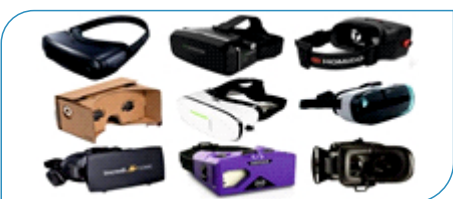


Fig.3. HMD's of VR



Fig.4. Hand Held VR's

Product Demo in Virtual Reality

- Immersive: Prospects see the entire product in front of them.
- Interactive: Prospects control the demo by interacting within the demo.
- Memorable: Prospects receive an experience not a cookie cutter pitch.
- Measurable: Get insights to align marketing efforts close deals like never before.

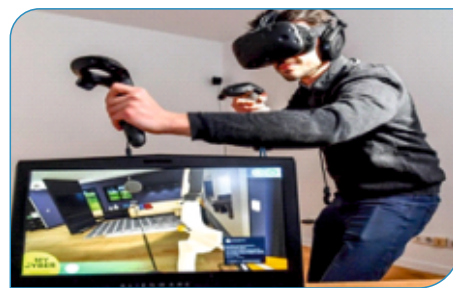


Fig.5. VR Experience

Conclusion

At the time of writing, AR and VR were not ready for widespread implementation and there will be considerable time before it becomes available for the average construction worker. However, AR and VR are capable of much and there exist out-of-the-box solutions that can import and display 3D models, which enable the technology to be tested right away. The integration of AR and VR with emerging educational paradigms may bring many flying colours out. If it is used in best ways it is really a boom to construction Industry. Let's take a vow that the advanced

Construction technology will be used by a Average construction Worker within this 2020.

CEMENT STABILIZED MASONRY INTERLOCKING BLOCKS

The requirements of construction materials are increasing day by day due to the continued infrastructural growth.



Because of this large quantity of waste is also generated every year. Waste generated from the aluminium industries like aluminium hydroxide and many more wastes are generated from the industries while processing the raw materials.

These wastes generated from the industries creates serious problems. Disposal of this waste requires huge space and also pollutes the environment. So, these materials can be used in a proper way to lessen the pollution to the environment.

Aluminium hydroxide is added as a stabilizer in cement and as a flocculating agent in soil. It is also used as fire-retardant as it is sensitive to the moisture content variations. Granite processing industries generate waste in the form of a slurry. From this slurry granite powder following components are obtained, SiO₂, CaO and even it possesses cementitious properties. So, by using these materials we can produce cement stabilized masonry interlocking blocks.

Studies can be made to know the optimum mix proportion soil, aluminium hydroxide, granite powder, and cement to attain a good strength.

Advantages

- The environment pollutants are used in an efficient way.
- The use of cement or binding material can be decreased to some extent.
- As we are replacing some content of cement with aluminium hydroxide it is fire resistant than ordinary cement blocks.
- The use of granite powder (which contains slight amounts of CaO) will stabilize cement as it affects the hydration of cement.
- Concrete or reinforced concrete blocks can also be manufactured by choosing a suitable interlocking system.



APPLICATION OF DRONE FOR CROP HEALTH MONITORING

Introduction

The world population has increases day by day and projected to reach 9 billion people by 2050, so the expert expect that the agricultural consumption will also increase in the same time period.



In order to feed this larger, more urban and richer population, food production (net of food used for biofuels) must increase by 70 percent. Agriculture sector is the most promising sector and challenging sector because it is depends on climate or weather, condition of the soil, irrigation water quality and quantity and their application rate. One of the latest developments is the increase in the use of small, unmanned aerial vehicles (UAVs), commonly known as drones, for agriculture. Drones are remote controlled aircraft with no human pilot on-board. These have a huge potential in agriculture in supporting evidence-based planning and in spatial data collection. The Use of advanced technologies such as drone in agriculture offer potential for facing several major or minor challenges. The major applications of drone in agriculture is crop monitoring.

