



SHAHAJIRAO PATIL VIKAS PRATISHTHAN

S. B. PATIL COLLEGE OF ENGINEERING (DIPLOMA ENG.), INDAPUR,

DIST: PUNE.

| | | |
|--------------|---|------------------------|
| ACA – R - 49 | Report on 2-Day Workshop on Total Station and DGPS | Academic Year: 2025-26 |
| Rev : 01 | | Semester: III |

Organized by: S.B. Patil College of Engineering (Diploma), Indapur

Training Provided by: Sucheta Pratishthan

Date: 10th – 11th October 2025

➤ **Introduction**

A 2-day intensive workshop on **Total Station and DGPS** was organized at S.B. Patil College of Engineering (Diploma), Indapur, on 10th and 11th October 2025. The workshop was conducted by experts from Sucheta Pratishthan and aimed at enhancing practical and theoretical knowledge of surveying techniques using modern equipment like Total Station and DGPS.

➤ **Objectives**

- To provide hands-on training on the use of Total Station for accurate surveying and mapping.
- To introduce Differential Global Positioning System (DGPS) technology and its applications.
- To enhance understanding of modern surveying methods and data collection techniques.
- To prepare students for practical fieldwork and industrial applications in surveying and civil engineering

➤ **Day 1: Total Station Training (10th October 2025)**

Sessions Covered:

- Introduction to Total Station: Components and working principles.
- Setup and calibration of Total Station.
- Measurement of distances, angles, and coordinates.
- Practical exercises on point plotting, contouring, and traversing.
- Data recording and transfer techniques.

Highlights:

Participants were engaged in hands-on field sessions where they practiced using Total Station equipment to perform basic surveying tasks. The trainers explained error sources and correction methods, enhancing conceptual clarity.

➤ **Day 2: DGPS Training (11th October 2025)**

Sessions Covered:

- Basics of GPS and introduction to DGPS.
- Components of DGPS system and signal processing.
- Setting up DGPS for precise location measurements.
- Field exercises for data collection using DGPS.
- Application of DGPS data in mapping and GIS.

➤ **Highlights:**

The second day focused on GPS technology and its differential correction technique for increased accuracy. Participants got practical exposure to DGPS devices, learning how to operate them efficiently in different terrains.

➤ **Conclusion**

The 2-day workshop successfully met its objectives by providing valuable hands-on training on Total Station and DGPS technologies. It enhanced the surveying skills of the participants and prepared them for real-world applications in engineering projects. The collaboration between S.B. Patil College and Sucheta Pratishthan proved fruitful in delivering quality technical education.





Prof.Dhere P.S.
Event-Coordinator

Prof.Gaikwad A.S.
HOD