



A. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY



(A unit of Laxmi Memorial Education Trust ®)

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BENCHMARK

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NEWSLETTER

Department of Civil Engineering

About AJ Institute of Engineering and Technology

Our Institution AJ Institute of Engineering & Technology is established in 2016, AJIET is the flagship of Laxmi Memorial Education Trust (LMET). The trust was founded by Dr. A J Shetty, registered during 1991 in memory of Late Laxmi Shetty, mother of Dr. AJ Shetty, the President and Managing Director of the Trust and Sri.Prasanth Shetty, Vice-President LMET, who for saw an academic community growing in strength and repute. He believed in quality education would play a significant role in nation building. The trust oversees various Institutions, including those dedicated to Medical Sciences, Hotel Management and many more. Currently the trust is managing 15 Institutions which are located in Mangaluru city limits and imparting quality education in the fields of Medical, Dental, Engineering and Management Education. Thousands of economically backward citizens have been benefitted from the free medical facility provided by the trust. Provides opportunity for both students and faculties to engage with industry, society and also access to an ever-growing alumni network. Also provides excellent research support by funding multidisciplinary innovative projects essential for solving the needs of the society.

AJ Institute of Engineering and Technology (AJIET) Mangalore, has an 8-year legacy of producing quality industry-ready engineers. We offer courses in B.E. in Civil, Mechanical, Electronics and Communication, Computer Science, Information Science & Engineering, AI & ML, AI & Data Science, IoT & Cyber Security including Block Chain Technology (ICB).

AJIET is one of the outstanding Engineering College located in Mangalore, and is well known for providing high quality education at a very affordable cost. Ours is the only Engineering college which is located within the city limits of Mangaluru region and the campus is spread over in a lush green campus of 11.59 acres of land.

At AJIET, academics go beyond the pursuit of a professional degree. We motivate students to achieve high levels of learning by providing a supportive environment, dedicated teachers, superior delivery mechanisms and state-of-the-art infrastructure. This in turn nurtures high caliber engineers and management professionals, ready to redefine what's possible.

AJIET strives to impart quality education along with industrial exposure. We make this possible by providing world - class facilities to undertake research activities relevant to industrial and professional needs, while also promoting entrepreneurs' well as value – added education that is socially relevant.

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Among the branches Civil, Mechanical, Electronics and Communication, Computer Science, Information Science & Engineering are accredited by NBA during the year 2022. We also offer Research Centers in Civil, Electronics & Communication, and Mechanical Engineering, Computer Science, Physics, Chemistry & Mathematics. Every year, around 2000 students study in AJIET. Till date, more than 2000 engineers have graduated from our Institution. From the past four years, the academic strength of AJIET is reflected in the constant and excellent results over the past 8 years – above 96% University pass percentage, and one University rank.

AJIET has established IoT Club, Aero Club, Automotive Club, Radio Club, Embedded & Robotic Club, Eco Club, Industry Institute Partnership Cell (IIC) and Entrepreneurship Development Cell (EDC) for the benefit of the students. This gives a wide exposure beyond curriculum to the students.

A successful education creates a learner for life:

Over 8 years, we have evolved and perfected a unique approach to knowledge delivery in all our engineering programme's. We are deeply involved in the students' academic lives to ensure that they work towards excellence from the start. We emphasize on a curriculum that facilitates knowledge – gathering as well as higher order thinking. Our faculty engage in experimental teaching methodologies, motivating students towards high academic performance. With invaluable industry & corporate exposure, every experience and opportunity presented to them holds immense possibilities for self-development. Over 1000 students many of them are industry leaders, entrepreneurs who have stepped out of our portals.

Learning that goes beyond four walls:

For learning to be genuine and sustainable, we help students to implement theoretical concepts to practical applications. Guest lectures, technical seminars, conferences and industrial visits introduce them to workplace practices and latest technological developments. We have introduced innovative Smart Classrooms, where industry leaders conduct webinars or simulated classroom teaching in key subject areas.