Technology Stack

The use of drones in agriculture is extending at a brisk pace in crop production, early warning systems, disaster risk reduction, forestry, fisheries, as well as in wildlife conservation, for example. Crop production: precision farming combines sensor data and imaging with real-time data analytics to improve farm productivity through mapping spatial variability in the field. Data collected through drone sorties provide the much-needed wealth of raw data to activate analytical models for agriculture. In supporting precision farming,

drones can do soil health scans, monitor crop health, assist in planning irrigation schedules, apply fertilizers, estimate yield data and provide valuable data for weather analysis. Data collected through drones combined with other data sources and analytic solutions provide actionable information.

Vast fields and low efficiency in crop monitoring together create farming's largest obstacle. Monitoring challenges are exacerbated by increasingly unpredictable weather conditions, which drive risk and field maintenance costs. Technology used in Drone is very sophisticated and advanced as it has to compensate the absence of the pilot and thus enable the flight of unmanned aerial vehicle and its autonomous behaviour. Drone is an automated system and is separated into two parts.

Hardware control unit of the machine is called Autopilot System, which is used to control the flight and various characteristics. Flight path is assigned using drone deploy software. Autopilot unit consist of waypoint navigation with altitude and airspeed, fully integrated IMU (gyro, acc.), GPS system, Barometer pressure sensor. All these MEMS (micro-electro mechanical systems) are integrated on the board. All the sensors have independent fail-safe program, in case of failure such as altitude, position, communication modem, aircraft will start heading towards the actual take-off point, flight path and recorded data will be saved in the autopilot chipset and

can be easily downloaded on the ground station computer for post flight analysis.

Precision Agriculture Using Drone

Once the drone is set to fly, we can able to capture the images of the land using autopilot method. The drone now capture the images of the crop. With the help of NDVI index we can able to identify the healthier crop and unhealthy crop. The NDVI is used to relate green biomass during spring growth. It is a spectral index relating the difference between reflected energy in the near-infrared part of the spectrum and reflected energy in the red part of the spectrum. Drones are designed for precision variable rate application of liquid pesticides, fertilizers and herbicides. Multispectral and hyper-spectral aerial and satellite imagery helps in creating Normalized Difference Vegetation Index (NDVI) maps, which can differentiate soil from grass or forest, detect plants under stress, and differentiate between crops and crop stages. There are strong correlations between crop yield and NDVI data measured at certain crop stages). Hence tracking the crop growth at key stages will help to provide an accurate estimate of the crop yield and also to address issues early.

Drones fitted with infrared, multispectral and hyperspectral sensors can analyse crop health and soil conditions precisely and accurately. The basic principle of NDVI relies on the fact that leaves reflect a lot of light in the near

infrared (NIR). When the plant becomes dehydrated or stressed, the leaves reflect less NIR light, but the same amount in the visible range. Thus, mathematically combining these two signals can help differentiate plant from non-plant and a healthy plant from a sickly plant. That difference is usually normalized into a ratio, dividing it by the sum of both the NIR and red portions of spectral energy. NDVI ratio of reflectance in near infrared and red portions of the electromagnetic spectrum Normalized Difference Vegetation Index (NDVI) quantifies vegetation by measuring the difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs). With the help of NDVI we can know the health of crop.

Conclusion

Use of Drone technology is beneficial in agriculture. The output is encouraging the development and use of drones in agriculture as a tool for site specific precision farming in small field area. These can be used by farmers for data acquisition and analysis, continuously monitoring fields for learning and developing modern farm management skills. Timely information about crop growth is important for improved farm management, increased food security and safer grain trade. Remote sensing provides such information, which can be used in crop growth monitoring for wide areas, at a low cost. NDVI is a method to absorb healthy

vegetation into a picture the affected vegetation due to water stress, nutrition deficiency, other than the diseased plants. This information is kind of actionable intelligence that should be delivered to the farming community. Drone will produce high precision data to become the key components of the agriculture industry. The future of agriculture industry is bright with drones as a valuable tool that will increase profitability and healthy crop production.

