

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: B. Tech Civil 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 Outcomes (POs)

Program Outcomes (POs):

PO-1	Engineering Knowledge: Apply the knowledge of basic sciences and engineering fundamentals to solve engineering problems.
PO-2	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.
PO-3	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.
PO-4	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.
PO-5	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.
PO-6	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.
PO-7	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.
PO-8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO-9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	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.
PO-11	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.
PO-12	Life-long learning: 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.

Program Coordinator

Director of the School

Program Educational Objectives (PEOs)

Program Specific Outcomes (PSOs)

Program Educational Objectives (PEOs):

PEO-I	Develop a distinguished professional trajectory in multifaceted arenas of the civil engineering industry and/or pursue higher studies by effectively applying knowledge in civil engineering fundamentals, complemented by value-based education and practical skills.
PEO-II	Analyze and design complex infrastructure, working collaboratively in multidisciplinary teams while upholding ethical standards and contributing to societal and environmental sustainability.
PEO-III	Demonstrate professional integrity, ethical leadership, and effective communication in their careers, while continuously engaging in lifelong learning to stay updated with advancements in civil engineering and contribute to innovative practices.

Program Specific Outcomes (PSOs):

PSO-I	Design and analyze complex civil engineering structures using advanced tools and software, ensuring compliance with safety and regulatory standards.
PSO-II	Utilize surveying techniques and GIS for planning and managing civil engineering projects, optimizing workflows and resource allocation.
PSO-III	Develop sustainable solutions for environmental, geotechnical, and transportation challenges using modern techniques, and evaluate and mitigate environmental impacts.

Program Coordinator

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