Training & Placement:

- Placement cell organizes personality development programmes & workshops, comprising, communication skills, presentation skills, group discussions, Technical Quizzing, Aptitude tests, Mock interviews and they like, to gear up candidate's profile.
- Placement cell invites corporate companies for recruitment on campus. A fully fledged Training, Placement and Entrepreneurship cell is established in the campus and is headed by Mrs. Kavitha and Dr. Anil as Main coordinator. This department acts as a liaising window, connecting HR Departments of corporate world.
- A placement cell is also operating to have corporate relations with various MNCS' for effective placements. This ensures in connecting corporate companies located in metro cities. Major recruiters are Switch Gear, Headway, Aykan, Mu Sigma, Toshiba Mitsubishi, Tata Electronics, Toyota Kirloskar, Juspay, Delta X, EuroNext, Aarbee structure, Novigo Solution, G R Infrastructure, TCS, Wipro, Infosys, Atkins, 7 Edge, Hiwin Indo MIM, Unicourt, Mirafra, Shree Cement, Hashedin and many more..



OUR PATRONS



Dr.A.J. Shetty
President, LMET



Mr. Prashanth Shetty
Vice President, LMET



Dr. Shantharama Rai C
Principal, AJIET



Dr.P Mahabaleswarappa
Dean Academics, AJIET

VISION OF INSTITUTE

To produce top-quality engineers who are groomed for attaining excellence in their profession and competitive enough to help in the growth of nation and global society.

MISSION OF INSTITUTE

- To offer affordable high-quality graduate program in engineering with value education and make the students socially responsible.
- To support and enhance the institutional environment to attain research excellence in both faculty and students and to inspire them to push the boundaries of knowledge base.
- To identify the common areas of interest amongst the individuals for the effective industry-institute partnership in a sustainable way by systematically working together.
- To promote the entrepreneurial attitude and inculcate innovative ideas among the engineering professionals.

ABOUT THE DEPARTMENT

The Civil Engineering is one of the most sought after options among students in India. Civil Engineering is one of the oldest Engineering professions. Role of Civil Engineer is vital in numerous fields like planning, designing, and overseeing construction of buildings, structures, and facilities, such as roads, railroads, airports, bridges, harbours, dams, irrigation, pipelines, power plants, water and sewage systems, and waste disposal units etc. Department of Civil Engineering was established in the year 2016 with the inception of AJIET, Mangalore. The Department is offering under graduate courses (B.E) in Civil Engineering with an intake of 60 and Affiliated to VTU Belagavi. Department has got an experienced and highly dedicated faculty members. Nowadays a tremendous increase in demand for resources and acute shortage of the same is like a double edged sword. Codes and construction practices are emphasizing durability to cope with the situation. Hence UG curriculum strikes a balance between Engineering fundamentals and applications and thereby, preparing graduates for both research and professional practice in the Civil Engineering disciplines.

HOD DESK

To impart students a strong theoretical and practical skills through the state-of-the-art concepts and fundamentals of various Civil Engineering subjects. To prepare the students to be competent and skilled enough to take the challenges in Research, Consultancy and Entrepreneur to meet the ever-changing needs of society and to continue learning their discipline. To promote active learning, critical thinking, collaborative activities and contribute to social development with ethical values



Dr. Suman Kundapura

Head of the Department

FACULTY MEMBERS



Dr.Suman Kundapura
Head of the Department



Prof. Vinod T DSouza
Assoc. Professor



Dr. Amarnath Shetty
Professor



Dr. Sangeetha D M
Assoc. Professor



Mrs. Deeksha Anand
Asst. Professor



Mr. Saketh Shetty
Asst. Professor



Mrs. Babitha B
Asst. Professor



Mr. Nitesh
Asst. Professor



Mrs. Pooja Deepak
Asst. Professor



Ms. Shruthi Shetty
Foreman



Mr. Nagaprasad
Instructor

VISION

To produce competent and professional civil engineers with academic excellence and ethics to meet societal challenges at global level.

