Vision and Mission of the JSPM University and School

Faculty: Faculty of Science and Technology

Name of School: School of Civil and Environmental Sciences

Program Name: M. Tech. Structural Engineering

Vision and Mission of the JSPM University

Vision

To be a value-based globally acclaimed university at the forefront of innovation that provides experiential and transformative education through outstanding research and scholarship, leveraging service and leadership for industry and society.

Mission

- To be a learner-centric university creating a dynamic and inclusive community that fosters intellectual, experiential, and lifelong learning competencies, while making meaningful contributions to society.
- To nurture thinkers and solution providers that lead innovation and knowledge creation.
- To advance knowledge and understanding, through cutting-edge research, scholarship, and creative activity, whilst also providing students with a transformative education that prepares them for success in the global workforce.
- To imbibe entrepreneurial skill and values among faculty and students.
- To be a leader in higher education, establishing synergetic relations and alliances which offer opportunities for long-term interaction with academia of repute and industry, both nationally and internationally.

Goals

- To be globally acclaimed University in top 500 bracket of International Ranking.
- To attain 200% growth in research outcomes including quality publications in Quartile Journals and conferences, patents, sponsored Projects, Technology products, books, monograms etc.
- To be a multi-faculty University with 5 multidisciplinary research centres and introduce 5 interdisciplinary programmes.

- To setup 10 collaborative centres of excellence imparting essential skills for enhancing academic pursuits.
- To establish an industry partnered incubation centre to nurture entrepreneurship.
- To have 25% of learner population opting for entrepreneurship and/or pursuing higher studies.
- To attract foreign faculty from reputed universities to the extent of 5% of total faculty.
- To secure a digital ecosystem that facilitates communication and collaboration with stakeholders.
- To have 50 collaborations-MoUs with Institutes of repute both India and abroad.

Vision and Mission of the School

Vision

Fostering value-based education, research, innovation and leadership development in Civil Engineering and Environmental Sciences for industry and society.

Mission

- To provide value-based education in Civil Engineering that equips individuals to perform morally with responsibility and integrity.
- To foster a transformative education in Civil Engineering, cultivating entrepreneurial skills and values among faculty and students, ensuring their readiness for leadership in the global workforce.
- To drive impactful research and innovation in Civil Engineering, addressing societal and industry needs.
- To nurture environmentally conscious engineers contributing to sustainable solutions.

Program Coordinator

Director of the School

Program Educational Objective (PEOs)
Program Specific Outcomes (PSOs)

Program Educational Objectives (PEOs):

PEO-I	Graduates will excel in structural engineering roles, applying advanced computational techniques and innovative design principles to address real-world challenges in infrastructure.
PEO-II	Graduates will pursue continuous professional development, engage in collaborative research, and apply emerging technologies to innovate and enhance the resilience and sustainability of civil structures.
PEO-III	Graduates will develop entrepreneurial skills, driving innovation and creating solutions that foster growth and development in the structural engineering sector.

Program Specific Outcomes (PSOs):

PSO-I	Analyze, design, and assess structural systems using advanced computational tools to ensure safety, quality, and sustainability in civil infrastructure.
PSO-II	Conduct research in structural engineering, focusing on material science, seismic analysis, and retrofitting technologies.

Program Coordinator

Director of the School

Program Outcomes (POs)

Program Outcomes (POs):

At the end of the program, the Graduates will be able to:

PO-1	**Application of Advanced Engineering Knowledge-** Apply advanced knowledge of science, mathematics, and engineering principles to analyze, interpret, and solve complex structural engineering problems.
PO-2	**Design and Development of Sustainable Solutions-** Design and develop solutions for structural engineering challenges, considering public safety, customer requirement, and environmental sustainability.
PO-3	**Research, Investigative Expertise, and Report Writing -** Conduct investigations into complex structural engineering problems using research-based methodologies. Communicate findings effectively through technical reports and presentations.
PO-4	**Mastery in Specialized Domains-** Demonstrate mastery in structural engineering, encompassing structural analysis, structural design, and structural health monitoring.
PO-5	**Interdisciplinary and Project Management Skills-** Integrate Structural engineering knowledge with multidisciplinary approaches to analyze, design and retrofit projects, considering structural safety, earthquake loads and other load factors.
PO-6	**Ethics, Lifelong Learning, and Community Contribution-** Demonstrate professional ethics, work culture, and a commitment to lifelong learning.

Program Coordinator

Dr. M. NITHYA

Director of the School