

Department of Civil Engineering

January 2016

About

The Department of Civil Engineering in FISAT was established in the year 2002. Initially, the department was working as a support for other engineering branches and offered Basic Civil Engineering, Engineering Mechanics and Engineering Graphics for the first year students and Strength of Materials Theory and Practical for Mechanical Engineering students.

The department started offering B.Tech programme in Civil Engineering in the year 2011 and M.Tech (Structural Engineering and Construction Management) in 2014 .The annual intake is 120 in B.Tech and 24 in M.Tech. Currently, Mr. Unni Kartha heads the department with the added responsibility of being the college placement coordinator. Well-equipped lab facilities and a team of qualified faculty with ample experience is the highlight of the department.



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Editorial Board Members

Anila C. George

Abin Thomas C. A.

Neeraia Nair

Raialakshmi

Abhiya A M

Student Editor – Manu Devassy

VISION

Foster a generation of globally competent and socially committed civil engineers who will contribute to the nation building process.

MISSION

To provide a comprehensive education and training at the levels of materials, tools, planning, analysis, design and maintenance of structures. To encourage research and development in the field of civil engineering that are useful for the society.

To equip the graduate with strong ethical and moral values and make them socially committed.

PROGRAM EDUCATIONAL OBJECTIVES

Provide the graduate a strong understanding of civil engineering solutions in a global economic, environmental and social context and enable them to build a successful career in Industry and to continue with higher studies. Make the graduate capable of identifying, formulating, and solving Civil Engineering problems in cost effective, timely and safe manner. Make the graduate entrepreneurial, socially responsible and ethical.

A FEW WORDS...

"I am delighted to know that the Department of Civil Engineering of FISAT is releasing their first Newsletter. I believe this Newsletter will provide a good platform to showcase the activities and achievements of the students and staff of the Department. This Newsletter is a true reflection of the efforts and versatility of the students. It will certainly motivate the faculty and coming batches of students in further participation and involvement in the activities of their choice in building their career. I take this opportunity to appreciate the editorial members for their effort behind this Newsletter."



Sri. Paul Mundadan Chairman, FISAT



Dr. George Issac Principal, FISAT

"I am happy that the department of Civil Engineering , FISAT is bringing out their first edition of the Department Newsletter. This Newsletter will be a platform to exhibit various achievements of students and faculty, and activities that are happening in the campus. It also helps in promoting team work which is very much needed in today's world. This would provide an added dimension and visibility to the department; and would create an impact in the minds of readers. I congratulate all those who have worked hard for bringing up this creative venture."

"I am extremely happy to note that the Department of Civil Engineering is coming out with a Newsletter enlisting all their activities and achievements pertaining to students and faculty members. It is overwhelming to note that the youngest Department of our College is vibrant enough to scale up to great heights within a short span of time. I appreciate the sincere efforts taken by the HOD along with all their faculty members and staff in this continuous endeavour to uplift their department."



Dr. K. S. M. Panicker Director(Academics) FISAT



Dr. C. Sheela Vice-Principal

"A department newsletter is a knowledge sharing way of representing the varied creativity of staff and students. It is my pleasure to congratulate all the teachers and students who have made this newsletter possible. I extend my warm wishes to the department."

"With great pleasure and honour, I write this foreword for the inaugural publication of PATHWAY, the newsletter of the Department of Civil Engineering of FISAT. I would like to congratulate the faculty members and the editorial team for their efforts in bringing together this newsletter including all the activities of the department since it has come into being. This newsletter highlights all the achievements that have brought laurels to the department both by students and staff."

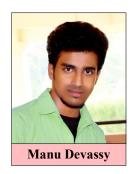


Editors Note

"We are proud to introduce our first newsletter of our department, the goal of which is to provide all with a concise yet comprehensive picture of the various activities conducted by the department. We would like to take this opportunity to thank everyone who contributed to the first edition of this newsletter. Please feel free to bring any comments, suggestions or new stories to our attention for future editions."

Designer's Note

"We are really excited in bringing out the first newsletter of our Civil Engineering Department and I am really honored to have been chosen to design it to the best of my ability. This issue exhibits some of our finest achievements, news about the campus and lots more. So sit back and witness the splendid journey of our department. Also help us tell the stories that you find the most touching and engaging by letting us hear from you."



