



AISAT Civil Engineering Association
ACEA Bulletin, *Srishti*
Unfolds the array of events 2023-24

srishṭi

Volume 11, Issue :Feb 2024



DEPARTMENT OF CIVIL ENGINEERING

Vision

To create technically competent and industry ready Civil Engineers having innovative and leadership qualities to serve the society and nation.

Mission

- Provide technical skills par excellence to face the challenges in the field of Civil Engineering.
- Promote innovative and original thinking in the minds of budding engineers.
- Generate research opportunities by undertaking collaborative projects through institute industry interaction.
- Create quality engineers to provide solutions to the emerging societal problems and advance entrepreneurial ventures.

Program Educational Objectives (PEOs)

Graduates of Civil Engineering shall

PEO1: Demonstrate the knowledge and skills to solve real world engineering problems.

PEO2: Exhibit professional ethics, good interpersonal and leadership skills to meet professional excellence.

PEO3: Function effectively in a team, providing optimal, innovative and facilitative solutions for the betterment of society.

Program Outcomes (POs)

Engineering Graduates will be able to:

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

The graduates of Civil Engineering will be able to

PSO1: Identify, formulate, analyse and design civil engineering problems by applying the knowledge of mathematics, science and engineering fundamentals.

PSO2: Interact with engineers from other disciplines to provide innovative/sustainable solutions for the benefit of society.

PSO3: Apply appropriate techniques and modern engineering tools to synthesize and analyse complex civil engineering problems.



Dr. Benny Mathews Abraham
Professor & Head, Dept. of Civil Engineering

HOD's Message...

I am extremely happy that the department of Civil Engineering is releasing its 11th edition of Newsletter 'SRISHTI', enumerating the various activities and achievements of our faculty and students. During the last year, our department could offer excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical and curricular skills. This edition of SRISHTI showcases the various events organized and remarkable milestones achieved by the department in the last academic year. As the head of the department, I congratulate all the faculty members, non-teaching staff and students for their limitless support and sincere efforts for the betterment and development of department. On this occasion, I also congratulate the Faculty Coordinators Prof Rinku John and Prof . Aiswarya Anil, Cover page designer Ms. Riyana Sosa Cherian and all the team members of the editorial board for bringing up this issue in a very good shape.

Editor's Message

We are so excited to share the 11th edition of ACEA Bulletin 'SRISHTI' showcasing the amazing journey of Department of Civil Engineering in the academic year 2023-2024. As we delve into the pages of this issue, we embark on a journey of scholarly exploration, challenging conventions, and embracing the diversity of thought. This edition encapsulates the essence of academic excellence, learning platforms and collaboration among students and faculty in the department .Additionally, it serves as a platform for collaboration, connecting students with peers, faculty members, and professionals in their field of study. We celebrate not only the achievements showcased within these pages but also the collaborative spirit that drives us forward.

Faculty Editors	: Prof. Rinku John Prof. Aiswarya Anil
Student Editors	: Ms. Aiswarya A J (S6) Ms. Praise Ammini Paul (S8)
Cover Page Design	: Ms. Riyana Sosa Cheriyan (S8)



Construction Safety Park

Construction Safety Park is an innovative and immersive permanent space at project lab designed and executed by **ICI student chapter of AISAT** to cultivate a culture of safety, preparedness, and education. It stands as a testament to our commitment to creating a safer and more resilient community. Construction safety park emerges as a beacon of proactive learning, providing a unique environment for individuals of all ages to engage with and understand various aspects of construction safety.

The display of Personal Protective Equipment (PPE), different types of Fire Extinguishers, safety boots, Safety helmets, and safety gloves. Awareness of different types of safety measures to be adopted for different occasions like safety signs to be used at the construction site and different types of fire and fire extinguishers are explained using charts displayed here. Type of safety goggles, gloves and boots, to be wore by the personal at different occasions are well explained in the charts displayed here. Understanding of different classifications of each items based on color, material type etc., along with Indian Standard Code specification of each items are also included in the display.

Dr. S Jose, Principal inaugurated the construction safety park on 24.11.2023. Prof. Paul Ansel V, Dr. Veena V, Vice principals, AISAT, Dr. Benny Mathews Abraham, HoD, Civil Engg. Department, faculty, staff, students of Civil Engg. Dept. were present during the occasion.



Add- on Course: Architectural Modelling and Design using Revit

Architectural Modelling and Design using Revit

The Department of Civil Engineering conducted a 30 hour add-on course on Architectural Modelling and Design using Revit for the final-year students (Batch 8, 2019-2023) from March 6, 2023. The course focused on imparting comprehensive knowledge and practical skills in utilizing Revit for architectural projects. Through hands-on sessions, students learned to create detailed models, gaining proficiency in BIM fundamentals and collaborative design processes. The initiative was designed to align with industry standards and enhance the students' capabilities in architectural modelling. The course received positive feedback, contributing significantly to the skill development of the graduating batch.



The course focussed to bridge the skill gap between the academia and Industry through interactive and hands on training sessions. This course mainly aimed on Building Information Modelling, the process that integrates multi-disciplinary processed data to generate intelligent model of build asset.

The course also elaborated the job opportunities in Engineering and Architectural firms as BIM Engineer, BIM Modeler , Revit Architect.

The session in the course incorporated a detailed discussion on structural components in a building prepared in Revit Architecture.



Revit offers a comprehensive suite of tools for parametric modeling, rendering, and project coordination, making it a preferred choice for BIM-based design and construction projects.

BIM fosters collaboration among multidisciplinary teams, streamlines workflows, and enhances project efficiency and sustainability. BIM facilitates the creation of 3D models that enable stakeholders to visualize and simulate building performance, including structural analysis, energy efficiency, and space utilization.



Technical Talk on GGBS for Green and Sustainable Concrete

AISAT ICI Student's Chapter and ACEA department of Civil Engineering organized technical talk on "GGBS FOR GREEN AND SUSTAINABLE CONCRETE" on 13th April 2023 at Einstein Hall, AISAT. The session was handled by Mr. Sarath Vinod, Area Sales Manager, JSW Cement. The session was started with the welcome note of Mr. Sravan Ramakrishnan Menon, the student representative of ACEA. During the one hour session, the relevance of GGBS for a durable and Sustainable concrete and possibilities and challenges in the field were discussed .



