



ICI CET STUDENTS
CHAPTER



AAKAR

ISSUE NO:4
2018





COLLEGE OF ENGINEERING

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Dr. J David
Principal
College of Engineering Trivandrum

A dream doesn't become a reality through magic, it takes sweat, determination and hard work . ICI CET students' chapter is the genuine example of such hard work and companionship. It gives me great satisfaction in expressing my appreciation to the magazine published by the ICI students' chapter.

I take this moment to congratulate all the people who had made this headway, including the coordinators and the dear students. I wish all the success to this endeavour and hope the same in future.

A handwritten signature in black ink, appearing to be 'J. David'.

Dr. J David



Dr. MS Girish
HOD, Civil Engineering
College of Engineering Trivandrum

It is with immense pride that I express my thoughts by writing in the ICI students' chapter technical magazine. The ICI students' chapter has always motivated and encouraged students to explore the field of civil engineering by organising various events like Pantheon and Daksha. I would like to express

my heartfelt appreciation for the efforts taken by the people behind the organisation and I wish them success in all their future endeavour and undertakings.

A handwritten signature in black ink, appearing to read 'Girish MS'.

Dr. MS Girish



Dr. Mini Soman
Staff Coordinator
ICI CET Students chapter

ICI CET Chapter, since its establishment in 2013 has a platform to nurture and showcase their technical prowess from experiences both on and off the field. We have been regularly organizing technical talks, workshops and training programs. The prestigious annual chivalry fest PAN-

THEON, saw an exemplary success with 1000 students from across India participating in it. DAKSHA, a similar intra departmental fest, too saw vibrant display of knowledge, coordination skills and enthusiasm by our students. Apart from this, ICI also wishes to give a humane face to the chapter a vision to not only produce technically brilliant but also socially responsible citizens. With this in view, we

had a lunch packet distribution in old age homes done exclusively by the students of the chapter. We also continued with the peer mentoring program to help students from rural and weaker sections of the society.

I duly take this opportunity to acknowledge the support we received from ICI Trivandrum Chapter and all sponsors of Pantheon for helping us to make the year a fruitful one.

A handwritten signature in black ink, reading "Mini Soman".

Dr. Mini Soman



Prof. Biju V
Staff Coordinator
ICI CET Students chapter

ICI CET students' chapter is a great platform for future civil engineers. Within this short span of time, the chapter has conquered great heights by establishing its position and initiating immense opportunities for students. This venture has enabled students to explore the field of civil engineering in its true essence.

I am privileged to extend my regards to this year's ICI students' chapter magazine, which is an all-out effort for our students. I wish them all success and I am looking forward for such great endeavours in future.

A handwritten signature in black ink, appearing to be 'Biju V', written over a horizontal line.

Prof. Biju V



Jubin James
Secretary
ICI CET Students chapter

I am indeed honoured to be the Secretary of the ICI CET Chapter during 2017-18 year. Since its inception in 2013, it has been providing a platform to nurture, mentor and expand the potentiality of budding civil engineers. As we complete five years of the chapter in college, what comes to my mind is that "Success comes to those who work hard and stays with those who don't rest on the laurels of the past"

It reflected in every sense in our journey from the "Best ICI Emerging Chapter in India" in 2015 to the "Best ICI Students Chapter in India" in 2018.

The ICI CET Chapter with its 250 odd members under the guidance of the dedicated faculty coordinators Mini miss and Biju sir created the platform for every student to think and dream beyond the four walls of the classroom. The ICI CET Chapter in its fifth year organised various technical and non-technical events in college level and national level. It also ushered in a structural reform in its leadership and functioning. Greater transparency of the Executive decisions, transparency in financial accounting, push for

digitisation and inclusion of wide spectrum of students in to the decision making process unlike the previous years.

ICI chapter has become the backbone of student activities of Civil Engineering Dept and hence an effort was made to organise events so as to create interaction and bonding between the members belonging to different semesters. This effort payed off during the conduct of Pantheon, the national level technical fest which showed the whole student group working as a team for the successful conduct of the event.

Following its inception in 2013, ICI CET chapter has been acting as a venue where ideas are shared, theories are questioned and classroom knowledge is challenged. Talks by eminent personalities from the civil engineering fraternity are frequently arranged which gives an edge for the students not only in the new technological trends but also insights into the practicality of the various subjects dealt with in the curriculum. The industrial visits that are arranged in and outside the city throw light on the different concepts imbibed from textbooks. These visits have provided an opportunity for students to get acquainted with field conditions and applications of the mere theories explained in textbooks. To sharpen cognition and improve dexterity, competitions

are held within the chapter and with Pantheon it has expanded beyond its boundaries. SPICE was also started under ICI CET chapter to help students to improve their communicative English which proved beneficial for them during group discussions and interviews. Another interesting programme was B2D, Back to Department, where alumni who have proved their mettle in different fields are welcomed back to share their experiences and success stories with students.

This chapter has not confined itself to the mere development of young engineers but has taken a new dimension with their social service venture. As part of this students joined together to distribute food, for patients in the Regional Cancer Centre, Trivandrum. The supply of medicine covers to Primary Health Centre near Engineering College was the other initiative taken.

Nothing is complete without mentioning the crown jewel of the chapter, PANTHEON. Pantheon 4.0 was a marked difference from its previous editions. The event was conducted on Oct 27,28 with a myriad number of colourful events and workshops. The event created a new benchmark for the manner in which intercollegiate technical events are organised in Kerala and was a huge success with 1033 participants across the state borders compared with the 647 participants last year.

With all its vigour and energy to make a difference, and lead from the front, ICI CET Students chapter has always actively engaged with the student community and their surroundings. Our aim has always been to nurture and support the



civil engineering student community with utmost sincerity and we believe this year we were able to achieve the milestones set by us. With the right amount of dream and perspiration we believe the Chapter will scale greater heights and always be an asset to our prestigious institution.



AAKAR ISSUE NO:4

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“**A**akar” marks the end result of a year of activities of the ICI CET chapter, but it is not a mere document elaborating on the activities. We the editorial team have aimed to provide the readers with an absorbing read. For the first years it is a source of inspiration and for the outgoing students a sense of nostalgia. The magazine comes with anecdotes from Pantheon 4.0 as well as a report of the activities for 2017-18.

Aakar which literally translates into “shape”, is a platform where the students of ICI CET chapter can give shape to their thoughts. The student chapter in cet being one of the pioneers in Kerala takes it upon itself to empower and give voice to its members. The aim is to enhance both the intellectual

as well as the social and moral outlook of future engineers. Roopam takes you through the technical discussions and outlooks and bhavam touches you in the depths of your feelings and imaginations. It gives me great pleasure to pen my words in the editorial of what I consider to be an everlasting document of imagination and creativity. I congratulate the editorial team for their dedication and the coordinators who have been our guiding light in all our endeavours. Wishing everyone a good read.

Rahul Dileep
Editor in chief

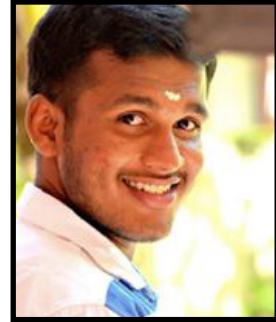
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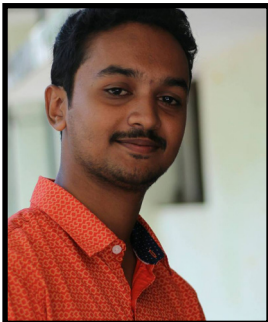
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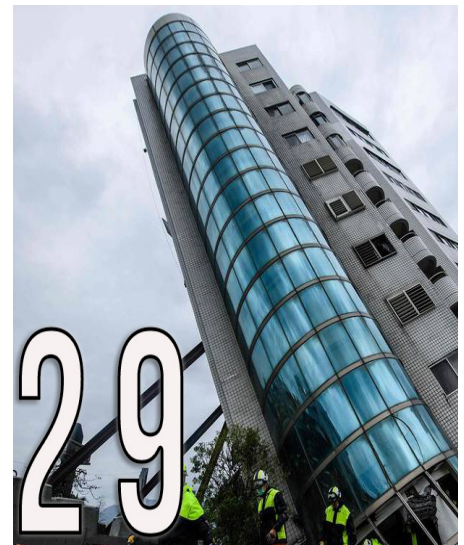
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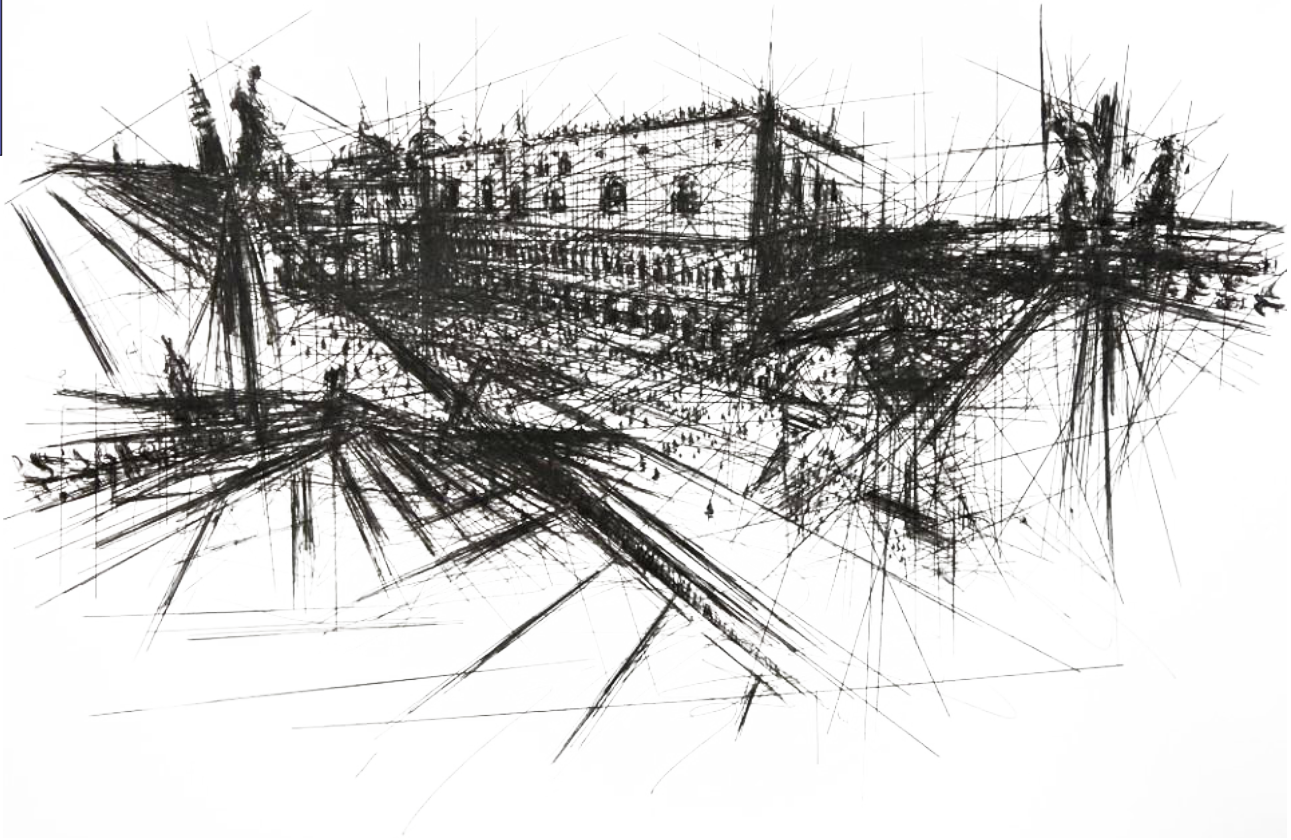
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ICI CET FAMILY BATCH PHOTOS