Industry Training On "REMOTE SENSING-REALITY MODELLING USING DRONE & BENTLEY CONTEXT CAPTURE"

Industrial training was organized for faculty and students of Civil Engineering Department on "REMOTE SENSING-REALITY MODELLING USING DRONE & BENTLEY CONTEXT CAPTURE" from 18.06.19-22.06.19 and 24.06.19-26.06.19, respectively. The training was arranged in seminar hall, Civil department and hands on training was given in CADD lab.

The resource person for the Industrial training was Mr.A.J.Arun Jeya Prakash, CEO and Co-Founder, Aviocian Technologies private limited, New Delhi. Around 25 students attended the training with total 20 faculty members. The training started with welcome note by Principal Dr.S.R.R.Senthil Kumar followed by inaugural address by Dr.R.Malathy, HoD/Civil. First day session started with the basic introduction to remote sensing and

drone applications in Civil Engineering. Various applications ranges from urban planning to advance surveying were explained with the case studies. Day 2, image capturing in mobile phone and further processing using Drone Deploy software. Students and faculties were asked to capture any image of interest and demonstrated it to all the participants to show the output results. On Day 3, basic theoretical calculations behind the data processing were taught with practical sessions. On Day 4, drones were made to fly in the campus to demonstrate the process. For the purpose some locations were chosen inside the college campus and fed in to drone deploy software for data processing. Captured images were processed in context capture software and ortho surface, ortho mosaic, DEM models were created. On day 5, whole campus was taken for the processing and different teams worked on different areas. Finally the knowledge gained during training was assessed with the help of objective test. Good observations were recorded about the training after evaluation.

A student report on the talk stated that "Since the training imparts need of the industry in addition to the modern tools, such training will pave the path for great employment potential in future".

IGBC CHAPTER STUDENTS INDUSTRIAL VISIT

On behalf of IGBC student chapter industrial visit was

arranged on 24.7.19. The programme was arranged for Second, third and final year Civil engineering students apart from students opted open elective in green building (Mechanical, FT, IT, ECE) from 3.30 A.M-5.30 P.M.

ANS Dhivya Jewellers, Kuranguchavadi is one of the green building located in Salem district. All the green building features are incorporated in the building and rated as platinum rating by LEED. Nearly 50 students visited the site along with the faculty mentor Dr.Gulshan Taj to the site. Mr.Arunachalam, Green building consultant explained all the concepts. At first the overall green building features of the building was explained. Various techniques adopted for rain water harvesting, cooling system was explained. Low cost and recycled materials used in the building was show with demonstration.

Machine less type of lift is incorporated in the building which reduces the space required for the lift. Student feed back on the visit was "Such industrial visit will enable us to explore to new technologies coming up in the civil market which ultimately help us for placement"



IGBC CHAPTER STUDENTS COMPETITION

On behalf of IGBC student chapter technical event was held on 25.7.19. The programme was arranged for Second, third and final year Civil engineering students in Seminar hall, from 3.30 A.M-4.30 P.M.

The chairman of the student chapter briefed about the competition to the participants. Total 30 students were participated. Prasanna Mishra, III year civil engineering welcomed the participants and gave introduction about various parameters of green building. Then students are given time to discuss about the green building concept. The topic Conventional building Vs Green building was given to the students. Bharath kumar from second year started the discussion saying the various demerits of conventional building with green building. All the students participated in the event and it was interested to see about the enthusiastic student participation in the event.

The programme come to the end at 4.30 p.m. Finally member of IGBC student chapter M.Priyanka explained about the various

improvements that can be made in the group discussion with some illustrations. Among the group discussion first three positions were selected and honored with the merit certificate. Student feedback on the programme was "Such competitions will enable us to explore to new technologies which ultimately help us for placement"

The former lecture leads the students to understand about the basics in concrete material, experimental procedures and the interpretations related to the experimental outcomes. The later lecture makes to understand the students about the importance and benefits of qualifying GATE examination and how to prepare for it.