AWARDS & HONORS

Congratulations...

Congrats to faculty awarded PhD Congratulations on this outstanding feat!

Our staff and students are extremely proud of our young doctorates who have accomplished this task with their hard work. You have shown remarkable courage and brilliance. You are an inspiration to all of us here.



Dr. Praseeda K.I

Completed her thesis on "Studies into Embodied and Operational Energy in Traditional and Conventional Residential Buildings in India" from Indian Institute of Science Bangalore.



Dr. Anoop C.K

Completed his thesis on "A Study of Environmental Stable Isotopes, Physico-Chemical Water Quality Parameters And Urban Lake- Groundwater Interaction" from National Institute of Technology Warangal. .



Jiji Antony

Ms. Jiji Antony, Assistant Professor Sr. Grade, received the Best Teacher award for her commitment and the significant role she played in the overall development of the department and the college.



Sana Nazar

Kudos to Sana Nazar for bagging the Youth Icon of the year title organized by Malayala Manorama in association with Federal Bank Pvt. Ltd. The chief guest, Mr. Anil Kumble, former Indian Cricketer congratulated her for receiving this award. She was offered a trophy, cash award of Rs 50,000/- and an educational scholarship of Rs.3,00,000/.

ACE (Association of Civil Engineers)

The students' association of the department, ACE (Association of Civil Engineers) was inaugurated on 14th April 2013 by Mr. Santhosh Paul, Chief Architect of FISAT. The association periodically conducts invited talks under the banner Njana Lecture Series, Quiz competitions, Industrial visits etc. The Association proves to be a constant support and motivation to the students of Civil Engineering Department.

Various training programs were conducted by Civil Department Association.

One day training by Dr. Fixit Institute on water proofing techniques on 21st March 2015

- ◆ Training Course on STAAD & PRIMAVERA by InterCAD Systems from 06-11-2014 to 07-11-2014 and 10-11-2014 to 11-11-2014
- ◆ Bentley Certified STAAD Training Course by InterCAD System from 21-08-2014 to 22-08-2014 and 28-08-2014 to 30-08-2014
- ♦ One day hands on training on practical construction by ACC Ltd. on 6th March 2015
- ♦ One Day Workshop & Plant Visit by RMC Ready Mix India Ltd. on 05-04-2013
- ◆ Two Day Workshop on Cement and Concrete by RMC Ready Mix India Ltd. from 15-01-2014 to 16-01-2014

"Concrete Mix Design" by Mr. M A Joseph, Regional Head -Technical Services, UltraTech Cements Ltd on 25th July 2015





ACE Inauguration ceremony

Training Programs











JNANA LECTURE SERIES



Jnana lecture series is a series of technical talks handled by professionals from the industry.

- ♦ "Good Construction Practices" by Mr. Santhosh Nair (ACC Ltd) on 7th March 2013
- ◆ "Safety measures at the construction sites" by Ms. Annie Joby (ACC Ltd) on 7th March 2013
- ◆ "Manufacture of Cement" by Mr. Bineesh M K (ACC Ltd.) on 7th March 2013.
- ◆ "Planning and design of FISAT: An Architect's view" by Mr. Santhosh Paul, Chief Architect of FISAT on 14th March 2013
- ◆ "Being a Civil Engineering Professional" by Dr. Jimmy Thomas, Geotechnical Consultant on 25th Sep 2013.
- ◆ "Construction of building using GFRB Panels" by Mr. Dinesh C P (MD, FRBS, FACT, Cochin) on
- ◆"Structural Design and Professional Ethics" By Er. Suresh S on 17th June2014
- ◆"Earthquake Resistant Building Design" by Er. Suresh S , Associated structural consultants on 13th March 2015.
- ◆Talk on errors in construction and non destructive testing by Mr.Ranjith and Mr.Fabian Antony from Civil Aid techno clinic Pvt Ltd on 13th March 2015.
- ◆Talk on project planning by Mrs. Anitha P, Vice chairman, governing body of FISAT on 13th March 2015.
- ◆ "Analysis, Design and Renovation Techniques in Civil Engineering" by Dr. P K Aravindan, Senior Consultant, Sreegiri Consultants on 13th March 2015
- ♦ "Practical Construction" by Er.Madhusoodhanan, Senior Consultant, Habitat Technology Group on 6th March 2015