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ANNUAL

REPORT



ICI CET Students Chapter

TALK SERIES

HOW TO CRACK CIVIL SERVICE EXAM

-PRASAD AU

In association with ICI students chapter CET, a civil service orientation class was organised on 23rd October. We were fortunate enough to be graced by the presence of Prasad A U from the much sought after AIS IAS academy, which is one of the premier organisations ruling the front of civil engineering in the country. It was a well-attended event with participation from even other departments. The event commenced at 4:30 pm at the CETA hall.

The talk was well structured and planned covering almost all the arenas of civil engineering preparation. He stressed the importance of reading newspapers and divulged a few tips for an effective reading. He further explained the common perils and blunders made in the interview and put forth a few interesting excerpts from his own experience. The class was interac-



tive interspersed with previous year questions and the likes. He even went on to rewarding a delighted few with highly sought after books. Nevertheless to say, the event was an acclaimed success which concluded at 5:45 pm.

CAREER OPPORTUNITIES OFFERED BY INDIAN DEFENCE FORCE

Lt Cdr Aswin Sankar

The first session of Back to Department under the ICI CET students chapter was conducted on August 16, 2017. The venue was CE Seminar hall 2. The guest of honour for the day was Lt Cdr Aswin Sankar, who is a Naval Officer and a 2012 graduate from the department.



The session was also graced by the benign presence of HOD and Staff coordinators. The function saw an overwhelming crowd of students who were eager to attend the talk. The gathering was welcomed by Athira Somanath.

Lt Cdr Aswin Sankar enlightened the audience with the career opportunities offered by the Indian Defense Forces. The proce-

dures and preparation techniques to enter into Forces were well explained. After the talk, an interactive platform was also provided where the audiences could clear their doubts regarding careers in Forces. At the end, a memento was gifted to the Guest by the Hod as a token of gratitude and respect. Vote of thanks was delivered by Jubin James.

HIGHER STUDIES IN ABROAD

Mr. Unnikrishnan

The second session of B2D under ICI CET student's chapter was conducted on 22nd September, 2017 at CE seminar hall 2.

The event kick started with a welcome speech by Prof. Mini Soman, Staff coordinator, ICI CET, who introduced the guest of the day as Mr. Unnikrishnan Brijitha Madhavan, an alumnus of the 2012 batch. Mr. Unnikrishnan is currently pursuing his doctoral studies at Trinity College, Dublin. The session was graced by the presence of ICI Staff coordinators. The function witnessed a fairly decent crowd even on a strike day.

Mr Unnikrishnan spoke about the life of a foreign student in the Western world. His talk concentrated around the benefits as a student and the difficulties as well. He also gave tips on the criteria to choose various universities for post-graduation. The interactive session after the talk helped the audience to clear their doubts regarding the



vast opportunities available in the field of civil engineering. Mr. Unnikrishnan with his vibrant enthusiasm and worldly knowledge was a true inspiration to the people present.

As a token of gratitude, a memento was gifted to the guest by Prof. Biju V. Kiran Gopal delivered the vote of thanks.

SUSTAINABLE CONCRETE CONSTRUCTION

Er. Joseph Kurian

The official inauguration of ICI CET students chapter 2017 was conducted on 17/10/2017. The chief guest of the event was Mr. Jose Kurien, and was presided over by Mrs. Neena Thomas, the UG dean. Mr Madhumohan,

chairman ICI TVM chapter was the special invitee. The function kick started with the welcome speech of Mrs. Mini Soman, the staff adviser of ICI CET students chapter. Mrs. Neena delivered the presidential address.

The inauguration ceremony was symbolised by lighting a 'diya'. Mr. Jose Kurien,

the chief guest took a lecture on 'sustainable concrete construction'. He threw light on various aspects of the topic and encouraged the students to ask queries on their doubts. The session was very informative. The function witnessed the release of Pantheon 2017 official teaser and the unveiling of ICI magazine-Aakar. And at last but not the least Mr. Jubin James, the secretary of ICI CET chapter delivered the vote of thanks. The meeting was dispersed leaving a trail vibrant notes in the young brains.



ICI CET STUDENTS CHAPTER INAUGURATION



CEMENT INDUSTRY

Er. Santhosh S Nair

Yet again, The ICI CET Students Chapter was back with its acclaimed session 'B2D: Back to Department' on 23rd of January, 2018. The guest of honour for the day was Er. Santhosh S Nair, Chief Manager, Technical Customer- Services, ACC Limited, who



is also a 1999 graduate from the department. The session was also graced by the benign presence of the staff coordinators. The function saw the eager participation of enthusiastic students. The guest enlightened the audience with the difference in theoretical and practical civil engineering, especially emphasizing on the anomalies when theory is applied practically at the site. He also shared few anecdotes about the same, all in the end giving the audience

a vast amount of practical knowledge. After the talk, an interactive platform was also provided where the audiences were able to clear their doubts regarding the cement industry and the recruitment into the industry. At the end, a memento was presented to the guest as a token of our appreciation and gratitude, by Dr. Mini So-man, Staff Coordinator.

INDUSTRIAL VISITS

VIZHINJAM PORT

ICI CET Students chapter conducted an IV to Vizhinjam International seaport, one of the country's largest port on completion, on September 16, 2017. The team comprised of 40 students lead by staff coordinator Prof. Biju V.

The Vizhinjam International Transshipment deepwater Multipurpose seaport is an ambitious project taken up by Govt of Kerala. It is designed primarily to cater container transshipment besides multi-purpose and break bulk cargo. The port is being currently developed under PPP. The private partner of the project is Adani Vizhinjam Port private limited.

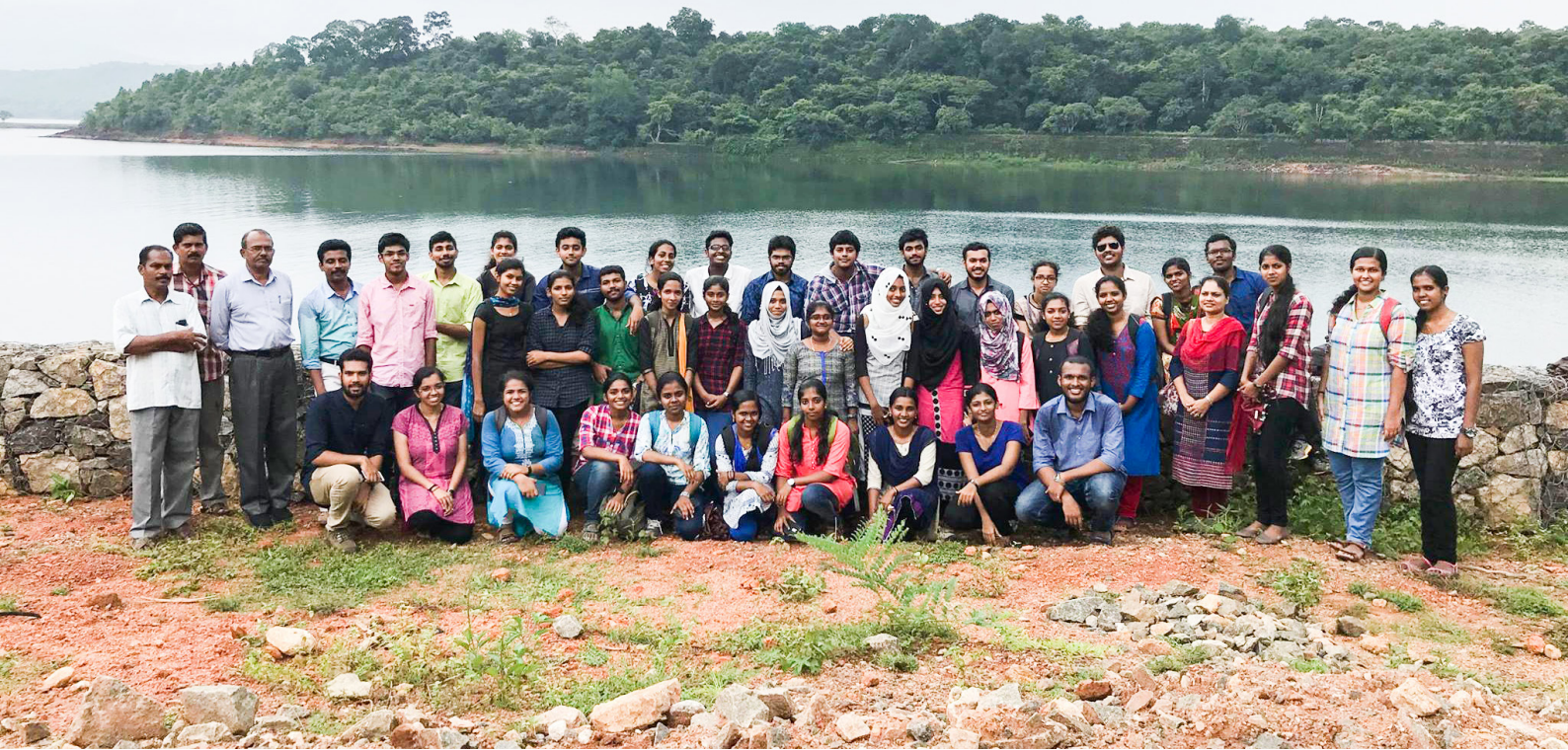
The port is currently undergoing its Phase 1 construction out of the 3 master-plan phases put forward. Site Supervisor, Mr. Venkitesh explained the location details and various construction activities currently taking place. The students got an idea of underwater construction activities, the difficulties involved and the methods to tackle them using well foundations. The technical and procedural details of piling using gantries were introduced to the students. The novel idea struck the students with various doubts and Mr. Venkitesh answered them with benefit knowledge. Prof. Biju's presence was a fillip to the students

as he encouraged them to raise questions and he himself clarified many of them.