Techcoloquim

ICI Best Student Chapter award for AISAT

Indian concrete Institute in association with Ultra tech presented the best ICI student chapter award for AISAT on 27/02/2023. ICI student representatives of AISAT along with Dr.Veena V, Prof Liji Anna Mathew and Dr. Bindumol TV received the award.



Proud Achievers



EVANGELA HENRY
(2019-2023)



TWINKLE M J
(2019-2023)



JINU JACOB
(2019-2023)

- **Ms. Evangela Henry** (Batch 8 CE,2019-2023) awarded **B.Tech (Honours) Degree in Civil Engineering with Minor in Computer Science and Engineering** in the examination held in June 2023
- **Ms. Twinkle M J** (Batch 8 CE,2019-2023) awarded **B.Tech (Honours) Degree in Civil Engineering** in the examination held in June 2023
- **Ms. Jinu Jacob** (Batch 8 CE, 2019-2023) awarded **B.Tech Degree in Civil Engineering with Minor in Computer Science and Engineering** in the examination held in June 2023

Industrial Visit to MINAR ISPART PVT. LTD.



The Department of Civil Engineering conducted an Industrial visit for 6th semester civil engineering students to Kozhikode on 3rd May 2023. A total of 49 students and 2 faculties joined the industrial visit which helped them to attain more knowledge and field experience from the industry. The students actively participated at the time of industry visit and had an amazing interaction with the site engineer. The visit aimed to provide civil engineering students with a comprehensive understanding of steel manufacturing processes, technological advancements, and quality control measures prevalent in the industry.

MINAR ISPART Pvt.Ltd, Kozhikode is a renowned company in the steel industry, specializing in the production of high-quality TMT steel bars. Students witnessed the various stages of production which involved, from raw material selection to the final production of high-quality steel bars.

The learning session began at the raw material selection unit, where students gained insights into the meticulous process of sourcing high-quality raw materials for steel production. This was followed by a session which introduced the intricate machinery and advanced technology employed in steel manufacturing. They observed the transformation of raw materials into molten metal, a mesmerizing spectacle that epitomized the fusion of science and engineering in industrial processes. The interactive sessions not only deepened students' understanding of steel production but also provided invaluable career guidance and mentorship opportunities. Students gleaned insights into the diverse career paths available in the steel industry, ranging from metallurgical engineering to quality assurance and project management. The visit served as a catalyst for students to envision their future roles and responsibilities as aspiring civil engineers, instilling a sense of purpose and direction in their academic pursuits. It was an enlightening experience to see the advanced technology and accurate quality control measures employed by the industry.

Activities of Professional bodies

ACEA –Orientation Program for Civil engineering Students

An orientation program for the students of the Civil Engineering Department was successfully conducted on September 9, 2023, from 2:30 PM to 3:30 PM in collaboration with ACEA. Mr. Lijo Thomas, a Consultant Faculty from QUADLYNC, served as the esteemed speaker for the session. The event commenced with a warm welcome speech by Ms. Aysha Nourin, a senior student from the S7 batch of Civil Engineering.

During the session, Mr. Lijo Thomas elaborated on various topics including Challenges in Construction, Opportunities for Civil Engineering Professionals, and the Role of Digitalization in Construction. He also emphasized the importance of bridging the gap between academic knowledge and industry requirements, providing valuable insights to the eager audience.

The program witnessed active participation, with approximately 140 students from all batches of Civil Engineering attending. Ms. Shifa V Anvar, also from the S7 batch, concluded the event with a gracious vote of thanks, expressing gratitude to the speaker and everyone involved in making the orientation program a success. The program concluded promptly at 3:30 PM, leaving the attendees inspired and informed about the dynamic field of Civil Engineering.



STANDARDS CLUB

Awareness programme on Shared Vision for better World

On the occasion of World Standard Day 2023 celebration, BIS Kochi organized an awareness programme on Shared Vision for a better World. BIS also organized Standard Hunting Competition. In



this competition, students studied and identified products for which Indian Standards doesn't exist and wrote a proposal. Several students from AISAT Standards club participated for the competition.



Aiswarya Anil
, Co-ordinator Standards Club Leader, Standards Club



Nikhi V T



Aysha Nourin
Leader, Standards Club

Activities of Professional bodies

ICI Quiz Competition

In connection with the inauguration of construction safety park, a Quiz competition was conducted about Construction Safety on 23.11.23 among the Civil Engg. Students of AISAT.

The winners of the quiz competition were awarded cash prizes. The awards were presented by Rev. Fr. Manoj Francis Marottickal, Assistant Manager of AISAT, and Prof. Vilbin Varghese, Associate Professor in the Civil Engineering Department.



ICI –Site Visit to Chellanam Sea wall construction

Final-year Civil Engineering students, accompanied by ICI Faculty Coordinator Dr. Bindumol T V, class advisors Prof. Vilbin Varghese, Prof. Sherin Justine, and Prof. Liji, Anna Mathew conducted a site visit to the Chellanam Sea Wall construction project organized by the ICI Student Chapter. The main attraction at the site was the Groynes, essential structures designed to stabilize beaches and prevent erosion. The groynes are T-shaped and extend 140 meters parallel to the sea with a flange width of 60 meters.



The site visit to the Chellanam Sea Wall construction project was a profoundly enriching experience for the students, offering first hand exposure to real-world engineering challenges and solutions.

It underscored the importance of coastal infrastructure in safeguarding communities against natural disasters and highlighted the pivotal role of collaboration between academia and industry in addressing critical societal needs.



ACEA –WORKSHOP ON SAFETY MANAGEMENT



Civil Engineering association ACEA of AISAT conducted a workshop on 15th November 2023 On “Safety Management” for Civil engineering S7 students. The talk was delivered by Mr Jinson Thomas, Faculty in Al Salama School of safety Studies. Mr. Jinson Thomas gave a brief idea And overview of the importance of safety in engineering, and discussed potential risks and hazards in engineering laboratories and construction industries. He explained and demonstrated of different types of PPE, including safety .glasses, gloves, lab coats, and ear protection.