MISSION

- To impart students with strong theoretical and practical skills through the state-of the-art concepts and fundamentals of various civil engineering subjects.
- To prepare the students to be competent and skilled enough to take up the challenges in research to meet the ever changing needs of society and to continue learning.
- To promote active learning, critical thinking, industry - institute collaborative activities and contribute to social development with ethical conduct.

PEO's

- PEO1: Apply concepts of interdisciplinary sciences and technology to solve any civil engineering problem.
- PEO2: Execute civil engineering projects effectively by addressing the ever-changing needs of society and aim for continuous improvement..
- PEO3: Competent enough to pursue higher studies and also to monitor and manage the research project with the effective utilization of resources to suit the needs and face the challenges involved to meet the global demands.

PSO's

- PSO1: Should be able to understand the various domain concepts of civil engineering and execute the projects effectively.
- PSO2: Demonstrate competency in the technical community and arrive at sustainable solutions to the real world problems.
- PSO3: Take up challenging roles by focusing on a systematic approach

PROGRAM OUTCOMES (PO'S)

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 teamwork: 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.

NON- TECHNICAL EVENTS

PTA Meeting – 3rd Year



Department of Civil Engineering had conducted the Parents Teachers meeting of third year students with HOD, Class Advisor, and Counselors' on 19th Jan 2024 at 10:00 Am. All parents were welcomed with all due respect and the HOD addressed the current scope of Civil Engineering and how students should develop their skills to be ready for industry. The outcome of the past batch students their placements in the industry was revealed to the parents of the third year students. The students who have opted for higher studies in abroad and in India were also addressed to the parents. The activities happened in the last semester and the activities happen in the coming even semester were also projected to students and parents.

PTA Meeting– 2nd Year

Department of Civil Engineering had conducted the Parents Teachers meeting for 2nd years with HOD, Class Advisor, and counselors on 19th Jan 2024 at 2:00 Pm. All parents were welcomed with all due respect and the HOD addressed the current scope of Civil Engineering and how students should develop their skills to be ready for industry. The department faculties were introduced to the parents as this was their first visit to the department. Parents were informed about the new scheme 2022 subjects and improvements and the requirements. .Parents were assured that students will turn better engineers due to the new scheme introduction. The outcome of the past batch students their placements in the industry was revealed.



The students who have opted for higher studies in abroad and in India was also addressed to the parents. The activities happened in the last semester and the activities due to happen in the coming even semester were also projected to students and parents.

Technical Events



Department of Civil Engineering in association with Student association Team Resilience had organized Technical talk for second and third year Civil Engineering students on topic Scope of GIS with application of GIS on 6th February 2024 at 10AM in seminar hall 1.

The main aim of conducting a technical talk on the scope of GIS to civil engineering students aims to introduce them to a relevant tool, raise awareness of career opportunities, promote interdisciplinary learning, enhance problem- solving skills, prepare them for industry trends, expose them to real-world applications, and encourage lifelong learning.

Workshop on UX design

Department of Civil Engineering in association with Student association Team Resilience had organized Technical talk for second and third year Civil Engineering students on topic Scope of GIS with application of GIS on 6th February 2024 at 10AM in seminar hall 1.



The main aim of conducting a technical talk on the scope of GIS to civil engineering students aims to introduce them to a relevant tool, raise awareness of career opportunities, promote interdisciplinary learning, enhance problem-solving skills, prepare them for industry trends, expose them to real-world applications, and encourage lifelong learning activities and group discussions to reinforce learning

Workshop on Smart City and Town planning using DTM

Department of Civil Engineering in association with Student association Team Resilience had organized a Three days' workshop on Smart City and Town planning using DTM and AUTOCAD Software for second year Civil Engineering students from 12th to 15th of February 2024 in A block 3rd floor CADD Lab.



Resource person for the workshop was Er. Janakaraj M , Research Scholar, MIT, Manipal.. A total of 31 students from 2nd year BE Civil attended this session. Initially, the students were explained about the functioning and other features of the instrument and later they were taken to the field for a survey using total station. Students were also given hands-on training to use the instrument in the field. Two Pentax total station machines were utilized for the surveying

Industrial visits

Industrial Visit for 2nd year students to Mater Plannery, Puttur

Department of Civil Engineering had organised Industrial visit to Mater Plannery Puttur on 13-1-2024 for 3rd sem students. During the visit, live demonstration of different works carried out in master Plannery has been shown to the students for better understanding of the concepts of construction.



