



NITTE
(Deemed to be University)

**NMAM INSTITUTE
OF TECHNOLOGY**

EXPERT CONSULTANCY AND TESTING DATABASE

DEPARTMENTS

SL. NO.	DEPARTMENT NAME
1.	Artificial Intelligence & Data Science [AI&DS]
2.	Artificial Intelligence & Machine Learning [AI&ML]
3.	Biotechnology [BT]
4.	Civil Engineering [Civil]
5.	Computer & Communication Engineering [CCE]
6.	Computer Science & Engineering [CSE]
7.	Computer Science (Full Stack Development)
8.	Computer Science (Cyber Security)
9.	Electrical & Electronics Engineering [E&EE]
10.	Electronics & Communication Engineering [E&CE]
11.	VLSI Design & Technology [VLSI]
12.	Advanced Communication Technology [ACT]
13.	Information Science & Engineering [ISE]
14.	Mechanical Engineering [ME]
15.	Robotics & Artificial Intelligence [R&AI]



DEPARTMENT OF CIVIL ENGINEERING

Consultancy Services | Testing & Evaluation

LIST OF FACULTIES

CONSULTANCY SERVICES		TESTING & EVALUATION	
1.	Name of the Faculty	1.	Name of the Faculty
2.	Dr Prashantha Kumar K	2.	Dr. Shanmukha Shetty
3.	Dr. Shanmukha Shetty	3.	Mr. Roshan Rai
4.	Mr. Roshan Rai	4.	Mr. Gururaj Acharya
5.	Mr. Gururaj Acharya	5.	Mr. Pradeep Karanth
6.	Dr. Shriram Marathe	6.	Dr.Bhojaraja B.E
7.	Mr. Pradeep Karanth	7.	Dr Prashantha Kumar K
8.	Mr. Thushar S Shetty	8.	
9.	Dr.Bhojaraja B.E	9.	
10.		10.	

A. CONSULTANCY SERVICES

Dr Prashantha Kumar K

Assistant Professor GD III, Department of Civil Engineering

+91-9844673269; prashanthanitte@nitte.edu.in

<https://nitte.edu.in/nmamit/department-civil.php>



Areas of Expertise:

- Development of Municipal Climate Action Plans (CAPs) for sustainable urban governance
- Climate Change Impact Assessment, Adaptation, and Mitigation Studies.
- Remote Sensing and GIS Applications for Urban, Environmental, and Infrastructure Planning.
- Surveying and Mapping using Conventional, GNSS, and UAV-based Techniques.
- Construction Technology and Sustainable Construction Practices.
- Planning, Design, and Performance Evaluation of Roads and Highway Infrastructure.

Areas of Consultation Offered:

- Preparation and implementation of Municipal Climate Action Plans (CAPs) for local bodies and urban institutions.
- Climate change impact, vulnerability, adaptation, and mitigation

	assessments. ▪ Remote Sensing and GIS–based spatial analysis for urban planning, environmental monitoring, and infrastructure development. ▪ Surveying and mapping services using conventional methods, GNSS, and UAV-based technologies. ▪ Consultancy in construction technology, quality control, and sustainable construction practices. ▪ Planning, design review, and technical advisory services for roads and highway projects.
Research Interests:	▪ Municipal Climate Action Planning and Climate Resilience ▪ Climate Change Impact and Hydroclimatic Extremes ▪ Remote Sensing and GIS–Based Spatial Analysis ▪ GNSS/UAV-Based Surveying and Mapping ▪ Sustainable Construction Technology
Notable Consultancy Projects:	Served as a Third-Party Technical Consultant for various infrastructure projects including roads, buildings, canals, drainage systems, small bridges, and pond development works for government agencies such as Public Works Department (PWD), City & Taluk Municipal Councils (Udupi, Karkala, and Kaup),

	Panchayat Raj Engineering Department (PRED), and Nirmithi Kendra. Provided technical consultancy for the rejuvenation of a pond at Mangaluru, with Rotary Club of Mangaluru and Nitte (Deemed to be University), NIA as project clients
Availability (Days/Timings):	On call; timings can be discussed as required.

