

HYDROMETRIC PRINCIPLES AND PRACTICES

Data is collected to better understand an environment, an activity or condition. Once collected, data is analysed in an attempt to identify relationships, patterns and trends. The interpretation of the data plays an important role in strategic and operational business decisions. Useful data can inform decisions that reduce costs or generate increased revenues and, in many cases, can provide a competitive edge.

This course provides an overview of the key principles involved in designing, installing, operating and maintaining a hydrometric network – regardless of its size and complexity.

The course aims to demonstrate the importance of a range of different data types to assist in the operational, compliance and environmental requirements of water businesses. It will provide details of site selection criteria, instruments and their application, telemetry systems, survey requirements, operation and maintenance activities, and extensive information concerning data management activities.

The practical aspects will include Entura's working knowledge and expertise, which is backed up by almost 100 years of experience in developing and operating power and water infrastructure as part of Hydro Tasmania, one of Australia's largest water managers.

COURSE CONTENT

Site selection and set up

- What will a site need in order to deliver good quality data?
- Types of sensors and their application
- Telemetry systems and automated data collection

Data collection

- Surveying
- Stream flow measurement methods and techniques – acoustic doppler current profilers
- Development of stage discharge relationships

Data management and storage

- Data management systems
- Data uncertainties
- Data checking and editing
- Quality assurance and quality coding

Operation and maintenance

- Fault detection
- Fault rectification

Current innovations

- Web-based applications
- Smart phones and apps

PARTICIPANT PROFILE

- Technical and engineering staff
- Middle to senior management with project management or oversight responsibilities

LEARNING OBJECTIVES

To provide participants with a high level understanding of the principles involved in establishing and maintaining a hydrometric network so it can provide the right data to support operational and compliance requirements.

LEARNING METHODS

- Lectures
- Case studies
- Discussions
- Optional field visits

COURSE PROVIDERS

Entura's lecturers include:

- Accredited training professionals
- Technical specialists and professionals with extensive experience and qualifications in hydrography and hydrology

CUSTOMISATION

This course can be customised to suit participants' skill level or role, including the level of technical depth in data.

COURSE DURATION

3 - 5 DAYS

LOCATION:

Tasmania, Australia
Client site as negotiated

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