

# Flow Metering Technologies

June 26, 2019

Halifax, NS

#### WORKSHOP DESCRIPTION:

Knowing the flow inside of your system is super critical in analyzing what is happening with the water or waste water flow. With the need to measure flow for a multitude of reasons, there is are differing technologies that can do what is needed. Understanding how the technologies work, and options for each, will help guide the user, engineer, or owner the best option for their need. This course goes over the main flow meter technologies, how they work, as well as hands-on training for each.

- 1. Introduction (15 min)
- 2. Flow technologies available in the market (15 minutes)
- 3. Ultrasonic Clamp-on flow meter technology (2.5 hours)
  - a. Working principle Transit time and Doppler
  - b. Flow metering system and components
  - c. Installation what to do and what not to do
  - d. Applications
  - e. Lab
- 4. Electromagnetic Flow meter technology (2.5 hours) with 45 minute lunch in between
  - a. Working principle
  - b. DC pulsed, AC pulsed and Battery powered electromagnetic flow meters
  - c. When to apply which technology
  - d. Installation checks
  - e. Applications
  - f. Lab
- 5. Coriolis flow meter technology (1.0 hrs)
  - a. Working principle
  - b. Flow metering system and components
  - c. Installation checks
  - d. Applications
  - e. Demonstration
- 6. Ultrasonic Level Measurement for "Channel" Flow Measurement (1.0 hrs)
  - a. Working principle
  - b. Flow metering system and components
  - c. Installation checks
  - d. Applications
  - e. Demonstration

#### **COURSE FORMAT:**

Every attempt is made to keep the course informal and an enjoyable day-long training experience. Registration starts at 8:30 am, and the instructor will start shortly after 8:30. Lunch is 12:00-1:00pm. Wrap-up time is usually around 4:30pm. Though all workshops are non-smoking, ample breaks are provided for coffee and discussion.

## **PRESENTER: Vijay Acharya**

Vijay is a qualified Process Control Engineer having more than 25 years of field experience. He is working with Siemens Process Instrumentation for more than 20 years and has experience in applying the instrumentation in various process industries.

From last 3 years he is working extensively with Siemens Flow Products for the applications in key process industries such as Oil & Gas, Chemical, Municipal and water utilities in Canada for resolving their application problems in the flow measurement. He has offered instrumentation solutions that resulted into costs savings, improving efficiency and safety of the plants. He is a member of PEO (Professional Engineers of Ontario) and ISA (International Society of Automation).

## **CONTACT INFORMATION:**

Registration can be made by faxing or mailing the registration form on the reverse of this page, or on-line at www.acwwa.ca. For further information, please contact ACWWA Section office at 902-434-6002.

### **COURSE LOCATION:**

Halifax Water 455 Cowie Hill Halifax, NS

Meter Mete	ring Technologies	June 26, 2019	Halifax, NS	
Name:				_
Organization:				_
Mailing Address:				_
City, Province:		Postal (	Code:	_
Phone:	Fax:	Email: _		_
ACWWA Membership (If no membership numl	#:V ber is listed, you will be in	VEF Membership #:voiced as a non-member.	See pricing below.)	
Fee		EF Members & Emplo 1.00 + \$41.25 HST (15	oyees of Utility Member $5\%$ = $$316.25$	'S

Fees include coffee breaks and lunch

Fee for Non - Members Course: \$300.00 + \$45.00 HST (15%) = \$345.00

Payment can be made by visa, master card or cheque. Invoices will be sent to the address listed above.

above.	
Please send PO number if you want it inc	cluded on the invoice
Card Holder's Name	
Card Number	Expiry
Signature	

Cheques should be made payable to

**ACWWA** 

PO Box 28141 Dartmouth, NS B2W 6E2 Phone 902-434-6002 Fax 902-435-7796