

# PURDUE PROCESS SAFETY AND ASSURANCE CENTER (P2SAC) AGENDA FOR FALL 2018 CONFERENCE

## Tuesday, December 11 (day prior to the conference)

**6:00 pm**     **Pre-conference dinner and discussion** (Industrial members, guests, faculty, students, and postdocs)  
5<sup>th</sup> Floor Mingling Room at Ross Ade Stadium (park in lot outside venue)

## Wednesday, December 12, Wilmeth Active Learning Center, B058 (new venue!)

**7:15-7:45**     **Coffee, tea, and light snacks**

### **Session 1: Welcome and Introduction to P2SAC**

7:45-8:00     **Osman Basaran** (Professor of ChE and Academic & Founding Director P2SAC, Purdue): Welcome, what is P2SAC, and agenda

8:00-8:20     **Ray Mentzer** (Visiting Professor of ChE and Executive Director P2SAC, Purdue): Report on broadening number and scope of P2SAC projects via PhD, MS, and UG student participation and industry mentoring; update on dual-level course on process safety management; new P2SAC initiatives and activities

### **Session 2: Quantitative and Simulation-Driven Approaches to Process Safety (Moderator: O. Basaran)**

8:20-9:05     **Carl Laird** (Professor of ChE, Purdue): Part 1: Systems engineering and optimization techniques for improved safety and security of critical infrastructure and process industries. Part 2: Gas detector placement in petrochemical and chemical facilities.

9:05-9:45     **George Harriott** (Air Products): Leak detection on gas pipelines

9:45-10:00 **Sai Swetha Sathanapally** (ChE PMP student, Purdue): Characterization of reactive chemical hazards via calorimetry

10:00-10:15 **Coffee and snack break**

### Session 3: Improving Process Safety (Moderator: R. Mentzer)

10:15-10:50 **Raj Gounder** (Professor of ChE, Purdue): Prevention through catalyst design for applications in the petrochemical industry

10:50-11:20 **Stewart Behie** (Occidental): Driving PSM performance beyond KPI metrics

11:20-11:50 **Laurence Pearlman** and **Gabe Onofre** (Marsh Risk Consulting): Process safety and the front line – How to simplify PS learning and establish safety critical equipment as a priority

11:50-12:15 **Tony Downes** (Honeywell): Trust, but verify - the case for placing the entire safety lifecycle in one accessible place

12:15-12:55 **Catered lunch for participants (industrial reps, faculty, graduate and undergraduate students, and other guests)**

### Session 4: Broad Applications of Process Safety and Flow Assurance (Moderator: O. Basaran)

12:55-1:20 **Han Xia** (Eli Lilly): Identifying autocatalytic decomposition reactions using model free kinetics

1:20-1:45 **Jay Deveraj** (Dow Agrosiences): Improving R&D and academic lab safety through management of change and training

1:45-2:05 **Arvind Varma** (Professor of ChE, Purdue): Parametric sensitivity and thermal runaway behavior in catalytic fixed-bed reactors

2:05-2:20 **Joseph Pekny and James Dietz** (Professors, Purdue): Cybersecurity initiative with CISTAR

2:20-2:35 **Ed Marszal** (Kenexis): PMP project data structure standardization for PHA

2:35-2:45 **Zoltan Nagy** (Professor of ChE, Purdue): Overview of continuous pharmaceutical manufacturing

2:45-2:55 **Linda Wang** (Professor of ChE, Purdue): Overview of efficient and safe separations and solvents

2:55-3:05 **Osman Basaran** (Professor of ChE, Purdue): Overview of coalescence and flow assurance

**3:05-3:15 Refreshment break (but continue into next session)**

**Session 5: Open Discussion to be led by Industrial Representatives (Moderators: R. Mentzer and O. Basaran)**

3:15-5:10 Open discussion and needs led by industry reps (10 minutes per large member company, 5 minutes per small member company, and plus 15 minutes total to potential new members)

**Session 6: Pitches for New PhD Projects (Moderators: O. Basaran and R. Mentzer)**

5:10-6:00 Short pitches by faculty for new PhD projects (~5 minutes per single projects; ~7.5 minutes per multiple projects)

6:00 Adjournment (dinner to follow---see below)

**6:30 pm After conference dinner and discussion** (Executive Committee only)  
Location: Bistro 501, Lafayette