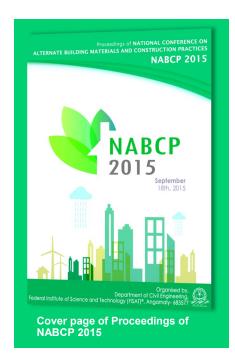














NABCP'15

The department conducted its First National Conference on Alternate Building Materials Construction Practices on 18th September 2015. There were 38 delegates from different colleges and the proceedings



carried 19 research papers. The conference was inaugurated by Mr. Shreeganesh V. Nair, GRIHA Trainer and Evaluator, GTCS and there were 3 key note speakers. Dr. Anoop C K was the convenor and Ms. Rinu J Achison was the Co-convenor. The conference was supported by ICI, FISAT Management and also the PTA. The proceedings were published with an ISBN Number. One of the most interesting thing in the conference was Souvenirs in the form of Lichi Sapling.



DEPARTMENT OF CIVIL ENGINEERING







INCEPTO 2015

The department conducted its first intercollegiate technical fest INCEPTO on 18th March 2015. The fest was inaugurated by Dr. Aravindan, Srigiri Consultants. The program became a platform for participants from across the state to create, innovate and establish in various aspects of Civil engineering through diverse competitions.

INCEPTO provided students an opportunity to showcase their technical skills and creativity. It was a two day program which consisted of technical sessions on the first day covering a wide range of disciplines in Civil Engineering and exhibitions and competitions on the second day.













Burj khalifa model made by students of Civil Engineering Department (S1 2015)



Co Curricular Activities...

FISAT provides numerous opportunities in co-curricular activities to enrich their cultural interests. FISAT believes in focusing on excellence.

The civil engineering students of FISAT are permanent members of Indian Concrete Institute (ICI), Kochi chapter. Students are encouraged to participate in various competitions, tech shows, camps and workshops conducted by ICI. FISAT students have also shown active participation and have won prizes in various events conducted during the green building week all over Kerala .The faculty team headed by HOD Mr. UnniKartha extents full support to students to take part in co-curricular activities. In sports arena, FISAT has earned a prominent place in university and national levels.







LIST OF ACHIEVEMENTS

TECHFEST WINNERS:



Akhil M. Unni
NIRVANA (2015) – 1st Place
AMINAKO (2015) – 3rd Place
PALLETE (2014) – 1st Place
LACTUS CURTIUS (2014) – 1st Place
DEZINOPOLIS(2015) – 1st Place
CARTOMANIA(2014) – 1st Place
PRATHIBEDA (2014) – 1st Place
SRISHTI (2014) – 2nd Place



Arjun P. Ravi MODEL MAKING (2013) – 3rd Place



Shobin Manu Mathew
CADD ZAKEIA (2014) – 2nd
Place
LACTUS CURTIUS (2014) – 1st
Place
DISEGNO INNOVATIVO (2015) –
2nd Place
CARTOMANIA(2014) – 1st Place



" TOTAL

Gayatri Krishnakumar CEREBRO TOURNAMENTO (2014) – 1st Place CONCRETE CUBE STRENGTH COMPETITION (2014) – 1st Place



Athira R. Thilakan CONCRETE CUBE STRENGTH COMPETITION (2014) –



Linda Baby
CONCRETE CUBE STRENGTH
COMPETITION (2014) – 2nd



Manu Varghese DEZINOPOLIS(2015) – 1st Place



Rahul Nair PRATHIBEDA (2014) – 1st Place

UNIVERSITY KALOTSAVAM WINNERS & INTER-COLLEGIATE EVENTS



Ashitha C. MOHINIYATTAM (2013) – A grade



Kolkali Team (2015)



GopikaLakshmy K. M.

