

### FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY®

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Volume IV

## DEPARTMENT OF CIVIL ENGINEERING

"My buildings will be my legacy. They will speak for me, long after I am gone".

The Department of Civil Engineering has been in existence since the inception of FISAT in 2002 and has emerged into a full-fledged department with the commencement of Civil Engineering branch in 2011. The department aims to provide a comprehensive education and training at the levels of materials, tools, planning, analysis, design and maintenance of structures and to also ensure that the students graduate with strong ethical and moral values and make them socially committed.

#### **VISION**

Emerge as a Center of Excellence in Civil Engineering, fostering globally competent and socially committed Civil Engineers

#### **MISSION**

- M1. To provide a comprehensive education and training at the levels of materials, tools, planning, analysis, design and maintenance of structures.
- M2. To encourage research and development in the field of civil engineering that are useful for the society.
- M3. To equip the graduate with strong ethical and moral values and make them socially committed.



#### PROGRAM EDUCATIONAL OBJECTIVES (PEO)

**PEO 1:** The graduates of Civil Engineering will be able to have a successful career in industry and government sector with their strong understanding of civil engineering solutions in a global, economic, environmental and social context.

**PEO 2 :** The graduates of Civil Engineering will be able to pursue higher studies in the broad domain of Civil Engineering and engage in lifelong learning through certifications and activities of professional bodies.

**PEO3**: The graduates of Civil Engineering will be able to become successful entrepreneurs and become a part of the nation building process serving the society in a responsible and ethical manner.

#### PROGRAMME SPECIFIC OUTCOMES (PSOs)

After successful completion of BTech in Civil Engineering, students will be able to:

**PSO 1:** Feasibility of Civil Engineering Projects: Conduct surveys and site investigations for Civil Engineering projects and prepare feasibility reports

**PSO 2:** Analysis and Design in Civil Engineering: Plan, Analyse and design Civil Engineering solutions giving due consideration to society, cost, safety and sustainability

**PSO3:** Execution of Civil Engineering Projects: Supervise, test and evaluate construction of structures, materials, manage resources and maintenance of structures



It is an immense pleasure to know that the Department of Civil Engineering is releasing their annual newsletter "PATHWAY". The Department of Civil Engineering is one of the youngest Departments in this Institute from its inception in 2011. It is striving to excel in different spheres in order to help the students excel both in curriculum and research. The department has an

excellent group of highly motivated faculty members having both industrial and teaching experience. The knowledge and ideas they have assimilated on various civil engineering disciplines is furnished to the students through the best academic practices that they adopt. I wish everyone to continue their persevering efforts to reach further heights. Congratulations to all members of the editorial board, faculty and students for bringing out this issue of PATHWAY 2018-2019.

I am extremely happy to know that the Department of Civil Engineering is bringing out their next issue of newsletter 'PATHWAY'. I feel elated by the success of the students of the Civil department who have worked hard to take their department to greater heights. Their academic performance and placement data speaks highly of their hard work and perseverance. "PATHWAY" offers a glimpse of the student activities and



achievements, increase in intellectual gains through faculty development, industrial interaction and overall development of a department in a semester. Summing up, it is our cumulative efforts to provide an assessment platform to design our future course of action in coherence with the vision of the department and the institute. I congratulate the entire "PATHWAY" team and would appeal to the entire Civil Engineering Department to contribute for 'Pathway'.



PATHWAY is a journey, the journey of the department of Civil Engineering. This is the next beautiful chapter in the journey of the department. This newsletter captures the best moments of the department during the year 2018-2019. I feel happy and contended that the department was able to create opportunities for everyone to pursue their passion and achieve what one

dreams. There are so many bright stars that shined well during the past one year, and it feels so fortunate to be among them. The entire team of students, faculty members and non-teaching staff have given their best and that is reflected in each event that was conceived. Nirman and SECON gave us some of the best moments and it will be cherished for years to come. We could interact with the best of Industry and Academia through the various events that were conducted. There is no doubt that the department of Civil Engineering has been the most active department keeping up the spirits of FISAT. Kudos to the editorial team for compiling this beautiful newsletter.

#### **Editorial voice**

"We shape our buildings, thereafter they shape us."



What an eventful year it was for the Department of Civil Engineering to witness the revelations of change,

proudly creating history, spectacular in every inch of the way. We have stamped our credentials with determination and marching our way closer to realize the vision of being the department offering world class education. It is pleasing to observe that being the youngest department has never stopped us from running behind challenging projects and conquering them. It has only been a fuel to the igniting minds of our students.

It is with immense pleasure that we present the fourth edition of PATHWAY 2018-19. It has been a roller coaster of great adventures and events throughout the year starting from the grand success of NIRMAN 2K19 and raising our bars and organising the third national conference on structural engineering and construction management SECON 19, the outcome of which saw the publications of our participant's research work in Scopus Indexed Springer - 'Lecture Notes in Civil Engineering'. Having spent a lot of waking hours to see the newsletter reach the state of fruition, Pathway for us, is just not a newsletter but a reminder of the milestones that we have conquered over the years.

I would like to thank all my editorial team members for their creativity, passion and unwavering support that has made this newsletter possible. Let's make 2020 another exceptional year!



