

A WORD FROM HEAD OF THE DEPARTMENT

With great pleasure, we pen down an editorial for the inaugural edition of the Civil Engineering Department's newsletter. While the objective of publishing a newsletter is well-established, our aim is to elevate Srushti into a more potent and valuable publication. Despite its initial circulation limited to a niche within the NIE family, we envision a parallel digital version, expanding its reach to a broader audience through internet dissemination.

The primary goal is to create a bridge between the department and the Alumni Association, turning Srushti into a conduit that resonates with a wider community. By doing so, we anticipate that the extended association with the alma mater will prove to be immensely rewarding.

In this edition of Srushti, you'll find insights into departmental activities and the achievements of our faculty members, both as individuals and as a collective force. We aspire for our readers to perceive this issue as befitting an engineering institution that has served society with unmatched distinction for over six decades. As we unfold the pages of Srushti, we hope that it not only informs but captivates, offering a glimpse into the vibrancy and excellence that defines an institution dedicated to serving society in the field of engineering.

Dr. Yusuf Javed
Professor & Head

VISION

"The Department will be an internationally recognized center for value based learning, research and consultancy in Civil Engineering and will produce competent Civil Engineers having commitment to national development."

MISSION

Dm1: To impart high quality Civil Engineering education through competent faculty, modern labs and facilities.

DM2: To engage in R & D activities and to provide state-of-the-art consultancy services addressing Civil Engineering challenges of the society.

Dm3: To nurture social purpose in Civil Engineers through collaborations.

Technical Sessions organized

A one-day National Seminar was conducted on 5th September 2022 in association with the IGS Bangalore Chapter on the eve of teacher's day and felicitation of Dr. H. S. Prasanna, (Professor, Department of Civil Engineering, NIE Mysuru) on his superannuation. Seminar was ably organised by Dr. Anand M. Hulagabali, Organising Secretary, GID - 2022,

PROGRAM EDUCATIONAL OBJECTIVES

Civil Engineering graduates are expected to attain the following program educational objectives (PEOs) 3-5 years after graduation. Our graduates will be professionals who will be able to:

PEO1: Deliver competent services in the field of Civil Engineering with a knowledge of the principles of engineering and the theories of science that underlie them.

PEO2: Continue their professional development, nurture research attitude, and life-long learning with scientific temperament.

PEO3: Exercise leadership quality and professional integrity, with a commitment to the societal needs and sustainable development.



GID National level seminar: Invited eminent speakers involved in a panel discussion

One-week workshop on “Computational Fluid Dynamics in Hydraulics engineering” was conducted from 21st to 26th November 2023, by the Department of civil engineering in association with Department of Mechanical engineering for the students of PG-Hydraulics program

A technical session was provided by NIE-Alumni (1984 Batch) Er. Mohan G Rao, Senior Engineering, Department of Transportation, New York, USA. The event was coordinated by Dr. Punith B Kotagi, Assistant Professor and Mrs Vedaprada R, Assistant Professor.

MoU with Dr.Fixit.

The National Institute of Engineering has entered into a Memorandum of Understanding with the Dr. Fixit Institute of Structural Protection and Rehabilitation (DFI-SPR), on 26th November, 2022. This initiative is towards jointly organize various types of information dissemination programs including training activities in the field of waterproofing, repair, restoration and renewal engineering. The tie-up and ensuing activities are being coordinated by Mrs. Shruthi A N, Assistant Professor, Department of Civil Engineering.

Field Visit and Value added programs

The Department of Civil Engineering final year students visited IIT Madras on 17th November 2023 to experience the academic environment and research facilities available in institute of national importance. In the busy schedule, Prof. G R Dodagoudar, Civil Department, IITM guided students on many important aspects for successful career. The event was successfully coordinated by Dr. Anand M Huligabali, Dr. Chandan M S, Ms. Pooja P , Assistant Professor, Department of Civil Engineering.



In Image :- Prof. G R Dodagoudar, Civil Department, IITM Guiding NIE Civil Engineering Students During their visit to IIT Madras.