Dr. Shanmukha Shetty

Associate Professor, Department of Civil Engineering

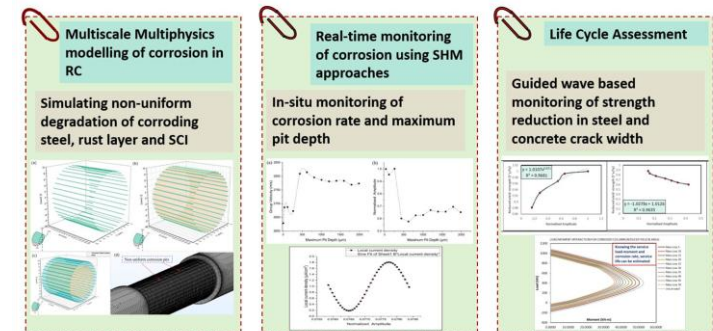
7349343140; shettyshanmukha@nitte.edu.in



Areas of Expertise:

- Structural Design and Proof Checking
- Structural Health Monitoring (SHM)
- Corrosion Assessment of RCC Structures
- Nondestructive Testing (NDT)
- FRP Retrofitting and Rehabilitation
- Digital Twin Technologies
- Smart Sensors for Civil Infrastructure
- COMSOL Multi-physics simulations for corrosion forecast and wave propagation in damaged structures/induced damage for pattern recognition to detect possible degradation.

Blueprint of Life Cycle Assessment Using SHM Approaches



Areas of Consultation Offered:	▪ Structural design, redesign and proof checking ▪ Structural safety and stability certification (NDT Test) ▪ Corrosion assessment and service-life prediction (SHM/NDT) ▪ NDT-based condition assessment of buildings and bridges ▪ Retrofitting and rehabilitation consultancy
Research Interests:	▪ Wave propagation and vibration-based SHM ▪ Corrosion monitoring of RCC structures ▪ Bio-concrete and self-healing materials ▪ Digital twins for infrastructure ▪ Service life prediction of structures ▪ SHM of composites for space crafts and aircrafts applications
Notable Consultancy Projects:	Design of RCC buildings, Proof check of design including RCC buildings, Storage sheds, retaining walls, and Drains. Inspection of road works, stability of structures (structural fitness of school and other government buildings using NDT),

	and quality inspection of infrastructure projects for following clients. ▪ New Mangalore Port Authority (NMPA) ▪ KPTCL Mangaluru ▪ CMC Udupi, PRED Udupi, PWD Udupi ▪ Zilla Panchayat Udupi and Nirmithi Kendra
Availability (Days/Timings):	Every Thursday & Friday 2.00 PM – 4.00 PM

Mr. Roshan Rai

Assistant Professor, Department of Civil Engineering

9449228283; roshanrai@nitte.edu.in



Areas of Expertise:	• Concrete mix design as per IRC standards. • Flexible pavement design as per IRC standards. • Pavement materials testing and characterization.
Areas of Consultation Offered:	• Assisting in testing and evaluating concrete and pavement materials • Providing consultancy in designing concrete mixes. • Offering guidance on flexible pavement design based on traffic loading
Research Interests:	• Sustainable concrete mix design using supplementary cementitious and waste materials. • Durability and performance evaluation of concrete and pavement materials • Modification of bituminous mixes for improved performance and sustainability
Notable Consultancy Projects:	Served as a Third-Party Technical Consultant for a wide range of infrastructure development projects, including roads, buildings, drainage systems, footbridges, retaining walls, and pond development works. Provided technical scrutiny, quality assurance, and compliance verification for projects executed by



	government agencies such as the Public Works Department (PWD), City and Taluk Municipal Councils (Udupi, Karkala, and Kaup), Panchayat Raj Engineering Department (PRED), and Nirmithi Kendra.
Availability (Days/Timings):	On call: timings can be discussed as required

Mr. Gururaj Acharya

Assistant Professor, Department of Civil Engineering

9964279638; rajnitte@nitte.edu.in



Areas of Expertise:	• Concrete mix design as per IRC standards. • Flexible pavement design as per IRC standards. • Pavement materials testing and characterization.
Areas of Consultation Offered:	• Assisting in testing and evaluating concrete and pavement materials • Providing consultancy in designing concrete mixes. • Providing consultancy in Material testing.
Research Interests:	• Sustainable concrete mix design using supplementary cementitious and waste materials. • Durability and performance evaluation of concrete and pavement materials
Notable Consultancy Projects:	Served as a Third-Party Technical Consultant for a wide range of infrastructure development projects, including roads, buildings, drainage systems, footbridges, retaining walls, and pond development works. Provided technical scrutiny, quality assurance, and compliance verification for projects executed by government agencies such as the Public



