

Transportation of Solids Using Centrifugal Pumps

March 11-15, 2024, GIW Industries, Grovetown, GA

Sponsored by The GIW Hydraulic Test Laboratory & Augusta University



Course Overview

Monday, March 11, 2024

Course begins at 10:00 am

- Fluid Flow Principles
- Basic Concepts of Centrifugal Pumps
- Basic Relations for Slurry Flows
- Settling of Solids in Liquids
- Classification of Slurries

Tuesday, March 12, 2024

- Settling Slurry Basics
- Non-Settling Slurry Basics
- Bed Formation and Deposition
- Water Hammer/Clear Loop Demos
- Settling Slurry Test
- Hydraulic Lab Tour

Wednesday, March 13, 2024

- Analysis of Test Results
- Settling Slurries Advanced Topics
- Tour of GIW Manufacturing Facility (Optional)
- Non-Settling Slurry Test
- Slurry Pump Materials

Thursday, March 14, 2024

- Complex Slurries
- Analysis of Test Results
- Slurry Pump Wear and TCO
- Slurry Pump Design and Construction
- Working Session: Total System Design

Friday, March 15, 2024

Course ends at 12:00 pm

- Advanced Pipeline Topics
- Pump and Pipeline Stability
- Operating Experiences with Centrifugal Pumps
- Closing Session

The theoretical and practical aspects of slurry transport, from design to operations, are covered by an international staff of experts in the field. The format includes classroom lectures, pipeline pumping tests, demonstrations of slurry flow in the GIW Hydraulic Lab, and an extended “Total System Design” workshop where participants can practice the skills they have learned.

Course participants receive a printed copy of all presentations, sample problems and solutions, and a copy of the supporting textbook “Slurry Transport Using Centrifugal Pumps” by Visintainer, Matousek, Pullum, & Sellgren in hard copy or electronic format.

Optional activities include a tour of the GIW manufacturing facility and an evening Hospitality Suite where participants can see slurry pumps first hand, test drive GIW’s SLYSEL software for pump & pipeline calculations, and meet with the teaching staff in an informal setting.

The course is intended for university-educated engineers specializing in slurry pipeline system design and slurry pump application. Participants should be fluent in English and prepared for an in-depth mathematical treatment of the subject matter.

The course is sponsored by GIW Industries and Augusta University. Three continuing education units are awarded upon completion.



Hands-on demonstration of the effects of water hammer.



Lab demonstrations include a miniature, see-thru slurry system and full sized pipeline tests of settling and non-settling slurries.

Registration Deadlines and Fees

Course fees include all lectures, lunches, a course textbook, and course notes.

- **Early Registration**
(Payment Received by January 15, 2024)
Fee \$2600.00
- **Late Registration**
(after January 15, 2024)
Fee \$2850.00
- **Multiple Attendee Discount**
Companies registering 2 or more employees:
Early registration fee \$2350
Late registration fee \$2600 per employee



Accommodations:

A block of rooms is reserved at the Crowne Plaza North Augusta. Approved registrants will be provided with a link to reserve their accommodations. While staying at the host hotel is not required, all classroom sessions will be held at this hotel. Transportation will be provided from the Crowne Plaza to GIW for all participants.

Airports:

Augusta Regional Airport (AGS).
Atlanta International Airport (ATL) 2 1/2 hour drive from hotel.

Ground Transportation:

ATL - Groome Transportation provides shuttles from the Atlanta airport to Augusta. www.groometransportation.com

General:

Registrations must be approved by GIW before acceptance. GIW reserves the right to limit attendance or to cancel the course and refund registration fees. Course begins at 10:00am on Monday at the hotel and ends at noon on Friday. Please make your travel arrangements accordingly.

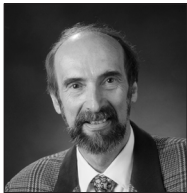
Enrollment Options:

Registration forms can be obtained from the GIW website (www.giwindustries.com) or by calling 706-434-0734.

Cancellation:

Cancellations made after January 15, 2024 will result in NO REFUND. A substitute may be enrolled at any time prior to the start of the course.

Teaching Staff



Dr. Anders Sellgren, professor emeritus of water resources engineering at Luleå University of Technology in Sweden, has over 40 years of international experience in research, development, and design of various slurry pumping systems. He has published numerous papers and is a co-author of the book “Slurry Transport Using Centrifugal Pumps.”



Robert Visintainer, P.E., VP of Engineering and R&D for GIW Industries, has worked in the design, testing, and manufacture of centrifugal pumps since 1981, and is the 2021 recipient of the ASME Worthington Medal for eminent achievement in the pumping industry. He is responsible for the development of GIW slurry pumps, wear materials, technical training, SLYSEL software, and GIW’s unique Hydraulic Test Lab.



Dr. Václav Matoušek, professor of civil engineering at Czech Technical University in Prague, has over 20 years of international research experience in slurry transport particularly in connection with dredging. He holds a MSc in civil engineering from the Czech Technical University and PhD in mechanical engineering (dredging engineering) from the Delft Technical University in the Netherlands.



Dr. Robert Cooke, A Director of Paterson & Cooke’s Denver, Colorado practice, founded Paterson & Cooke with Dr. Angus Paterson in 1991. Robert has extensive international slurry pipeline design and implementation experience with long distance slurry pipelines, mine tailings and backfill, hydraulic hoisting, and marine mining applications.



Dr. Harry H. Tian, GIW’s Director of Metallurgy and Materials R&D, holds a Ph.D. in metallurgical and materials engineering from the University of Alabama. He has more than 30 years of experience in research, teaching and industry, and has published numerous technical papers in national and international journals and conferences. Dr. Tian has been with GIW since 1992.



John Harding, Pump Application Manager has been with the KSB Group since 1988 and with GIW since 2000. His particular area of focus is on pump selections, pump applications and trouble shooting of slurry systems.



George McCall II, P.E., Manager of the GIW Hydraulic Lab, has worked in testing, research, and development for more than 20 years and has 8 years experience in the pump industry. A graduate of the Georgia Institute of Technology, George holds bachelors and masters degrees in Mechanical Engineering and is a Professional Engineer.



Brian Prochaska, P.E., Chief Engineer for GIW Industries, has worked in the design and development of centrifugal slurry pumps since 2001 with a focus on producing new products, product innovation, and technology to reduce slurry pump wear. Brian is a graduate of the Georgia Institute of Technology and holds a bachelors degree in Mechanical Engineering.



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GIW® Slurry Pumps