The breakwater for the protection of the harbour were to be made by large massive concrete blocks of specific design called accropodes. Accropode blocks are man-made unreinforced concrete objects designed to resist the action of waves on breakwaters and coastal structures. The port would require 10548 units of accropodes that were currently under casting stage. The casting site was visited by the students and the casting procedure that used large steel moulds were explained to them.

The best part of the visit was the synergy between the students as they clarified many doubts among themselves creating an amiable air throughout.





THENMALA DAM

ICI CET Students chapter conducted another IV for the students of Civil Engineering Department to Thenmala Dam, which is the second largest irrigation project in the State. The team comprised of 49 students headed by the ICI Staff Coordinator Prof. Biju V and Dr. Beena K P.

The dam has the longest reservoir in the state and water from the reservoir is also used for power generation. It is located in the Kollam district of Kerala and was opened in 1986 under the Kallada Irrigation Project. The dam stretches over a height of 85m and has a catchment area of 549 km².

There were 3 spillways - Ogee with radial gate auxiliary-Labyrinth type. Students were let to visit the dam gallery and have a view inside it. The engineers explained how the galleries were used for regular inspection of seepage and maintenance of the dam. There was a V- notch inside which was used to determine the amount of leakage inside the dam and thus take the safety measures. Then, the team went over to see the reservoir, which is known to be one of the largest in the state, spillways and the top of the dam. A clear cut view and understandings were made regarding the tail water, bucket, spillway openings, and even a brief idea about the

electricity generation substation beneath the dam.

Students had a practical view of their bookish theories and calculations and had a very enthusiastic at-site experience when they returned back from the IV.

MANALI BRIDGE SITE

ICI CET STUDENTS CHAPTER assisted LSGD Vithura by conducting a total station survey at their proposed bridge site at Manali, Vithura, Trivandrum on 12 February 2018. The team comprised of ten students led by staff coordinator Prof. Biju V and two LSGD engineers.

There is an existing steel pedestrian bridge over the river Kallar and the newly proposed one is a RCC T-Beam bridge adjacent to it. The purpose of the survey was to fix the span of bridge, its alignment and depth of abutments. As the first step a reconnaissance survey was done to get an overall idea of the site. Necessary observations regarding the topography, vegetation, climate and intervisibility conditions that help in detailed planning were made. The entire area was thoroughly examined to decide the best possible locations for various station points and instrument stations. The necessary clearance were done

and the instrument stations were fixed. The total station survey started from an assumed bench mark. Coordinates were taken at different points on the existing steel bridge, its abutments, approach road, banks of the river.

Contour points were also taken at suitable intervals.

After the completion of survey works, the data was processed in LISCAD software and contour map was prepared. The alignment and span of the bridge was thus fixed.



KAZHAKUTTAM IV

As part of the project named EMS and LIFE sanctioned by the govt. of India, the students of s6 civil had undertaken this project to construct houses for the people below poverty line in five panchayaths of kazhakootam . The work was done under the guidance and supervision of the block development officer Shri .Shishupalan and our faculty Dr.Mitra DC. The project was to be initiated soon by the housing section of the Grama Panchayath. The works we needed to undertake involved surveying the land ,preparation of plan and cost estimation of the construction.

A team of 25 students from our had worked sincerely for this project. Being part of this project was an eye opener and a new beginning for our civil engineering career. This project was successfully completed within a span of 2 months. We were able to put into reality the dreams of about 55 families. And for

us it was a platform for putting into practice the knowledge that we acquired over the past three years.



WORKSHOP

CONCRETE MIX DESIGN

A one-day concrete mix design workshop was conducted on 02/02/2018 Friday as a part of "Skill development program" under the wing of ICI CET students' chapter in association with The UltraTech Cement Ltd. Engineers, Contractors, Professors and students counting to 33 showed up their participation.

The workshop was officially inaugurated by Prof. Jayaraj. First session consisting of

various code procedures and theories were taken by Dr Mini Soman. The second session was jointly coordinated by Er. Praveen and Er. Malish Mohan, from UltraTech. There were sessions making everyone participate and carry out some mix design procedures too. Participants even cleared their doubts regarding design procedures. After the lunch break, a practical session was organised in concrete mix design lab. Sieve analysis, concrete mix proportioning, slump test were conducted and concrete cubes were cast. An insight into the practical application of the theory was a highlight of this workshop.



PANTHEON 2017

Pantheon is a techno extravaganza, which is a highly sought after inter collegiate technical competition absolutely for civil engineering students all over India extended by ICI CET student's chapter with ICI Trivandrum chapter at College of engineering, Trivandrum.

This is a golden platform for all the civil engineering aspirants out there to realize your talents and unleash your true potential. The fourth installation of Pantheon took place on Oct 27, 28 with a myriad number of colourful events. There were 10 events along with an online photography contest and an online treasure hunt and three workshops.

When the Online Photography Focus witnessed 150 participants, the online treasure hunt, La Cazza came close behind it with 146 participants. With the participation of 89 students, expo zone became an attractive zone. The workshop and events became an acclaimed success with 648 registrations making the total number 1033 and this tells the success story of Pantheon 2k17.



ENIGMA

The event came with the tagline “A Technical Crime Hunt for the first time in Pantheon” was a crime thriller based event was introduced for the first time in a National Level Civil Technical Fest, as a part of Pantheon 2k17. Prelims of Enigma was conducted on 27th Oct, the first day of Pantheon 2k17 at CE 3 Drawing hall.

A total of 44 teams (each of 3 or 4 members) from various engineering colleges participated in the prelims. 5 teams were shortlisted after the prelims, which consisted of objective (logical, reasoning and technical) questions. The different stages of the event consisted of activities including solving book cyphers and also incorporating their technical knowhow to solve the clues. The final round consisted of a series of location based clues to identify the killer, followed by providing a map of the college to pinpoint the location of the killer. The first prize was won by Alwin Vidyadharan, Cristy S Kayyalakam, Nikhil Sam Philip and Sreelakshmi M K from Rajagiri School of Engineering and Technology. Second prize was won by Prajith C, Gautham Jit S, Sankaran V and Sangeetha Jayamohan from RIT Kottayam. Third prize was won by Sandra Susan Samuel, Paul Mathew Boben and Neetu Vinu Koshy from MBCET

STAKE OUT

The event to test the planning and surveying skill of the participants.

Stake out, an innovative event of Pantheon 4.0, was a podium where participants were tested on their potential to ground ideas related to surveying and building planning. The event was conducted on 27th October, 2017.

A total of 50 teams of 3 members each attempted the aptitude test. 6 teams were shortlisted after the preliminary round. The second round consisted of surveying a 3 cent plot and planning a house within 500 sqft as per the questions provided strictly adhering to Kerala building rules (KBR). In the final round the teams were asked to set out their plan in the plot, initially surveyed by the respective teams. Judgements were effectively made by Prof. Samuel D S and Prof. Sabu P.

The first prize was bagged by Sultan Abdul Salam, Abhijith P Raju and Libitha T. M from RIT Kottayam. The second prize was secured by Afkharudeen M A, Shahna Shajahan and Shabna Sherieff from MACE Venjaramoodu and the third prize was pursued by Siva, Sreelal and S. Pranoy from Rajadhani College of Engineering.

EUREKA

The paper presentation event of pantheon 2k17. Paper presentation competition is an inevitable part of any technical fest and for Pantheon 4.0 we called it Eureka. The event was held on 27th October. Individuals or a team of two could take part in this event. Due to time constraint 10 teams were shortlisted from entries received. Initially we asked the participants to send in the abstracts of their paper. The deadline for abstract submission was 20th October, which we had to extend up to 24th October due to repeated requests. On 25th October the shortlisted teams were notified.

On 27th October the presentation was held with each team receiving a time of 15 minutes for presentation followed by a 10min questionnaire session. Each team was very different in every aspect, right from the topic they chose to the way they presented it. Rahul Sreedhar and Sarath Prasad of TKM College of Engineering emerged first followed by Hrishikesh P of College of Engineering, Vadakara. Vaisakh G K and Mohammed Ajmal of TKM College of Engineering bagged the third prize.

CREATRIX

As the name indicates, “Creatrix” is an event to bring out the creativity in civil engineering students. The aim of the event is to build a model of a civil engineering structure, using the given materials of good strength within the time constraints. The event was conducted on 28th October 2017.

It consisted of three rounds. The preliminary round consisted of a test containing 25 questions, to be answered in 25 minutes. The second round consisted of making a model of a beam of span 40 cm using ice cream sticks, the winners were selected based on the load bearing capacity.

The last round was to construct a dome on a given forex base using tooth picks and glue. First prize was won by John Jose, Anand Mathew, Midhun N and Kunchacko Sunny from Muthoot Institute of technology and Science. Second prize was won by Sreelakshmi M.K, Habil Ahmed and Jacob Jacob from Rajagiri School of Engineering and Technology. Third prize was won by Razil Gafoor, Cherian Mathew and Nikhil Sam from Rajagiri. Fourth prize was won by Devika V.S, Veena Joshi, Athulya J Chettoor and Aneeta Varghese from Muthoot Institute of Technology and Science.

TRANSCENDENCE

Transcendence was a two-day event to test the logical and technical skills of students. As it was an event spanning 2 days (oct 27, 28) the top 5 teams clearing the prelims had to go through different rounds and their positions were decided based on the aggregate points each team obtained on each round. The event had a participation of 92 teams out of which 5 teams of four members were selected to advance into the first round.