KAVIAKELI (2013) - A grade



Midhun Gregory Behnan (IVOTION, RIET IVANO FEST 2013- Best director) (24 FRAMES, NAKSHATRA 2013-first place)

SPORTS



College Cricket Team-(Rajagiri Cricket Cup)



Zonal table tennis championship (2013, 2014)



Fisat Football Team (Illahia Cup, ASIET Cup)

PLACEMENTS

Congrats to our first placement winners of civil engineering...

BATCH 2015

















Manu Varghese Athira R. Thilakan TCS

IBM

Linda Baby TCS

Anjaly George TCS

Ananthu Krishnan Stefan J. Panakkal Akhil M. unni TCS, ATC ATC

Federal Greens

Shruthi S. **UIT Group**







Anjaly P. Areekal **UIT Group**



R. Shruthi **UIT Group**



Sana Nazar Sutherland

BATCH 2016



Lakshmi Mohan **TCS**



Chippy Babu TCS



Divya Soman TCS



Elizabeth Teenu George - TCS



Arya E. K. **TCS**



Neetha Ittera **TCS**



Sheba Ann Varghese **TCS**



Sony V. B. **TCS**

LIST OF TOPPERS (2011-15)



Afin M. Asharaf 1st RANK



Anjaly George 2nd RANK



Linda Baby 3rd RANK



Lakshmi V. S. 4th RANK



Aiswarya Chandran 5th RANK

MEET THE DEPARTMENT

The department conducted a two day induction programme for the first year students "Meet the department" led by Mr. Muhammed Shinas S. The programme helped students to get to know each other and the faculty of the department. Various events were arranged as group activities. As part of Meet the Department every faculty member of the department was introduced and welcomed the students into their four year journey of becoming a civil engineer.





FACULTY PUBLICATIONS

1.Unni Kartha G, Assistant Professor (Senior Grade) & HOD

- i. Indu V S, Unni Kartha G, (2013) 'Seismic Analysis of Wind Turbines using Opensees', National Conference on Recent Advances in Structural Engineering RASE 2013, December 13-15.
- ii. Aswathy Simon, Unni Kartha G,(2013) 'Seismic Pounding of Bridges due to Multi-Support Excitation with travelling wave', National Conference on Recent Advances in Structural Engineering RASE 2013, December 13-15.
- iii. Beena K S, Unni Kartha G (2015) 'Stone Columns for Liquefaction Mitigation: an Experimental Investigation', 6th International Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental Conditions, IIT Chennai, January 2015.
- iv. "Comparison of lateral analysis of reinforced concrete and steel silo", International Conference on Emerging Trends in Engineering & Management-2014 (ICETEM'14), Sree Narayana Gurukulam College of Engineering, Kerala, India, 30th & 31st December 2014.
- v. "Analytical study on stress strain behavior of reinforced concrete column" International Conference on Emerging Trends in Engineering & Management-2014 (ICETEM'14), Sree Narayana Gurukulam College of Engineering, Kerala, India, 30th & 31st December 2014.
- vi. "Effect of connection eccentricity in the behavior of steel tension members" International Conference on Emerging Trends in Engineering & Management-2014 (ICETEM'14), Sree Narayana Gurukulam College of Engineering, Kerala, India, 30th & 31st December 2014.
- vii. "Comparative study on solid and coupled shear wall" International Conference on Emerging Trends in Engineering & Management-2014 (ICETEM'14), Sree Narayana Gurukulam College of Engineering, Kerala, India, 30th & 31st December 2014.

2. Jiji Antony, Assistant Professor, Senior Grade

- i. "Potential Of Roofing Tile Powder As Cementitious Material In Building Blocks" International Journal of Emerging Technology & Advanced Engineering (ISSN 2250-2459, ISO 9001:2008 Certified Journal), Volume 4, Issue 10, October 2014.
- ii. "Partial replacement of cement with sawdust and sawdust ash in mortar" Recent Innovations in Civil Engineering and Technology-2014 (RICET' 14), Ilahia College of Engineering & Technology, Kerala, India, 24th & 25th September 2014.
- iii. "Potential of laterite stone powder as a partial cement replacement material" Recent Innovations in Civil Engineering and Technology-2014 (RICET' 14), Ilahia College of Engineering & Technology, Kerala, India, 24th & 25th September 2014.
- iv. "Potential of recycled concrete as a partial replacement of cement in building blocks" Recent Innovations in Civil Engineering and Technology-2014 (RICET' 14), Ilahia College of Engineering & Technology, Kerala, India, 24th & 25th September 2014.

