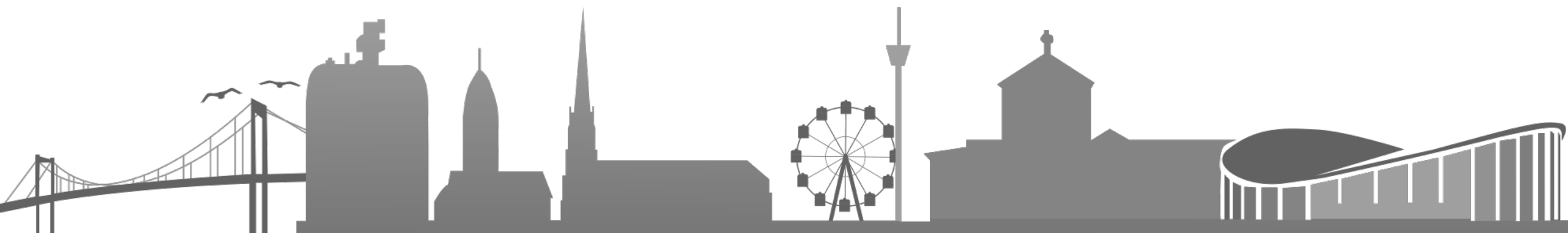




Operational Safety of Dams and Reservoirs

SwedCOLD Workshop No 4

2023-06-15



Presenters



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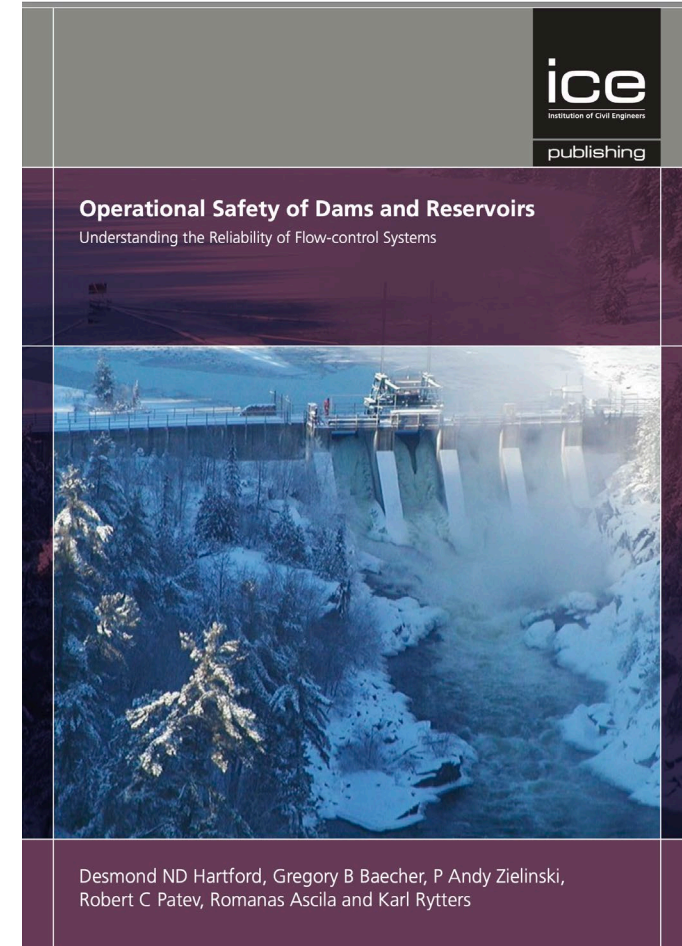
Background and Objectives



- Investigations of incidents and major accidents related to dam safety show that the characteristics of those events is often complex. It can seldom relate to only a single technical issue. Traditional methods for safety analysis of dam operations are very helpful, however, the complexity of dam systems operations requires more sophisticated approach and tools.
- The main objectives of the workshop is to provide a broad overview of the systems approach and simulations techniques for analysis of operational safety of dams and reservoirs. The workshop aims to summarize the techniques available and outline emerging technologies which could be employed to further development of the methods and technology.

Items covered in the workshop

- Flow control failures in dam safety
- Management, control and operation
- Systems and systems engineering
- Modelling dam and reservoir systems
- Hydrological modelling and river flow routing
- Reservoir and outflow control
- Disturbances
- Release function and human factors
- Discharge conveyance function
- Simulating flow control operations



Agenda



| Time | Min | Session | Topics | Presenter |
|---------------|-----|---------|---|-------------------|
| 08:00 – 08:10 | 10 | 0 | Welcome and introduction | Romanas Wolfsborg |
| 08:10 – 08:30 | 20 | 1 | Safety incidents are complex | Gregory Baecher |
| 08:30 – 09:00 | 30 | 2 | Operating within the water use plan + the Campbell River system | Desmond Hartford |
| 09:00 – 09:20 | 20 | 3 | Need for systems thinking | Gregory Baecher |
| 09:20 – 09:45 | 25 | 4 | Cheakamus Dam and Daisy Lake Reservoir | Desmond Hartford |
| 09:45 – 10:15 | 30 | | Coffee break | |
| 10:15 – 11:00 | 45 | 5 | Systems approach for operational safety | Romanas Wolfsborg |
| 11:00 – 11:30 | 30 | 6 | Simulating water conveyance and operations | Gregory Baecher |
| 11:30 – 12:00 | 30 | 7 | Open discussion and closing remarks | Panel |