## Third National Conference on Structural Engineering and Construction Management – SECON'2019

After the grand success of SECON 18, the Department of Civil Engineering, Federal Institute of Science and Technology, (FISAT) Angamaly has raised its pitch by organizing the Third National Conference on Structural Engineering and Construction Management -SECON'2019 in association with ICI Kochi Chapter, IEI Kochi Centre and ISTE. The two-day conference was held on 15th and 16th of May 2019. The inaugural function was held on 15th May 2019 at 10 am at the Seminar Hall. Mr. Unni Kartha G., Head of Department, Department of Civil Engineering welcomed the dignitaries and participants. The inaugural session was presided over by Mr. Paul Mundadan, Chairman, FISAT. The event was graced by the esteemed presence of two eminent personalities, Dr. Radhakrishna G. Pillai, Associate, Professor, Department of Civil Engineering, IIT Madras, who inaugurated the Conference and by the Guest of honour Er. C. Prathapmohan Nair, trained civil engineer and urban planner, certified PPP specialist and UNECE enlisted PPP advisor, member of the royal institute of chartered surveyors who released the conference proceedings. Principal Dr. George Isaac conveyed the felicitation. Vice-Principal Dr. C. Sheela, and Dean (Academics) Dr. Sunny Kuriakose were present during the inaugural function. The theme of the conference was presented by Ms. Asha Joseph, Convener, SECON'19 and the inaugural function was concluded by a vote of thanks, proposed by Dr. Kavitha P. E., coconvener of SECON '19.



The two day session comprised of the keynote addresses by some of the most eminent personalities such as Dr. Radhakrishna G. Pillai ,Er. C. Prathapmohan Nair, Dr. Sudheesh T.K., Assistant Professor, IIT Palakkad, Dr Sunil Kumar N., Principal, Cochin University College of Engineering, Kuttanad, Dr. Job Thomas, Professor, CUSAT, Kochi and Dr. Sajith A.S., Associate Professor, NIT, Calicut. Atotal of 63 papers were presented during the two day session

across various venues. All the selected papers will be published in Scopus Indexed Springer -'Lecture Notes in Civil Engineering'



## Faculty Development Workshop on "Design of Advanced Concrete Structures"

The Department of Civil Engineering, FISAT organised a Six day Faculty Development Workshop on Design of Advanced Concrete Structures from 3rd to 10th July 2019. The workshop included topics related to advanced methods of Design of Concrete Structures and the interaction of structure with soil taking into consideration the type of foundation and the soil properties. The sessions were handled by eminent persons from academia and industry who discussed the fundamental principles and advanced topics related to the design of concrete structures. Dr Devdas Menon (IITM), Dr Srinivasan Chandrasekaran (IITM), Dr G. R. Dodagoudar (IITM), Dr N Ganesan (NITC) were the academicians and Er Suresh S, Dr Jimmy Thomas, Er Jayakrishna Menon and Er Abhilash Joy were the resource persons from industry.

The workshop also included a half day site visit to the KMRC Prestressing Yard at Kalamassery where the participants got an opportunity to see the procedure of post tensioning. A one day Bentley Certified Hands On Training on STAAD Foundations was conducted by Intercad Solutions Pvt. Ltd on the final day. A total of 38 participants attended the workshop, of which, 20 were internal participants, 15 external participants from academia and 3 participants were from industry. The workshop was a success and received positive feedback and acclamation from the resource persons and the participants.



#### Add on Workshop on Building Planning

An Add on programme on Building Planning was organised by the Department of Civil Engineering in association with the Indian Concrete Institute - Kochi Chapter on 28th March and



1st April 2019 and was held in the Civil Engineering conference hall. The session was handled by Ar. Johny Kaitharath who is a practising architect in Kochi. The students were given hands-on training on how to measure an actual site and plan a residential building within its constraints fulfilling the requirements given to them. The students also created a presentation of their design work.







## TALK ON "ROLE OF ENGINEERS IN PROCESS AND PROJECT INDUSTRIES"

An invited talk on -"Role of Engineers in Process and Project Industries" was organized by the Department of Civil Engineering, FISAT on 25 April 2019 at the MBA Seminar Hall. The resource person for the event was Er.Shaji Jacob, Chartered Engineer and chief academic coordinator, Member- IEI Kerala state center committee (EE), Institution of Engineers (India). Mr. Unni Kartha G., Head of the Civil Department, welcomed Mr. Shaji Jacob to the event. A total of 75 students from Civil Department and 5 Faculty members of ME, EEE, ECE and CS Departments, attended the lecture.

The session began with Mr. Shaji Jacob describing how the IEI (Institution of Engineers India) work and how much IEI helps the students as well as the staff in their academics. During the session, he outlined what is HSE and made the students aware of the importance of Health, Safety and Environment. Next, he moved on to the traits that a B. Tech student needs to acquire along the duration of the course and he stressed the importance of setting a goal in life. In the later session, he explained how important it is to know the code of conduct with a small experience he encountered. Finally, he concluded his talk by advising the students on how they should prepare for the competitive examinations in their future.



#### **AAVISHKAR'19**









The creative minds of the Civil Engineering Department were able to express their innovative ideas and civil engineering related techniques to the public through Aavishkar'19, which is a Project Expo exhibiting all the Eighth semester B.tech projects. The main aim of the expo was to enable the public to explore the various zones within civil engineering varying from water treatment, environmental impact assessment, GIS, soil piping, structural dynamics to transportation modelling and analysis. The programme was conducted on 8th May 2019 at FISAT auditorium.