3. Asha Joseph, Assistant Professor

- i. "Influence Of Vertical Acceleration On Seismic Response Of End Bearing Pile Foundations", American Journal of Engineering Research, Jan 2014
- ii. "Influence of orientation of piles on seismic response of pile groups", International Journal of Civil Engineering Research (ISSN 2278-3652), Volume 5, No 3, pp 261- 268, January 2014.
- iii. "Interaction between tunnel and pile in cohesive soil as response to seismic waves", Indian Geotechnical Conference (IGC -2014), Kakinada, Andhra Pradesh, Kerala, 18-20 December 2014
- iv. "Influence of geometry of under reamed piles in soft clay on the seismic performance" Indian Geotechnical Conference (IGC -2014), Kakinada, Andhra Pradesh, Kerala, 18-20 December 2014

4. Dr. Praseeda K I, Assistant Professor

i. "Assessing Impact Of Material Transition And Thermal Comfort Models On Embodied And Operational Energy In Vernacular Dwellings (INDIA)", Energy Procedia, Volume 54, pp 342 – 351.(2014)

5.Dr. Anoop.C.K, Assistant Professor

- i. "Laboratory studies on water quality assessment of groundwater of open dug wells and surface water of Lake Waddepally in Warangal city, India" International Journal of Scientific Research, ISSN No.2277-8179, Vol. 2, Issue 2, February 2013, pp 66-69.
- ii. "Seasonal Monitoring of Quality of Lake water and Groundwater" Research and Reviews: Journal of Engineering and Technology, ISSN No.2319-9873, Vol. 2, Issue 3, July-September 2013, pp 154-160.
- iii. "Simulation of groundwater flows around an urban lake using processing MODFLOW" International Journal of Water Resources and Environmental Management, ISSN No.2229-5933, Vol. 4, Issue 2,July-December 2013, pp 89-105.

6. V.K Sowmya, Assistant Professor

- i. "Effect of coconut shell powder on the strength and settlement characteristics of Kuttanad clay" Indian Geotechnical conference (IGC 2014), Kakinada, AndraPradesh, Kerala, 18-20 December 2014.
- ii. "The effect of confinement on the load settlement behavior of circular footings." Indian Geotechnical conference (IGC 2014), Kakinada, AndraPradesh, Kerala, 18-20 December 2014.
- iii. "Effect of elevated temperature on foundation settlement in sand" Indian Geotechnical conference (IGC 2014), Kakinada, AndraPradesh, Kerala, 18-20 December 2014.
- iv. "Thermo-hydro-mechanical behaviour of sand at elevated temperatures" National conference on Geo-Environmental Issues and Sustainable Urban Development (Gen-2014), October 11-12 MNIT Allahabad, India

7. NujumaNazimudhin, Assistant Professor

i. "Land use /land cover change detection using remote sensing and GIS: a case study of NMPT area, karnataka" Annual Conference on Innovations and Developments in Civil Engineering (ACIDIC-2014), National Institute of Technology Karnataka, India, 19th and 20th May 2014.

8. Anila C. George, Assistant Professor

- i. "Dam Break Analysis of Thenmala Dam", National Conference on Technological Trends (NCTT 2013), College of Engineering Trivandrum, Thiruvananthapuram, 30th-31st August 2013
- ii. "Dam Break Analysis Using BOSS DAMBRK", International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE 2015), National Institute of Technology Karnataka, India, 12th 14th May 2015

9. Abhiya Abbas Mundol, Assistant Professor

- Amba Shetty, Abhiya, A.M and Minu, S., (2013) "Effect of Spatial Resolution on Soil Erosion Patterns- A GIS i. Approach", 3rd International Engineering Symposium - IES 2013 March 4-6, 2013, Kumamoto University, Japan, pp C6-6-1 - C6 - 6 - 6
- ii. Abhiya, A.M, Minu, S and Ramachandran kizhur., (2015) "Salient Long-term Observations of SST along Kerala Coast and its Comparative Variation with Lakshadweep Coast", Aquatic Procedia, Volume 4, 556-562 pp.