UG final year students visited Mysore domestic airport on 20th October 2022 as a part of curriculum-industry exposure program. The field visit was organized by Dr. Chandan M C, Dr. Anand Huligabla, and Ms. Pooja P K, Assistant Professor, Department of Civil Engineering.

A field visit to under construction RCC high rise structure was organized on 10th November 2022 by Mr. Jayanth K, Assistant Professor, Department of Civil Engineering.

The Pre-final year students visited Harangi Dam and Chiklihole reservoir on 19th December 2022. The students were accompanied by 5 faculty members from civil engineering department during the site visit. The field visit was coordinated by Mrs. Sri Rashmi, Assistant Professor, Department of Civil Engineering.



A Mock interview was conducted on 5th Nov 2022 to final year students who has got selected in the first round in the placement drive of L & T. The following faculties members were involved in conducting the mock interviews for selected students. Dr. Anand. M. H, Assistant Professor. Ms. Kanchana M S, Assistant professor. Dr. Chandan M C, Assistant Professor. Mr. Sachin Vijaykumar, Assistant Professor.

Guest lecture by Faculty

Dr. N C Balaji, Associate Professor delivered a technical talk at National workshop on low-carbon construction materials and “green building architecture” on 22nd to 24th November 2022 held at, CEB/rammed earth building at Indian Institute of Science, IISc Challakere campus, Chitradurga.

Dr. N C Balaji, Associate Professor delivered a technical talk on “Thermal Performance Assessment of Building Materials and Building Thermal Comfort”, One Week National Workshop on "Facets of Sustainable Urban Infrastructure (FSUI)", Organized by Department of Construction Technology & Management, JSS Mahavidyapeeta, JSS Science and Technology University, Sri Jayachamarajendra College of Engineering (SJCE), Mysuru.

MOOC courses completed by Faculty

Dr. N. C. Balaji, Associate Professor, has been recognised as Top Performing Mentor by NPTEL for completed mentorship for the course titles “Ethics in Engineering Practice”, & “Principles of Management”.

Mrs. Hema H, Assistant Professor, has been recognized as Top Performing Mentor by NPTEL for completed mentorship for the course titles “Introduction to Engineering Seismology”. Ms. Pooja. P. K, Assistant Professor, completed online lecture series on “Advanced finite element modelling of geotechnical constructions” in the month of May 2022. The lecture series was hosted by one of the premier institution Indian Institute of Technology Roorkee from March 10th to May 26th 2022.



SURVEY CAMP , Held at Kaiwara, 04-10 March 2022

The Department of Civil Engineering students of 6th semester completed 7 days of extensive survey camp in the month of March 2022 at Kaiwara, Karnataka. The extensive survey camp was a part of curriculum to complete the undergraduate course. A total of 108 students from the department underwent an off-campus training under the guidance of 6 civil engineering faculty members. The extensive survey camp was a successful training program under the supervision of camp officer Dr. Chandan M C, Assistant Professor.



Awards and Recognitions

Dr. Abhishek A Pathak, Assistant Professor, has been selected for the prestigious 'SERB-International Research Experience' Fellowship to work at Hydrological Science Laboratory, Goddard Space Flight Centre, NASA, USA. Dr. Abhishek will be working at NASA-USA for a period of 6 months

Patents obtained between Jan-Sep 2022.

Dr. Anand Hulagabali, Assistant Professor granted with Indian patent for design on "Heat of hydration of cement" on 17th June 2022 from Indian Patent office, Kolkata.
Dr. Anand Hulagabali, Assistant Professor granted with Indian patent for design on "Concrete carbonation test unit" on 17th June 2022 from Indian Patent office, Kolkata.

Funds and Grants received

Department of Civil Engineering Under Graduate(UG) and Post Graduate(PG) students received 45th series-KSCST grant for the major project work. The projects were also selected for Seminar/ Exhibition. The details of the projects selected for KSCST grants are listed as here under.