AISAT CIVIL ENGINEERING ASSOCIATION (ACEA) OFFICE BEARERS 2023-2024



President
Ms. Praise Ammini Paul
(S7CE)



Vice President
Ms. Joyal Nelson
(S5 CE)



Secretary
Ms. Safreen Raheed
(S5 CE)



Joint Secretary
Ms. Nihala Siyad
(S3CE)



Treasurer
Ms. Aiswarya A J
(S5 CE)



Mr. Nikkil VT
(S7CE)
Student Representative



Ms. Sindreena Ebby
(S5CE)
Student Representative



Mr. Abel Sunny
(S3 CE)
Student Representative



Ms. Roobiya K A
(S1CE)
Student Representative

AISAT ICI STUDENT CHAPTER OFFICE BEARERS 2023-24



Mr. Sravan Ramakrishnan
Menon
(S7 CE)
Chairperson



Ms. Devika Joshy
(S7 CE)
Secretary



Mr. Abhiram P Lal
(S5 CE)
Treasurer



Ms. Jenny Joseph
(S5 CE)
Event Coordinators



Ms. Shifa V Anwar
(S7 CE)
Event Coordinators

Course Enrichment Activities

Safety in Construction-Poster Competition

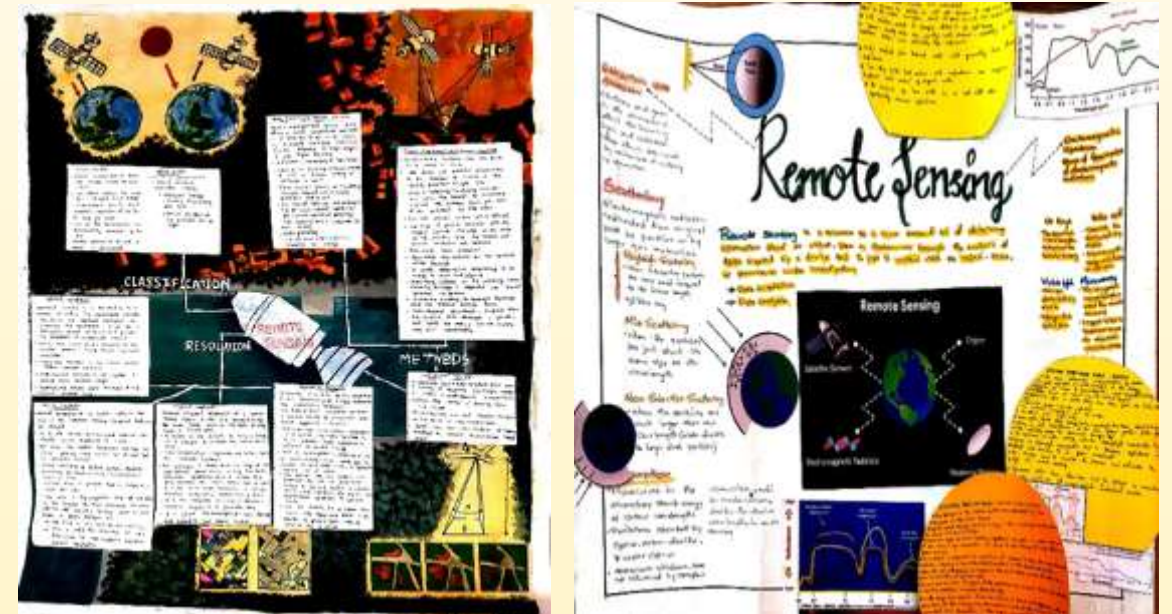
The Safety in Construction, Poster Competition, was organized as part of a course Enrichment Activity for the Construction Planning and Management course handled by Prof. Sheeja M K for final year students. The primary objective of the competition was to promote a culture of safety in construction by encouraging students to delve into the intricacies of safety protocols and regulations. The competition sought to enhance students' understanding of safety measures in construction, fostering a sense of responsibility and awareness among future professionals in the field.

After careful deliberation, the judging panel selected the winner as Mr. Sravan Ramakrishna Menon, batch 2020-24. The Safety in Construction Poster Competition proved to be a successful and impactful Course Enrichment Activity for final year students. The event not only showcased the creativity and talent of the participants but also contributed significantly to the promotion of safety awareness within the construction community.



Surveying and Geomatics -Poster Presentation

The course enrichment Activity for third semester subject: CET 205 Surveying and Geomatics focused on the fifth module, covering Global Positioning System (GPS), Remote Sensing, and Geographic Information System (GIS). Four student groups were assigned to each topic, creating visually informative posters that encapsulated key concepts and practical applications. Jose Mikhev, Nihala SiyadSandra VM, Athul Satheesh, Diya Fathima, Noor Fathima, Devi Nandhana S, Feba Jose and Aisha Afrin participated in the poster presentations. During the presentation session, the students explained their posters to their peers, fostering collaborative learning and enhancing communication skills. This hands-on approach not only deepened their understanding of theoretical concepts but also encouraged the application of knowledge in real-world scenarios.



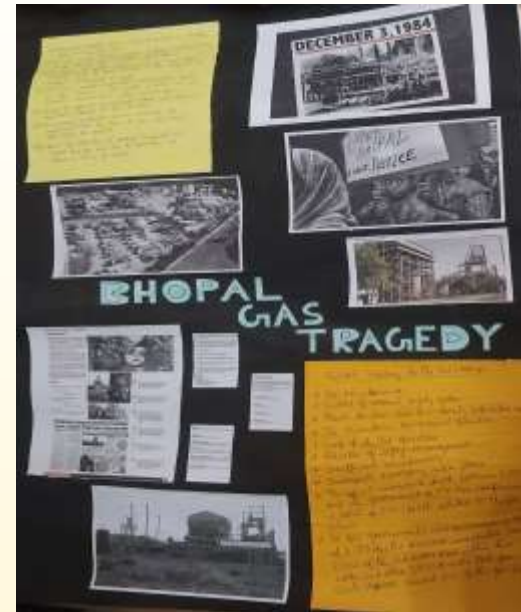
Course Enrichment activities

Demonstration of Construction Equipment in Civil engineering

As part of course enrichment of CEL331 Material testing lab II practical course, demonstration of use of needle vibrator for construction works and equipment's for testing SCC flow properties were carried out for S5 Civil Engineering Students on 26.10.23. The applications of Self Compacting Concrete, and apparatus like U box, L box, J ring, V funnel etc. for checking the flowability, passing ability and filling ability of concrete for SCC were also demonstrated during the session. The difference in the flow properties, tests methods and equipment's to determine the flow properties of normal concrete and SCC were explained. The course enrichment activity was useful to students to get awareness on special concretes and compaction method adopted in the field.