	Works Department (PWD), City and Taluk Municipal Councils (Udupi, Karkala, and Kaup), Panchayat Raj Engineering Department (PRED), and Nirmithi Kendra.
Availability (Days/Timings):	On call: timings can be discussed as required

Dr. Shriram Marathe PDF (NAWA-Poland)

Associate Professor, Civil Engineering

+91-9972772333; shrirammarathe@nitte.edu.in



Areas of Expertise:	• Highway Engineering • Transportation Geotechnics • Concrete Technology
Areas of Consultation Offered:	▪ Soil Characterization ▪ Optimizing the Stabilizer Dosage for Problematic Soil Stabilization ▪ Asphalt/ Bituminous Mix Design issues ▪ Sustainability in Concrete Technology ▪ Pavement Design (Flexible and Rigid)
Research Interests:	▪ Subgrade soil characterization, stabilization ▪ Pavement Construction materials ▪ Highway Pavement Design ▪ Sustainable Concrete Materials ▪ Soft Computing in Civil Engineering ▪ Alkali Activated (Geopolymer) Concretes
Notable Consultancy Projects:	General consultation to the few practicing Civil engineers and their firms on the issues related to Soil Engineering, Pavement Design and Construction, Concrete Technology.
Availability (Days/Timings):	• Every Monday: 2.00 PM – 4.30 PM (Offline) • Every Saturday: 10 AM – 12.30 PM (Offline) • Online meeting at mutual convenient time



Mr. Thushar S Shetty

Assistant Professor (Grade-II), Department of Civil Engineering

Contact Number: +91-9880667995; Email ID: shettythushar@nitte.edu.in

Faculty Profile Link: <https://nitte.edu.in/nmamit/departement-civil.php#Faculty>



Areas of Expertise:

- Architectural Layout and Building Planning
- Building Drawings: 2D Plans, Elevations, Sections and 3D Sketches
- Structural Analysis and Design
- Python Programming for Engineering Applications and Data Analysis

Areas of Consultation Offered:

- Drafting Services for Buildings using AutoCAD
- 3D Modeling and Walkthroughs for Residential and Commercial Projects
- Non-Destructive Testing (NDT) and Strength Tests on Concrete
- Analysis and Design of Structural Members

Research Interests:

- Structural Engineering
- Tensegrity and Lightweight Structural Systems
- 3D Printing Application

Notable Consultancy Projects:

- Inspection works from Udupi CMC, Nirmithi Kendra and PRED, Udupi.



Availability (Days/Timings):	Every Friday 2.00 PM – 4.30 PM
---	-----------------------------------

Mr. Pradeep Karanth

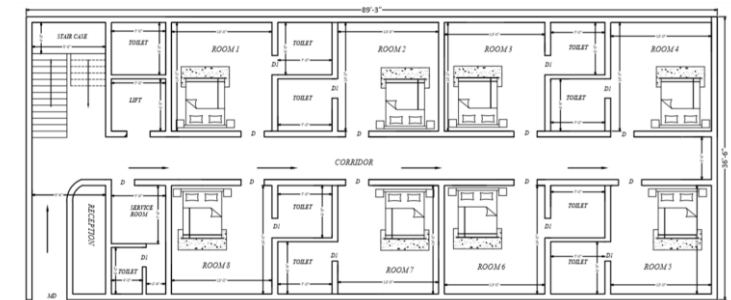
Assistant Professor, Department of Civil Engineering

Ph No 9481143873; Email ID pradeepkaranth@nitte.edu.in



Areas of Expertise:

- Building Planning and Architectural Layout Design
- Preparation of Building Drawings using AutoCAD (2D Plans, Elevations, Sections & Details)
- Quantity Estimation and Cost Analysis of Buildings
- Preparation of Detailed Estimates, BOQs, and Abstract of Cost



Areas of Consultation Offered:

- AutoCAD drafting services for building plans and working drawings
- Preparation of quantity take-offs and detailed cost estimates
- Civil site inspection and execution of building projects

Research Interests:

- Optimization of Building Planning for Functional Efficiency and Cost Effectiveness
- Integration of AutoCAD-Based



	Planning with Quantity Estimation ▪ Concrete Technology
Notable Consultancy Projects:	▪ Site inspection services carried out for Udupi CMC, Nirmithi Kendra, and PRED Udupi.