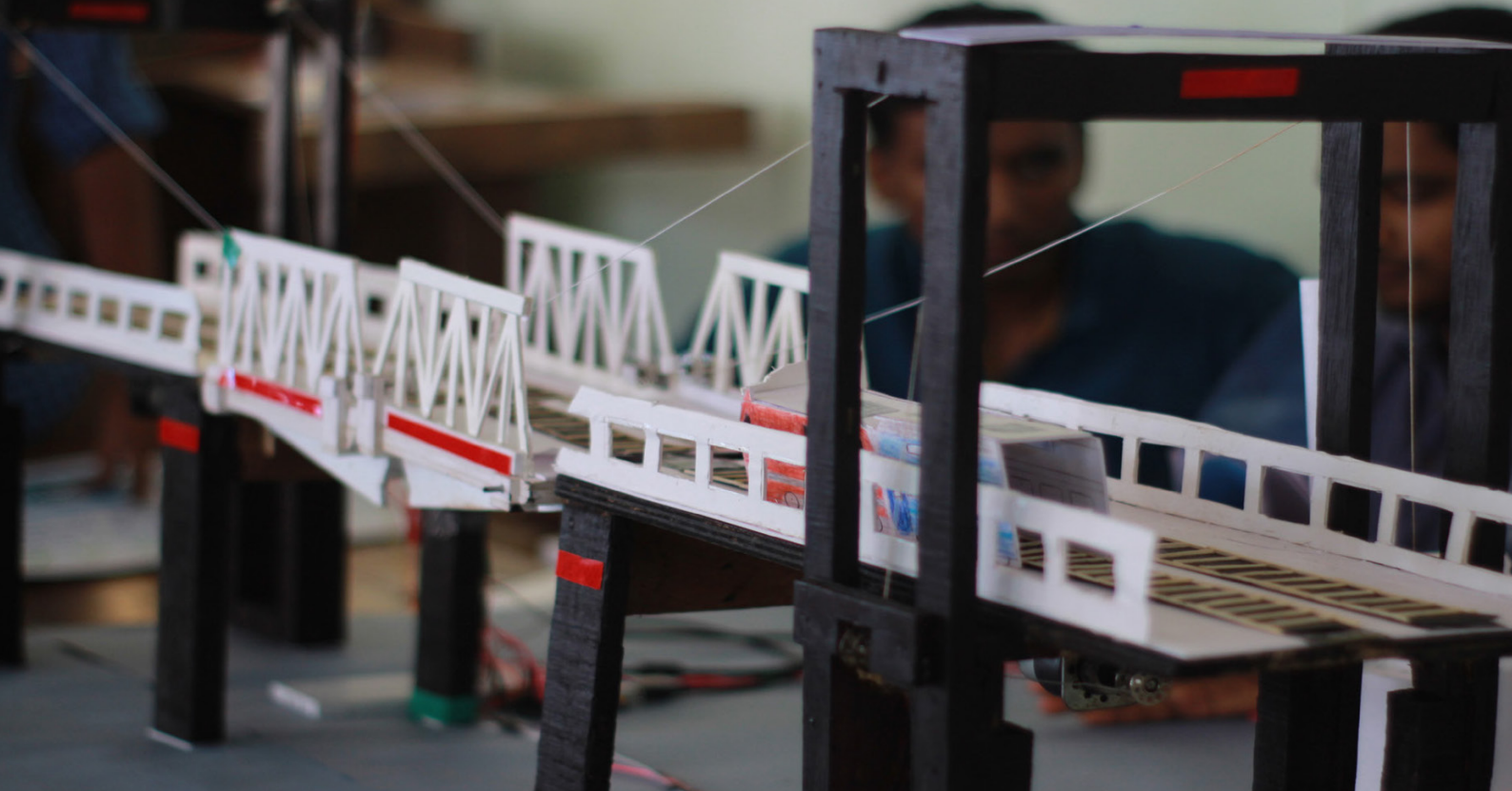
The first round consisted of Tech charades and Flemish bond construction. The second round was a situation management round judged by Prof. R. Padmakumar. The third round was a quiz to test the knowledge of the teams on famous structures and constructions. The last two rounds were held on oct 28th consisted of a treasure hunt incorporating technical questions and the last round was a model making round.

Transcendence checked the various skills of the participants as different types of rounds were included and also judged the teamwork of the participants. Athul Kurien, Joeline Godwin and Ananthakrishna from Mar Baselios college of Engineering and Technology secured first place. Arjun Sandeep, George Sebastian and Ajay M from Government Engineering

college Thrissur secured second place. Amal A, Jobin Baby, Anju Joy and Vijay B Varghese from Rajagiri school of engineering and technology reached third. Tharif T, Vaishnav B S, Alma S and Anjana Anil from Rajadhani Institute of Engineering and Technology secured fourth place. Greeshma Sabu, Gayathri Suresh, Arya Subhash and Aiswarya M from Government Engineering college Thrissur secured the fifth place

E4COG

The mix design workshop was conducted as a part of PANTHEON on October 27th and 28th and was handled by UltraTech Cements Ltd. A total of 69 students attended the session on the first day and 73 students on the second day. Closing ceremony to offer vote of thanks to Ultratech cements was conducted under the presence of PANTHEON staff coordinators Prof. Biju V. and Dr. Mini Soman and civil faculty Dr. Ajitha B Bhaskar. Overall the workshop was technically and practically sound.



BEST ENGINEER

“BEST ENGINEER” is an event to test the technical knowledge and practical skills of civil engineering students. The event was conducted on 28th October 2017. The event consisted of 5 rounds. There was a preliminary test with 30 questions and of 30 minutes.

A total of 51 participants attended the test. 10 participants were qualified for the second round. The second round was a group discussion. The judge for this round was Mr. Preet, second year MTECH (Structural) student. 6 participants were selected to the next round. The third round was Anthropometry in which participants were given 8 questions. 4 participants who gave the most accurate answers were selected to the next round. The fourth round was planning and presentation. The 4 participants were given the layout map of CET campus and 30 minutes was given for reconnaissance. the question was to design a parking system and drainage system. Also they could give some suggestions for any new construction in the campus. They were asked to present their ideas before the judge in 15 minutes. The judge for this round was Prof. Samuel. The final round was a quiz round.

A quiz based on civil engineering works was conducted by Abeeth S, final year civil engineering student. The final 4 participants attended the quiz. First prize was won by Lekshmi S Nair, second prize was won by Meenu Sojan and third prize was won by Reenu Saju

BUILD MY CITY

Build My City, a Pantheon exclusive event, is the second edition of the first Civil Engineering based gaming event in the history of college technical fests which was first introduced in Pantheon 3.0. The event received huge acceptance amongst the contestants as they assured their utmost interest and participation. The ‘Build My City’ event was conducted in total of four sessions on October 27&28th with two sessions per day and had a total individual participation of 150. Each session was held for a time of 2.5 hours and the winner for each round was judged based on their cities Approval Rating, Money, Population and the number of developed parameters. For each session, the first and second prize winners were selected and awarded accordingly.

THE ELEVENTH HOUR

The situation management event, the 11th Hour, of Pantheon 4.0 was conducted on the 28th of October (Saturday). Close to 35 teams had attended the preliminary round of the event which tested their knowledge in all fields of Civil Engineering along with their reasoning and logical skills. 8 teams made their way into the next round, Pictionary, wherein team members were made to correctly identify a renowned building/structure which were represented by geometric shapes.

The top 6 teams which correctly identified the buildings within the stipulated time entered the next round which comprised of a case study along with a Q & A session with the judges. 4 teams which put forth the most innovative and sound ideas/solutions contested in the final round where they were made to design and present an economically feasible and energy efficient house adhering to the norms of the Kerala Building Rules. In a race against time all the 4 teams presented their designs, each special in its own way. Rohit S and team of Mar Baselious CET emerged as winners, Gladwin Saju and team from MITS were the runners up and Feba Elizabeth and team from Mar Athenasius CET finished 3rd.

SHOWCASE

The event “showcase” was the exhibition of different models. The participation was exclusively for students of civil engineering dept. All the exhibits presented were new models done by first years. A total of 18 models were showcased and 89 students participated. Dr. Thulasidharan and Dr. Beena P R were the jury members. Models consisted of still and working models, but evaluated as one category. The first prize was bagged by the model “Earthquake resistant structure”, done by Alka remesh A, Prathibha V, Diya vinod, Neerajas nair, Anjaly kumar and Faeza faisal. The second prize was bagged by the model “Automatic bascule bridge” done by Adarsh.M. S, Prince Georgekutty, Lovin R Thaicheril, Muhammed Jasim.S. R, Roshan George Moncy, and Paulose Ajit. And the third prize was bagged by the model “Semigreen building” done by Manjusha BK, Meghna S, Aniga A and Manasa K.

REVIT WORKSHOP

Revit workshop was conducted on Oct 27th and was handled by 4 faculties from Inercad. There was a total of 92 participants which included a few, who came through spot registration. The students got the opportunity to familiarize with the Re-

vit software.

3DS MAX WORKSHOP

3DS MAX workshop was conducted as a part of Pantheon 4.0 on Ocrmt and was handled by 3 faculties from Intercad. Lab facilities were arranged at the Sri Chitra Thirunal Computer lab. There was a total of about 80 participants including a few who came through spot registration. The students got the opportunity to familiarize with the 3DS MAX software. A competition was conducted at the end of the session and prizes were given for the three best designs.

FOCUS

Focus was the on-line photography contest of Pantheon 2017. The event which was rolled out on the 3rd of October 2017 witnessed immense response with about 150 participants mailing in their entries out of which 115 shortlisted entries were posted on the Facebook page of Pantheon. The contest was conducted in association with CET Shutterbugs and the judging panel comprised of alumni and experts from the group

LA CAZA

La Caza, the online treasure hunt was conducted as a part of PAN-THEON 2K17. It started on Oct 22nd and ended on 28th October. A number of 146 people participated in this event and it also had twenty levels. The questions were provided through the website www.lacazapantheoncet.com and clues through the Facebook page www.fb.com/lacazapantheon. The treasure hunt concluded on Oct 28th declaring both the home and away winners. The home winner was NANDHA KUMAR G P of S7 AE&I and the away winner was JITHU K NIDHI of TKMCE.

CLOSING CEREMONY

The event witnessed an august panel of dignitaries. The Chief Guest for the function was Er. Bibin Joseph, Chief Engineer, Civil Constructions South KSEB.

