



CE - ಸುದ್ದಿ

Biannual newsletter



Chenab Rail Bridge

Jammu & Kashmir

Vol. 4

Department of Civil Engineering
MIT Thandavapura



MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA

About MITT

MITT, started in the year 2016, is founded by a group of eminent people recognised for their eminence in the field of science and engineering technology. Many of them have served at the highest levels of AICTE and Univesrity. MITT is situated at a beautiful, enchanting & sparwling landscape. MIT Thandavapura is a career-focused college that provides a comprehensive educational experience in a variety of growing areas of employment.

VISION

To be recognised as an institution known for its academic excellence and innovation towards creating future leaders in respective fields.

MISSION

Imparting quality education with state of the art skills.

Conducting research and development activities

Contributing technical and managerial services to the society

Adapting to ever-changing educational and societal needs.



About the department

Department of Civil Engineering has an intake of 60 and is known for providing quality education with importance to skill and personal development. The department is committed to keeping up with industry standards and students are given ample exposure and training in career opportunities, technical & professional skills required for industry and entrepreneurship.



About CE - ಸುದ್ದಿ

Department of Civil Engineering started the publication of bi-annual newsletter from even semester of AY 2019-20 and is happy to release Volume 4. The newsletter outlines all academic and non academic activities of a semester like results, research activities, events, achievements and more. Department is thankful to the Head of the Institution and management for their support and encouragement.

DEPARTMENT OF CIVIL ENGINEERING



VISION

To flourish as a center of excellence which delivers quality Civil Engineers with sound knowledge, professional skills and ethical values to serve the society

MISSION

- ✔ To impart comprehensive knowledge of Civil Engineering through learner-centric teaching methodologies and industry-institute interactions
- ✔ To conduct research and consultancy and inculcate spirit of entrepreneurship to succeed in wide range of careers with an emphasis on life long learning
- ✔ To inculcate the highest standards of moral conduct and ethical behaviour for positive development of individual and society

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- ✔ To acquire the knowledge of Civil Engineering practices to compete and match with the research and industrial requirements
- ✔ To attain technical and professional skills in the field of Civil engineering for sustainable infrastructural development
- ✔ To instil ethical approach and social awareness towards continuous development and growth of society



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Result Analysis

2021-22 Odd semester

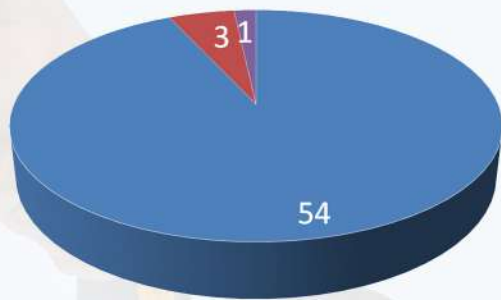
7th SEMESTER

CLASS TOPPERS

- 1) PUNYA S L - 9.55 SGPA
- 2) YASHIKA C V - 9.45 SGPA
- 3) ANITHA D N - 9.40 SGPA

SUBJECT TOPPERS

- | | | |
|---------------|-----------|------------|
| 1) MD. JUNAID | - 18CV71 | - 95 MARKS |
| PUNYA S L | - 18CV71 | - 95 MARKS |
| 2) SHUSHRUTHA | - 18CV72 | - 94 MARKS |
| 3) PUNYA S L | - 18CV734 | - 95 MARKS |
| 4) BHOMIKA K | - 18CV745 | - 95 MARKS |
| SHUSHRUTHA | - 18CV745 | - 95 MARKS |
| 5) PUNYA S L | - 18ME751 | - 89 MARKS |



- Total pass
- Failed in one sub
- Failed in two subjects
- Failed in three subjects
- Failed in four or more subjects

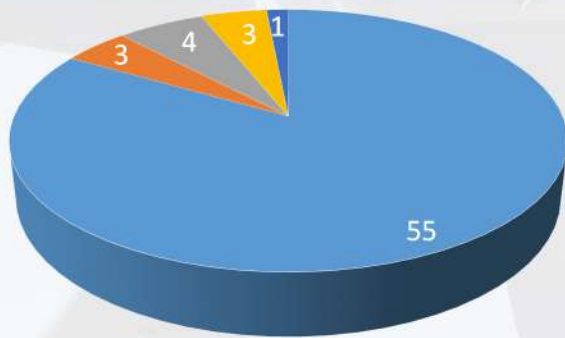
5th SEMESTER

CLASS TOPPERS

- 1) ISHWARYA B - 9.68 SGPA
- 2) SUHAS R - 9.60 SGPA
- 3) ABHISHEK S - 9.56 SGPA

SUBJECT TOPPERS

- | | | |
|-----------------|----------|-------------|
| 1) YASHASWI K.P | - 18CV51 | - 96 MARKS |
| 2) HARSHITHA.N | - 18CV52 | - 100 MARKS |
| RAGHAVENDRA | - 18CV52 | - 100 MARKS |
| 3) AMRUTHA S V | - 18CV53 | - 95 MARKS |
| 4) ISHWARYA B | - 18CV54 | - 95 MARKS |
| 5) SUHAS R | - 18CV55 | - 91 MARKS |
| 6) NIKITHA A | - 18CV56 | - 89 MARKS |