ICI EVENTS

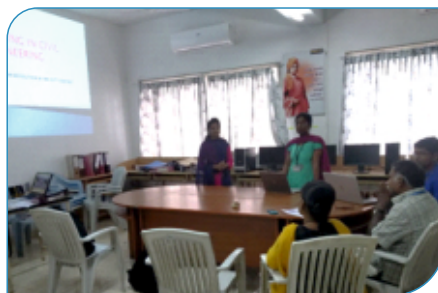
The ICI Student Chapter of Department of Civil Engineering organized events like photography, tall structures using ice sticks, code cracking and paper presentation to

exhibit student's talents on technical skills on 26 July 2019.

In photography, students were asked to take aesthetic view of Sona College of Technology. Each student can give maximum up to 3 photos.

In tall structures using ice sticks, students were provided with ice cream sticks and glue to construct a 3D framed structure.

The structure must bear a minimum load capacity of 5 kgs. In code cracking, students were given with a question paper which contains question from the code book of IS 456. Students can find the answers by referring the code book of IS 456 within a limited period of time. In paper presentation, students come up with recent innovation in Concrete Technology. Students came with more innovative ideas in Concrete Technology. Around 150 students eagerly took part and participated in the ICI Student Chapter events. Students have shown a great interest in attending the events of ICI Student Chapter. All the ICI events were evaluated for the best results and the best technical skills were appreciated.



Paper presentation in seminar hall



Code cracking event



Result of Photography event

CONCRETE DAY CELEBRATION 2019

Every year Department of Civil Engineering celebrates the Concrete day. As the same, we have celebrated the concrete day on 14th September 2019 in Civil Seminar Hall at 10.00am. The session was initiated by Er. M. Arivoli, ICI Co-ordinator. A special guest lecture was given by Dr. D. Jegatheewaran, Professor, Department of Civil Engineering on Casting and launching of PSC guide across Palar river. The lecture was very interesting to the students and also to the faculty members as it was oriented with practical experience. He shared his difficulties and challenges faced during the completion of his project which gave inspiration and new ideas to the students. The next session was project display which was visited by Dr.S.R.R.Senthil Kumar, Principal, Sona College of Technology and Dr.R.Malathy, Head of the Department. The project display includes about 10 projects

and around 65 students eagerly participated in the event and shown up their talents. The main objective of this event is to make the products from Construction and Demolition wastes which were available within our campus. Some of the projects were really appreciable, in which the students made the sitting benches using tested cubes, tested beams, tested cylinders and waste pieces of staircase, which was really good. Another project which must be said here is Reinforced aggregate made from C&D wastes.

This year concrete day celebration is something special as the students came forward and express their views and ideas. This year concrete day celebration becomes a platform for our Emerging Engineer as it showcased their talents.



Dr. D. Jegatheewaran, Professor, Department of Civil Engineering delivering lecture about Casting and launching of PSC guide across Palar River

Guest Lecture On "LEGAL PROVISIONS FOR CONSTRUCTION SAFETY IN INDIA"



Department of Civil Engineering was organized a guest lecture on "Legal Provisions for Construction Safety in India" for PG (CEM, STR and ISE) students on 04.10.2019 by 03:30 pm. The lecture was delivered by Dr R.K.Elangovan, Deputy Director General, Centre for Factory Advice and Labour Institute, Mumbai. In this Lecture, various legal provisions and safety precautions before and during construction were discussed. Occupational Safety and Health in Construction also discussed in the lecture. Totally 30 students were benefited. After the interaction, a memento was handed over to the Chief guest. This guest lecture was coordinated by Dr.D.Jegatheeswaran and Dr.K.Logesh kumar on behalf of Department of Civil Engineering, Sona College of Technology, Salem.