Next in line, Mr. Sanoj, Marketing CEO, Rajtech Developers and Builders, the name that had gained immense appreciation in the field of construction and real estate, the builders and property consultants with an experience of over 32 years, and most importantly, our title sponsors, addressed the gathering.

Anwar Hussain, Secretary, ICI Trivandrum Chapter, who has always been supporting and nurturing our chapter ever since the time of its inception was called onto the dais. This was followed by the prize distribution where meritorious participants who secured prizes in the events were given the cash money and certificates.

The prizes were given away by the Chief Guest. Staff coordinators Dr. Mini Soman and Prof. Biju.V, and pantheon convener Harikrishnan.K. S spoke on their experiences of organising the event. Lastly ICI secretary Jubin James provided the vote of thanks. winner was JITHU K NIDHI of TK-MCE.



DAKSHA- INTRA COLLEGIATE FEST

Daksha 2.0 is the intra department technical fest organised by the student members for the members of different semesters. The event saw almost 8 events being showcased with active participation from all students.





PANTHEON — REALISATION OF A DREAM

Harikrishnan K.S
Convenor
PANTHEON 2K17

“**Y**es..!!!”

To my bewilderment, I said yes when asked to be the Pantheon Convenor. I didn't know that I was meant to be the voice of the team which consisted of 420 enthusiastic students. They were all talented and had their differences, but all of them shared the same dream, to make “Pantheon” a reality. Their zealous fervour did broke sweat on my forehead. I wasn't really prepared to take up this responsibility, but mostly when opportunity comes to you, you are not. This calmed me.

When we gathered for the

first time, things were all out of order. We had a disappointing figure as bank balance, sponsorship drive had not yet started, publicity works were under threat due to the upcoming exams and above all, the team was in total jeopardy. Every possible conclusion confirmed a failure of the event.

The executive was then in a position of quandary grade confusion as to where to begin with. We finally resolved to conduct a general body meeting of all students to collect their opinion and ideas. This turned out to be a huge

eye opener and the ideas which poured in, were not only brilliant but also promising. The dedication and confidence projected by the students was a direct indication of their commitment to Pantheon, this was very comforting gesture for me as the convenor.

The work progressed and the conditions were improving. The dedicated students from the department were the main work force which helped the progress. The announcement of college election didn't act detrimental to our work schedule rath-

er it also helped to give a boost to “Pantheon” as it was suggested as the example of a self-sufficient departmental technical fest which they chose to implement in other departments as a part of their propaganda.

The sponsorship drive performed way better than expected. Due to the commitment and pure dedication showcased by our sponsorship coordinators Abeeth and Amlas along with their energetic team. The title sponsor for our event was “Rajtech”. They saw the potential and essence of the event encouraging and contributed profusely to the cause. We are always indebted to our sponsors, especially the Rajtech team for giving us the opportunity.

The promising sponsorship drive was backed by an extensive publicity programme. The care taken to collect, record and organise meticulously the list of engineering colleges pan south India was immense. This helped our students to reach into the masses very effectively. The reception by the authorities of colleges was heart-warming and encouraged us to do more. The publicity team headed by Prasoon and Faseeh was the brain behind such an endeavour. This was backed by the flash mob conducted in Thampanoor, which received good feed backs from the local community and the respective authorities. Conduct of such pro-

gramme was encouraged in the reports of several newspapers.

As the steady progress promised successful conduct of event, the students came up with the idea of giving something back to the society, which lead to the food donation drive conducted by collecting a part of the daily meal brought by the students. This was a comforting gesture to as many as hundred patients in Trivandrum medical college and it was applauded by RJ Firoz aka Kidilam Firoz in Big FM 92.7 .

As the judgement day came, all the efforts were summed up. It was greatly rewarding to see a large number of participants right from the beginning of the day. We didn’t anticipate such a high number of participants, but the team was well prepared with a large force of volunteers who tried their level best to facilitate the smooth running of the event.

By the end of the event, we counted around 1091 Participants, the highest in the history of “Pantheon”. This was a pat on the back for all the people in the team, as their efforts had been paid back.

The success of the Pantheon is largely due to the efforts of our staff coordinators, Prof. Biju V and Mrs. Mini Soman, who put down their sincere dedication and time for the event.

They gave us the liberty in the matters of conducting the event by keeping a cautious eye on us all along. Their help was crucial to the team amidst certain situation, when they were our only ray of hope.

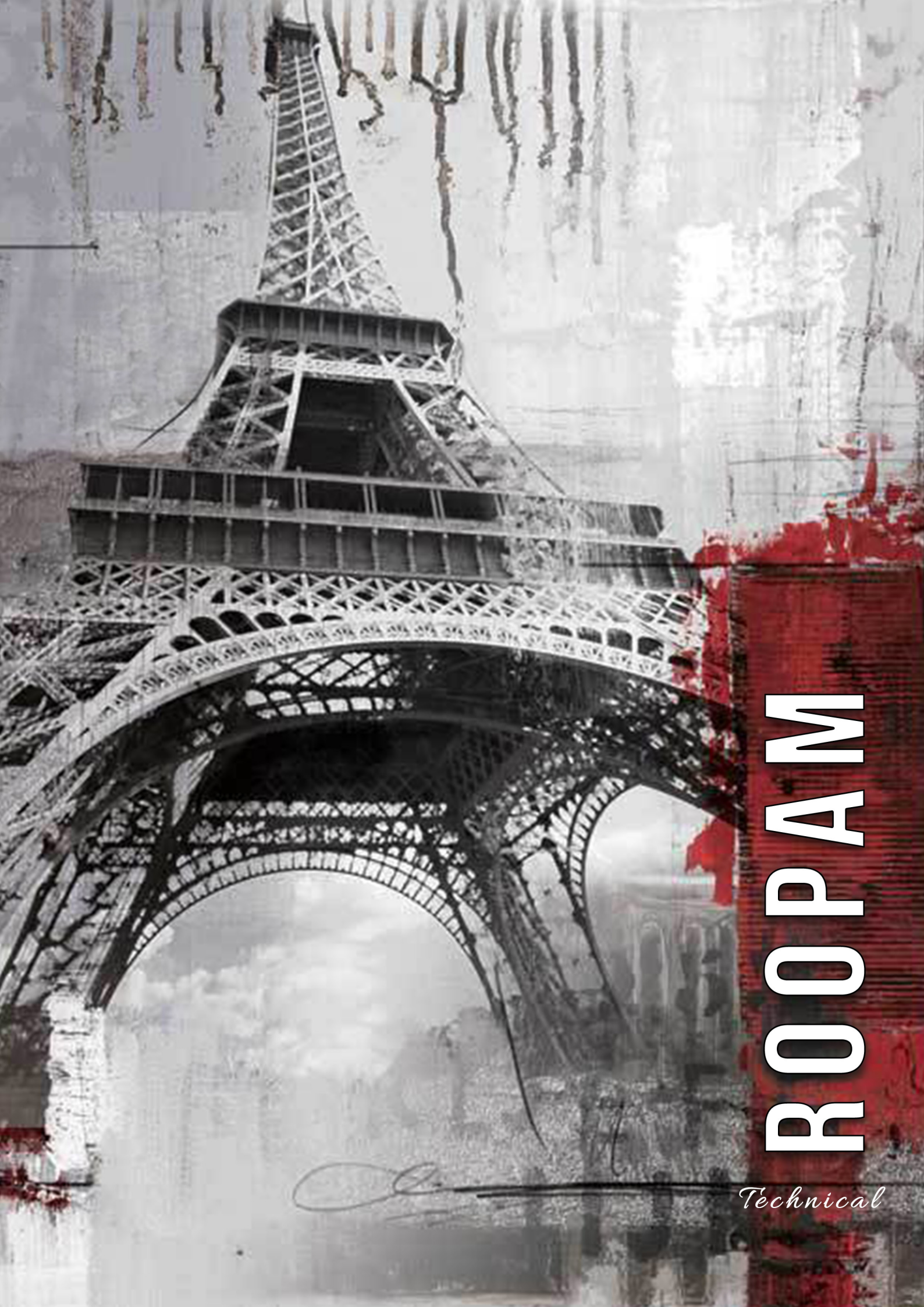
The co-convenors, Abin and Rafeed were dedicated and hardworking, their contribution played a decisive role in the success of Pantheon. The event coordinators Kiran and Shreya do deserve appreciation for their efforts which was main fact attributed to the extensive participation we witnessed. Personally I’m deeply thankful towards Jian, Delvin, Rahul and many others for their valuable opinion and their sincere help during rough times. Our ICI students’ secretary, Mr. Jubin James is the embodiment of good leadership and epitome of determination. Without him the Pantheon would have lacked a huge push. I’m deeply indebted to him for being alongside me all along and the extended help he offered during times of crisis.

I do express my sincere gratitude to all for giving me the opportunity to serve as the convenor of “Pantheon”. In the due course of process, it wasn’t always sunshine and daydreams near. We have gone through many rough patches undaunted and at many times ended up in places of dilemma, when a wrong decision would have costed us dearly. At the end of the day when I look back to the

journey, it is surely a wonder that we managed to get past all these hurdles. Right now, when we have achieved what we desired, the part I do miss is the whole adrenaline-packed journey we had made to realise the dream “Pantheon”. Nevertheless, this is surely a manifestation of immense capacity, we possess. I do thank the courage which drove me to be the post of convenor and that decision changed my whole life.

PANTHEON SPONSORS





ROOPAM

Technical



CIVIL ENGINEERING INNOVATIONS OF 2017

Sachin Sunil
S4 C2

PHOTOVOLTAIC GLAZING

Being one of the broadest and oldest discipline of engineering, spanning across many technical specialties, civil engineering has unabatingly and swiftly evolved during the course of time. From single storied stone structures to skyscrapers, RCC to RMC, Roman aqueducts to the beauty of Magdeburg, things have evolved for the better.

The previous years were no different, which onlooked modern state of the art technologies rising across the globe. We may take a

look at the prominent few:

VIRTUAL REALITY

4-dimensional VR models are used to accord the final experience for the stakeholders and clients in the planning juncture of the project itself. A fully interactive immersive experience prior to finalizing plans allows to cross-check suitability and detect the changes required; thus leading to more coherence, safety and consistency of work.

Building Incorporated Photovoltaic (BIPV) coatings entered the locus which help structures generate their own power, by transforming the whole structure into a solar-powered board. Polysolar, an award winning developer board in UK and manufacturer of unique transparent thin film for building integrated applications played an imperative role in unfurling this technology.

