


Faculty Mapping with Bank of Thrust Areas of the Research

Identified Thrust Area	Sub Area	Faculty Name
Earthquake Engineering	<ol style="list-style-type: none"> 1. Seismic Hazard Assessment 2. Structural Dynamics 3. Soil-Structure Interaction 4. Development of Earthquake-Resistant Design Methods 	Dr. Dipak Jivani
Performance Evaluation of Rigid and Flexible Pavement	<ol style="list-style-type: none"> 1. Assessment of Structural Behavior 2. Durability and Serviceability of Rigid (Concrete) and Flexible (Asphalt) Pavements under varying Traffic Loads and Environmental Conditions 3. Pavement Design Optimization 4. Use of Recycled Materials 5. Fatigue and Rutting Analysis 6. Development of Performance Prediction Models 	Dr. Ujjval Solanki Prof. Dhaval Jalalpara
Smart Structures and Structural Health Monitoring (SHM)	<ol style="list-style-type: none"> 1. Use of IoT 2. Wireless Sensor Networks 3. AI and Machine Learning for Damage Detection, Life Prediction, Maintenance Planning 	Dr. Dipak Jivani Prof. Ketan Abhani Prof. Deepraj Patadia Prof. Deep Hadvani
Sustainable Infrastructure Development for Smart City	<ol style="list-style-type: none"> 1. Integrated Urban Planning 2. Green Building Practices 3. Water-Energy-Waste Nexus 4. Intelligent Transport Systems 5. Application of Digital Technologies such as BIM, IoT, and AI 	Prof. Chintan Raichura Prof. Sagar Galani Prof. Arjun Chavda Prof. Maulik Joshi
Advanced Construction Materials	<ol style="list-style-type: none"> 1. High-Performance Concrete 2. Fibre-Reinforced Composites 3. Self-Healing Materials 4. Geopolymer Concrete 5. Incorporation of Nanotechnology, Recycled Materials 	Prof. Mehulkumar Chavda Prof. Chetan Solanki Prof. Riddhika Davda Dr. Dipak Jivani


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