## The following Project groups won the awards in different criteria:

- 1. Best Project: 'Flood Susceptibility Analysis Using Geospatial Techniques' by Krishnapriya S ,Manjima V J, Vindhya Udayakumar and Sreekumar Suresh Shenoy guided by Ms. Abhiya Abbas Mundol
- 2. Best Innovative Project: 'Generation of electricity and waste water treatment using microbial fuel cells' by Arya Sajith, Akash A Menon ,Indeevar Krishna Asok guided by Mr. Jawahar Saud S.
- 3. Best Poster: 'Bacterial Concrete' by Abhirami Vinod, Anzil Ameen Noushad, Ashwin Hari and Jerry Joseph Danty guided by Asha Joseph
- 4. Best Project with Industrial Relevance: 'Flyash based lightweight foamed concrete blocks' by Antony Devassy Kunju, Divya Robin and Erina P Joshi guided by Ms. Jiji Antony.
- 5. Best Project with Social Relevance: 'Experimental Investigation and Mitigation Works in Soil Piping affected regions of Kerala' by Justin Varghese ,Mariam Rose Josy ,Sanjay Das and Sona B K guided by Ms.Panjami K

## Launch of India's newest civil engineers and construction magazine 'construction philosophy

On the 7th May 2019, a team consisting of 4 students and 2 faculty from the Department of Civil Engineering, FISAT attended the launch of 'Construction Philosophy' a magazine which is being published by Redine, run by managing director Mr. Nebu Abraham and director Ms. Divya Divakar. During the launch, Ernakulam District collector, Mr. K Mohammed Y. Safirulla has called for the need to bridge the gap between the industrial and the academia so that fresh graduates who step out into the job market won't be found lacking in technical expertise.

He was the chief guest of the event held at Rajagiri School of Engineering and Technology, Kochi. The magazine was launched jointly by P G Venkataram, chief of L&T Infra Engineering Ltd and Ravi Jacob, president of Credai-Kochi in the presence of Ganesh Krishna Iyer, Head of Department of Bridges and Metros, L&T Infrastructure Engineering Ltd, P Jagannathan, Head of HR, National Apprentice Promotion Scheme, Vinay Gopikrishnan, Head Marketing Sobha Ltd., Naushad, Senior DGM Marketing Maha Cement, officials of various Civil Engineering associations like ICI, BAI, IGS,IGBC, GRACE,IEI, APS, Structural Engineering Associations.

Prince Joseph and CKS Panicker of Builders Association of India, Fr Mathew Vattathara, Director, RSET, Thiruman Archunan, Director – Projects, KMRL, Dr. Babu T. Jose, Dr. Anil Joseph, Geo-structurals, Abhilash Joy, President GRACE were present on the occasion.

The website of 'Construction Philosophy' was launched by Mr. Kuncheria P Isaac, Vice-Chancellor of Hindustan Institute of Science and Technology.

The event was entertained by playback singer, Madhu Balakrishnan by his mesmerising music. The post launch interactive session was graced by Mr. Snehil Kumar Singh IAS, Sub-Collector Cochin, who is a Civil Engineer from IIT Roorkee and by many guests from L&T.



#### MPower - Placement training programme

MPower, the placement training programme was organized for the third year Civil Engineering students by Mr. K. Krishankumar and Ms. Mridhula.M on 21st february 2019 and was held in the Civil Engineering conference hall.It was a one day training programme with the main motive of bringing out the creative side of the students and to enable them to break out of their shells. The programme achieved in building a strong sense of team spirit and professionalism in the students.



#### MoU signed between FISAT & KSREC

The department of Civil Engineering signed an MoU with Kerala State Remote Sensing and Environmental Centre (KSREC) on 18th December 2018. The MoU was signed by Dr. Reghunatha Menon, Director KSREC and Dr. George Issac, Principal, FISAT in the presence of Mr. Paul Mundadan, Chairman, Dr K SM Panicker, Director, Dr. C Sheela, Vice Principal and Mr. Unni Kartha G, Head of the Department. This MoU will enable the students and faculty to learn and collaborate in the various activities of KSREC for making meaningful interventions in resolving societal issues and resource management at various levels of governance. This is the first agreement that KSREC has initiated formally in the state.

Mr. Paul Mundadan, Chairman, Governing Body of FISAT, remarked that this collaboration will facilitate and add to the social activities undertaken by the campus in Mookkannoor and Angamaly region. Dr. Suresh Francis, Scientist, KSREC, Dr. Sunny Kuriakose, Dean also spoke on the occasion.



#### NIRMAN 2k19

NIRMAN 2K19, the joint venture of the Department of Civil engineering and Builders Association of India (BAI), Angamaly Centre, brought forth a novel theme this year on "നവകരേള പുനർനിർമ്മാണം" and hosted it during 8th and 9th March 2019 at CSA Hall, Angamaly.

NIRMAN provides a platform for beneficial interactions among construction industries, builders, trade visitors, professionals, students and the public. Over 25 innovative stalls were set-up and saw nearly 2000 visitors during the two day event. The expo was inaugurated by Sri. Roji M. John, MLA, Angamaly. The keynote address was delivered by Sri. Paul Mundadan, Chairman, FISAT and was followed by a special address by Smt. M.A. Gracy Teacher, Municipal Chairperson, Angamaly.

Mr. Paul.T.Mathew, State Chairman BAI, Mr. Charles Thayyil, Chairman, BAI Angamaly, Mr. Johnson K.A, Convener, Dr. George Issac, Principal, Dr. C Sheela, Vice Principal, Dr. K.S.M Panicker, Academic Director, Dr. Sunny Kuriakose, Dean, Students Affairs, FISAT attended the inaugural event. Mr. Sachin Jacob Paul, Treasurer, FISAT, ASCE member and Practitioner advisor Er. Johncy K Sam and Mr. E K Rajavarma, Management Committee Members were also present on the occasion.