Not only effective in creating vitality, it also saves money on charges as its cost is negligible over

customary glass, since development and structural costs remain while cladding and shading framework expenses are supplanted.

ACTIVE FOOTFALL

Why be concerned about energy and sustainability when even the smallest of

our strides can be productive? Pavegen, a company founded in 2009, introduces multifunctional custom flooring system wherein as people step on the tiles, their weight causes electromagnetic induction generators to vertically displace which results in a rotatory motion that generates off-grid

electricity. In addition, each tile is equipped with a wireless API that transmits real time movement data analytics whilst directly producing power when and where it is required.

PREDICTIVE ANALYSIS

Risk analysis is an indispensable factor which determines the success of any project. Predictive Analysis is a modern tool built for the same. In 2017, BIM 360 Project IQ ran a beta test with leading edge companies to

research on risk analysis using this tool.

They analyzed data from subcontractors, material suppliers, design plans and the site itself to analyse risk based on historical data.



ROBOTIC PREFABRICATION

Structural parts are produced in pieces by robots within controlled environment factories. Integrants are produced, assembled and delivered on site for a drop-in-place finish, resulting in a dramatic decline in labour and time.





SEISMIC RETROFIT

Suraj Uday
S4 C2

The word “Retrofit”, in general, refers to the incorporation of new features, facilities or technology to existing systems for better performance. Seismic Retrofit, to be specific, is the addition of certain features to existing structures so that they are more seismic resistant i.e. resistant to ground motion, soil failure due to earthquakes and so on. The importance of seismic retrofitting cannot be ignored, given our recent experiences with large earthquakes near urban areas.

Before the introduction of

modern seismic codes in the late 1960s for developed countries (US, Japan etc) and late 1970s for many other parts of the world (Turkey, China etc), engineers were never really concerned about designing structures with adequate detailing and reinforcement for seismic protection.

After intense research work, state-of-art technical guidelines for seismic retrofit, rehabilitation and assessment has been published around the world; the ASCE-SE141 and NZSEE's (New Zea-

land Society for Earthquake Engineering) guidelines being two of them.

Earlier, seismic retrofit was only used for ensuring public safety, but with the development of Performance Based Earthquake Engineering (PBEE), the following performance objectives are listed out:

- Public Safety- Protect human resource.
- Structure Survivability- This is the lowest level of retrofit, and the structure requires extensive repair before it can be put to use (Applied to BRIDGES).
- Structure Functionality-

The structure is undamaged primarily, i.e. it requires only final touch repairing. It is the minimum level of retrofit acceptable for HOSPITALS and is considered high level retrofit.

- Structure Unaffected- Preferred for structures of Historical and Cultural significance.

- Selective Upgradation of local capacity (Strength, Stiffness etc) of each structural component.

- Incorporation of seismic friction dampers to brace weak structures and provide damping.

- External Post tensioning- Unbonded post-tensioning of high strength

- Adhoc addition of structural support/Reinforcement- It is the most common form of seismic retrofit, i.e. addition of exterior reinforcement, exterior columns (for historical structures) etc. come under this category. The strengthening may be carries out by connecting existing elements or addi-

Some retrofit strategies and techniques have been mentioned below. Retrofit strategies are the basic approaches to achieve certain performance objectives, while retrofit techniques are the technical methods to achieve that strategy.



tion of walls, frames etc.

Thus, by practicing seismic retrofit strategies and techniques, we can increase the efficiency and life of civil engineering structures, by making them resistant to seismic as well as other exter-

Retrofit Strategies- They have been developed in the past few decades, thanks to advanced technology, new seismic provisions and availability of new materials like FRP (Fiber Reinforced Plastic), FRC (Fiber Reinforced Concrete) etc.

- Strengthening- Addition of cross braces or new structural walls leads to strengthening.

steel tendons have been used to achieve a moment resisting system that has self centering capacity. This idea has been used for seismic retrofitting. Pre-stressing improves the capacity of structural elements.

- Supplementary Dampers- They absorb the energy of motion during a seismic vibration and convert it to heat, hence helping in damping its effect.

nal shocks caused due to winds, cyclones, and other natural calamities of the same sort.



GLIMPSES OF MODERN SRI LANKAN ARCHITECTURE

Global warming and ozone depletion are suffocating the inhabitants of the Earth. So the world is heading towards sustainable and green engineering. But at the same time engineering shouldn't compromise with the economy and beauty of structures.

Every nation is researching on this area. Some countries are inventing novel materials, others new methods of construction whereas some others

Ghanasagam J
S4 C2

moving to traditional construction materials and techniques. Sri Lankan architecture bags the attention of the world by blending modern designs and colonial tradition.

Simply, Sri Lankan architecture pursues Tropical Modernism. Tropical Modernism is a local evolution of international style adapted to the climate of region introducing cultur-

al elements. Contemporary Sri Lankan architecture is enriched by Late Geoffrey Bawa and Thisara Thana-pathy.

Geoffrey Bawa, a renowned landscape architect of Sri Lanka is regarded as the father of Tropical Modernism. He was influenced by the colonial and traditional Ceylonese architecture but rejected the idea of regionalism and imposition of preconceived forms onto the site. He gave rise

to a unique Sri Lankan architecture blending Asian and European architecture. He was instrumental in presenting innovative ways for effectively utilizing space, light and materials to create



tion. So Indian civil engineers and architects must think about sustainable, traditional, cultural and international aspects of construction and provide an indigenous construction mode

dynamic designs.

Heritage Hotel, Kandalama, a dramatic architectural creation of Bawa is built into a cliff face. It is also enveloped by jungle which makes it beautiful. Biwa's country house estate Lunuganga in Dedduwa has a tasty interior filled with art and culture. Light House Hotel in Galle conveys an old world charm with elegance and simplicity. Blue Waters Hotel of Wadduwa laid back a paradise atmos-

is also a famous Sri Lankan architecture. His architectural works are also a treasure to Sri Lanka. He is the award winner of Geoffrey Bawa Award for his architectural works. Holiday Retreat Resort, Matale creates an immense enclosure of space between the building and encircling crescent of mountains across the valley.

Shangri-La Hotel Colombo, another work



from India to the world.



phere offering charm and tranquility. Glass paneled deluxe rooms offer an elegant look for the building.

Thisara Thanapathy

by Thisara Thanapathy associates found its space in the list of best hotels in the world with its lemon pool umbrellas and lobby lounge.

The world is moving in fast pace where the technology is also enhancing. Novel ideas and techniques are developing in the world in the field of construc-



A CHAT WITH SENIOR

with Ajay S Rajagopal

By
Caroline Abraham,
Jian James, Rahul Dileep
and Sheina Cathy

Ajay S is a pass out of the 2016 batch of civil engineers and one of the few to land himself in a dream job with L&T.

He is currently working under the Koodankulam reactor 3 and 4 construction at Karapakkam. He has excellent idea about the techni-

cal knowhow required to make it in a core civil engineering firm.

He has also witnessed the initiation of ICI chapter in CET and was one of the most active members during its infant years. Let's dwell a little into his views on the current situation

of civil engineers in site and walk a little down memory lane to his experiences with ICI.

Q; How much of the academic knowledge taught in the curriculum finds its way to the field?

A; Ultimately what it all boils down to is the basic knowledge in civil engineering and your understanding of drawings. The ability to interpret the drawings, how well you can adjust yourselves in the field are tested, based on this we can

say that academic knowledge can only get you so far in the field. taking the case of drawings, it may not always be as per Indian convention, In Koodankulam we are given Russian drawings which are based on a different convention altogether, for example dashed lines in Indian drawings represent hidden structures while in Russian convention bold

lines represent all concrete structures while dashed lines are used for any other structure other than concrete coming in the section. Ideally you have to set your basics straight, being civil engineers I would say that, a structure is only as strong as the foundation.

After being thorough in the basics go for an internship because only by executing

a project you can test your skills.

Q; Being a fresh mind out of college, how was the training period? and what should we expect during that time?

A; What I have found is that during the training period you must be inquisitive to ask about anything that you don't know because once you are posted in the field you must be an expert. Personally, during my tenure for the first few months it was easygoing but as soon as I was assigned to the field I felt the weight of responsibility, I had to manage a team and the fact is that the laborers may have more experience than you. The subjects that are sure to be tested are quantitative survey, construction management and to an extent concrete technology.

Q; How far can knowledge of software's help you in a construction project?

A; Primary knowledge on Microsoft office soft wares like Excel, word, power point is mandatory and autocad for drafting. If you have appreciable mastery on all of these, you can manage. On a daily basis you will have to go through a lot of excel sheets and also you have to prepare project reports and presentations.

Apart from soft wares let me say that a basic understanding of various other standards other than the Indian standards would be

helpful. In some case the design may be done as per American standards then we must have the knowledge to find out the corresponding quantity in the Indian standard. Learning soft wares for the sake of a certificate can often turn out to be futile.

One thing I almost forgot to mention is that it is important to have really good understanding of IS codes, especially IS 456, you may consider it as your bible, and try to get acquainted with the revised one, to have much more understanding of the present construction scenarios.

Q; It's been four years since the inception of ICI CET chapter, having the experience of being a part of the pioneering batch of ICI, how does it feel looking down the road?

A; I think the beginning of ICI in CET was with a stall set up in association with Drishti and later Pantheon was conducted in the 2014. I was the event coordinator for best engineer for two consecutive years. When it comes to an event there may be a few juniors under you, so it gave a huge amount of experience in managing them and also a vision on the execution. The next thing ICI conducted successfully was the IV.

The IV to Koodamkulam which I still remember vividly, it was a really inspiring visit. The chief Engineer at koodamkulam Mr. M.S

Suresh who did an enthusiastic presentation was really inspiring and still fresh in my memory to the present date. The IV was really a major puller to attract more members into the ICI, but if you ask me I would say it's better to stay in class than to waste your time if you are not really interested or passionate.

I think it was a group of 5 people. led by Kiran, Jithin Sharma they had a good team and furthermore the support from Ruby maam. initially it was a question of membership. I still remember kiran talking to my class about ICI, Organising events and programs and also about getting an organized structure or hierarchy. Now I believe ICI has a very good organization with Head and subheads for every activity. During the initial days, we had a really good documentation team. It was only with that the magazine could be possible. Once we had a structure and a confidence in our abilities we became bent on the best chapter award. With constant support from the coordinators and the teachers one full year was dedicated to organizing events and social activities. Finally, all the efforts came to fruition when we received the best chapter award.