Visual Learning Pedagogoy



In the Professional Ethics class for HUT 200, a visual learning pedagogy was implemented, focusing on the topics "Implications of Multinational Corporations on Society" and "Ethical Effects of Bhopal Gas Tragedy." Students, including Athul Satheesh, Aiswarya Das, Abel Sunny, Deol Sunny, Anoop TS, and Nihal TA, prepared posters that visually encapsulated key ethical dimensions of the subjects. The in-class presentations by each student not only showcased their grasp of the topics but also sparked engaging discussions. This approach not only deepened the students' understanding of complex ethical concepts but also encouraged active participation and the practical application of ethical principles to real-world scenarios. The Incorporation of visual aids proved to be an effective and interactive way to convey intricate ethical considerations, fostering a dynamic and collaborative learning environment.

Fostering Creativity and Collaboration

The Impact of the Idea Pitch Exercise on Civil Engineering Students

As part of the Students Induction program, a captivating Idea Pitch exercise unfolded on the 15th of September 2023, specifically tailored for first-semester civil engineering students. This one-hour session aimed to invigorate the students' creative thinking and enhance their team-working capabilities. The focal point of this engaging exercise was a unique challenge that required students to transform a humble collection of matchsticks into a structurally sound bridge. Throughout the session, participants seamlessly blended their physics, engineering, and math skills to conceptualize and construct their bridges.

Working collaboratively in groups, students navigated the intricacies of the task, diligently designing and building their bridges to meet the specified requirements. What transpired was an intriguing exploration of innovation, as each group sought to outdo the other in creating a robust and efficient bridge. One notable aspect of the exercise was the students' incorporation of smart ideas to fortify their designs. Some astutely utilized the geometric strength of triangles in their structures, while others strategically added extra matchsticks to key areas, optimizing strength and resilience. The exercise not only provided a hands-on application of theoretical knowledge but also fostered an environment where students felt empowered to share and implement their ingenious solutions.

The collaborative nature of the task encouraged lively discussions, turning the exercise into a melting pot of creativity and innovation. In conclusion, the Idea Pitch exercise served as a catalyst for the development of essential skills among civil engineering students. Beyond the construction of matchstick bridges, it ignited a passion for problem-solving, teamwork, and outside-the-box thinking, laying a strong foundation for the students' academic journey in the field of civil engineering.



INDUSTRY -INSTITUTE INTERACTION

AISAT- IGS Award for Best M. Tech Thesis

The IGS-AISAT Award for the Best M.Tech Thesis in Geotechnical Engineering in the state of Kerala is the annual competition conducted jointly by the Indian Geotechnical Society (IGS) - Kochi Chapter and Albertian Institute of Science and Technology, Kalamassery. The main objective of the IGS–AISAT award competition, conducted annually for M.Tech Civil Engineering students of Kerala state, is to promote research in the field of Geotechnical Engineering. Postgraduate students who have completed M.Tech thesis work on topics related to Geotechnical Engineering during this academic year were eligible to apply.

The AISAT- IGS Award 2023 competition was coordinated by Dr. Jerin Joseph and Prof. Sherine Justine. The deadline for submission of applications was July 31st, 2023. The extended deadline for the submission was 15th August, 2023. The competition received an overwhelming response, with a total of 20 participants submitting their research work. After a rigorous evaluation process, the top ten candidates were shortlisted for the presentation by an expert committee. The competition was conducted entirely online on 30th September, 2023. The presentations and theses valued by a panel of judges consisting of two eminent experts in the field of Geotechnical Engineering, Dr. Rahul R Pai (SCMS college of engineering) and Dr. Jimmy Thomas (Co-Chairman, IGS-Kochi Chapter).

The IGS-AISAT Award 2023 for the best M Tech thesis in Geotechnical engineering in Kerala was awarded to Mr. Malavika V of Marian Engineering College, Kazhakuttom for the thesis titled “Analysis of coir composite infilled trench in mitigating ground vibration” guided by Ms. Revathy V. S. The award which comprised of a citation and a cash prize of Rs. 10,000/-, was presented to her, by Rev. Fr. Manoj Francis Marrotical, Assistant Manager, during the 12th Praphulla Kumar Memorial Lecture on 14th October, 2023 which was an official function of the IGS-Kochi Chapter.



The authors of the best five theses were honored with certificates of appreciation and mementos on the same day. The award function was graced by the presence of Dr. Babu T Jose, Patron, IGS Kochi Chapter, Mr. M D Nair, Chairman, IGS Kochi Chapter, Dr. Benny Mathews Abraham, Chairman, IGS Kochi Chapter & Head of Civil Engineering Department, Dr. Jimmy Thomas, Co-Chairman, IGS-Kochi Chapter, Er. Reji Zachariah, Treasurer, IGS Kochi Chapter, Er. A.V.S Chakravarti, Hon. Secretary, IGS Kochi Chapter, Dr. Anil Joseph, National President, IGS and Prof. Paul Ansel V, Vice-Principal, AISAT.

Name of Student	Title of thesis	Institute
Malavika V	Analysis of coir composite infilled trench in mitigating ground vibration	Marian Engineering College, Kazhakuttom
Rose Paul	Numerical study on performance of twin tunnels	National Institute of Technology, Calicut
Merin Susan Manu	Assessment of erosion control on field soils	Marian Engineering College, Kazhakuttom
Brindha R	Numerical study on the stabilization of soil slopes using anti-slide piles	National Institute of Technology, Calicut
Banoth Vishnu Varun	Studies on subgrade characteristics of lateritic soils with CNSL treated coconut coir fibers	National Institute of Technology, Calicut

INDUSTRY INSTITUTE INTERACTION

ProComp 2022-23 - Best B. Tech Project Competition

The Department of Civil Engineering, AISAT in association with Graduates' Association of Civil Engineers (GRACE) organised ProComp 2022-23, an annual project competition which provides an arena for the final year B.Tech Civil Engineering students from various engineering colleges under APJ Abdul Kalam Technological University, to showcase their innovative concepts and project works, done as a part of their curriculum.