The Guest of honour was the renowned sculptor, Sri. Prem Adoor, Chief sculptor and Art director of Green planet, Dubai. Technical talks were conducted for students on topics: Ready mix concrete by Sri. Sreekumar Menon, Tritech, Thrissur, Planning and designing by Dr. Josna Raphael, Associate Professor, Department of Architecture, Govt. Engineering College, Thrissur, Insurance in construction and work man compensation by Mr. Dinesh Varrier, and a technical talk on Reinforcement bars by Mr. Akhil Raj, Marketing Director, METCON Steel.

Mr. Unni Kartha G, Head of the department, FISAT, Ms. Jiji Anthony, Ms.Rinu J Achison, Mr.Sreerath S, Assistant Professor, FISAT and student coordinators Mr. Elvin Roy and Mr. Marvin Mathew were the pioneers who steered NIRMAN 2K19 to success.



## **CONSILIO 2K18:Design Project Review Exhibition & Poster Competition**

Consilio is a one day exhibition event organised by the Association of Civil Engineers (ACE) to showcase the Design Projects, which is a part of the fifth semester B.Tech programme. The exhibition is a part of the evaluation process and the event envisages to identify and award a few best projects. CONSILIO 2K18, was conducted on 16th November 2018 at 9:30 AM in the FISAT auditorium. The program was inaugurated by Dr. George Isaac, Principal, FISAT and Mr. Unni Kartha G, Head, Department of Civil Engineering welcomed the gathering.

The exhibition showcased the work done by the 2016 admission batch students as part of their Design Project, an innovation based design course in the KTU curriculum. Students also created posters as part of the presentation. Awards were proposed on projects exhibiting substantial work on innovation and social relevance and also the best poster design.

The exhibition was attended by the College Chairman, Mr. Paul Mundadan who expressed his appreciation and pride in the work done by the students. The Principal, Vice Principal, Deans and Heads of Departments, various faculty and students attended the event. Great interest was shown in the exhibits by the attendees and the event was well received. Mr Unni Kartha G addressed the gathering and expressed his appreciation for the efforts taken by the students and the winners of the exhibition were announced.

#### Winners of CONSILIO 2K18

- 1."Mobile Curing Framework" by Anagha R Nath, Anitha Jose, Arya S M, Avanthika B
- 2."Laser Crossstaff" by Abhishek Babu, Arjun N, Dani Thomas Shaji, Jeffrey Michael
- 3. "Demascus Steel As Reinforcement Material In Concreting" by Sowmya Zaviar, Vrinda Ramachandran, Neeraja Babu, Nivya TS
- 4. "Use Of Geocells In Foundations Against Piping Of Soil Structural Protection" by Ria Mariam Sabu, Vishnudatha V Nair, Surjith V R, Midhun Joby





#### ASSOCIATION OF CIVIL ENGINEERS (ACE)

2018-19 was a very active year for ACE, the student association of the Department of Civil Engineering. The following events were held during this period.

1. Technical talk on dam safety by Adv. Russell Joy, Activist held on 12-11-2018 at conference room, FISAT



2. Technical talk on structural dynamics and earthquake engineering by Er. Suresh .S, Chartered Structural Engineer and Partner Associated Structural Consultants held on 28-11-2018 at main seminar hall, FISAT.





3. Technical talk on Ergonomics by Mr. Manoj Thomas, Regional Lead, TCS Kochi on 10-10-2018 at conference hall, FISAT.





4. Technical lecture on cement by Mr. Sebin Jose, Assistant General Manager, Heidelberg Cement India Ltd on 04-10-2018 at MBA seminar hall





#### FDP on Design of Steel Structures

The Department of Civil Engineering, FISAT in association with Association of Civil Engineers (ACE) organized a five day faculty development program on "Design of Steel Structures" from 16th to 20th July, 2018. The FDP was inaugurated by Mr. Paul Mundadan, Chairman, FISAT. Dr. C K Prasad Varma Thampan, Retd. Prof., NSSCE, Palakkad was the chief guest for the inaugural ceremony. The other resource persons of the FDP were Mr. Biju V, Assistant Professor, College of Engg:, Trivandrum, Dr. Babu Narayanan, NIT, Surathkal , Dr. Aravind H Bhashyam, Professor, Christ University, Bangalore, Mr. Anoop Baby, Business Development Manager, Marvel Structures Chennai and Dr. Syed Jalaludeen Shah, Professor, MES, Kuttipuram. A one day hands on training on the software, TELKA and site visit to He-man Robopark enhanced the profundity of FDP. A total of 38 participants from 16 colleges and 2 participants from the industry attended the event.





#### Add-on Course on Building Planning and Drafting-**Imagination and beyond**

The Department of Civil Engineering, FISAT in association with the Association of Civil Engineers (ACE) organized an Add-on Course on Building Planning and Drafting "Imagination and Beyond" during the first and second week of July, 2018. The Course spanned 10 days with 20 student participants. The sessions were led by Mr. Unni Kartha G., Mr. Sreerath S and Ms. Lidiya P. M. faculty from the department. Based on the continuous assessment of students throughout the sessions and their final project, the course had two toppers Mr. John Joseph (S2 CEB) and Mr. Juval Joy (S2 CEB). Dr. George Issac awarded the prize and certificates to the toppers.