Dr.Bhojaraja B.E

Associate Professor, Civil Engineering Department

Contact Number; +91 9886814626 Email ID; be.bhojaraj@nitte.edu.in



Areas of Consultation Offered:

- Hyperspectral Remote Sensing
- Remote Sensing & GIS in Civil Engineering
- Surveying and Mapping
- GPS & DGPS Technologies
- Spectroradiometer Applications
- Vegetation & Crop Health Monitoring
- Crop Water Requirement & Yield Estimation
- Disease Severity Mapping

Research Interests:

Hyperspectral and Multispectral Remote Sensing

Remote Sensing and GIS Applications in Civil

	Engineering Crop and Vegetation Health Monitoring Disease Severity Assessment using Spectral Indices Precision Agriculture and Yield Estimation Water Resource Assessment and Hydrological Modeling Flood Mapping and Environmental Impact Studies
Notable Consultancy Projects:	❑ Assessment of Environmental and Vegetation Impacts due to industrial effluents and emissions in surrounding plant areas. ❑ Green Audit of University and NMAM Institute of Technology Campuses to evaluate environmental sustainability practices. ❑ Preparation of Flood Inundation, Sediment Transport, and Hydrological Maps for the Shambhavi River Basin. ❑ Wildlife Population Assessment using camera trap-based animal counting techniques. ❑ Agricultural Crop Health Monitoring using multispectral imagery integrated with a VR-based visualization and analysis approach.

Research Interests:	Hyperspectral and Multispectral Remote Sensing Remote Sensing and GIS Applications in Civil Engineering Crop and Vegetation Health Monitoring Disease Severity Assessment using Spectral Indices Precision Agriculture and Yield Estimation Water Resource Assessment and Hydrological Modeling Flood Mapping and Environmental Impact Studies
----------------------------	---

B. TESTING & EVALUATION FACILITIES

Dr. Shanmukha Shetty

Associate Professor, Department of Civil Engineering

7349343140; shettyshanmukha@nitte.edu.in



Equipment:

- Function generator, Oscilloscope and PWTs
- DC Power supply

Applications:

NDT of hidden or concealed damages or material irregularities or delaminations at interface in RCC, steel and composite members.

Inducing accelerated corrosion in RCC and metals to study strength degradation and time to repair and retrofit before serious/sudden visible damages.

Technical Specifications:

- DIGITAL STORAGE OSCILLOSCOPE: 50MHz.
- 50 MHz Bandwidth, 4 Channel DSO
 - Display: 7-inch TFT-LCD (800x480)
 - Sampling Rate: 1GSa/s.
 - Auto Measurements.
 - On Screen FFT & Math Functions.
 - Make: Siglent, Model: SDS1104X-U
- Function / Arbitrary Waveform Generator:



	▪ 30MHz Two Channel Arbitrary Waveform Generator. ▪ Make: Siglent, Model: SDG1032X PWTs and other sensors and actuators.
Testing Capabilities:	▪ Concealed damages or degradation in steel embedded in concrete due to corrosion or other damages ▪ Delamination in composites, metal couplings or joints ▪ Material discontinuity or inhomogeneity ▪ NDT of structural members (strength degradation and service life prediction)
Sample Requirements:	▪ Undamaged specimen for baseline data ▪ Damaged specimen for damage quantification and localization which can then be extended to onsite monitoring. Sample size ▪ For RCC members: beams/columns of size 150 X 150 X 500 (L X B X D) mm or any nominal beam dimensions or cubes with embedded steel rods. ▪ For composite or metal plates: 300 X

	300 or nominal specimens for laboratory testing. ▪ Steel rods (corroded or damaged): 300 mm long with nominal diameter ▪ Any damaged component with its undamaged counterpart for laboratory test
Turnaround Time:	1 to 2 weeks per sample set depending on type of damage and analysis required.

Mr. Roshan Rai

Assistant Professor, Department of Civil Engineering

9449228283; roshanrai@nitte.edu.in



Equipment:	• Ductility Apparatus • Ring and ball apparatus • Penetrometer
Applications:	• Check how much bitumen can stretch before it breaks. • To know the temperature at which bitumen becomes soft • Measure the hardness or softness of bitumen to grade the bitumen.
Technical Specifications:	• Testing is carried out as per relevant IS and IRC standards. • Use of standard testing equipment's. • Test is performed under controlled temperature and loading conditions. • Results reported in standard units and compared with specified limits.
Testing Capabilities:	NA
Sample Requirements:	• Penetration Test: Minimum 100 g of bitumen, clean and free from impurities. • Ductility Test: About 100–150 g of bitumen, must be homogeneous and properly heated.