The strength and its stability of the structure to carry the loads was demonstrated. During the visit the students were also told about the importance of sustainable practices in construction with technology which ensures high quality at an affordable price and low impact on environment. The resource person had also explained the students about CONCOOD, which is the name given for concrete that looks like wood. Concood is a water and fire resistance, termite proof, strong, durable and above all economical. Overall the industrial visit was an eye opener for the budding civil engineering students.

Industrial visit for 3rd year students to Break Water construction at Kulai

Department of Civil Engineering had organized Industrial visit to Break Water construction at Kulai on 13-1-2024 for 5th sem students. Breakwater have been built since antiquity to protect breakwaters, reduce the intensity of wave action in inshore waters and thereby provide safe harbourage



Breakwaters built at Kulai for fishing harbour is 700m long and the total cost of the project is 147Crores. Our students got an excellent exposure at the site to see the casting of tetrapod's and quick curing of the tetrapod's. The depth of the soil excavated was 3m and the breakwater height is almost 4m above sea level. The laying of the formation was explained by the site engineer Mr. Noushad Ali and Pradeep from Tata consultancy services.

Industrial visits for 2rd year students to Nirmithi Kendra



Department of Civil Engineering had organized Industrial visit to Dakshina Kannada Nirmithi Kendra on 30-1-2024 for 3rd sem students. During the visit, live demonstration of an arch structure using brick and mortar was shown at the site. The arch was completed within 10 mins and the supporting formwork was also removed. Further the structure was loaded within the initial setting time of cement i.e., 30 mins. The strength and its stability of the structure to carry the loads was demonstrated. The effect of horizontal thrust was discussed. Students were given an opportunity to mould and unmould the bricks at the site. According to the syllabus given, students were also learnt about the importance of rain water harvesting and waste management during the visit. They also invited students to take up project works and internships at Nirmithi Kendra, where they will be providing material and space for the work. Overall, the industrial visit was very interesting and helpful for the budding civil engineering students.

Industrial visits for 4th year students to NMPA Fishing Harbour



Department of Civil Engineering had organized Industrial visit to NMPA Fishing Harbour, Break Water construction at Kulai on 13-1-2024 for 7th sem students. A break water is a permanent structure constructed at a coastal area to protect against tides, currents, waves and storm surges. Breakwater have been built since antiquity to protect breakwaters reduce the intensity of wave action in inshore waters and thereby provide safe harbourage. Breakwaters built at Kulai for fishing harbour is 700m long and the total cost of the project is 147Crores. Our students got an excellent exposure at the site to see the casting of tetrapod's and quick curing of the tetrapod's. The depth of the soil excavated was 3m and the breakwater height is almost 4m above sea level. The laying of the formation was explained by the site engineer Mr. Ganesh Rao and Preetham. The laying of the tetrapod was demonstrated using the hydraulic cranes. Also, they offered students to visit the NMPA actual port for the next visit on request.

Student Achievements



Kshawara Raj and Anjali S Rao, Students of Final year from Department of Civil Engineering got selected for the Final round of IIC Project presentation held at Reva University in Bangalore have achieved a remarkable milestone with their innovative project on a seepage meter. Their project has successfully advanced from the college level to the district level, and it has now been selected for the national level in the prestigious Yukthi Project Presentation Competition. This event, set to take place on January 9, 2024, showcases the brightest young minds in the country.



MJ Sakthi Magendhiran got 1st place in the Prathukrithi technical event at YUKTHI 2024, held on January 12, 2024, at the VTU Regional Centre in Mysore. This regional level techno-cultural fest, organized by VTU, featured a variety of competitions, including quizzes, business idea pitching, and proposal rounds. Demonstrating exceptional skill and innovation, Sakthi not only triumphed in the Prathukrithi event but also contributed significantly to winning the overall championship for his team. His outstanding performance highlights his technical prowess and entrepreneurial spirit..