Q; One of the best achievements of an outgoing batch is to leave behind a legacy, and one such legacy is our civil circle, could you share with the inception and realization of-

he idea?

A; The idea for the civil circle was actually put forward by our batch mates Nithin and Jasin, and few of us friends including me, Malavika and Diljit helped them out. The main aim of the project was to use the cubes from concrete lab to construct something worthwhile.

The cubes were anyways going to be disposed and we thought it would be an efficient waste management program. At that time all we wanted to make was a simple park bench,

we hoped it would be an attraction during the tech fests, but our execution was a little bit late. So, even if we couldn't reap the benefits ourselves we hoped it would be helpful to our juniors. Execution wise it was Nithin who made the drawing, then we did a rough setting out at that spot. We estimated the cost at approximately 10,000, at that time we had the help of cetex funding.

For the construction we needed skilled labour, from our concrete lab being a circle it wouldn't have

the same perfection. We also had a chance to get acquainted with the execution part, we would try mixing the mortar and laying when it was possible, but mostly we helped the out with carrying and laying. Basically the idea was ours, we made the drawing we spent the money and with the help of the masons we created the park bench. Looking back wouldn't say that it was a tough project, at least when compared to a civil construction.



FOAMED CONCRETE WITH SOIL AS FILLER

Kavya K S
SS C2

Today all are thinking and discussing about how to make every field eco-friendlier. So when the task of finding the project topic was assigned to us, all of us were thinking through the same path itself. That is how to introduce eco-friendly aspects into

civil engineering fields. All the construction works rely upon concrete and the fact is that the very first thing used for construction causes most harm to the nature. The manufacture and use of concrete produce a wide range of environmental

and social consequences. The cement industry is one of the major producers of carbondioxide, a major greenhouse gas. Concrete is a contributor to the urban heat island effect, though less so than asphalt. Concrete debris forms one of the major parts of wastes accumulated over earth's surface. Small scale usage of concrete has

been documented to be thousands of years old. Till now no material is found as a substitute for concrete to be used as a binding material. We all know about the making of mud houses during ancient times. Even though many buildings constructed of natural materials particularly earth, have stood the test of time, the construction of buildings out of these materials almost completely disappeared during the 20th century. This occurred due to the development of commercial building materials and labour saving methods which took on status. The skills and craft of natural building by artisans who were most often handed down specific situational knowledge by their forefathers almost disappeared, except for some small pockets of people scattered around the globe. Building mud houses is more an art than science. Learning the right mixtures to use based on the soil available is more a matter trial and error than calculation, and thus requires certain amount of experimentation. Making an earth house is more similar to making a cake than building a conventional form of house. Earth based houses are naturally insulated, so they will be cool in summers and warm in winters. They are extremely strong if constructed correctly, and proponents of earth houses claim they are resistant to earthquakes. Other advocates of earth

houses claim that are very healthy with no irritant chemicals incorporated within the mixture to cause any allergies etc. So we thought of adding soil with cement which can be used as a building material, thereby the usage of cement can be reduced. We selected two types of clay (clay being cohesive may support the binding characteristics of the material), say swelling type and non-swelling type. We had chosen

Kaolinite as the non-swelling type and Bentonite as the swelling type. Kaolinite is a two layer non-swelling mineral and bentonite is a three layer swelling material. Then the thought of foamed concrete struck us which possess better thermal and sound insulation characteristics so that we could combine the idea of foamed concrete and soil mixed cement. At last we ended up with our topic, "Foamed Concrete with Soil as Filler". Unfortunately there was only a single journal paper on this topic. However we decided to go with the topic.

For the standardization of results, we planned to make 15x15x15 cm cubes and test its various properties like density, compressive strength, water absorption and thermal conductivity. Casting of cubes was a tremendous task. The staffs in the structural engineering lab were so cooperative that we

had completed the casting at the earliest. We had also done some tests for soil used like particle size analysis and Atterberg's limit tests. We were tensed about the results, that whether it will be positive or negative. When we tested the 28 day cube strength, it satisfied the minimal strength requirement for a building block as per IS. Also the thermal conductivity values were very low. However the blocks show higher water absorption values for large soil content. It could be rectified by covering the blocks with some water repelling agents. Kaolinite exhibits better characteristics than bentonite during mixing, casting and testing. Hence we reached the conclusion that Kaolinite may be used as a material to be mixed with cement which can be used for various applications like making building blocks, for lining huge pipes, tunnel lining, soil stabilisation etc. We are grateful towards all who had supported us in each stages of the project.



BHAVAM

Informal

THE SILLAGE OF LIFE

A blushing sky,
The purple palette
Of the glinting sunset waves.
Redolence of the monsoon air,
As the red earth melts In the passionate embrace.
The muffled melody
In a whistling bamboo grove,
Mischiefs of a balmy summer breeze.

But,
How strange-
Simple seems twisted-
A hyperbole, On a paper
Stained by
The mind's monologue
Against
Those fleeting moments-
The sillage of life.

Gneeshma Gayathri C
S6 C2





LIBERATED

Screams and shouts haunts the night
She hides the corner away from the light
Vowing never to share the plight
Of the women who gave her life
She will never cover in fright
Triggering at her chains with all her might
Spreading her wings high and wide
Flying like the bird that rules the skies
Her mind is sharp and will strong
To the crowd she never did belong
They tried to put out her burning flame
instead she ended up in lighting their way
They says she has her mother's beauty
But unknown to the world is a girl who is feisty
Walking on a path littered with nays
She builds a world that never sways

Krishna Sreekumar
S6 C2

A PLEA FROM THE LITTLE COFFIN

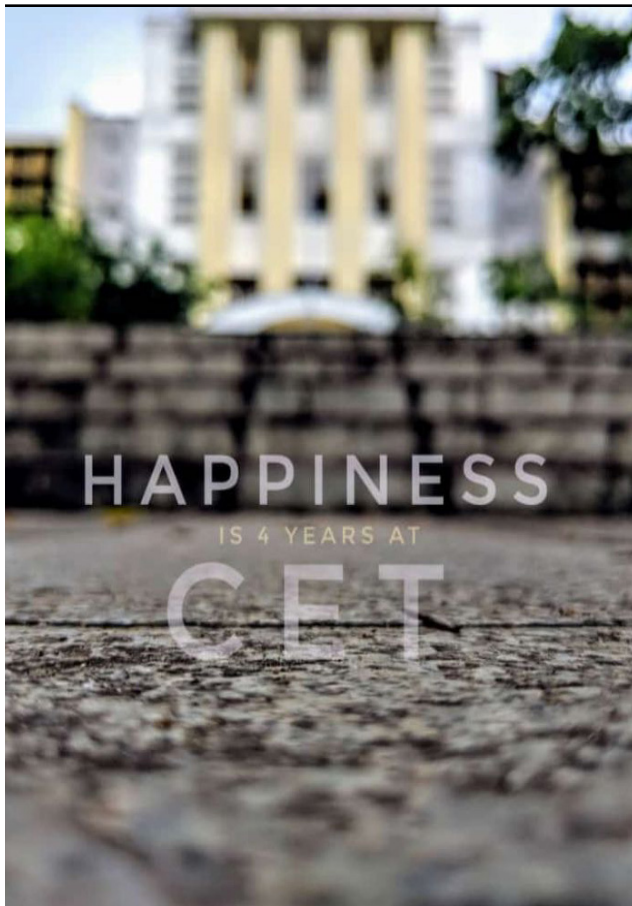
Anaswara P.K
S4 C1

Are you one among those Indians whose blood was high when heard about the brutal rape of the 8 year old Asifa? Then you may continue. Well.....now you are in Anaswara's court - I am the lawyer and the judge here. And being an Indian, you are the witness of the case. Here the case trial begins. As per the latest statistics, our Asifa is just one among those children under 10 who are getting raped every 13 hours. Being made totally incapacitated, knowing the severest pain from every inch of the body, can you imagine the situation? I am sure you will go crazy. But my friend, your

emotions can do nothing. If you shed your tears as heavily as a monsoon rain, or if you yell out the names of those who cut down the wings of the angel Asifa, or if you raise hashtags in social media let me tell you my dear friend, it can bring no change. Even you know it! But what else can we do? Yes, let us start from scratch. It is a truth that most of us never get a sex education at an early stage. And the common miserable fact behind every child rape is that the victim even may not be knowing she is being raped. Can you give a

sex awareness to one girl and one boy child in your life, so that when they grow up, they won't engage in such activities? It is as easy as it sounds and that's the least a human should do. This is my plea to each one of you on behalf of every innocent victim who had to rest in little coffins instead of leading a life like us.....





സ്മൃതിപഥം

Chithira
S8 C1

നിലാവെളിച്ചം തൂകുന്ന ഒരു രാവിൽ, നക്ഷത്രങ്ങളെ നോക്കിയിരിക്കുന്നത് നമുക്ക് പ്രിയമേറിയ ഒരു കാര്യമാണ്. ആ വേളയിൽ നാം അറിയാതെ തന്നെ, നമ്മുടെ മനസ്സ് പല അനുഭവങ്ങളുടെയും

നമ്മുടെയും നമ്മുടെ പ്രിയപ്പെട്ടവരുടെയും പ്രതീക്ഷകളുടെ നാലു വർഷമാണ് കടന്ന് പോയത്. നമ്മുടെ സംസ്കാരവും, പൈതൃകവും, ചിന്താശീതിയും ആകാരം ചെയ്യുന്നതിൽ സി.ഇ.ടി വലിയൊരു പങ്ക് വഹിച്ചിട്ടു്.

ഒരു നിമിഷമെങ്കിലും നാം ഏകയായി സമയം ചിലവഴിക്കുകയാണെങ്കിൽ കലാലയം നമുക്ക് സമ്മാനിച്ച ഓർമ്മചിത്രങ്ങൾ ദൃശ്യമായി വരും. ദിശ-ദൃഷ്ടി-ധ്വനി-സർഗ്ഗം നിമിഷങ്ങൾ മായാത്ത സ്മൃതി പഥമായി എന്നും നിലനിൽക്കും. അനശ്വരമായ ഒരു കലാലയ ജീവിതമാണ് സി.ഇ.ടി എനിക്ക് സമ്മാനിച്ചത്.