#### #ThrowbackFISAT-First Alumni Meet

The very first alumni meet of the Department of Civil Engineering, named "#Throwbackfisat", was held on 23rd March 2019 in the campus. The event was presided over by Mr. George Issac, Principal, FISAT and Mr. Unni Kartha G., Head of the Civil Engineering Department. Ms. Rinu J Achison and Ms. Gayathri Krishnakumar were the department faculty coordinators of the event. A total of 10 alumni gathered together to cherish old memories.



#### **SITE VISITS**

#### Site visit to Chambakkara Bridge



A site visit was conducted on 16th march 2019 to Chambakkara Bridge, near Vytilla, Kochi. The Students of sixth semester civil engineering attended the visit, accompanied by faculty from the department. Champakkara Bridge is the longest span bow-string bridge in Kerala, being constructed by KMRL.

#### Site visit to Zuari Cement Factory



On 6th April 2019, a team consisting of 24 students and 4 teachers of civil engineering visited the Zuari cement plant, Wilington Island, Kochi near Ernakulam Wharf. The fully automated cement plant provided a unique opportunity to the students.

#### **CONSULTANCY WORKS**

#### Proposal Of Satellite Township In Angamaly, Aluva And Perumbavoor Town By GCDA

The department of Civil engineering is pairing up with Greater Cochin Development Authority for the development of a proposal to convert Angamaly, Aluva and Perumbavoor towns into satellite township. The initial stage of the project, which is the feasibility studies and preparation of the preliminary report is in process. The feasibility report will be submitted to the Government for approval and based on which further procedures will be adopted.

#### **Quality Testing Of Bitumen For Pavement Construction**

The department of Civil Engineering is equipment with a fully fledged transportation laboratory with the latest equipments that are calibrated to precision. One of the recent consultancy done by the department is the quality testing of bitumen for the PWD sub station Kothamangalam.

#### **INDUSTRIAL VISIT**

#### Industrial site visit to Sancoale, Goa by the third year students

An industrial visit to Anila engineering works, sancoale, Goa was undertaken by a group of 54 students accompanied by two faculty on the 21st february 2019. The visit spanned for 5 days and also entailed visits to places in and around Lonavala and Goa. It also provided an opportunity to observe modern construction techniques, beautiful bridges and heritage architecture.

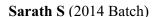


STUDENT ACHIEVEMENTS



Lava Francis (2015 Batch)

It's a privilege for our department that our pass out batch Civil B batch student Ms.Laya Francis has been placed in sobha constructions as trainee engineer.



It's a moment of great privilege that Sarath S of the 2014-2018 batch, Department of Civil Engineering has attained a GATE score of 637 and has been admitted for Masters in Ocean Engineering at IIT, Bombay.

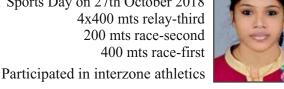


Sreelakshmi Nandakumar (2018 Batch)

The student of S2 CE B batch secured the second prize for spot choreography at a national level management fest (RESONANCE 2.19) conducted at Naipunnya Business school, Thrissur on the 11th February 2019.

Shyama K (2017 Batch)

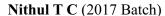
FISAT Sports Day on 27th October 2018





Sruthi U Krishnan (2017 Batch)

FISAT Sports Day 4x400 mts relay-second Participated in Zone D badminton tournament



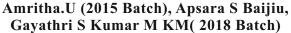
3rd Prize- P V Mathew Memorial Elocution Competition held at FISAT-27th March 2019, organized by Rolling Stone, The literary Association of **FISAT** 



### Krishnanjana K S (2015 Batch)

The student of S8 won the prestigious CPrize, national skill Development Corporation's training programme, thereby being awarded the scholarship worth Rs 25,000. Reaching this milestone was by no means an easy feat

competing with students of equally high aptitude from other parts of Indian sub-continent vying for the same prize.





The TEAM FISAT- volleyball, has won the Dr. Pradeep P. Thevannor memorial All Kerala Intercollegiate volleyball tournament hosted at SCMS.

Apsara S Baiju (Batch 2018)

She secured the second position in the KTU-D Zone volleyball tournament organised by APJ Abdul Kalam Technology University in the year 2018.



#### **ARANGU 2019**



The first year civil engineering team comprising Abhiram, Achuthan, Anandhu, Anex, Arshad, Ashif, Ashwin, Bently won the first prize for group dance for Arangu 2019.

#### Ria Mariam Sabu, Vishnudatha V., Surjith V.R. (2016 Batch)



They secured the 1st prize at zonal level in PERFECT HOME, an event conducted by Mathrubhumi and Malabar cements at Kaloor stadium, Ernakulam. They also participated at the state level conducted at Govt. Women's college, Vazhuthacaud, Trivandrum. The team secured 1ST prize in the Idea Hunt competition held as a part of the Tech Fest conducted by Ilahia College of Engineering and Technology, Muvattupuzha.

#### Erina P Joshi (2015 batch)

She secured the first prize for an essay writing competition on the topic "Lane discipline in India" conducted as part of the CEA fest organised by the department of civil engineering, IIT Madras which was held on 9th March

2019. She has also been actively involved in the flood rehabilitation activities undertaken by the NSS wing of the college. She has donated hair for cancer patients to Madat Charitable Trust, Mumbai. She has cleared the Common Corporate Qualifier Test conducted by TCSiON and has also secured an A grade in an online course on climate change COP+24, offered by IARC in collaboration with UNFCCC.