Placements



SHIVANI KODIKAL – (2023-2024 Batch)

1. Placed with an annual package of 3.00 LPA at Hiwin Systems in Mulki. Hiwin Systems specializes in automation solutions and motion control systems.
2. Also secured a position at Aarbee Structures Pvt Ltd, a company known for its expertise in structural engineering and consultancy services.



NIKITHA – (2023-2024 Batch)

Placed with an annual package of 3.00 LPA at Hiwin Systems in Mulki. Hiwin Systems is known for its excellence in providing automation solutions, specializing in motion control and system integration. The company is reputed for its innovative products and services in the industrial automation sector, catering to a wide range of industries with high-precision machinery and automation solutions.



AMOGH – (2023-2024 Batch)

1. Secured a position at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise specializes in industrial services, focusing on equipment rental and project management for sectors such as oil and gas, petrochemicals, and construction.
2. Also secured a position at Aarbee Structures Pvt Ltd, a company known for its expertise in structural engineering and consultancy services.



DAN S K – (2023-2024 Batch)

Placed at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is a well-established firm in the Middle East, known for its expertise in delivering extensive industrial support solutions. Their offerings span equipment leasing, operational management, and project oversight across diverse industries including oil and gas, petrochemicals, power generation, and construction. They are recognized for their unwavering dedication to safety and excellence in service delivery.



MOHAMMAD THAMEEM – (2023-2024 Batch)

Placed at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise specializes in industrial services, focusing on equipment rental and project management for sectors such as oil and gas, petrochemicals, and construction. They are recognized for their unwavering dedication to safety and excellence in service delivery.



ALAN CHRISTY – (2023-2024 Batch)

Secured a position at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is renowned for its industrial services, offering equipment rental and project management in sectors like oil and gas, petrochemicals, and construction. The company is known for its strong commitment to safety and high-quality service.



ADITHYA – (2023-2024 Batch)

Secured a position at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is renowned for its industrial services, offering equipment rental and project management in sectors like oil and gas, petrochemicals, and construction. The company is known for its strong commitment to safety and high-quality service.



TANVISH RAJ – (2023-2024 Batch)

Placed at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is renowned for its industrial services, offering equipment rental and project management in sectors like oil and gas, petrochemicals, and construction. The company is known for its strong commitment to safety and high-quality service.



AYUSH SHETTY – (2023-2024 Batch)

Placed at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is renowned for its industrial services, offering equipment rental and project management in sectors like oil and gas, petrochemicals, and construction. The company is known for its strong commitment to safety and high-quality service.



LAXMIKANTH – (2023-2024 Batch)

Placed at Expertise in Saudi Arabia with an annual package of 7.00 LPA. Expertise is renowned for its industrial services, offering equipment rental and project management in sectors like oil and gas, petrochemicals, and construction. The company is known for its strong commitment to safety and high-quality service.

Faculty publications

MR SAKETH SHETTY – ASSISTANT PROFESSOR

Paper published name **Characterization of the Surface Lake and Evaluation of Its Benefits on Unconfined Aquifer Interaction—A Study on Coastal Karnataka Lake, India in the name of Journal "Water Conservation Science and Engineering"** DOI number DOI: 10.1007/s41101-024-00247-x

Consultancy

MR SAKETH SHETTY, Assistant Professor-Department of Civil Engineering , AJIET has been Appointed as Chief Consultancy Head where the Civil Engineering Department of AJIET has started the consultancy cell named 'Center for Consultancy Services (CCS) in 2024. The objective of the consultancy cell is to provide testing /Consultancy and third-party inspection services to the industry /organizations and the government sectors. The consultancy cell is well-equipped with various equipment and instruments required for consultancy work. We also undertake design testing inspection and advisory projects in civil engineering for both the public and private sectors. We aim to bridge the gap between the industry and the Institute and provide technical support to industries to solve their problems. This is unique and distinct in the expertise of the faculties who handled many projects in the government and public sectors.