

Location	Condition Assessment	Utility Management
<ol style="list-style-type: none"> 1. Utility Mapping 2. GPR surveys for utilities and buildings 3. Training and education for utility survey and management 4. Mapping System 5. Research on mapping accuracy and standards 6. Long range utility alignment survey 	<ol style="list-style-type: none"> 7. Building Services Assessment procedures 8. Assets condition assessment methods 9. Cooling Mains 10. Drainage condition assessment (CCTV, ME, Sonar or others) 11. Water Mains assessment 12. Gas main assessment 13. Cathodic Protection 14. Condition assessment system 15. Slope safety assessment 16. Water Leakage Detection and Survey 17. Pipe rehabilitation 	<ol style="list-style-type: none"> 18. Utility Management & Practice 19. Assets Management & Practice 20. Safety Management 21. Utilities for Smart City 22. Intelligent System for utilities 23. Risk Management 24. Public Utility Management 25. Training and education for utility survey and management 26. BIM for infrastructures 27. Utility Project Management 28. Utility Data Management. 29. GIS for utilities 30. Materials 31. Common Trenches/ducts 32. Leakage control and Management 33. Smart utilities 34. Utility specialists