The presentation of the projects qualified to the final round of Procomp 2022-23



was held on 25th September 2022 in online mode. The sessions were enriched by the presence of Dr. Subha V, Professor, SOE, CUSAT and Er. Reji Zachria, GRACE. The Mokshagundam Visvesvaraya prize for the best project was bagged by the team consisting of Ms.Amala Sany, Ms.Bhavya Lakshmi M,

Ms.Gopika Asok, Ms.Hizana K of SCMS School of Engineering & Technology, Karukutty. The second prize winners were Mr.Gopikrishnan P S, Mr. Ajil Jaleel, Mr.Ashwin Krishna, Mr.Aswin Anilkumar of Federal Institute of Science And Technology, Angamaly. The winning teams were awarded, prize money, citation and certificates on 14.10.2023 during the 12th Praphulla Kumar Memorial Lecture by Fr. Manoj Francis Marottickal, Assistant Manager, AISAT, Prof. Paul Ansel V, Vice Principal, AISAT and other dignitaries.



3D Printing: Revolutionizing Building Construction

3D printing technology has already been used in various industries including healthcare, automotive and aerospace. Enabling flexible design and innovation 3d printing is setting out a revolution in construction industry. Major works done using 3d printing are Tecla house, House zero, Milestone project, Urban cabin, House1.0 etc.

Construction 3d printers works quite similarly to how our office printer works led by a software program. In 3D construction printing computer aided design (CAD) or BIM are used. It is a process of layer-by-layer material deposition. The way these machines work is by sucking up concrete and extruding them out by a giant nozzle forming layer upon layer, which are no taller than a pick-up truck with pre-programmed design.

3D PRINTING AND SUSTAINABLE ENGINEERING



3D printing technology incorporates recycled material like plastic, recycled concrete and other recyclable materials. To a large extent this technology can reduce the waste generated during construction thus making the process more sustainable.

The construction process has 3 steps

- 1.Data processing –The design of building converted into a data of the 3D model which is fed into computer
- 2.Material processing –a patented concrete mixture is prepared.

3.Robotic printing – it is done by a robot arm.

The printer used is autonomous and capable of following the job specifications accurately, hence removes any human error.



Tecla-the eco sustainable 3D printed habitat ,which is the first and unique fully 3D printed construction based on natural materials and made with multiple 3D printers operating at the same time .

It is a new circular model of housing entirely created with reusable and recyclable materials ,sourced from local soil, carbon-neutral and adaptable to any climate .

Construction industry are increasingly leveraging the capabilities of 3D technologies and their transformative impact on the future of construction. With their ability to minimize carbon emissions and reduce environmental footprint, 3D-printed structures hold immense potential for mitigating waste in the construction sector. In conclusion, the outlook for 3D printing in construction is exceptionally promising from a technical standpoint.



AISWARYA A J
S6 CE
BATCH 2021-25

Student Achievements

MOOC Courses Completed

Name of the Student	Name of the course	Achievement
Agnas Ashitha Pious	12 weeks NPTEL course on Pavement Materials	Passed
Aneeta Elizabeth T P	12 weeks NPTEL course on Pavement Materials	Passed
Lakshmi Jayaprakash	12 weeks NPTEL course on Basic Environmental Engineering and Pollution Abatement	Passed
Mariya Anjana	12 weeks NPTEL course on Geotechnical Engineering II	Passed
Stella Deepthy	12 weeks NPTEL course on Air Pollution and control	Passed
Shifa V Anvar	8 weeks NPTEL course on Expansive soil	Passed
Reshma G Pai	8 weeks NPTEL course on Expansive soil	Passed
Ranjini R	8 weeks NPTEL course on Expansive soil	Passed
Paul Ben Babu	12 weeks NPTEL course on 'Geotechnical Engineering Laboratory	Passed

Proud Achievers



Cube test competition

ICI student chapter members of AISAT, Ms.Sandra Chandran, Ms.Liyana Yasmin and Mr.Sravan Ramakrishnan from S8 CE recieved a cash prize of Rs.5000 and Certificate from Er. Nishant Sihara IAS, Asst. Collector, Ernakulam

Third prize for the cube test competition organized by Indian Concrete Institute , Kochi Centre on Tuesday, 30 January 2024. ICI student chapter member Ms.Riyana Sosa Cheriyan was the MC for this program and Ms. Silvaniya Mariya Elizabeth and Ms. Stella Deepthy started the program with prayer song.



Rithika Rojes of S2 CE (2023-27) secured second position in APJKTU Inter-zone Karate Competition.

Proud Achiever-University Examination rank holder



Ms. Evangela Henry

B. Tech 2019-23 Batch

University rank in B. Tech Examination

Proud Achiever-Awarded a Doctoral Degree



Dr. Jerin Joseph

Assistant Professor

**Department of Civil Engineering,
AISAT**

Prof Jerin Joseph successfully defended his PhD thesis on “Performance of Granular Pile Anchor in Sand” at the National Institute of Technology, Surat on September 11, 2023.

Academic Toppers

B.Tech 2019-23 Batch



Ms. Evangela Henry
CGPA 9.83



Ms. Namitha Mary
CGPA 9.48

B.Tech 2020-24 Batch



Ms. Praise Ammini Paul
CGPA 9.54



Ms. Riyana Sosa Cheriyan
CGPA 9.07



Ms. Aysha Nourin
CGPA 9.03

Academic Toppers

B.Tech 2021-25 Batch



Ms. Aiswaryalakshmi M R
CGPA 8.9



Ms. Akshaya Krishnakumar
CGPA 8.59



Ms. Sree Gowri R A
CGPA 8.29

B.Tech 2022-26 Batch



Mr. Jose Mikhev N D
CGPA 8.01



Ms. Nihala Siyad
CGPA 8.01

News from Students

B. Tech (Batch 2023-2027)

- *Rithika Rojes of S2 CE secured second position in APJKTU Interzone Karate Competition.*
- *Ayisha C M and Amin Benny of S2 CE attended a one day workshop on Introduction to Structural Engineering and Etabs on 26th November 2023.*
- *Ashna Shereefa, Khadeeja Mezba, Aljina A Jimson attended workshop on Occupational Health Hazards and Engineering Solutions on 24th November 2023*

