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NIRMAAN

VASAVI COLLEGE OF ENGINEERING

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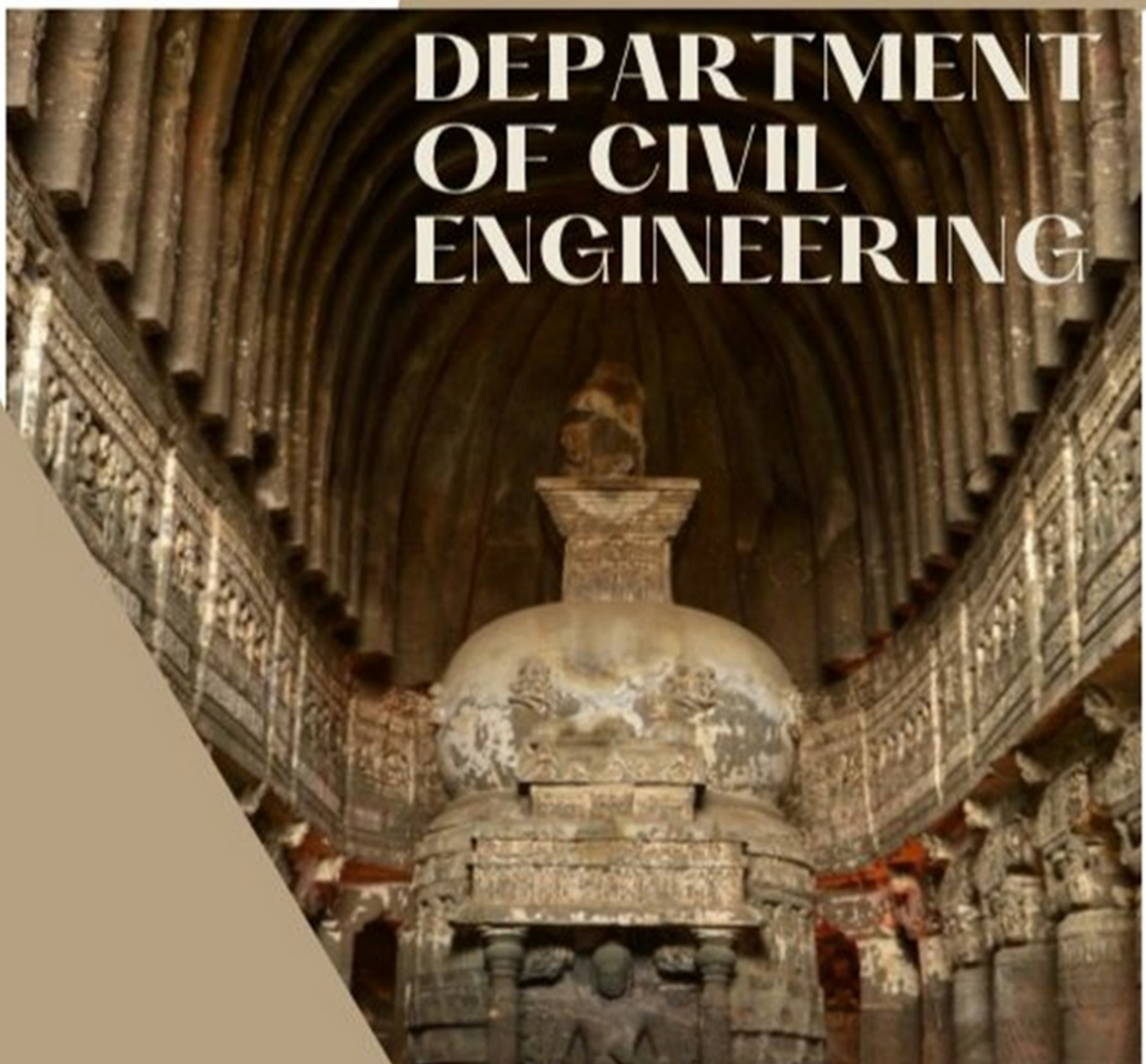

COLLEGE VISION

"Striving for a symbiosis of technological excellence and human values"

COLLEGE MISSION

"To arm young brains with competitive technology and nurture holistic development of the individuals for a better tomorrow"

DEPARTMENT VISION

"To strive for excellence in order to make the students better citizens with technical knowledge and social awareness"

DEPARTMENT MISSION

"To impart knowledge in the latest technologies to the students of Civil Engineering to fulfill the growing needs of the society"

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

To provide a better understanding of basic sciences and fundamentals of civil engineering.
To develop competence in latest technologies to serve the industry or pursue higher studies.
To inculcate professionalism with effective communication skills and ethical values.