	• Softening Point Test (Ring & Ball): Around 50 g of bitumen, free from moisture and debris. • General Requirement: Samples should be collected in clean, airtight containers, labelled properly, and kept at suitable temperature to avoid hardening before testing.
Turnaround Time:	2-3 days after receiving the sample
Testing Charges:	Rs.300/-per test

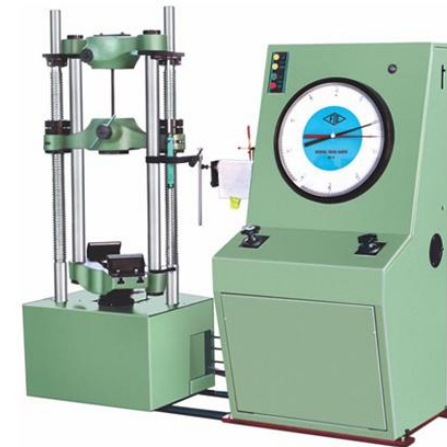
Mr. Gururaj Acharya

Assistant Professor, Department of Civil Engineering

9964279638; rajnitte@nitte.edu.in



Equipment:	• Universal Testing Machine 60T
Applications:	• Check how much reinforcement can take the tensile load before it breaks.
Technical Specifications:	• Testing is carried out as per relevant IS standards. • Use of standard testing equipment's. • Test is performed under controlled loading conditions. • Results reported in standard units and compared with specified limits.
Testing Capabilities:	NA



Sample Requirements:	• 2 feet reinforcement
Turnaround Time:	2-3 days after receiving the sample
Testing Charges:	Rs.800/-per test for 8mm, 10mm and 12mm reinforcement. Rs.1200/-per test for 16mm and 20mm reinforcement.

Name of the Faculty In-Charge Mr. Pradeep Karanth

Assistant Professor, Department of Civil Engineering

Ph No 9481143873; Email ID pradeepkaranth@nitte.edu.in



Equipment:	▪ Desktop computers with sufficient RAM and graphics support ▪ AutoCAD software ▪ Printer / Plotter ▪ UPS and internet connectivity
Applications:	▪ Building planning and layout drawings ▪ Preparation of plans, elevations, and sections ▪ Structural detailing (beams, columns, slabs) ▪ Quantity take-off and basic estimation drawings
Technical Specifications:	▪ Processor: Intel i5 RAM:8 GB ▪ Storage: Hard disk ▪ Software: AutoCAD (latest student/educational version) ▪ Display: Minimum 19-inch monitor
Testing Capabilities:	▪ Drafting accuracy and precision ▪ Verification of building drawings as per standards ▪ Practice of CAD commands and drawing tools ▪ Evaluation of student drawing skill



Sample Requirements:	NA	
Turnaround Time:	Wednesday 2.00 to 4 .00 PM	
Contact for Booking:	Contact No.:9481143873	
Charges:	User Category	Price /Sample
	2D Plan	Rs. 3/sft
	3D Elevation	Pricing may vary based on the complexity of the plan and elevation

Name of the Faculty In-Charge Dr. Bhojaraja B.E

Designation Associate Professor Name of the Dept. Civil Engineering

Contact Number; +91 9886814626 Email ID; be.bhojaraj@nitte.edu.in



Equipment:	Trimble R780 GNSS Receiver
Applications:	▪ Topographic and cadastral surveying ▪ Engineering and construction surveys ▪ Control point establishment ▪ Drone ground control point (GCP) surveys ▪ Infrastructure and utility mapping ▪ Deformation and monitoring surveys
Technical Specifications:	▪ Multi-frequency, multi-constellation GNSS (GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS) ▪ Trimble ProPoint™ GNSS technology ▪ RTK accuracy: up to ±8 mm + 1 ppm (horizontal) ▪ Integrated IMU-based tilt compensation (TIP) ▪ Supports RTK, Network RTK, and static surveying ▪ Rugged, IP-rated design for harsh field conditions ▪ Compatible with Trimble Access software