Dr.S.R.R.Senthil Kumar, Principal, SCT and Dr.R.Malathy, HoD distribute prize to winners of the products from Construction and Demolition wastes

One day seminar on ADMIXTURES FOR SUSTAINABLE CONCRETE, ASCON 2.0

A one day seminar on ADMIXTURES FOR SUSTAINABLE CONCRETE, ASCON 2.0 was organized by ICI Salem centre in association with Sona College of Technology on 18.10.2019.

The seminar was inaugurated at 10am which was followed by the keynote session. As part of inauguration, welcome address was given by DR. R.MALATHY Chairman, ICI Salem Centre and also professor & dean of Department of Civil Engineering in Sona College of Technology. The special address was given BY Dr S.R.R SENTHIL KUMAR Principal of Sona College of Technology. The keynote address was given by chief guest Mr.P.VIMALAN, Director S.R.C projects private limited, Salem. He gave a magnificent speech on the topic "Compatibility of Admixtures With M-Sand". Another keynote address was given by Mr Ram, JSW, Salem. After the tea break, Dr. L.R. MANJUNATHA, AGM marketing JSW cement ltd, gave us a webinar session on "New Alternative Materials for Green Construction". He shared the green materials available in the market and also picturized the progress of usage of these materials in the field. Next, there was an informative session on the topic "Special Purpose Chemical Admixtures for Concrete Industries" by Mr.M.N RAMESH. He presented conventional chemical admixtures and their usage in construction and also the new age admixtures along with its merits. After the lunch, the most awaited session by Dr A.R. SANTHAKUMAR former dean and chairman of faculty of civil engineering, Anna University provided a splendid insight on the topic "Advantages of Using Mineral Admixtures in Concrete". The session was amazing and was interactive with

young minds. He gave us lot of information on mineral admixtures and real case study of using those admixtures and its benefits. Around 3.00 p m, Mr.INDRANEEL CHATTERJEE from Ultratech cement provided a deep knowledge on various products and its uses and shown demo on some building products of Ultratech cement. The benefits of using those products were discussed in that session. Final session was handled by Dr.R.MALATHY Professor & Dean (R&D), Department of Civil Engineering, Sona College of Technology. She discussed on the topic "Bio Admixtures for Construction".

She gave predominant ideas of using bio admixtures and showed various test conducted on specific admixture. The successful programme ended around 5 pm with vote of thanks. The seminar was very informative and participants from various colleges, industry people, and resource persons were provided with enormous knowledge on various aspects of admixtures for sustainable concrete in construction.



Dr. R.MALATHY Chairman, ICI Salem,
Dr S.R.R SENTHIL KUMAR Principal of SCT,
Mr.P.VIMALAN, Director S.R.C projects private
limited and Mr Ram, JSW, Salem at the
inauguration of ASCON 2.0



Dr. R.MALATHY Chairman, ICI Salem honours
the chief guest Mr.P.VIMALAN, Director
S.R.C projects private limited

SKILL DEVELOPMENT PROGRAM FOR WOMEN WORKERS IN CONSTRUCTION



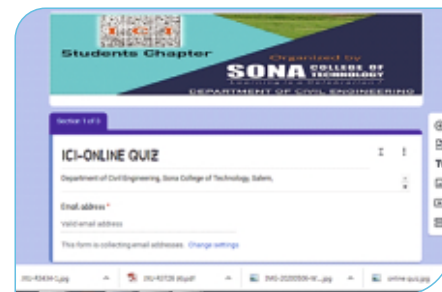
Dr.R. Malathy, Chairman, ICI Salem Centre,
Er. K. Mayilraju, past president of SCEA, Sindhu
Designers, Mrs. Arul Selvi of Vazhga Valamudan,
Er. A.P. Murugan, Regional Technical service,
UltraTech Ltd, with women construction workers

