

DEPARTMENT OF CIVIL ENGINEERING

Report on One-Day "Hands-on Workshop on Total Station" Organized by the Department of Civil Engineering, KCG College of Technology

Date: 29 / 12 / 2025

The Department of Civil Engineering at KCG College of Technology organized a **one-day Hands-on Workshop on Total Station** for students from **Central Polytechnic College and Women's Polytechnic College**. The objective of the workshop was to provide participants with practical exposure to modern surveying equipment and field measurement techniques, thereby enhancing their technical competency in contemporary surveying practices.

A total of 109 students took part in the workshop. The event commenced with a formal inaugural session. **Dr. S. Thenmozhi, Head of the Department of Civil Engineering, delivered the welcome address**, highlighting the department's focus on skill-based learning and industry-oriented training.

This was followed by an introductory address by **Dr. Muthukannan, Principal, KCG College of Technology**, who emphasized the significance of modern surveying tools such as Total Station in academic learning, infrastructure development, and professional practice. The inaugural session concluded with a vote of thanks delivered by **Mr. Akin**, acknowledging the contributions of faculty, staff, and participant institutions.



Following the inauguration, students were organized into two batches to facilitate effective and structured learning. Throughout the day, these batches rotated through intensive field training sessions focusing exclusively on practical applications of the Total Station.



The technical sessions covered essential topics such as instrument setup and calibration, station establishment, angle and distance measurement, data recording procedures, and the use of Total Station for real-time surveying applications. Faculty members and technical staff provided continuous guidance during the field exercises, ensuring that participants gained hands-on experience in operating the equipment and applying surveying principles in practical scenarios.

The workshop successfully bridged the gap between theoretical concepts and field practices. Students demonstrated active interest and engagement, reporting improved confidence in instrument handling, enhanced understanding of precision measurement, and greater awareness of industry standards in surveying and civil engineering operations.

SDG MAPPING:

The Hands-on Workshop on Total Station directly aligns with **several Sustainable Development Goals**.

It advances **SDG 4: Quality Education** by providing students with experiential, skill-based training in modern surveying technology, thereby enhancing technical competency beyond classroom learning.

The workshop supports **SDG 8: Decent Work and Economic Growth** by equipping participants with industry-relevant skills that improve employability in the construction, infrastructure, and geospatial sectors.

Through the introduction and practical use of advanced surveying equipment, the program contributes to **SDG 9: Industry, Innovation, and Infrastructure**, fostering awareness of precise measurement technologies essential for sustainable infrastructure development.

Additionally, the collaborative participation of multiple institutions and the coordinated efforts of faculty, technical staff, and partner colleges exemplify **SDG 17: Partnerships for the Goals**, promoting academic-institutional cooperation and capacity-building that collectively strengthen technical education and professional development in civil engineering.

In conclusion, the workshop achieved its intended objectives of strengthening practical skills, promoting experiential learning, and fostering institutional collaboration. The Department of Civil Engineering aims to continue organizing such hands-on training programs to support competency development and contribute to the professional growth of aspiring civil engineers.