#### Milton K. Martin, Pooja Joy, Priya David, Sreehari R. (2015 Batch)

A team of four students (Milton, Pooja, Priya, Sreehari) of final year B-tech Civil Engineering batch guided by Ms. Gayathri Krishna Kumar, Assistant Professor, Department of Civil Engineering,



attended the 1st National Conference On Recent Trends In Architecture and Civil Engineering towards Energy Efficient and Sustainable Development (NCACESD 2019). The Conference was organized by Department of Architecture, National Institute of Technology, Tiruchirappalli with the aim to step in widening the knowledge of sustainable development through the participation of researchers, academicians, and professionals all over India. The team presented their paper "Review on Experimental Study of Flyash and GGBS based Geopolymer and its comparison with Country Burnt Brick" as a part of their Final year project.



#### M.A. Harikrishnan (2016 Batch)

- KTU-D Zone winner for basketball (October 2018)
- Third position for basketball at KTU Interzone all Kerala tournament (October 2018)
- AISAT cup winner for basketball (February 2018)

#### Anzil Ameen Noushad (2015 batch)

Anzil Amen Noushad, final year student of the Department of Civil Engineering has been qualified for GATE 2019.



### NPTEL COURSES

NAME	SEMESTER	COURSE	
KRISHNAPRIYA V .S	S4 CEB	WASTEWATER TREATMENT AND RECYCLING	
SUSAN BEJOY	S4 CEB	PLASTIC WASTE MANAGEMENT	
VIMBLE VARGHESE	S4 CEB	SOIL MECHANICS/GEOTECHNICAL ENGINEERING	
HENNA LIYAKATH	S6 CEA	INTRODUCTION TO REMOTE SENSING	
ANJALI AJITH PRASAD	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
ATHIRA AJITH PRASAD	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
ADHEENA V	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
ADHUNA JOHN	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
ELDHOES ROY	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
ASWATHI SAJEESH	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
FATHIMA NAZRIN	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
JEENA JAMES	S6 CEA	ELECTRONIC WASTE MANAGEMENT - ISSUES AND CHALLENGES	
GOPIKA V R	S6 CEA	GEOTECHNICAL ENGINEERING II FOUNDATION ENGINEERING	
AKHILA PV	S6 CEA	PLASTIC WASTE MANAGEMENT	
ABHIJITH A	S6 CEA	ELEMENTS OF VISUAL REPRESENTATION	
DARSANA D	S4 CEA	INTRODUCTION TO ANCIENT INDIAN TECHNOLOGY	
ARSHIDA P	S6 CE A	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
PRESTY RAPPAI	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
MANJIMA SUNIL	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
ANITHA JOSE	S4 CE A	PRODUCT DESIGN AND INNOVATION	
RAIHANA T SAKKEER	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
SHABANA NIZAR	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
VINAYA MURALI	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
MARWIN MATHEW THOMAS	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
NIVEDYA MOHAN	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
SANDESH SUNDAR B	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	
NEETHU T A	S6 CE B	ELECTRONIC WASTE MANAGEMENT- ISSUES AND CHALLENGES	

## STUDENTS QUALIFIED FOR GATE 2019 (Batch 2014-2018)

QUALIFIED FOR GATE 2019 (2014-2018 A Batch)	GATE SCORE
AJIN JACOB	632
ALPHY CHRISTO THOMAS	376
BEEMA BEEVI JALEEL	478
GAYATHRI R	541
GEETHU MARIA JOSEPH	545
GOPIKA VINAYAKUMAR	427
JISHNU V MOHAN	368
JOBIN JOSE	474
K S ANJALI	443
KRISHNA K DAS	376

QUALIFIED FOR GATE 2019 (2014-2018 B Batch)	GATE SCORE
SARATH S	637
SHALINI M P	379
MARYANN STEPHEN	372
PARVATHY S	415
SREELAKSHMI A R	451
SRUTHY VENUGOPAL	35.83
SUSAN MARIA GEORGE	400
MATTIS SUNIL	481
RIYA KURIAN	384
SHILPA SUDHI	364
R S HARITHA KRISHNAN	359



# PLACEMENT DETAILS

Sl No	Name Of Student Placed	Name of the Employer	
l	AbhijithVathyattil	Sutherland	
2	Arun H	Federal Bank	
3	Erina P Joshi	Sutherland	
4	Hredya E M	Federal Bank	
5	Jestin George Johnson	Federal Bank	
6	Jyothica C R	Sutherland	
7	Kevin Santhosh Varghese	Federal Bank	
8	Kirti Suresh	Sutherland	
9	Krishnapriya S	Sutherland	
10	Laya Francis	Sobha constructions/ Sutherland	
11	Mariam Rose Josy	Ibm	
12	MerinBabu	Sutherland	
13	Neha H	Federal Bank	
14	Priya David	Sutherland	
15	Risni Salim	Sutherland	
16	Shabas Ahmed P	Federal Bank	
17	S Manuprasad	Sutherland	
18	Sonia Shaji	Federal Bank	
19	Sreehari R	Sutherland	
20	Krishnapriya S	Infosys	
21	SwethaRegi	Infosys	
22	VarshaBabu	Infosys	
23	Vishnu Muraleedharan	Infosys	