PROGRAM SPECIFIC OUTCOMES (PSOs):

Understand various concepts of basic engineering sciences and mathematics to learn advanced concepts of Civil Engineering and apply them to practical problems.

Apply principles of various specializations of Civil engineering including structural engineering, transportation engineering, environmental engineering, water resources engineering and Geotechnical engineering to tackle engineering problems.

Acquire knowledge of ethical practices, communication skills, technical report writing skills and collaborative effort leading to lifelong learning.

PROGRAM OUTCOMES (POs):

Engineering Graduates will be able to:

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

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

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

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

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

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

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

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

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

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

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

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

EDITORIAL BOARD

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Professor and HOD

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Assistant Professor

Chinmayi N

Koushik A

Y Teja Rishith

Tunvi Dasari

ALUMNI VISIT

- Alumnus K. Bhanu Rekha happened to visit the college on 30th of April, 2022, who is presently in the position of a Lecturer at Govt. Polytechnic, Masab Tank, Hyderabad (Pass out year: 1997)
- Alumnus T. Sai Krishna happened to visit the college on the 16th of march, 2022, who is presently preparing for his higher studies. (Pass out year: 2016)
- Vishnu Murthy alamnus happened to visit the college on the 16th of March, 2022, who is presently preparing for groups(Pass out year: 2020)
- On the 14th of February, 2022, alumnus V. Sai Krithendra 2021 Pass out happened to visit the college who is presently positioned as an Engineer at Verisk Analytics.

GUEST LECTURES AND SEMINARS CONDUCTED IN THE DEPARTMENT OF CIVIL ENGINEERING:

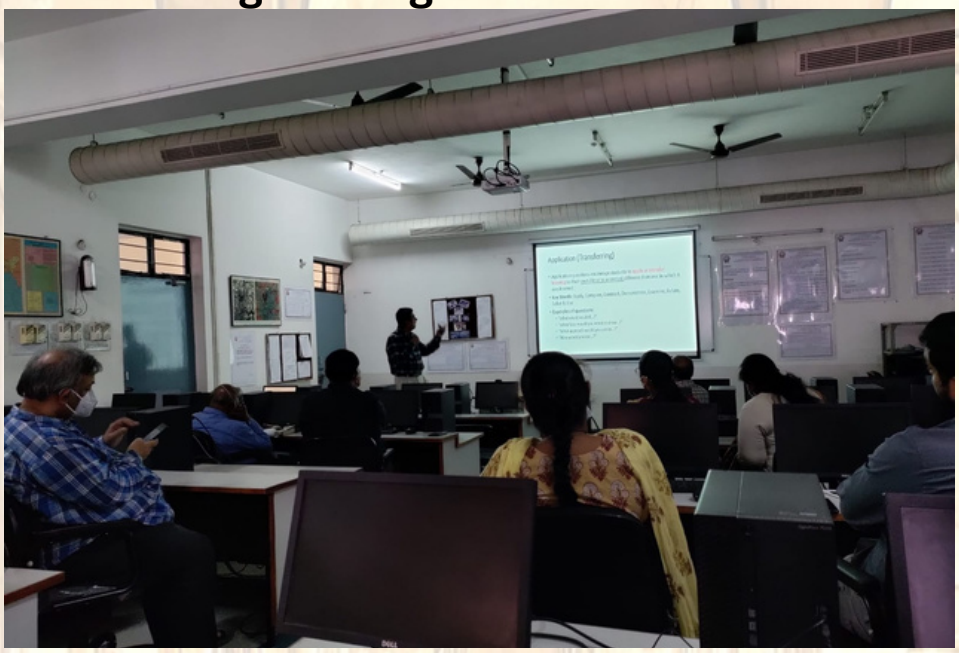
- Er. Surya Prakash(Adjunct Faculty), SatyaVani Projects and Consultants Pvt. Ltd addressed the crowd of B.E 2/4, Civil Engg. on the 4th of February, 2022 by giving a guest lecture on “Water Proofing”.
- Dr. T Srinivas, Dr K Pavan Kumar, Mrs P. Dhatri, DR K Jayasree, Sri S Kesav Kumar Mrs Krati Sharma and Dr. M.V.S.S Shastri on the 21st and 22nd of February conducted Skill Development Programme for lab technicians on “Concrete Technology, geology, Surveying Surveying, Transportation Engineering, Soil Mechanics and Environmental Engineering” laboratories.