B. Tech (Batch 2022-26)

- *Noor Fathima secured first prize in poster making competition conducted at AISAT on 16th March, 2023 by IEEE.*
- *Fiya Tonson secured first prize in Badminton - girls for Zealousta 2023*
- *Alna Shine secured first prize in Slogan Writing Competition by NSS AISAT.*
- *Adhila Hassan and Aleena Ambrose, Fathima Farzana and Noor Fathima secured third prize for Oppana for Chrysalis 2023.*
- *Akhila Suryakumar, Aisha Afrin, Aleena Ambrose secured, Amegha Rejina and Anusree third prize for group song for Chrysalis 2023.*
- *Noor Fathima secured third prize in Unplugged for Chrysalis 2023.*
- *Noor Fathima secured third prize in painting for Chrysalis 2023.*
- *Alna Shine participated in poster making competition conducted by NSS AISAT.*
- *Alna Shine participated in Greenstorm Global Photography festival.*
- *Anitta Margaret Mendez participated in Greenstorm Global Photography festival.*
- *Athulya U R participated in Greenstorm Global Photography festival.*

B.Tech Batch (2021-2025)

- *Ms. Safna T S participated in 'Construction by concrete 3D printing: latest developments, Applications and challenges', organised by the Institution of Engineers, Kochi Local centre on 8th September 2023.*
- *Ms. Safna T S participated in INVICTA, a talk series conducted by IEEE WIE AG AISAT on 27th April 2023.*
- *Ms. Aisha Alfiya M A, Ms. Malavika K R, , Ms. Christina T J participated in Popsicle bridge Design competition organised by RIT Kottayam as a part of RITU 23, the techno cultural fest.*
- *Ms. Sreegowri R A, Ms Aksahay Krishnakumar attended a one day workshop on the Basics of AutoCAD & SketchUp organised by Techmagi in association with KSHITIJ, IIT Kharagpur, 2023.*

B.Tech (Batch 2020-2024)

- *George Rony secured second prize in basket ball in annual sports meet 2023 on 1/04/2023.*
- *George Rony secured third prize in badminton in annual sports meet 2023 on 1/04/2023.*
- *George Rony secured second prize in football in annual sports meet 2023 on 1/04/2023.*
- *Jesmol Saji secured second prize for group song for Chrysalis 2023.*
- *Jesmol Saji secured third prize for Kho-Kho for annual sports meet on 22/12/2023.*
- *Manishma N M secured second prize for group dance for Chrysalis 2023.*
- *Resma G Pai secured second prize for group dance for Chrysalis 2023.*
- *Rosary Amala secured second prize for dance with property for Chrysalis 2023.*
- *Sanjai C Babu secured second prize for group song for Chrysalis 2023.*
- *Shifa V Anwar secured first prize for Malayalam speech for Chrysalis 2023.*
- *Stella Deepthy secured second prize for group song for Chrysalis 2023.*
- *Stella Deepthy secured first prize for fashion show for Chrysalis 2023.*
- *Stella Deepthy secured third prize for cube testing competition conducted at MACE on 24/06/2023.*
- *Sandra Chandran secured third prize for cube testing competition conducted at MACE on 24/06/2023.*
- *Sravan Ramakrishnan secured third prize for cube testing competition conducted at MACE on 24/06/2023.*
- *Aleena Treesa participated in workshop on personality development at Trivandrum on 29/04/2023*
- *George Rony participated in workshop on sustainability at JSW Kochi on 13/04/2023.*
- *Jesmol Saji participated in basket ball tournament at MITS on 26/04/2023.*
- *Jesmol Saji participated in basket ball tournament at Adi Shankara Engineering College on 01/04/2023.*
- *Najma Nazer participated in a seminar on green construction 26/04/2023.*
- *Nikhil V T and Nilina Rose participated in Manak Manthan by BIS on 28/04/2023.*
- *Ranjini R participated in International career conclave at Le Meridian on 26/08/2023.*
- *Ranjini R, Sana Salim, Sandra Chandran, Mereena Babu , Sravan Ramakrishnan participated in Civilianz quiz competition on 15/09/2023 at RSET.*
- *Shifa V Anwar participated in cube testing competition at ToCH on 4/04/2023.*

Academic Excellence

MANAGER'S, PRINCIPAL'S AND VICE PRINCIPAL'S CLUB MEMBERS

Batch 8(2019-23)	Batch 9(2020-24)	Batch 10 (2021-25)	Batch 11(2022-26)
MANAGER'S CLUB	MANAGER'S CLUB	PRINCIPAL'S CLUB	PRINCIPAL'S CLUB
EVANGELA HENRY	PRAISE AMMINI PAUL	AISWARYALAKSHMI M R	JOSE MIKHEV N D
NAMITHA MARY TOMY	AYSHA NOURIN	AKSHAYA KRISHNAKUMAR	NIHALA SIYAD
	RIYANA SOSA CHERIYAN	SREE GOWRI R A	VICE PRINCIPAL'S CLUB
PRINCIPAL'S CLUB	PRINCIPAL'S CLUB	VICE PRINCIPAL'S CLUB	FATHIMA FARSANA.
JISA M J	NILINA ROSE N V	AISWARYA AJ	DIYA FATHIMA P A
TWINKLE M J	MANISHMA N M	FATHIMA SUHANA	AISHA AFRIN V N
NEVIN FRANCIS	ALIYA A HAKKEEM	MUHAMMED NASIM K J	SHILNA JOY.
NABEESATHUL MISIRIA	RANJINI R	AKTHAR ALI N	ADHILA HASSAN
FARHANA A.S.	VICE PRINCIPAL'S CLUB		NANDANA R
MARIYA ROSE	DEVIKA JOSHY		
CINDRELLA SIMENTHY	NASREEN M SHAJAHAN		
VICE PRINCIPAL'S CLUB	RESHMA G PAI		
ACZALAYA MARIA P R	MEREENA BABU		
AARCHA S	ANEETA ELIZABETH T P		
AADITYA J FRANKUR	NAJMA NAZER P		
MEGHAMOL N M	SRAVAN RAMAKRISHNAN		
MEENU KRISHNA	MENON		
NANDANA M S	NESRIN K S		
TEJUS NELSON	ANCHANA K S		
M A FATHIMA DIYA			

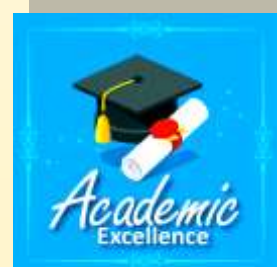
Extension Activities by students



Five students of 3rd year civil engineering, Aysha Nourin, Nilina Rose N V, Praise Ammini Paul, Riyana Sosa Cheriyan, Sravan Ramakrishnan Menon completed 14 days(15/05/2023-30/05/2023) internship at Kochi metro. Students have acquired theoretical and practical knowledge in construction activities.