- i. **Project title:** An Experimental Study on Structural Performance of RC Beams Strengthened for Combined Flexure and Shear by Using NSM-GFRP Strips. Project student (PG-Structures): Ms. Aishwarya K M; Guide: Dr. N. C. Balaji, Associate Professor; Grant amount: 7,000/-
- ii. **Project title:** An Experimental Study on Structural Performance of RC Beams Strengthened for Combined Flexure and Shear by Using NSM-GFRP Strips. Project students(UG): Mr. Charan A, Ms. Aakanksha R, and Mr. Nitheesh N. Project guide: Dr. N. C. Balaji, Associate professor, Grant amount: 12,000/-
- iii. **Project title:** Integration of solar and micro hydro systems to micro-grid for harnessing the renewable energy sources. Project student: Ms. Susham M N, Mr. Sharan Prasad, Mr. Rajesh B, Ms. Malavika Prasad, and Mr. Imtitong Kichu, Project guide: Dr. Hema H, Assistant professor, Grant amount: 8,000/-
- iv. **Project title:** Integration of solar and micro hydro systems to micro-grid for harnessing the renewable energy sources. Project student: Ms. Varshini B, Mr. Varuna M Kulami, Ms. Sowmya K S, and Mr. Rajesha, Project guide: Dr. H S Prasanna, Professor, Grant amount: 8,000/-

Guest lecture and Expert talk by faculties



Dr. Punith B Kotagi, Assistant Professor, delivered a technical sessions on "Road Safety". The session was organized by Larsen & Toubro - Corporate Technology & Engineering Academy (L&T – CTEA). The training sessions were conducted for L&T Engineers and Staff's working at prestigious "Bullet Train" project locations. 5 sessions were conducted at different site locations in and around Surat, Gujarat from 17th to 19th January 2022 and 19th to 21st May, 2022



Department of Civil Engineering faculty Dr. Chandan M C, Assistant Professor, delivered an expert lecture in the Vigyana Bharathi series on the topic "Remote Sensing and GIS" to All India Radio-Aakashvani Mysuru FM 100.6 on 21-July-2022. His talk can be accessed using the link below

Dr. N. C. Balaji, Associate professor, has been awarded with Certificate of “NPTEL BELIEVERS” & “NPTEL MOTIVATED LEARNERS” for Dr. N. C. Balaji, for fulfilling the requirements for the above two appreciation certificates during January – April 2022



Best Technical Paper Awards in Conferences

Mr. Shashank S Shastry, 7th Semester student & Dr. H. S. Prasanna, received best technical article for article titled “A Parametric study of the yield of ring well - A practical approach” in Indian Geotechnical Conference 2021 – GEOtechnics for Infrastructure Development and Innovative Applications. NIT-T.

Mrs. SriRashmi S, Assistant Professor, received best technical article award and Shri S P Unvala Memorial Prize for “Study on Impact of Ecological Sanitation on Water and Possible Health Implications at Masarahalli Village – Karnataka” during the 54th Annual Convention of IWWA – 2022.

Mr. Madan Kumar L, Assistant professor, presented a research article titled “Expanded polystyrene as fine aggregates in concrete paver blocks – An experimental study” in International Conference on Emerging Trends in Engineering, Management and Technology (ICETEMT -2022) Dr. Chandan M C, Assistant professor, conducted a collaborative works with IIT Kharagpur and obtained best paper award for the paper titled “Land-use Change Dynamics and Automated Feature Extraction Using High-Resolution Satellite Imagery” during recent R4TLI-2022 International conference.

Ms. Anitha, Mtech Structural Engineering student & Dr. Anand Hulagabali, Assistant Professor, obtained best technical article award for the article titled "Seismic Response Analysis of High-Rise Building Considering the Effect of Soil-structure Interaction". The article was presented in First International Conference Innovation in Smart and Sustainable Infrastructure, Pandit Deendayal Energy University, Gandhinagar, Gujarat.

Mr. Gireesh A B, MTech, Hydraulics Engineering students and Dr. Chandan. M. C, Assistant Professor, bagged the best paper (2nd place) during the IEEE SPP 2022 competition for the paper titled “Estimation of ground water potential zones in the southern dry agro climatic region using Geoinformatics and AHP technique” organized by IEEE GRSS Bangalore chapter and NITK GRSS Student chapter.