- Dr. Jagmohan Das, Professor (Retired) from the Department of Civil Engineering, JNTUH addressed B.E 2/4 of Civil Engineering on “Applications of Fluid Mechanics” on the 16th of May, 2022.

- Domakuntla Rohith addressed the crowd of BE 2/4 of Civil Engineering, presented a guest lecture on “Career Guidance Session” on the 25th of March, 2022.

- Department of Civil Engineering organized a programme for Diploma students in Civil Engineering for government Polytechnic college in Masab Tank, Hyderabad from 24th to 30th of April, 2022.

- Dr. M Chandra Shekar, Professor in Department of Civil Engineering, NIT Warangal addressed faculty of Civil Engineering on the 5th of March, 2022. Delivered guest lecture on “Setting of Higher Order Thinking (HOT) Question paper for Civil Engineering.”



STAFF PARTICIPATION

- Sri S. Vijaya Kumar, Associate Professor, attended AICTE Training and learning (ATAL) Academy Online Elementary FDP on “Sustainable Engineering” from January 18th to 22nd , 2022 at Savitribai Phule Pune University.

- Sri S. Vijaya Kumar, Associate Professor, attended One week FDP on “Advancements in the field of Civil Engineering” from February 21st to 26th, 2022 at Department of Civil Engineering, Pravara Rural Engineering College, Loni.

- Sri J Chaitanya, Assistant Professor attended a workshop “Exhibition on Architectural, Building materials and design” from March 4th to 6th, 2022 at VCE, Hyderabad.

- **Sri S. Vijaya Kumar,** Associate Professor, attended AICTE recognised short term course on " Water Resource Management through ICT" from March 21st to 26th , 2022 at Department of Civil Engineering, Manav Racha International Institute of research and Studies, Faridabad (Haryana).

- **Dr. C Mohanlal,** Associate professor attended a workshop on Computational Modelling of Damage and Seismic Vulnerability Assesment at IITH.

- **Sri. S. Vijaya Kumar**, Associate Professor, successfully completed AICTE-ISTE refresher programme on "Refresher Program of Repair, Rehabilitation and Retrofitting of RCC Structures" held during 20.01.2022 to 27.01.2022 organized by Annasahed Dange College of Engineering Engineering & Technology, Ashta, Maharashtra.

- **Dr. M.V.S.S.Sastri**, Associate Professor in the Department of Civil Engineering on his awarded Ph.D from JNTU Kakinada for the thesis entitled "Flexural and Shear Behaviour of High Strength High Performance Fibre Reinforced Concrete With Sustainable Materials".

- **Sri. S.Vijaya Kumar** published a paper on "Creep Strain Behaviour of Triple-Blended Steel Fiber Self-Comopacting Concrete", in IOP Conference Series: Earth and Environmental Science.

- **Dr. Kuchu Jayasree** of Vasavi College of Engineering, Hyderabad presented a paper titled "Sustainable rural road network planning with a balance of urban and rural development" at the International Conference on "Innovative and Sustainable Technologies in Civil Engineering" (ISTCE 2021) organized by the Department of Civil Engineering, Bapatla Engineering College, Bapatla, held between September 24th & 25th , 2021.

- **Mrs. P. Dhatri, Assistant Professor, presented a paper a paper titled "Subgrade Reinforcement of Flexible Pavement Using Geotextiles" in the international Conference "Advances in Sustainable Construction Materials" held on 18th and 19th March 2022.**

- **Mrs. P. Dhatri, Assistant Professor, presented a paper a paper titled "Traffic and Air quality impact analysis of a commercial establishment in urban areas in the International Virtual Conference on "Smart and Sustainable development of Urban green Infrastructure in India and Canada" organized by National Institute of Technology (NIT), Tiruchirappalli from 25th to 26th March 2022.**

- **Sri. S. Kesav Kumar, Assistant Professor, presented a paper titled "Direct Program Outcome Assessment Tool for Creation of Student Portfolios in OBE Framework" in International Journal of Mechanical Engineering.**

- **Sri. S. Kesav Kumar, Assistant Professor, presented a paper titled "Advances in Sustainable Construction Materials" in International Conference on Advances in Sustainable Construction Materials.**

- **M.V.S.S Sastri, Associate Professor, attended AICTE Training and learning (ATAL) Academy Online Elementary FDP on "Sustainable Engineering" from January 18th to 22nd , 2022 at Savitribai Phule Pune University.**

- **Sri S Sriramulu, Data Entry Operator, attended a one week Staff Development Programme on SDP "Communication and Written Skills in English" from March 7th to 12th , 2022 at VCE, Hyderabad.**

STUDENT'S ACHIEVEMENTS

Ms. B. Mamatha of BE IV-Semester of Vasavi College of Engineering has achieved 1st prize in Volley Ball (Women) event as a part of Phoenix 22, A National Level Sports Fest organized by Vidya Jyothi Institute of Technology, Aziznagar, Hyderabad.

