

### May Section Meeting: Overcome the Challenges of Implementing a Safety Instrumented System (SIS) for Reactive Processes

Reactive processes are a common application for safety instrumented systems due to the potential for significant energy release from an abnormal reaction that can cause catastrophic rupture of the vessel. This might seem straightforward, but reactive processes can respond to loss of control in ways that are more difficult to predict, so the specification of trip point, response time, and sensor architecture requires more analysis than typical SIS. The more that needs to be done to address the reaction, the more complicated the safety instrumented system specification becomes, resulting in the need for more experienced process engineering involvement to get the design right. This presentation discusses some of the unique challenges posed by reactive applications and provides examples to

### May Section Meeting

**Topic:** Overcome the Challenges of Implementing a Safety Instrumented System (SIS) for Reactive Processes

**Speaker:** Eloise Roche

**Date:** Wednesday, May 31<sup>st</sup>

**Time:** 6:00 – Introduction  
6:05 - Career Discussion  
6:15 - Technical Presentation  
7:15 – Q & A

**Cost:** Free

**REGISTRATION REQUIRED.** More information can be found on our [website](#).

[Register](#)

After you register, you will receive instructions via email for joining the meeting.

illustrate how to overcome these challenges.



### *Speaker Biography:*

Eloise Roche is a Senior Safety Controls, Alarms and Interlocks Consultant with over 30 years of experience in the process sector. She developed skills in instrumented protection system identification, functional specification, application program implementation, and the development of related automation management systems during her twenty-four years of experience in the chemical industry before joining SIS-TECH Solutions. Eloise has been a member of multiple ISA-84 working groups since 2011 and joined the USA technical advisory group to IEC61511 in 2015.

## **WE NEED VOLUNTEERS!**

We are looking for officers for our next program year including Program Chair, Treasurer, and Secretary. Won't you consider being a part of the team? If you would like more information about the positions, please contact the current officer for a description of their duties and volunteer!

We need your ideas and help to make next year's program another outstanding year! Please contact Marc Paffhausen if you are interested.

### Officer Duties

The Officers of the Section shall be a Chairman, a Program Chairman, a Secretary and a Treasurer, who together with two other members of the Section, shall constitute the Executive Committee. The retiring chairman of the Section shall automatically become one of the "two other members" of the Executive Committee for one year. All officers must be MEMBERS or ASSOCIATE MEMBERS of the American Institute of Chemical Engineers.

The Chairman, or in his/her absence the Program Chairman, or in his/her absence, the Secretary, or in his/her absence the Treasurer, shall preside at all meetings of the Section.

The Secretary shall keep a record of the proceedings of the Section and shall, under direction of the Chairman, issue notices of meetings to the members. Immediately after the Annual Meeting, the secretary shall make a report to the Secretary of the American Institute of Chemical Engineers outlining the activities of the Section during the year.

The Treasurer shall be charged with the collection and disbursement of funds as authorized by the Executive Committee. At the first Section meeting of each fiscal year, the treasurer shall present a financial report.

# AIChE Meetings

2023

- May 30-Jun 2 [2023 Synthetic Biology: Engineering, Evolution and Design \(SEED\)](#)  
Los Angeles, CA
- June 13-15 [2023 Process Development Symposium](#)  
Vancouver, Canada
- Sept 6-8 [8<sup>th</sup> Int'l Conference on Accelerating Biopharmaceutical Development](#)  
Cambridge, MA

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The objectives of AIChE are to advance chemical engineering in theory and practice, to maintain a high professional standard among its members, and to serve society, particularly where chemical, engineering can contribute to the public interest.

## MEETING SCHEDULE

*The Rocky Mountain Local Section (RMLS) of AIChE generally meets the second or third Tuesday of every month, September through May.*