#### **OUR MERITORIOUS STUDENTS**

Department of Civil Engineering			
PTA Perseverance Award 2019			
Course	Admission year	Student Name	CGPA
B.Tech	2014	SradhaRemakanth	8.63
		Alphy Christo Thomas	8.62
		ShilpaSudhi	8.56
		Revathy C V	8.50
	2015 Aadithyaan V		
		Akhila R	9.07
		Kirti Suresh	8.83
		Krishnapriya S	8.77
		Rameena K R	8.77
	2016	P S Sethulakshmi	9.19
		Gadha Narayanan	9.11
		AthiraAjith Prasad	9.10
		Vishnudatha V	9.05
	2017	Swetha Maria Charles	9.48
		Krishnapriya V S	9.36
		AkhilaShaju	9.27
		Sarah Jose	9.24
M.Tech	2017	Devu K	9.11
		Sheba Susan Abraham	9.04
	2018	Deepthi Stephen	8.96
		Sreelakshmi S B	8.80

#### **FACULTY PUBLICATIONS**

Mr. Unni Kartha G. (Head of the Department)

## **Development of Low Cost Systems for Structural Health Monitoring**

Firzeena Firoz, M.Tech Student, Department of Civil Engineering, FISAT, Mahesh C, Assistant Professor, Department of Computer Science Engineering ,FISAT ,Muhammed Noufal, Assistant Professor, Department of Electrical and Electronics Engineering ,FISAT, UnniKartha G, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

Dr. Nidhi M. (Asst. Professor, Dept. of Civil Engineering)

## Critical Reviews On Topology Optimization Of Reinforced Concrete Structural Members

Sreevidhya V, Mtech Student, Department of Civil Engineering, FISAT, Dr. Nidhi M., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Preparation And Mix Proportioning Of Fly Ash Based Geo Polymer Mortar

Anjana Soman, M.Tech Student, Department of Civil Engineering, FISAT, Dr. Nidhi M, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## Ms. Jiji Antony (Asst. Professor, Dept of Civil Engineering) Acoustic Insulation With Cement Mortal By Adding Natural Coir - Fibre

Joel John, M.Tech Student, Department of Civil Engineering, FISAT, Jiji Antony, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## Ms. Asha Joseph (Asst. Professor, Dept. of Civil Engineering) Investigation On Buckling Behaviour Of Anchored Steel Tanks

Deepthi Stephen, M.Tech Student, Department of Civil Engineering, FISAT, Asha Joseph., Assistant Professor, Department of Civil Engineering, FISAT, SECON'2018

#### Non - Linear Static Analysis Of Welded I - Beam To Box - Column Connections Using Finite Element Method

Muhammed Shahid P. T, M. Tech Student, Department of Civil Engineering, FISAT Asha Joseph., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## Ms. Beena B. R (Asst. Professor, Dept. of Civil Engineering) Mix Design Optimization Using Particle Packing

Arun M, M.Tech Student, Department of Civil Engineering, FISAT, Beena B. R, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Ms. Nincy Jose

## Study On The Mechanical Properties Of Fly Ash - Ggbs Based Geopolymer Concrete

Sreelakshmi S. B, M.Tech Student, Department of Civil Engineering, FISAT, Nincy Jose., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

**Mr. Jawahar Saud S.** (Asst. Professor, Dept. of Civil Engineering)

## Assessment Of Preparedness And Mitigation Level Of Coastal Residence- Ernakulam

Chippy M. Rajan, M.Tech Student, Department of Civil Engineering, FISAT, Jawahar Saud S, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## Storm Surge and its Effect – A Review on Disaster Management in Coastal Areas,

Civil Engineering Research Journal (CERJ), Vol 4, Issue 5, Chippy M. Rajan, Jawahar Saud S.

## Mr. Abin Thomas (Asst. Professor, Dept. of Civil Engineering) Evaluation Of Surface Bond Strength Between Self Compacting Concrete And Conventional Concrete

Rhea Unnikrishnan, M.Tech Student, Department of Civil Engineering, FISAT, Abin Thomas, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## **Experimental Evaluation On Compactability On Ground Granulated Blast Furnace Slag For Greener Self Compacting Concrete**

Kavya Pillai, M.Tech Student, Department of Civil Engineering, FISAT, Abin Thomas, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Analysis Of Compressive Strength Of Concrete And Self Compacting Concrete By Partial Replacement Of Fine Aggregate With Crumb Rubber

Akshay K. M, Arjun A, Chitra Suresh, JeslyJayan, Student, Department of Civil Engineering, FISAT, Abin Thomas C. A., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Ms. Akshara S. P (Asst. Professor, Dept of Civil Engineering)

## Lime And Glass Fibre To Enhance The Performance And Healing Capacities Of Self Healing Concrete

Yeswanth M. M.Tech Student, Department of Civil Engineering, FISAT, Akshara S. P, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Ms. Neeraja Nair (Asst. Professor, Dept. of Civil Engineering)

#### Numerical Investigation of RC Beams Subjected To Blast

Akhila S, M.Tech Student, Department of Civil Engineering, FISAT, Neeraja Nair, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## Numerical Investigation of Steel Cabin Subjected Into Internal Explosion

Misha P. Kumar, M.Tech Student, Department of Civil Engineering, FISAT, Neeraja Nair., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## **Ms. Reshma Prasad** (Asst. Professor, Dept. of Civil Engineering)

## Fracture Study On Glass And Polypropylene Hybrid Fibre Reinforced Concrete

Bindhiya S. Menon, M.Tech Student, Department of Civil Engineering, FISAT ReshmaPrasad., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Ms. Resmi K. N (Asst Professor, Dept of Civil Engineering)