Importance of safety in construction i.e., how to implement Health Safety Environment (HSE) practices at workplace are executed. During the time at KMRL, exposure to various aspects of civil engineering, including surveying, design, and construction management. Moreover, they got the chance to participate in site visits and construction inspections, allowed to witness the implementation of engineering plans and gain insight into the challenges and considerations involved in real-world construction projects. It provided guidance of experienced professionals mentorship and support. These experiences enhance understanding of construction processes and reinforced the importance of effective project management and teamwork.

Overall, the internship at KMRL has not only deepened the technical knowledge and skills but has also provides with valuable insights into the industry's dynamics and the role of civil engineers in shaping the built environment.



News from Faculty

Journal Publications

- Dr. Benny Mathews Abraham ,Mitigation of adverse effects of Sulphates in cement treated Marine clay subgrades, Geotechnical Engineering Journal of the SEAGS & AGSSEA.
- Dr. Benny Mathews Abraham, Cracking Behavior and Hydraulic Conductivity of Amended soils used in landfill cover under wetting drying cycles, Indian Geotechnical Journal, Springer,2024.
- Dr Benny Mthews Abraham ,Effect of surcharge loads during curing of lime-stabilised Cochin marine clay, Journal of Ground Improvement, Institution of Civil Engineers –London ,2023.
- Dr Benny Mathews Abraham,Grouting– an effective method for reducing the permeability of sandy soils, Int. J. of Hydrology Science and Technology, Inderscience Publishers,2023.
- Dr Benny Mathews Abraham, Effect of Surcharge Loading on Lime Treated Cochin Marine Clay Subgrades, Indian Geotechnical Journal, Springer, 2023.

Conference Paper

Sheeja M K , Jerin Joseph (2023), ” Parametric Study on Performance of Conical Shell Foundation Using FEM Modeling”, International Conference on Structural Engineering and Construction Management, pp 197–205, Proceedings of SECON’23, Lecture Notes in Civil Engineering.

FDP/Training Programs

- Prof. Sheeja M K attended One Week National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers, organised by the Internal Quality Assurance Cell (IQAC) of St. Thomas College, Palai in association with The Kerala State Higher Education Council (KSHEC) from 10 January 2024 to 16 January 2024
- Prof. Rinku John attended One Week National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers, organised by the Internal Quality Assurance Cell (IQAC) of St. Thomas College, Palai in association with The Kerala State Higher Education Council (KSHEC) from 10 January 2024 to 16 January 2024.
- Prof. Sreelekshmi G S attended One Week National level Online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers,

organised by the Internal Quality Assurance Cell (IQAC) of St. Thomas College, Palai in association with The Kerala State Higher Education Council (KSHEC) from 10 January 2024 to 16 January 2024

- Prof Aiswarya Anil attended five days FDP on Research and Publication Awareness organized by Mahaguru Institute of Technology and Science from 19th February 2024 to 23rd February 2024.
- Prof Sherine Justine attended five days FDP on Research and Publication Awareness organized by Mahaguru Institute of Technology and Science from 19th February 2024 to 23rd February 2024
- Prof Feeba George attended five days FDP on Research and Publication Awareness organized by Mahaguru Institute of Technology and Science from 19th February 2024 to 23rd February 2024
- Prof Nithya John attended five days FDP on Research and Publication Awareness organized by Mahaguru Institute of Technology and Science from 19th February 2024 to 23rd February 2024
- Prof Anagha S attended five days FDP on Research and Publication Awareness organized by Mahaguru Institute of Technology and Science from 19th February 2024 to 23rd February 2024
- Prof. Sreelekshmi G S attended 7th International Conference on Data Science and Management of Data from 4– 7 January 2024 at IIIT Bangalore .
- Prof. Vilbin Varghese participated in training programme on Recent Advances in Transportation Geotechnics held by CET from 15th to 20th January 2024.

NPTEL

- Prof. Aiswarya Anil, achieved Ellite certification for the course– Sustainable Construction and Life Cycle Analysis by NPTEL
- Prof. Nithya John, achieved certification for the course– Sustainable Construction and Life Cycle Analysis by NPTEL
- Prof. Feeba George achieved certification for the course– Sustainable Construction and Life Cycle Analysis by NPTEL
- Prof. Sherine Justine achieved certification for the course– Sustainable Construction and Life Cycle Analysis by NPTEL
- Prof. Vilbin Varghese achieved certification for the courses-Ground Improvement and Earthquake Geotechnical Engineering



B. Tech Batch 8 (2019-23)

In an emotionally surcharged atmosphere the students, staff and management of the College bid adieu to the Students of 2019-2023 Batch at a **Sponsion 2023** -convocation on course completion. Prof. Dr. S Jose, Principal delivered the welcome address. Rev. Fr. Antony Vacko Arackal, Manager in his presidential address urged the students to dream high and wished them all the success. Rev. Fr. Clement Valluvassery was the chief guest and he honored the students with course completion certificates. He expressed his appreciation to Ms. Evangela Henry (Batch 8, 2019-2023) and presented her with a memento in recognition of her academic excellence and outstanding achievement in securing the rank in the KTU examination.

Dr. Veena V ,Vice principal proposed vote of thanks and wished them a better future. Junior students gave a perfect gift for their seniors by presenting a video highlighting their yesteryears. The Outgoing student representatives from all the branches shared their experiences and wonderful moments at AISAT. The day was a fiesta devoted to the years spent together with friends and teachers to reminisce joyous moments .



