

# **COST ESTIMATING OF SWRO DESALINATION PLANTS**

LEVEL 3

## iii 4 DAY │ 📳 CLASS ROOM COURSE

This training course presents methodology and excel-spreadsheet based models for preparation of cost estimates for medium and large-size seawater reverse osmosis (SWRO) desalination projects. The cost modeling encompasses plant construction expenditures, annual operation and maintenance (O&M) costs, and overall fresh water production costs. The course provides practical understanding of key technical and economic factors such as source water quality, desired product water quality, plant size, funding mechanism, method of project delivery, energy, labor, chemicals, materials and consumables which determine the site-specific capital and 0&M costs for a given desalination project.





#### **TOPICS INCLUDED**

- > Project cost estimating- overview
- > Project cost factors
- > Estimating direct capital (construction) costs
- > Estimating indirect and total capital costs
- > Variable O&M costs
- > RO fixed O&M costs
- > Cost of water production
- > Desalination cost trends

- > Example of SWRO project cost estimate
- Introduction to Excel cost estimating spread sheet
- > Project case study demonstrating the use of cost model
- > Development of project cost estimate
- > Presentation of project cost estimate
- > Discussion of cost model and case study cost estimates

#### WHO SHOULD ATTEND?

Design Engineers, Plant Engineers, Service Technicians, and Plant Managers

### **PREREQUISITES**

Participants should have completed the Foundation Level Water Chemistry Course and the RO Operation, Monitoring & Troubleshooting Course (Level 1 & 2) or possess adequate relevant work experience

#### WHAT YOU WILL RECEIVE

28 hours of enjoyable, interesting & easy to understand training

Illustrated text book

Lunch and refreshments

Presentations and group interactive discussions with input & feedback encouraged