- Total pass
- Failed in one sub
- Failed in two subjects
- Failed in three subjects
- Failed in four or more subjects

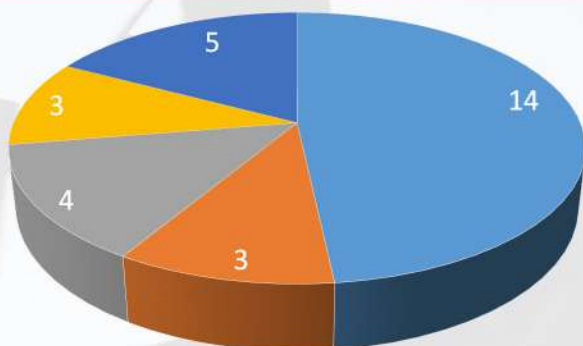
3rd SEMESTER

CLASS TOPPERS

- 1) REKHA S - 9.44 SGPA
- 2) CHANDAN K - 9.20 SGPA
- 3) CHITHRA N - 9.08 SGPA

SUBJECT TOPPERS

- | | | |
|--------------|-----------|------------|
| 1) REKHA S | - 18MAT31 | - 81 MARKS |
| 2) CHANDAN K | - 18CV32 | - 81 MARKS |
| 3) HAMSAVI | - 18CV33 | - 86 MARKS |
| 4) REKHA S | - 18CV34 | - 89 MARKS |
| 5) CHANDAN K | - 18CV35 | - 88 MARKS |
| REKHA S | - 18CV35 | - 88 MARKS |
| 6) REKHA S | - 18CV36 | - 86 MARKS |



- Total pass
- Failed in one sub
- Failed in two subjects
- Failed in three subjects
- Failed in four or more subjects

EVENTS

01

Mr. Ranjith E M, Partner, Shathayu Civil Consultants presented seminar on "Estimation and billing in construction industry" to the students of 7th semester on 15/12/2021 which was conducted in association with Builders Association of India.

02

Students of 7th semester were exposed to modern tool usage through "Introduction to Applications of Primavera in Civil Engineering" by Prof. Chethan M B on 10/01/2022. He highlighted on the planning & scheduling of project, resource, risk & cost management, etc.

03

A lecture on Geopolymer concrete by Prof. Raghavendra A was arranged to students of 5th semester on 31/01/2022. The lecture focused on the raw materials used for production of geopolymer concrete, its chemical composition and mix proportioning.

04

A 2-Day Hands on training on "Analysis and Design of Multi-storey RCC Building" by Prof. Rohith Jain was conducted to 7th semester students from 15/11/2021 to 16/11/2021. The students were guided to design the structure as per IS456 using the responses obtained from the software.

05

Prof. Raghavendra A and Prof. Mahadev Prasad N conducted hands on training on total station surveying to the students of 5th semester on 18/11/2021. This helps the students to learn basics of EDM and total station before extensive surveying project.

06

A seminar on Safety in construction was carried out to students of 5th semester on 07/10/2021 by Prof. Raghavendra A. The purpose of the seminar was to make students aware about the risks during construction and safety measures to be taken.

07

Students of 5th and 7th semester visited Sarala Industries located in Adakanahalli Industrial area on 06/10/2021. Mr. Rajath, Plant manager explained about raw material procurement, equipments used for block production and their functioning procedure.

08

A seminar on Safety in construction was carried out to students of 5th semester on 07/10/2021 by Prof. Raghavendra A. The purpose of the seminar was to make students aware about the risks during construction and safety measures to be taken.



MOUs SIGNED

TO JOINTLY WORK ON PROJECTS REQUIRED FOR INDUSTRIES & RESEARCH NEEDS, WITH LEARNED FACULTY OF GOOD INDUSTRIAL EXPERIENCE & PROMISING STUDENTS, JOINTLY AGREE TO EXCHANGE THEIR EXPERTISE FOR MUTUAL BENEFIT AND GROWTH



Avishkar
Constructions &
Consultants
(March 2022)

Internships
Site visits
Placements



Anika
Civil
Consultants
(March 2022)

Internships
Site visits
Placements

CE - ಸುದ್ದಿ (Vol 4)

Staff Editor

Prof. GANAVI S

Assistant Professor,
Department of Civil Engineering

Student Editors

Nikalpa S

Shashank J K

Chinmaye C R

Sandeep N T

Chandana K

FDPs Attended

01

Mr. Rohith Jain has attended faculty development programme on “Teaching and Learning in Higher and Professional Education-the challenges and opportunities” organized by Institute for Engineering Research and Publication on 18th & 19th April 2022.