Ms. Smita Patil received best research paper award for the technical paper titled “Dam Failure Analysis and Flood Inundation Mapping for Harangi Reservoir Karnataka” during the 7th International Conference on Engineering Research and

and Innovations – (ICERI – 2022). The event was organised by Terna Engineering College (TEC, Nerul, Navi Mumbai Mr. Sachin V, Assistant Professor, received best technical article award for “Analytical studies on the fire resistance of the reinforced concrete beams exposed to parametric time-temperature curve” during the 4th International Conference on Trends and Recent Advances in Civil Engineering (TRACE-2022). The event was organized by AMITY University, Uttar Pradesh, Noida.

Technical Articles Published

Pavankumar Naik and Gourav K. Analysis of Skew Bridge-Slab Under IRC Vehicle Loading, International Conference on Innovative Technology for Smart Construction Materials and Sustainable Infrastructure (ITSCMSI 2022), October 14 - 15, 2022 at Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, INDIA.

Disha J. and Gourav K., “A Collateral Study on Optimization of Pre-Engineered Building with Tubular Sectional Connection”, International Conference on Innovative Technology for Smart Construction Materials and Sustainable Infrastructure (ITSCMSI 2022), at Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, INDIA.

Y. Kusuma, T. Rashmi, V. Nikitha Anand, N.C. Balaji, (2022), "An experimental study on flexural performance of RC beams strengthened by NSM technique using GFRP strips for a resilient infrastructure system", Materials Today: Proceedings, Rashmi M., Aishwarya K. M., Nikitha Anand V. and Balaji N. C., (2022), “A review on shear strengthening of Reinforced Concrete beam using NSM-FRP technique”, 1st International Conference on Advances Sustainable Construction Materials (ICASCM-2022), organized by Department of Civil Engineering, KL University, Koneru Lakshmaiah Education Foundation (KLEF), Guntur, Vijayawada, Andhra Pradesh, in association with Indian Concrete Institute (ICI), which held on 18th - 19th March 2022.

Aishwarya K. M., and Balaji N. C., (2022), “Analysis and design of eccentrically loaded corner combined footing for rectangular columns”, 1st International Conference on Advances Sustainable Construction Materials (ICASCM-2022), organized by Department of Civil Engineering, KL University, Koneru Lakshmaiah Education Foundation (KLEF), Guntur, Vijayawada, Andhra Pradesh, in association with Indian Concrete Institute (ICI), which held on 18th - 19th March 2022.

Chirdeep N.R., Balaji N.C., Jain R., Suresh G.S. (2022) Studies on the Behavior of Gabion Wall Subjected to Lateral Monotonic Loading. In: Nandagiri L., Narasimhan M.C., Marathe S., Dinesh S. (eds.) Sustainability Trends and Challenges in Civil Engineering. Lecture Notes in Civil Engineering, Vol. 162. Springer, Singapore. Rashmi T., Kusuma Y., Nikitha Anand V. and Balaji N. C., (2022), “Shear Strengthening of RC Beams by NSM Technique using GFRP Strips for Sustainable and Resilient Infrastructure”, In: Kumar, P.G., Subramaniam, K.V.L., Santhakumar, S.M., Satyam D., N. (eds) Recent Advances in Civil Engineering. Lecture Notes in Civil Engineering, Vol 233. Springer, Singapore.

Gireesh, A. B. & Chandan, M. C. (2022). Estimation of groundwater potential zones in the southern dry agroclimatic region using Geoinformatics and AHP technique. Paper presented at International Virtual Conference on Developments and Applications of Geomatics (DEVA-2022), NIT Warangal, Virtual Conference: 29-31 August, 2022.

Suhas S., Vishwanatha B. M., Bhavani V., Ruthvik Krishna, & Chandan, M. C. (2022). “Urban Dynamics and Impact Assessment of Bengaluru-Mysuru Expressway Corridor”. Paper presented at International Virtual Conference on Developments and Applications of Geomatics (DEVA-2022), NIT Warangal, Virtual Conference: 29-31 August, 2022.