Testing Capabilities:	▪ High-precision position and elevation measurement ▪ Static and real-time kinematic (RTK) surveys ▪ Stake-out and alignment verification ▪ Area, distance, and volume calculations
Sample Requirements:	▪ Site access and survey control details ▪ Project coordinates / datum information ▪ Clear sky visibility preferred (for optimal accuracy)
Turnaround Time:	Same day to 2 days (depending on survey area and project complexity)
Contact for Booking:	Email: be.bhojaraj@nitte.edu.in Contact No.: +91 9886814626 Booking Method: online request form via a dedicated portal
Testing Charges:	As per institutional consultancy norms (charges vary based on project scope and duration)

Dr Prashantha Kumar K

Assistant Professor, Department of Civil Engineering

+91-9844673269; prashanthanitte@nitte.edu.in

<https://nitte.edu.in/nmamit/department-civil.php>



Equipment:	Total Station 2502NS, R1505N
Applications:	▪ Topographic and contour surveying ▪ Traversing and control surveys ▪ Setting out and construction layout works ▪ Alignment surveys for roads, canals, and pipelines ▪ Area and volume calculations ▪ As-built surveys and mapping
Technical Specifications:	▪ Angle measurement accuracy: up to 2" ▪ Distance measurement range: up to 1500 m (with reflector) ▪ Distance accuracy: $\pm(2 \text{ mm} + 2 \text{ ppm})$ ▪ Laser plummet and electronic level ▪ On-board data storage and USB/Bluetooth data transfer ▪ Rugged, weather-resistant design suitable for field conditions



Testing Capabilities:	• Horizontal and vertical angle measurement • Slope and horizontal distance measurement • Coordinate determination (X, Y, Z) • Area and volume computation • Stake-out accuracy verification	
Sample Requirements:	Survey site with identifiable control points or reference benchmarks Access to project drawings/layout details (if applicable)	
Turnaround Time:	Field survey: 1–2 days (depending on area and complexity) Data processing and reporting: 1 working day	
Contact for Booking:	Email: _____ Contact No.: _____ Booking Method: online request form via a dedicated portal	
Testing Charges:	User Category	Price /Sample
	Internal Academic	
	External Academic	
	Industry/Commercial	

Dr Prashantha Kumar K

Assistant Professor, Department of Civil Engineering

+91-9844673269; prashanthanitte@nitte.edu.in

<https://nitte.edu.in/nmamit/departement-civil.php>



Equipment:

Enterprise-grade UAV (DJI Mavic 3E or equivalent)
DGPS / GNSS RTK System (Base & Rover)
UAV-compatible RTK module
Ground Control Point (GCP) markers
High-performance workstation for photogrammetry
Licensed photogrammetry & GIS software (ArcGIS / QGIS)

Applications:

- High-accuracy topographic and cadastral surveys
- Road, highway, canal, and drainage alignment surveys
- Construction planning and progress monitoring
- Cut-fill and earthwork volume estimation



	• Urban infrastructure and smart city mapping • Mining, quarry, and stockpile volume analysis • Watershed, river basin, and floodplain studies • Environmental impact and land-use mapping • Academic research, DPR preparation, and consultancy projects
Technical Specifications:	• Positioning Technique: DGPS-RTK (Real-Time Kinematic) • Horizontal Accuracy: $\pm 2\text{--}3$ cm (with RTK & GCPs) • Vertical Accuracy: $\pm 3\text{--}5$ cm • Camera: 20 MP, 4/3" CMOS, mechanical shutter • Flight Endurance: Up to 45 minutes per sortie • Navigation Systems: GPS, GLONASS, Galileo, BeiDou • Output Formats: Orthomosaic, DSM, DEM, Contours, Point Cloud • Coordinate Systems: WGS-84 / UTM / Local Grid
Testing Capabilities:	• High-precision aerial triangulation • Orthophoto and terrain model generation • Digital elevation and surface modeling • Volumetric computation (cut, fill, stockpile)

	• Alignment and corridor mapping • Accuracy validation using DGPS-RTK ground points • GIS-ready spatial database generation •	
Sample Requirements:	Survey area details with coordinates and extent Boundary files (KML / SHP / CAD preferred) Required accuracy and output type Site accessibility and terrain details Ground control points (existing or to be established) Statutory permissions for drone operation (if applicable)	
Turnaround Time:	Up to 50 ha: 2–3 working days 50–150 ha: 4–7 working days Large / complex projects: As per project scope	
Contact for Booking:	Email: _____ Contact No.: _____ Booking Method: online request form via a dedicated portal	
Testing Charges:	User Category	Price /Sample
	Internal Academic	
	External Academic	
	Industry/Commercial	