02

Mr. Manu S Gowda has participated in online FDP on “Geotechnical Engineering Practices & its Sustainable Development” organized by Dept of Civil Engg, Ballari Institute of Technology & Management in association with IQAC Cell, BITM, Ballari held during 26th to 28th May 2022.

03

Mr. Manu S Gowda has participated in five day faculty development program from 22nd to 26th March 2022 on “Water – A Precious Natural Resource, Sustainability towards surface and ground water conservation” organized by Department of Civil Engineering – BIT Bangalore

04

Dr. Manjunatha M C has attended faculty development programme on “Teaching and Learning in Higher and Professional Education-the challenges and opportunities” organized by Institute for Engineering Research and Publication on 18th & 19th April 2022.

05

Mr. Harshith M has participated in National Webinar on “Quality assurance & Quality Control in Construction” by Er. D.N. Vishwanath organized by Dept of Civil Engg, Don Bosco Institute of Technology in association with ICI-Bengaluru Centre held during 4th to 8th January 2022.

Paper publications

01

Manjunatha M C and Basavarajappa H T, “Urbanization Threat on Mysore-Betel Leaf Extinction in Mysuru City of Karnataka State, India using Geospatial Technology”, Journal of Remote Sensing, Environmental Science & Geotechnical Engineering, ManTech Publications, Vol 7, Issue 1, Pp 1-12, Nov 2021

02

Manjunatha M C and Basavarajappa H T, “Land Classification Analysis using Geospatial approach in Nanjangud taluk of Karnataka state, India”, International Advanced Research Journal in Science, Engineering and Technology, Vol 8, Issue 6, Pp 629-638, May 2022

03

Manjunatha M C and Basavarajappa H T and Krishne Gowda Y T, “Geospatial Technology in Land classification analysis for H.D Kote taluk of Karnataka State, India”, Wesleyan Journal of Research, Vol 14, No 2, Pp 57-71, May 2022

Chenab Rail Bridge

THE SUCCESSFUL MEGA PROJECT OF INDIAN RAILWAYS

Chenab Bridge is located between Bakkal and Kauri in the Reasi district of Jammu and Kashmir (J&K), India. Built at a height of 359m, the 1,315m-long structure is the tallest rail bridge in the world. The bridge connects Jammu-Udhampur-Katra-Quazigund-Srinagar-Baramulla, with rest of the nation. The bridge has a 14m-wide dual carriageway and a 1.2m-wide central verge.

The project started in 2002 and was suspended in 2008 due to construction challenges. The alignment of the entire project was reviewed to propose solutions for the challenges faced. The review work was submitted to the Indian Railway Board and approved in 2009. The design of the railway bridge, however, was approved in July 2012.

Chenab Bridge forms a large steel arch, the first of its kind in India. As there are no IS codes for arch design, based on experiences drawn from similar projects world-wide, the design practices for the bridge were followed. BS: 5400 was used as the basic guideline for the design and construction of the bridge. The deep Chenab River valley under the bridge is prone to high wind pressure risking the stability of the bridge. Norway-based Force Technology Laboratory conducted several wind tunnel tests to understand the effects of wind speed, static force coefficients and gust buffeting. The bridge is designed to resist wind speeds of up to 260km/h. The seismic nature of the project zone was also considered during its design. The bridge includes 17 spans, as well as the 469m main arch span across the Chenab River, and viaducts on either side. The main span of the bridge includes two 36m-long approach spans. It is built as a two-ribbed arch with steel trusses made of concrete-filled sealed steel boxes. The structure is supported by two 130m-long, 100m-high pylons on either end through cables. Steel was chosen to construct the bridge as it was more economical and will be able to resist temperatures of -20°C and wind speeds exceeding 200km/h. The J&K region witnesses frequent terrorist attacks. To enhance safety and security, the bridge is made of 63mm-thick special blast-proof steel. It is expected that the structure will be able to withstand earthquakes of magnitude eight on Richter Scale and up to 40kg of TNT blasts. The bridge will be painted with a special corrosion-resistant paint, which lasts for 15 years.

STRUCTURAL STEEL
25000 tonnes

REINFORCEMENT STEEL
4000 tonnes

CONCRETE
46000 cum

EXCAVATION
800000 cum