



# A short course on the new *SRC Multi-Species Pipe Flow Model* Saskatoon, June 19, 2018

## Overview

Slurry pipeline transportation is a field that is not adequately covered in undergraduate engineering courses. Consequently, engineers are generally ill-equipped when faced with the task of designing a slurry transportation system or troubleshooting an existing installation. For many years, the Saskatchewan Research Council (SRC) and Paterson & Cooke (P&C) have offered a comprehensive course in slurry pipeline design and operation, the Slurry Pipeline Systems Course. This comprehensive course instructs engineers on applying the basic principles of slurry pipeline flows to actual design situations. It also includes instruction on the SRC Pipe Flow Model for slurry flow calculations.

Recent research funded by members of the Canadian Oil Sands Industry, as well as Paterson & Cooke USA, Ltd., has led to the development of a new pipe flow model. This new model, the SRC Multi-Species Model (PipeFlow M1.0) provides pressure loss and deposition velocity predictions for slurries with broad particle size and density distributions, and represents a significant leap forward in slurry pipeline modelling techniques. This model is also capable of making predictions for the turbulent flow of settling slurries with yield stresses.



SRC has developed a one-day training course on this new model to familiarize users with its capabilities. The aforementioned comprehensive Slurry Pipeline Systems Course is a prerequisite to this training, as the one-day course will only provide a short refresher of that content prior to introducing the new model.

SRC is offering this one-day course for \$750 plus applicable taxes. The course will run from 8:00 a.m. to 5:00 p.m. Lunch will be provided.

### Who should attend:

All professionals who are involved with solids handling in the mining and mineral processing industries and who have taken the SRC/P&C Slurry Pipeline Systems Course or an in-house SRC Slurry Pipeline course.

### Course content:

- A refresher on:
  - Newtonian and non-Newtonian slurries
  - Friction losses
  - Minimum operating velocities
- Introduction of the SRC Multi-Species PipeFlow M1.0 Model for slurry flow calculations
- Examples to illustrate key concepts

**A calculator is required for the design sessions.**

**A laptop computer is required to run the SRC Pipe Flow Model software.**

### Instructors:

**Dr. Sean Sanders**

University of Alberta • Edmonton, AB

**Dr. Ryan Spelay**

SRC Pipe Flow Technology Centre™ • Saskatoon, Sask.

### To Register:

**Complete the attached registration form and fax (or email a copy) to Leanne Crone at 306-933-5383 or [leanne.crone@src.sk.ca](mailto:leanne.crone@src.sk.ca) by May 31, 2018.**

### Registration Fee: \$750 + taxes

### Course registration fee includes:

- Demonstration software to assist with design calculations
- Copies of the course presentation materials
- Lunch and coffee/tea breaks
- Access to software to assist with design calculations



### For more information please contact:

**Leanne Crone**

**Tel: 306-385-4107**

**Email: [leanne.crone@src.sk.ca](mailto:leanne.crone@src.sk.ca) Fax: 306-933-5383**



# SRC Multi-Species Slurry Pipe Flow Model Course



June 19, 2018

Innovation Place – Candle/Span Room  
The Atrium  
111 Research Drive  
Saskatoon, Sask., Canada

**Registration Fee: \$750 + applicable taxes**

## REGISTRATION FORM – Please print and complete

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Job Title: \_\_\_\_\_

Address: \_\_\_\_\_

City and Province/State: \_\_\_\_\_

Postal Code: \_\_\_\_\_ Country (If not Canada): \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

### PLEASE INDICATE METHOD OF PAYMENT (If required)

\_\_\_\_ Invoice my company:

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

\_\_\_\_ Visa Account Number: \_\_\_\_\_

\_\_\_\_ Mastercard Expiry Date: \_\_\_\_\_

Cardholder Name: \_\_\_\_\_

Sorry, we are unable to accept American Express.

**Registration / Fee Payment Deadline is May 31, 2018**

\*\* A space in the course will be reserved for you upon receipt of the Registration Fee. (Space is limited)

**Fax or Email completed form to Leanne Crone**

**Fax: 306-933-5383 Email: [leanne.crone@src.sk.ca](mailto:leanne.crone@src.sk.ca) Tel: 306-385-4107**