



Engineering Staff College of India
Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachi Bowli, Hyderabad – 500 032



WATER RESOURCE DEVELOPMENT DIVISION



Continuing Professional Development Programme on
Application of Total Station and DGPS for Projects
Including Field Practices
09 – 13 October, 2017



(An ISO 9001:2008 Certified, AICTE & CEA Recognized Institution)

INTRODUCTION

Success of most of the projects being taken up with huge budget outlay in Irrigation, Hydro Power, Highways, Water Supply, Sanitation and Agriculture sectors depends on adequate investigation and data collection efforts. Surveying forms the most important component of investigation. Several States in the country are taking up projects at enormous costs to be completed in phases within short periods. Many of such are time-bound projects funded by Govt. of India and other international agencies. Large projects are also taken up in the areas of Water supply and with external aid from agencies like World Bank, NABARD etc.. The planning and design of all engineering projects are based up on surveying measurements. Moreover, during execution, project of any magnitude is constructed along the lines and points established by surveying. Thus surveying is a basic requirement for all engineering projects.

Mapping of above projects primarily those in Irrigation sector have emerged as a major activity of basic importance in the country, mainly because of its relation with inputs of water and production of food. In all the projects, investigation precedes the rest of activities. Investigations mean large scale mapping at micro-level with heights/ contours and also other salient features of the area under consideration. Spatial data can be captured rapidly and accurately using Total Station Surveying Instruments. Differential Global Positioning Systems and Total Stations have emerged as modern standard, affordable, viable digital methodologies for large scale surveys all over the world.

It is in this context that ESCI has planned the programme of familiarizing the participants with the use of Total station and DGPS in Project investigations.

OBJECTIVE

The main objective of this practically oriented programme will be to involve the participants in actual working with DGPS and Total Station measurements. This will enable them to appreciate how the two technologies are complementary for Investigations & Design. The programme will also give an idea of the range of equipment available in the market along with their Hardware and Software features and pricing.

COURSE COVERAGE

The programme is designed to cover broadly the following areas :

- ❖ Basics of Surveying
- ❖ Surveying using Total Station (Field Practice)
 - Measurement of Surface area & Volume on the field
 - Open and Close Traversing using Total Station
 - Trigonometric Problems Solving by COGO Functions of Total Station
 - REM and RDM using Total Station functions
- ❖ Procedure of upload and down load data to Total Station
- ❖ Survey Map Preparation using AutoCAD
- ❖ Global Positioning System
- ❖ Differential Global Positioning System
- ❖ RTK and PPK Methods in DGPS - Hands on Exercises

METHODOLOGY

The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a participative style of learning. The classrooms are equipped with latest audio-visual aids for better learning process. Experts from premier organizations will be invited to share their experiences.

TARGET PARTICIPANTS

The course is meant for Junior and Middle level Civil Engineers involved in Irrigation & CAD, NHPC, NHDC, Panchayat Raj, Forest, Municipal Corporation, Rural Development, Public Health Engg. Depts., Water Supply Depts., Consultancy Agencies, Contractors, Academic Institutions & others involved in surveying.

PROGRAMME VENUE

Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad - 500032, Telangana, India.

DATES

09 – 13 October, 2017

TIMINGS

On the first day registration will commence at 0900 Hrs. On all other days the programme timings will be from 0945 to 1715 hrs with breaks in between for tea and lunch.

COURSE DIRECTOR (S)

G.D. Ojha, B.E., M.Tech
(Former Regional Director
Central Ground Water Board, MoWR Gol),
Head & Sr. Faculty, WRD Division

G. Naresh, M.Tech, (Ph.D)
Jr. Faculty
WRD Division

COURSE FEE

Residential Fee is Rs.25,000/- per participant. Residential fee includes course material, course kit, and twin-sharing / single AC accommodation as per availability, Breakfast, Lunch, Dinner, Tea / Coffee and Snacks.

DISCOUNTS

Non-Residential Fee: 10% discount on course fee is allowed for non-residential participants.

Group Discount: Additional 10% discount for three or more participants if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI before the commencement of the programme)

GST @18% as applicable is to be paid extra over and above the training fee. **PAN Card No** AAATT3439Q; **GSTIN** 36AAATT3439Q1ZV (under commercial training or coaching services).

Programme fee is to be paid in favour of “**IE(I)-Engineering Staff College of India**” in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT)** to ESCI - SB A/c No. 10007111201 with The SBI, PBB, Rajbhavan Road Branch, Khairatabad, Hyderabad-500004 by **NEFT/ RTGS/ IFSC Code No.** SBIN 0004159 – MICR No.500002075. **While using EFT method of payment, please ensure to communicate us your company name, our invoice reference and programme title.**

REGISTRATION

Online registration shall be available on ESCI website. To register, manually please send your nominations giving details of name, designation, contact address, email address, mobiles no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

Head

Water Resources Development Division

Engineering Staff College of India

Gachi Bowli, Hyderabad – 500 032

Phone: 040 – 66304117 – 9 (Dir.) 23000465 (EPABX): Extn: 4117– 9

Fax: 040 - 23000336

E-Mail : wrd_esci@yahoo.com; wrd@escihyd.org

Url : www.escihyd.org

CERTIFICATE: A certificate of participation will be awarded to each participant on conclusion of the programme.

GENERAL INSTRUCTIONS

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of the outstation participants ESCI will facilitate pickup and drop from Airport / Railway Station/ Bus stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participants directly to the cab.
- ESCI provides complimentary accommodation to participants a day prior to the commencement and after the conclusion of the programme. (Check in at 12:00Hrs) one day after conclusion (Check out at 12:00 hrs) of the programme duration.
- Overstay charges of @ Rs.990/- per day, per head will be charged.
- Well developed Information Centre and internet facilities are available to the participants.