10. S.P. Akshara, Assistant Professor

i. "Performance based Seismic Evaluation of Multi-Storeyed Reinforced Concrete Buildings Using Pushover Analysis" International Research Journal of Engineering and Technology, ISSN No.2395-0056, Vol. 2, Issue 3, June 2015, pp 948-953.

FACULTY AS RESOURCE PERSON

1. Unni kartha G

- "Ask an Expert" career guidance seminar conducted by Mathrubhoomi at Trivandrum, Cochin & Kozhikode for student aspiring for engineering after +2 classes
- Career guidance classes for 10th and 12th grade students organized by Vivekananda Seva Samithi, Kanjirappilly
- Resource person for hands on workshop on "Data visualization using FOSS" for ICEFOSS, **FISAT**
- Resource person on workshop on Mendeley organized by CCE, FISAT.
- Invited talk on "Prospects in Civil Engineering" for final and pre final year students at Albertian Institute of Science and Technology, Kochi
- Resource person for the TEQIP Sponsored workshop on LATEX held at LBS Institute of Technology for women, Thiruvananthapuram.
- Resource person on question paper setting applying Blooms Taxonomy for Faculty at FISAT

G. Unnikartha

HOD

2. Praseeda K I

- Resource person for a three days workshop on Innovation in Mass Housing organized by Civil Engineering department, TKM Kollam, sponsored by Technical Education Quality Improvement Programme – Phase II.
- Resource person for a seven days workshop on Low Carbon Materials and Building Sytems, jointly organized by Centre for Sustainable Technologies and Department of Civil Engineering, Indian Institute of Science and Karnataka State Council for Science and Technology.



Dr. Praseeda K.I.

CONSULTANCY WORKS

The department is equipped with latest infrastructure and equipped laboratories to the needs of students and also undertakes consultancy works in Civil Engineering.

Following are some of the consultancy works undertaken by the department:

- Concrete Cube test for Federal Greens, F.C.H.S Ltd, Aluva, PWD, Paravoor, Silpa Projects and
- Infrastructures, KITCO Ltd, Aiswarya Builders and developers, CVR Brothers, CI constructions Ltd.
- Cement Block Test for various entrepreneurs.
- Compressive strength test on Solid Bricks for St. Antony's Solid Brick, Manjikkad
- Member of judging panel in the International Conference ICCEECON 2K15 organized by Christ
- Knowledge City held on April 22nd, 2015-06-12
- Design of water tank for IIP Colony Angamaly
- Land surveying using total station for Mr. Babu Philip at Palakkad
- Design of pre-engineered steel building for CEMEC Trading services LLC, Oman.

Center for Earthquake Engineering Studies (CEES)

Center for Earthquake Engineering Studies (CEES) is a research center established by the Department to nurture research in the area of Earthquake Engineering. CEES also intends to develop laboratory infrastructure and computational facilities for conducting research in the area. The major focus areas are Numerical modeling and analysis of structures and Earthquake geotechnical engineering. The team consists of six faculty members lead by Mr. Unni Kartha G. Ms. Asha Joseph, Ms. Beena B R, Ms. Sumayya Naznin, Mr. Paul Jose and Ms. Reshma Prasad are the members of CEES. Currently, three project works are running in the center, one each in PhD, M.Tech and B.Tech level.



ICI







Won first prize in ICI Cricket Tournament

Extra Care la financia de la care la c

Won first prize in CONCRETE CUBE STRENGHTH Competition



ICI STUDENTS CHAPTER

The civil engineering students of FISAT are permanent members of Indian Concrete Institute (ICI), Kochi chapter. Institute membership was started since February 2013. Students are encouraged to participate in various competitions, tech shows, camps and workshops conducted by ICI.

The main objectives of ICI are for the promotion and development of concrete technology and construction .They Provide local forums for exchange of ideas and information related to concrete construction also facilitate and improve communication and encourage participation of all members through technical meetings, seminars, deminars, workshop and colloquiums.







PHOTO GALLERY



BATCH 2011-15















PATHWAY ANNUAL NEWSLETTER 2016