#### Study On Mechanical Properties Of High Performance Concrete Incorporated With Cenosphere

Aparna Sasi, M.Tech Student, Department of Civil Engineering, FISAT, Resmi K. N., Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

## **Ms. Leena Samuel panackel** (Asst. Professor, Dept. of Civil Engineering)

## "Microscopic traffic simulation using VISSIM and traffic management measures at Kalady

Leena Samuel Panackel, Assistant Professor, Department of Civil Engineering, FISAT Risni Salim, Laya Francis, Muhzina M. I, P. H. Haris, B. Tech Student, Department of Civil Engineering, FISAT

#### Mr. Sreerath S (Asst. Professor, Dept. of Civil Engineering)

#### Study On Effect Of Self Curing Agents In High Performance Concrete

Gopika Gopi, M.Tech Student, Department of Civil Engineering, FISAT, Sreerath S, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Ms. Gayathri KrishnaKumar

### Seismic performance evaluation of hybrid coupled wall

M.R Krishnapriya M.Tech Student, Department of Civil Engineering, FISAT, Gayathri Krishnakumar, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### Cyclic response of reduced beam sections

Lakshmipriya M.Tech Student, Department of Civil Engineering, FISAT, Gayathri Krishnakumar, Assistant Professor, Department of Civil Engineering, FISAT, SECON'2018

## Review of IS 1893-1(2002):- effect of unreinforced masonry infill walls on seismic response of framed structures

Gayathri Krishnakumar, Assistant Professor, Department of Civil Engineering, FISAT, SECON' 2018

#### **NPTEL COURSES**

National programme on technology enhanced learning (NPTEL) is a joint initiative of the IITs and IISc. The main goal was to create web and video courses in all major branches of engineering and physical sciences at the undergraduate and postgraduate levels and management courses at the postgraduate level. Many of our faculties and students have successfully acquired certification in various courses offered by NPTEL.

NAME	SEMESTER	COURSE
KRISHNAPRIYA V.S	S4 CEB	Wastewater treatment and recycling
SUSAN BEJOY	S4 CE B	Plastic waste management
VIMBLE VARGHESE	S4 CEB	Soil mechanics/ geotechnical engineering

## FDP/WORKSHOPS ATTENDED BY THE FACULTY FOR THE ACADEMIC YEAR 2018-2019

SL NO.	FACULTY	DESIGNATION	DATE	TYPE OF TRAINING
1	Mr. Unni Kartha G.	Head of the Department	June 2019 to February 2019	FDP on Effective engineering teaching in practice.
				NPTEL course on Effective engineering teaching in practice.
2	Ms. Rinu J Achison	Assistant professor, Senior grade officer	5-12-2018 to 07-12-18	Foundation programme on transactional analysis
3	Dr. Kavitha P.E	Associate Professor	15-10-2018	ISO Awareness
		Professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
			5-12-2018 to 07-12-18	Foundation programme on transactional analysis
4	Ms.Sumayya Nazin P.H	Assistant professor	5-12-2018 to 07-12-18	Foundation programme on transactional analysis
5	Ms.Lidya P.M	Assistant professor	5-12-2018 to 07-12-18	Foundation programme on transactional analysis
6	Ms. Beena B.R	Assistant professor	5-12-2018 to 07-12-18	Foundation programme on transactional analysis
7	Ms. Anila C George	Assistant professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
8	Ms. Preethi M	Assistant professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
9	Ms. Rajalakshmi T.R	Assistant professor	12-12-2018	FDP on Tools to aid online and blended learning

10	Ms. Neeraja N	Assistant professor	17-12-18 to 21.12-18	FDP on Multivariate data analysis.
		•	12-12-2018	FDP on Tools to aid online and blended learning
11	Ms. Reshma Prasad	Assistant professor	12-12-2018	FDP on Tools to aid online and blended learning
12	Ms. Anu Roy	Assistant professor	12-12-2018	FDP on Tools to aid online and blended learning
13	Ms. Keerthi Sabu	Assistant professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
14	Ms. Resmi K N.	Assistant professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
15	Ms.Sharon Jacob	Assistant professor	12-12-2018	FDP on Tools to aid online and blended learning
16	Ms. Leena Samuel Panackel	Assistant professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
			5-12-2018 to 07-12-18	Foundation programme on transactional analysis
17	Ms.Gayathri Krishna Kumar	Assistant	15-10-2018	ISO Awareness
	Ansinia Kumar	professor	10-12-18 to 14-12-18	STTP on Green Energy,Environment,Eng g and Technology for sustainable future
			5-12-2018 to 07-12-18	Foundation programme on transactional analysis



"Great is the art of beginning, but greater is the art of ending."

The Department of Civil Engineering organised a farewell function for the final year Mtech and BTech students on the 17th May 2019 in the forenoon and afternoon respectively. The students shared their memories and faculties endowed the students with their blessings for their future endeavours.

At the farewell function for the Btech students, the Head of the Department Mr. Unni Kartha G., handed over the best projects award of Aavishkar'19. The event was concluded by a vote of thanks proposed by Mr. Unni Kartha G., Head of Civil Engineering Department.

#### PASS OUT BATCHES







## Editorial Board Members STAFF COORDINATORS



Ms. Leena Samuel Panackel
Asst. Professor, Dept. of
Civil Engineering, Fisat

Ms. Gayathri Krishnakumar Asst. Professor, Dept. of Civil Engineering, Fisat









ELVIN ROY

