



Department of
CIVIL ENGINEERING

Zakura Campus Institute of Technology, University of Kashmir

No:F(schedule/internship/DoCE)/IoT/KU/25

Date: Jan 19, 2025

**Four Week Winter Internship Program on Civil Engineering Practices from
Surveying to Cost Estimation**

Introduction: The B.Tech winter internship in the Department of Civil Engineering will focus on geotechnical investigations, surveying techniques and structural analysis and design. Students will gain hands-on experience in field investigations, project planning, and surveying tools. This practical training bridges academic knowledge with real-world applications, preparing participants for professional roles in civil engineering.

Objectives: This internship will provide students with practical exposure to real-world engineering challenges, enhancing their technical skills in areas such as field investigation, surveying, setting out of buildings, geotechnical investigation, structural designing, Estimation and Costing of materials, preparation of Detailed Project Reports and Project Management Techniques. The program aims to strengthen problem-solving abilities, foster innovative thinking and build industrial-relevant competencies.

Outcomes: Upon completing the internship, students will acquire practical skills in surveying, building design, and project management. They will gain proficiency in software like AutoCAD, STAAD Pro, and building estimation, along with fieldwork analysis. The program will enhance problem-solving, teamwork, and communication skills while fostering knowledge of industry standards, ethics, and sustainable engineering, preparing them for employment.

Session Wise Program Details

Session-1: 11:00 AM to 1:00 PM, Session-2: 02:00 PM to 4:00 PM

Week-1: Survey and AutoCAD		Resource Person/s
Day 1 (20th Jan. 2025)	Introduction	
Session-1	Internship Introduction: Aim and Objectives	Dr Mir Basar Suhaib
Session-2	Surveying Introduction: Overview of Tools, Techniques and Applications	Dr Asif
Day 2 (21th Jan. 2025)	Surveying and Levelling	
Session-1	Introduction to Levelling and Setting Out	Dr Asif
Session-2	Surveying Equipment: Hands-on Training	Dr Iftekar Gull
Day 3 (22th Jan. 2025)	Layout Planning	
Session-1	Layout Planning: Setting out and Data collection	Dr Asif
Session-2	Hands-on Training	Dr Iftekar Gull
Day 4 (23th Jan. 2025)	CAD Drawings and Basic Material Testing	



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Session-1	Testing of Steel, Cement and Concrete as per IS Codes	Dr Mir Basar Suhaib
Session-2	Preparation of CAD Drawings: Basics	Dr Iftekar Gull/Er Azmat
Day 5 (24th Jan. 2025)	Finalization of CAD Drawings	
Session-1	Site Planning and Zoning Regulations	Dr Asif
Session-2	Preparation of CAD Drawings: Advanced Finalization of CAD Drawings	Dr Iftekar Gull/Er Azmat
Week 2: Material Testing and Building Design		Resource Person/s
Day 1 (27th Jan. 2025)	Soil, Steel and Concrete Testing	
Session-1	Sample preparation, testing and analysis of building materials as per IS Codes	Dr Mir Basar Suhaib
Session-2	Introduction to Soil Identification Tests as per IS Codes	Dr Asif
Day 2 (28th Jan. 2025)	Fundamentals of Building Design	
Session-1	Concrete Mix Design as per IS Codes	Dr Mir Basar Suhaib
Session-2	Fundamentals of Beam and Column Design as per IS Codes. Failures in beams and columns.	Dr Iftekar Gull
Day 3 (29th Jan. 2025)	Fundamentals of Building Design	
Session-1	Fundamentals of Building Design	Er Azmat
Session-2	Design of Structural Steel Members- Rolled Sections and Auxiliary Members	Dr Mir Basar Suhaib
Day 4 (30th Jan. 2025)	Geotechnical Investigations	
Session-1	Geotechnical Investigations: Collection of Soil samples and their basic tests	Dr Asif
Session-2	Design of Structural Steel Members: Connection to RCC Members	Dr Mir Basar Suhaib
Day 5 (31st Jan. 2025)	Geotechnical Investigations and Foundation Analysis	
Session-1	Analysis of soil strength parameters for the design of building components. Arriving at Safe Bearing Capacity of Soil	Dr Asif
Session-2	Foundation Types based on Soil Strength Parameters and Selection Criteria	Dr Iftekar Gull
Week 3: Software Training		Resource Person/s
Day 1 (3rd Feb. 2025)	Software Training and DPR Guidelines	
Session-1	Detailed Project Report Preparation Guidelines	Dr Rehab/ Er Shafaqat
Session-2	Acquainting with user interface of STAAD.Pro	Er Azmat
Day 2 (4th Feb. 2025)	Modelling and Analysis of Site-1	
Session-1	Land use planning and Zoning	Dr Mir Basar Suhaib
Session-2	Basic modelling of structure using STAAD.Pro	Er Azmat



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Day 3 (5th Feb. 2025)	Analysis of Site-1 Structure	
Session-1	Analysis of Structure using STAAD.Pro	Er Azmat
Session-2	Data Analysis: AutoCAD Drafting and Detailing	Er Azmat
Day 4 (6th Feb. 2025)	Modelling of Site-2 Structure	
Session-1	Basic modelling of structure using STAAD.Pro	Er Azmat
Session-2	Data Analysis: AutoCAD Drafting and Detailing	Er Azmat
Day 5 (7th Feb. 2025)	Analysis of Site-2	
Session-1	Analysis of Structure using STAAD.Pro	Er Azmat
Session-2	Data Analysis: AutoCAD Drafting and Detailing	Er Azmat
Week 4: Field Work		Resource Person/s
Day 1 (10th Feb. 2025)	Field Work/Project Management	
Session-1	Project Management and Scheduling	Dr. Asif
Session-2	Field Work: Practical Application	Er. Azmat/Dr Iftekhar
Day 2 (11th Feb. 2025)	Field Work/Structural Audit and Health Monitoring	
Session-1	Structural Audit, Non-Destructive Testing, Applications of AI in Smart Structures	Dr. Mir Basar Suhaib
Session-2	Field Work: Practical Application	Er. Azmat/Dr Iftekhar
Day 3 (12th Feb. 2025)	Estimation/Field Work/Detailed Project Report	
Session-1	Costing of various quantities according to PWD Schedule	Dr. Rehab/Er Shafaqat
Session-2	Field Work: Practical Application Preparation of Detailed Project Report	Er. Azmat Dr. Rehab/ Er Shafaqat
Day 4 (13th Feb. 2025)	Estimation/Field Work/Detailed Project Report	
Session-1	Estimation and Costing of Quantities	Dr. Rehab/ Er Shafaqat
Session-2	Field Work: Practical Application Preparation of Detailed Project Report	Er. Azmat Dr. Rehab/ Er Shafaqat
Day 5 (14th Feb. 2025)	Estimation/Field Work/Detailed Project Report	
Session-1	Estimation and Costing of Quantities	Dr. Rehab/ Er Shafaqat
Session-2	Field Work: Practical Application Preparation of Detailed Project Report	Er. Azmat Dr. Rehab/ Er Shafaqat

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Coordinator

Department of Civil Engineering