M. B. Mamatha of Vasavi College of Engineering for securing 2nd place in Volley Ball (Women) at Ekalavya Sports Meet 2022 organized by Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad.

INDUSTRIAL VISITS

For BE 2/4 Civil Engineering on March 22, 2022, students participated in an industrial exposure at Rural Technology Park (RTP) at National Institute of Rural Development (NIRD), Rajendranagar, Hyderabad.

Industrial Visit for B.E. 4/4 Civil Engineering Students as a part of Industrial exposure visited to National Remote Sensing Center (NRSC) at Hyderabad on 24th March 2022.

Industrial Visit for BE 4/4 (Civil Engg.) Students visited to M/s. Preca Solutions India Pvt.Ltd at Shankarpally, on 13th May, 2022.

Other Important Events

Conducted a Departmental Advisory Committee (DAC) Meeting on 21.05.2022 in the Civil Engineering Department.

IV and VI Semesters students Visited new building water tank construction for live demonstration of pumping concrete to water tank reinforcement and showing the live demonstration of Curtailment of reinforcement inside walls of submerged rectangular water tank.

Department of civil engineering conducted a meeting on Basic Engineering Drawing & Engineering Drawing –II on 21.06 2022.Faculty teaching Engineering Drawing-II and Basic Engineering Drawing fixed the syllabus and identify paper setters for the Internal Exams Of II-semester 2021-22.

KAILASA TEMPLE, ELLORA

Kailasa, a top-down approach temple present in VERUL also kmown as ELURA or ELLOORPURAM is a majestic beauty framed from a single rock. A megalith carved from a rock cliff face, it is a miraculous piece in temples in the world because of its stature, architecture and sculptural treatment, and "the climax of the rock-cut phase of Indian Architecture. The top of the superstructure over the sanctuary is 32.6 metres (107 ft) above the level of the court below, although the rock face slopes downwards from the rear of the temple to the front. Archaeologists are convinced that it,s a carvement of a monotonous rock.

The Kailasa temple (Cave 16) is the largest of the 34 Hindu, Buddhist and Jain cave temples and monasteries known collectively as the Ellora Caves, ranging for over two kilometres (1.2 mi) along the sloping basalt cliff at the site. Most of the excavation of the temple is generally attributed to the eighth century Rashtrakuta king Krishnadevaraya (r. c. 756 – 773), with some elements completed later. The temple architecture shows traces of Pallava and Chalukya styles. The temple contains a number of relief and free-standing sculptures on a grand scale equal to the architecture, though only traces remain of the paintings which originally decorated it.

FEATURES

- The temple's construction began during the reign of Rashtrakuta king Danti Durga.
- The temple's major construction was completed by King Dantidurga's successor, Krishna I (757-773 AD), though work continued for more than a century under many successive kings.
- It is situated in the Maharashtra town of Ellora.
- The carving of the temple began at the mountain's summit, but a pit was later dug around the temple on the sloping side of the hill.
- Aside from the gopura, the main temple has a sabha griha (hall), vestibules, and a Nandi mandap that leads to the garba griha (sanctum) with the Shiv linga, all of which are intricately carved and have Dravidian shikharas (towers).
- The Nandi mandap is linked to Gopuram by a bridge.

CONSTRUCTION METHOD

The following construction method is used in the construction:

- **The vertical excavation of the Kailasa Temple is notable—carvers began at the top of the original rock and excavated downward.**
- **The master architect strictly adhered to traditional methods, which could not have been accomplished by excavating from the front.**
- **The construction of the Kailasa temple appears to be mentioned in a medieval Marathi legend. The earliest extant text mentioning this legend is Krishna Raja (c. 1470-1535 CE).**
- **According to legend, the local king was afflicted with a terrible disease. At Elapura, his queen prayed to the god Ghrishneshwar (Shiva) to heal her husband. She vowed to build a temple if her wish was granted, and she promised to fast until she could see the temple's shikhara (top).**

ARCHITECTURE

- **Architectural calculation, one and a half to two million cu ft of rock were removed from trenches from digging. Since it would be nearly impossible to lift stones out of a trench that deep, scholars speculate that they may have chosen the simplest method, which involved having the sculptors chisel the rock from top to bottom so that boulders removed from the area surrounding the main shrine could be rolled down the mountainside by supporting work crews.**