

CONSULTANCY SERVICES: Along with routine civil engineering material testing services, the department also provides various design and third party inspection (TPI) consultancy services as below but not limited to:

Sr. No.	Division	Technical Consultancy Services/ TPI
1	Transportation Engineering	<ol style="list-style-type: none"> 1. Traffic volume study and intersection design 2. Speed surveys 3. Pavement structural and mix design 4. Geometric design of highways 5. Pavement maintenance management 6. Road safety audit 7. Accident studies and Analysis 8. Proof checking of DPRs 9. Special studies related to field of Transportation Engineering 10. Performance evaluation of public transportation systems 11. Parking surveys and studies and analysis
2	Water Resources and Environmental Engineering	<ol style="list-style-type: none"> 1. Hydraulic design of water distribution network 2. Analysis of existing water distribution network 3. Hydraulic design of stormdrainage/sewerage network 4. Analysis of existing storm drainage/sewerage network 5. Design of Water Treatment Plant (WTP) and Sewerage Treatment Plant 6. Hydraulic analysis of flow through pipes/ canal (using ANSYS FLUENT) 7. Hydraulic design of canal and other hydraulic structures 8. Dam break flow analysis 9. Proof checking of DPRs
3	Geotechnical Engineering	<ol style="list-style-type: none"> 1. Design and recommendation of Shallow Foundation 2. Design of Pile and Piled-Raft Foundation 3. Recommendations for Ground improvement 4. Design of Reinforced Earth Structures 5. Slope Stability Analysis 6. Design of Diaphragm/ Cutoff walls 7. Design of Soil nailing, anchors, sheet-pile walls, bulk heads, excavation stability 8. Liquefaction susceptibility evaluation 9. Numerical analysis of geotechnical engineering problems 10. Design of landfills, canal slope, embankment 11. Recommendations for Waste stabilization and reutilization
4	Structural Engineering	<ol style="list-style-type: none"> 1. Proof checking and consultancy services for structural design of buildings, bridges, and other civil engineering infrastructures 2. Structural audit and health assessment of existing RC/ Masonry/Steel Structures 3. Proof checking, Inspection and testing of water retaining and water transport structures like pipes, water tanks etc 4. Proof checking and consulting services for underground structures 5. Non-destructive testing and evaluation using GPR, Rebound Hammer, and UPV.
5	Geoinformatics	<ol style="list-style-type: none"> 1. Remote Sensing Image Analysis

Note: The rates for the above consultancy expert services shall be decided based on the nature of the work with mutual consent of the organization and IITRAM.