ICI Salem Centre in association with UltraTech Cement Ltd and Sona college of Technology organized an awareness program for the women workers in the construction field of Salem region. The program was conducted on November 15th of 2019 on the title "Skill Development program for Women Workers in Construction". The inauguration address was given by Dr.R. Malathy, Chairman, ICI Salem Centre and followed by special address on latest technologies in construction by Er. K. Mayilraju, past president of Scea, Sindhu Designers. Mrs. Arul Selvi of Vazhga Valamudan gave a special address on "Life Skills". Importance of safety in construction was elaborated by Er. A.P. Murugan,

Regional Technical service, UltraTech Ltd, Chennai. Hands on session to check the quality of construction materials was conducted in the Civil Engineering Department Laboratory. Around 50 women make use of this program and they expressed that this program is an eye-opener for knowing the importance of quality control in construction.

ICI ONLINE QUIZ

ICI students chapter have conducted an online quiz at this pandemic period to refresh the students and active. It was conducted through Google forms on 30th May, 2020 at 10am. More than 200 students participated actively from many institutions in Tamilnadu. Students those scored more than 70% were encouraged by providing E-certificate.



INDUSTRY INSTITUTE INTERACTION (Nuvoco Vistas Corp. Ltd.)

An interaction with the Senior Vice President – Technical Er.N.G.Muralidharan from Nuvoco Vistas Corp. Ltd., Chennai for the third years was conducted. In this interaction, the resource person with 30 years of rich technical experience shared his knowledge on civil engineering field and the

career opportunities for the young budding civil engineers. He thoroughly insisted the students to have basic subject knowledge which is very important to dominate in an industry. He also motivated the students and also listed the merits and demerits in various sectors of the industry.



Er.N.G.Muralidharan from Nuvoco Vistas
Corp. Ltd., Chennai interacting
with the third years

Anna university Sponsored FDTP on "CE8021 STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING"

Anna university FDTP on structural dynamics and earthquake engineering is conducted from 18.11.2019 to 23.11.2019 at Civil Department, Seminar hall.

The resource person for the guest lecture Dr.M.P.Muthuraj, CIT, Dr.J.Abdul Bari, KSRCE, Dr. K. Parthiban, SASTRA,

Dr.G.S.THIRUGNANAM, EBET were handled the sessions with various topics relevant to the programme. Internal faculties from sona Dr.R.Malathy, HoD/Civil, Dr.D. Jegatheeswaran, Professor/SCT also delivered the sessions on various topics. Around 26 participants were selected to attend the programme. Tutorial sessions were also conducted to integrate the practical concepts with the practical applications. All the sessions were found interesting and interactive with the participants was good. At the end of the programme written test was conducted on various topics handled and evaluated. Finally feedback is obtained and found to be good about the programme. This FDP enhances the faculty domain knowledge in this field and enable them to transfer the same to the students.

Guest lecture on MECHANICS OF SOLIDS

Dr T Chinnaraju, Professor, Department of Civil Engineering, Anna university, Chennai handled session on various topics pertaining to Mechanics of Solids. Students found difficult to understand the concept of overhanging beams. So the professor gave a detailed explanation behind the concept of analyzing the statically determinate structures (simply supported, cantilever, overhanging beams). He has solved many problems with simple techniques and drew shear force and bending moment diagram with ease. He has also asked the students to solve few problems and clarified the students' doubt.

Students found the session as useful and have given satisfactory feedback.

ACHIEVEMENTS



Research Peace Award given by Research Under
Literal Access Organization (RULA Award) to
Dr.D.Jegatheeswaran, Professor, Civil Engineering
Department, dated on 15.8.2019.



Best Engineering student award (IEI) got by
S.Kavichelvan of III Year student of Civil Engineering
Department dated on 18.9.2019



S.Kavyaa
IV - BE (Civil)

- National Level Project -2019 (1st Place) At Experts Hub Industry Skill Development Center
- Two Days National Conference At Dr.N.G.P Institute Of Technology- Best Paper Award
- Young Budding Engineer Award On Cadd Modelling (1st Place) By Cadd Center-Salem