ഓർമ്മകളുടെയും

താഴ്വരയിൽ അതിഥികളായി മാറിയിട്ടുവാനും. സ്വർണ്ണപടികളേറിയാണ് സി.ഇ.ടി-യിലേക്കുള്ള യാത്രയ്ക്ക് തുടക്കമിട്ടത്. പല നാട്ടിൽ നിന്നും വ്യത്യസ്തമായ സംസ്കാരത്തിൽ നിന്നും വളർന്ന് വന്ന വിദ്യാർത്ഥികൾ ഒന്നിച്ച്കൂന്ന ഒരു വിസ്മയമാണ് ഈ കലാലയം. നാലു വർഷം നീളുന്ന ഈ കലാലയ ജീവിതത്തിൽ നിന്നും പഠിക്കുന്ന പാഠങ്ങളും, നേടിയെടുത്ത സുഹൃത്തുക്കളും വിശ്വാസവും സ്നേഹവുമായിരിക്കും ജീവിതത്തിലുടനീളം ചില്ലിട്ടു വയ്ക്കുവാനുള്ള ചിത്രങ്ങൾ കൂട്ടിന് കാപട്യങ്ങളും, മത്സരങ്ങളും, വേദനകളും ചില്ലുകൊട്ടാരത്തിലകപ്പെടും.

ആദ്യ വർഷം നിഷ്കളങ്കതയുടേയും, ഭീതിയുടേയും, കഴിവു പ്രകടിപ്പിക്കാനുള്ള നിരന്തര പരിശ്രമങ്ങളുടേയും, ഇടയിലൂടെ ആരുമറിയാതെ സമയം മിന്നിമാഞ്ഞു. 2ാം വർഷവും മൂന്നാം വർഷവും സുഹൃത്തുക്കൾക്കുപരി അനിയന്മാരെ, അനിയത്തിമാരെ, ചേച്ചിമാരെ, ചേട്ടന്മാരെ എന്നിവരുമായി സമയം ചിലവഴിയ്ക്കുകയും കലാലയത്തിന്റെ കലാ-സാംസ്കാരിക സാങ്കേതിക വേദികളുടെ അണിയറയിൽ പ്രവർത്തിച്ചും, പല കൂട്ടായ്മകളിൽ സേവനം ചെയ്തും ആരുമറിയാതെ നേരം അസ്തമിച്ചു.

നാലാം വർഷം വ്യത്യസ്തമാണ്. ഓരോ അവസരങ്ങളേയും നഷ്ടപ്പെടുത്താതെ

സ്വീകരിച്ച് മുന്നോട്ട് നീങ്ങും. ജീവിതത്തിൽ അനുഭവിക്കാവുന്ന ഏറ്റവും സുന്ദരമായ നിമിഷങ്ങൾക്ക് തിരശ്ശീല വീഴുകയാണെന്ന ബോധം ഓരോ പ്രവർത്തിയിലും പ്രതിധ്വനിയ്ക്കും. പറഞ്ഞ് തീരാത്ത തർക്കങ്ങളും, നഷ്ടപ്രണയങ്ങളും,

മൗനങ്ങളും, മൂടിവച്ച ഇഷ്ടങ്ങളും, അവസരങ്ങളും വഴിത്തിരിവുകളും അങ്ങനെ ഒട്ടനവധി നിമിഷങ്ങളുടെ കലവറയാണ് അവസാനവർഷം.



MEET THE HIDDEN YOU

Catherine Chackalackal
S4 C2

that 'Long live' won't sound as good as it usually does), and others, would want to somehow come out of it.

Mostly, it's hard to understand why we were still alive during those awkward moments.

It is then that most of us confide in with our secret drugs, which would give us a moment of happiness. For some, it's real drugs, others, their handsets, games, hobbies etc., which would take them to their superheroes, dream destinations, and give them a bit of peace of mind.

But then too, it's only for a while. Unfortunately, that fantasy disappears into thin air as well.

"Damn it! Why isn't it (life) over yet?", would be the one last question ringing inside our heads.

And then at that - that very reality of being alive, the unexplainable phenomenon - the life - hums

"Ayushman Bhava! "
"Thanks ", goes the reply.

Happy, hearing this? Not sure?
Well, some might be and some not. Don't be sur-

prised though!

We all are, at times exhausted and tired living a boring life and would want to, for some, end this life, (of course, at a time like

inside us:

"It will be over when it's over! "

"What's wrong with it ? What's it waiting for then? To see me clueless? Hopeless? Devastated -", oops! You have been caught!

This is where the route got deviated - what your 'thoughts' came out to be! It's said that ' the ancestor to every action is a thought ' (Ralph Waldo Emerson).

If you start thinking like that, you sure are going to become clueless. Why not ask yourself, " What is it that I keep overlooking? ". Then after a thorough search within yourself, you will find the answer and this would help you change your question from "Why me, God?", to ,"Okay, what's in this situation, though, I really don't understand why is it happening, that I can learn from? ".

This is the phase which most of us are reluctant to cross and choose to remain clueless, expecting someone to arrive to help, but which once crossed, brings forth to you, your real power!

Afraid? Okay now, whats the big deal? You just need to relax. Take deep breaths. Analyse the situation. Figure out the missing points and solve the puzzle to get the result!

Take one step at a time - and there you go!

And now, you are in a place, where you know, you actually did solve the problem, which you had thought ever impossible!

Happy? Of course you are way beyond being happy!!..Even proud, aren't you?!

Oh God! Whats this feeling?!...I am the one who solved this?! ...WOW....!!!

But still, there really would have been some unexpected intersections while solving the problem, right? Like, people who refused to help, situations taking a 180 degree turn, you being blamed for no reason etc. How shall we take up that? It's because we have got to learn every bit in detail since it is our only real life teacher who can help pave our way to future.

Those unexpected turn of events can be considered this way:

This is It.
And I am It.
And you are It.
And so is That.
And he is It.
And that is That.

And that is it! And so you move on to explore and accept the reasons behind the events and more than anything, yourselves and others.

We all are like that, learning independently about everything, yet are together. "No man is an island, entire of itself ", in short, in

John Donne's words.

And when that happens (exploring yourselves), you come face to face with the you within yourself, which seems to know no limits, has no dimensions and transcends what you have come to know as normal or possible.

Now that you have found it, you are set all free -

You become a new person, you leave behind the belief that that you cannot change, hence leave behind the physical activity that has supported that belief. You will be able to unfold mysteries, which, the world you once knew seemed to be concealing, know that everyone has a purpose, that everything happens for a reason, that, that ultimate reality and your own potential are unlimited, that you create your own reality, that inborn and divine forces work with and not independent of you and that there are no accidents in a universe that is so in perfect order.

(And if you want to believe universe is not in perfect order, that it is a total chaos, let me remind you, there is order in chaos!)

Oops!... What's this feeling again?!...Does this mean I am way too good?!

Of course dude! Give it a try!! :)

THE LONE VISITER

*Harikrishnan K S
S8 C1*

A casual day by the tree, it was.
Pain, the sole friend to comfort.
The words, not the bruises, did hurt more.
All alone, for the penance of being unique.
A casual day by the tree, It was.
Until I saw him coming.
A jolly fellow.
Draped in yellow.
Dancing and twirling, all along.
The lone visitor. In my lone life.
He was old. He was an outcast.
He was left to die. To decay.
Yet his optimism impeccable, he chose happiness over everything.
Throwing away the misery, he descended in perfect pique turns.
I held out my arm.
I opened my palm.
He gently landed on it.
A bright yellow leaf, he was.
An embodiment of purity. Truly one of God's creation.
I realized, none are insignificant.
Neither the leaf left to be trampled upon, nor me.
I stood up. I held him close to my heart.
A gesture of gratitude to my lone visitor.



ICI CET FAMILY



SECOND YEARS



THIRD YEARS



FINAL YEARS

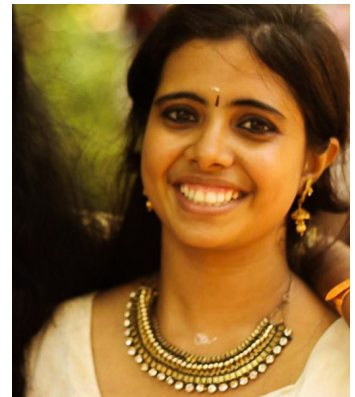
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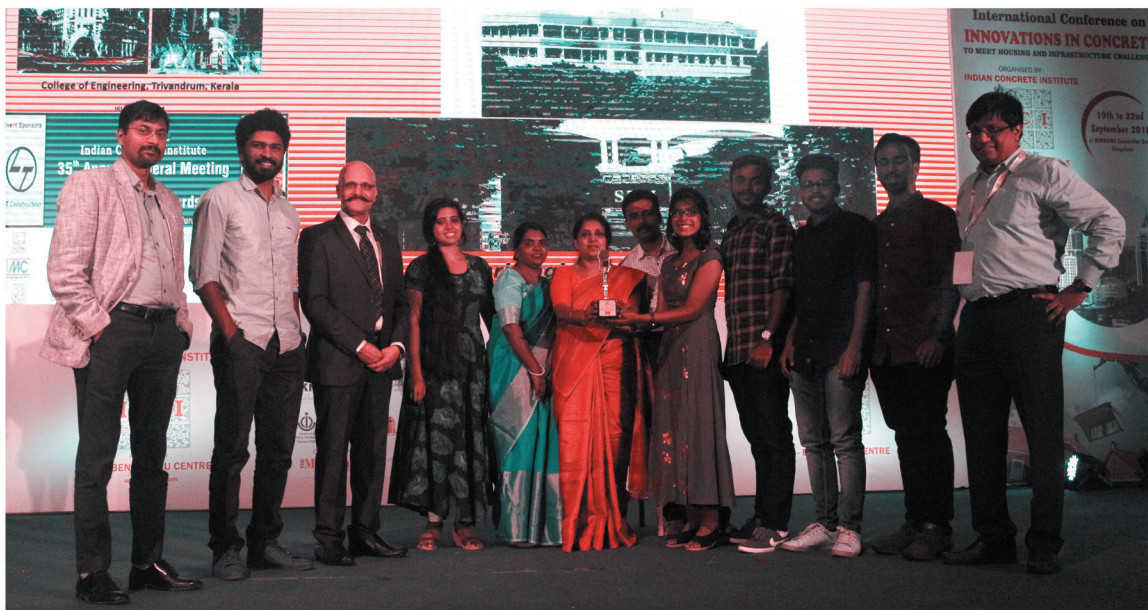


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