Placement Offers

- Ms. Cindrella Simenthy of S8 CE (Batch 8, 2019-2023) got placed as Estimation Engineer at I -Roofing Enterprises on 01.07.2023
- Ms. Meghamol N M and Mr. Tejus Nelson of S8 CE (Batch 8,2019-2023) received placement offer as Junior Engineer from Best Grid Consultants Pvt. Ltd. on 03.07.2023.
- Ms. Aczalaya Maria P R S8 CE (Batch 8,2019-2023) received placement offer from Technologies PVT. Ltd. on 13.08.2023
- Mr. Ibrahim Ahammed PM of S8 CE (Batch 8,2019-2023)received placement offer from Star Décor Pvt. Ltd. for the position of Project coordinator on 05.12.2023
- Mr. Nevin Francis of S8 CE (Batch 8,2019-2023) received placement offer from Infopark Kochi on 19.10.2023

Congratulations



EVANGELA HENRY
S8 CE



FARHANA A S
S8 CE



NEVIN FRANCIS
S8 CE



DONA HERALD
S8 CE



TEJUS NELSON
S8 CE



SANDRA M S
S8 CE



ACZALAYA MARIA P R
S8 CE



NIHAD K ABBAS
S8 CE



NABEESATHUL MISIRIYA
S8 CE



AARCHA A S
S8 CE



NANDANA M S
S8 CE



MEENU KRISHNA
S8CE



TWINKLE M J
S8 CE



JISA M J
S8 CE



MARIYA ROSE
S8 CE



RAINA SERIN
S8 CE



NAMITHA MARY TOMY
S8 CE



AUSTIN SEVERINUS BASIL
S8 CE

Placement Offers

- Ms Dona Herald, Ms. Evangela Henry, Ms. Nabeesathul Misiriya, Ms. Namitha Mary Tomy, Ms. Twinkle M J, Ms. Jisa M J, Ms. Mariya Rose, Ms. Jinu Jacob, Ms. Aarcha S, Ms. Nandana M S, Ms. Meenu Krishna, Ms. Farhana A S, Mr. Tejus Nelson, Ms. Sandra M S, Mr. Austin Severinus Basil, Ms. Raina Serin, Mr. Nihad K Abbas, Aditya J Frankur and Mr. Muhammed Rasal K A of S8 CE (Batch 8, 2019-2023) received placement offers from Sutherland Pvt. Ltd. as Technical associate on 07.11.2023

Congratulations



CINDRELLA SIMENTHY
S8 CE



ADITHYA J FRANKUR
S8 CE



MUHAMMED RASAL
S8 CE



JINU JACOB
S8CE



MEGHAMOL N M
S8 CE



IBRAHIM AHAMMED P M
S8 CE

Internships



RESHMA G PAI
S7 CE



RANJINI R
S7 CE

Reshma G Pai and Ranjini R from the S7 CE batch of 2020-24 have successfully secured full-term internships as Interns in Civil Engineering at VINTON ENGINEERING during their eighth semester for a period of 6 months.

Our Recruiters



Success is not the result of spontaneous combustion. You must set yourself on fire.....

ALUMNI CORNER



My time at Albertian Institute of Science and Technology (AISAT) has been transformative, combining academic rigor with practical application under dedicated faculty. AISAT's emphasis on holistic development is evident in its vibrant campus life and diverse extracurricular activities. Participation in clubs and community service not only honed my skills but also forged lasting friendships. The culture of questioning and innovation at AISAT fueled my passion for continuous learning. Overall, AISAT has prepared me not just for a successful career but for a fulfilling life beyond graduation, fostering invaluable mentorship and friendships along the way.

Evangela Henry
B.Tech (2019-2023)



Expressing my heartfelt gratitude to AISAT, I found myself immersed in a flood of memories that shaped my college experience. Despite the global pandemic, AISAT provided me with an exceptional college experience, I could have ever asked for. I commend the AISAT family for their dedicated effort in keeping all of us on track with our academics amidst the emotional challenges of the pandemic. I appreciate AISAT's commitment to conduct industry visits, technical talks, special supervisory sessions to ensure our academic progress all while making no compromise to a vibrant cultural and athletic environment for us students through fun filled college fests, Friday fests and sports meets.

Twinkle M J
B.Tech (2019-2023)



Embarking on the Civil Engineering journey at AISAT felt like diving headfirst into a dynamic blend of learning and personal growth. AISAT wasn't just about hitting the books – it was also about offering vibrant classrooms, engaging cultural experiences and an infusion of sports activities. The hands-on, real-world teaching style at AISAT significantly amped up my confidence for what lies ahead. In four transformative years, AISAT has become more than an academic institution; it's my home away from home, where I've learned invaluable real-life lessons. This journey, packed with cool experiences and skill-boosting adventures, was made possible with the dream team at AISAT – the management, faculty, and my peers

Nihad K Abbas
B.Tech (2019-2023)



As an AISATian, I look back on these past four years as the most amazing chapter of my life AISAT truly lives up to its promises, boasting advanced infrastructure including a well-equipped computer lab, a comprehensive library, and top-notch sports facilities. The supportive and friendly nature of the teachers has been a significant aspect of my journey, and I extend my heartfelt thanks to all the faculty members of the Civil Engineering Department for their sincere efforts. Their dedication to bringing out the best in us, coupled with constant motivation and encouragement, has played a crucial role in shaping our academic and personal growth.

Nevin Francis
B.Tech (2019-2023)



DEPARTMENT ALUMNI MEET 2024



Department of Civil Engineering organized Alumni meet 2024 on 17.02.2024, hosted in the college campus at 2.30 pm which was followed by AISAT Alumni Association (AAA) programs. Students of Batch (2019-2023), (2018-2022) and earlier batches actively participated in the program. The meet started with a silent prayer followed by the welcome address by Prof. Rinku John. During her speech, she mentioned the significance of developing connections among alumni and emphasized the importance of updating them on recent developments at alma mater.

In HoD's address by Dr. Benny Mathews Abraham appreciated the alumni in organizing on-campus gathering amidst online sessions.

This was followed by felicitation, by Prof. Sheeja M K, Prof. Sreelekshmi G S and Dr. Jerin Joseph. Mr. Akhil Thomas (Batch7) and Mr. Omar Kayyas (Batch 5) were selected as Department Alumni representatives in the open forum conducted thereafter.

During the alumni experience sharing session, students expressed their experiences in AISAT and how it helped them in moulding their future. Department level gathering came to an end with a gracious vote of thanks proposed by Mr. Akhil Thomas and was followed by AAA College program.



THE BEYOND CLASSROOM





ALBERTIAN INSTITUTE OF SCIENCE AND TECHNOLOGY (AISAT)

Approved by AICTE, New Delhi,

Affiliated to KTU Thiruvananthapuram



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