
Some of the basic ideas

Highway & Transportation Engineering

- Advanced Pavement Design
- Intelligent transport system
- Rural road development
- Highway safety
- Mixed traffic control & behavior continuously reinforced concrete pavement
- Automated highway systems

Engineering Materials

- Cellular Lightweight Concrete
- Glass fiber reinforced concrete
- Pervious concrete
- Cementitious materials (ex- silica fume, fly ash) concrete
- Non-destructive testing of concrete
- Causes Prevention and Repair of Cracks In Building
- Stability of high rise buildings.
- Corrosion Mechanism, Prevention & Repair Measures of RCC Structure
- Analysis of seismic retrofitting of buildings
- Formwork types & design
- Passive solar energy buildings

Earthquake Related Projects

- Earthquake vibration control using modified frame-shear wall
- Seismic isolation devices
- Energy dissipation devices for seismic design.

Surveying & Levelling

- Development Of Remote Monitoring System For Civil Engineering

Environmental Engineering

- Sewage treatment plant
- Logistic management of solid waste
- E-waste disposal

Irrigation & Water Resources Engineering

- Watershed management
- Interlinking of rivers
- Hydraulic & Hydrological impacts on Bridges

Soil Mechanics & Geotechnical Engineering

- Soil Liquefaction
 - Pile foundation
 - Improvement of bearing capacity of sandy soil by grouting
 - Ground improvement technique
 - Use of plastic as a soil stabilizer
 - Erosion control in slope
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