



*Fall 2017*

*Page 1 – Letter from Chair*

*Page 2-4 - AIChE Program*

*Page 5- Division Awards*

*Page 6- Service Award*



## **1. A LETTER FROM THE CHAIR OF ENVIRONMENTAL DIVISION**

Welcome to the Environmental Division of AIChE. In our Division, we strive to position ourselves at the forefront of scientific excellence and technological innovation through modern educational programs, prominent research investigations and dissemination of the latest technologies to protect the Environment. Our society reflects a collection of professionals from academia, industries and government committed to specialized and critical areas of Environmental Engineering and Science. We ask you to join our Division and enjoy the benefits and services we offer.

*Panagiotis (Peter) Smirniotis, Ph.D.*  
*Chair of the Environmental Division of AIChE*

## **2. WE EXTEND OUR SUPPORT TO VICTIMS OF HURRICANES HARVEY AND IRMA**

Dear Environmental Division Members,

In the wake of Hurricanes Harvey and Irma, on behalf of the Environmental Division, we would like to express our concern and support for our members and their families affected by this disaster. The Environmental Division is working with the AIChE Headquarters to provide ways to help. The plan for immediate assistance to those affected includes:

- Donating food, clothing, supplies to those who lost their homes and offices
- Connecting those with housing needs with other Chemical Engineers in the area who can help with temporary housing
- Finding temporary office space for those who cannot get to their office.

Establishing a fund to those in the Gulf Coast and Florida regions. For receiving immediate help and assistance please contact the Harvey Support site on AIChE Engage or contact AIChE Customer Service. We thank first responders, medical personnel and volunteers for all the help they offered to relief the victims of Hurricanes Harvey and Irma. Our thoughts and prayers are with you and your families for a quick recovery and safe return to your homes.

*Panagiotis (Peter) Smirniotis, Ph.D.*  
*Chair of the Environmental Division of AIChE*

### 3. 2017 AIChE NATIONAL MEETING PROGRAM

#### SUNDAY, OCTOBER 29, 2017

03:30 PM - 06:00 PM

33 Novel Materials for Environmental Applications Minneapolis Convention Center - 102C

#### MONDAY, OCTOBER 30, 2017

08:00 AM - 10:30 AM

49 Advanced Oxidation Processes I Minneapolis Convention Center - 102F

73 Fundamentals of Environmental Kinetics and Reaction Engineering Minneapolis Convention Center - 102E

12:30 PM - 03:00 PM

121 Applied Environmental Catalysis I Minneapolis Convention Center - L100B

144 Environmental Division Awards and Honors (Invited Talks) Minneapolis Convention Center - 102E

152 In Honor of Stuart W. Churchill I (Invited Talks) Minneapolis Convention Center - 101E

176 Solve this! Fundamental Approach to Problem Solving in Industrial Processes I (Invited Talks) Minneapolis Convention Center - 101I

178 The Food-Energy-Water Nexus Minneapolis Convention Center - 102A

03:15 PM - 05:45 PM

205 Advanced Oxidation Processes II Minneapolis Convention Center - 102F

207 Applied Environmental Catalysis II Minneapolis Convention Center - L100B

224 Fundamentals of Food, Energy, and Water Systems Minneapolis Convention Center - 102A

#### TUESDAY, OCTOBER 31, 2017

08:00 AM - 10:30 AM

263 Atmospheric Chemistry and Physics I Minneapolis Convention Center - 102F

273 Combustion Kinetics and Emissions I Minneapolis Convention Center - L100F

313 Sustainable Fuel from Renewable Resources Minneapolis Convention Center - 102E

314 Sustainable Management of Post Consumption/Use Biomaterials Minneapolis Convention Center - 101C



12:30 PM - 03:00 PM

333 Atmospheric Chemistry and Physics II Minneapolis Convention Center - 102F

342 Combustion Kinetics and Emissions II Minneapolis Convention Center - L100F

359 Fundamentals and Applications for Hazardous Waste Treatment Minneapolis Convention Center – 102E

368 Integrated Process Engineering and Economics Analysis Minneapolis Convention Center - 103B

388 Structure in the Design of Sustainable Processes and Supply Chains Minneapolis Convention Center - 102A

03:15 PM - 05:45 PM

412 Carbon Dioxide Capture Technologies and Their Use Minneapolis Convention Center - 102F

426 Municipal Solid Waste Treatment and Valorization Minneapolis Convention Center - 102E

427 CO<sub>2</sub> Industrial, Engineering and R&D Approaches Minneapolis Convention Center - 102C

**WEDNESDAY, NOVEMBER 01, 2017**

8:00 AM - 10:30 AM

460 Advanced Treatment for Water Reuse and Recycling Minneapolis Convention Center - 102F

477 Environmental Advances in Nuclear and Hazardous Waste Treatment I Minneapolis Convention Center - 102E

12:30 PM - 03:00 PM

521 Advances in Life Cycle Optimization for Process Development Minneapolis Convention Center - 102F

548 Environmental Advances in Nuclear and Hazardous Waste Treatment II Minneapolis Convention Center - 102E

580 Water Treatment, Desalination, and Reuse II Minneapolis Convention Center - M100H

3:15 PM - 05:45 PM

635 Water Treatment, Desalination, and Reuse III Minneapolis Convention Center - M100H

**WEDNESDAY, NOVEMBER 01, 2017 CONT.**

3:15 PM - 05:45 PM

635 Water Treatment, Desalination, and Reuse III Minneapolis Convention Center - M100H

4:45 PM - 05:45 PM

637 Rapid Fire Session: Environmental Division Minneapolis Convention Center - 102E

**THURSDAY, NOVEMBER 02, 2017**

8:00 AM - 10:30 AM

655 Community-Based Water Treatment Innovations  
Minneapolis Convention Center - 102F

662 Going to a Decision Point in Sustainability Analysis  
Minneapolis Convention Center - 102E

691 Water Treatment, Desalination, and Reuse IV Minneapolis  
Convention Center - M100H

12:30 PM - 03:00 PM

737 Sustainability Metrics at the Process and Product Level  
Minneapolis Convention Center - 102E



#### 4. DIVISION AWARDS

The 2017 Environmental Division Early Career Award has been given to **Dr. Fengqi You**, the Roxanne E. and Michael J. Zak Professor in Cornell University's Robert Frederick Smith School of Chemical and Biomolecular Engineering (CBE). In only its second year, the Environmental Division Early Career Award is now given annually for leadership to chemical environmental engineering by a person in the early stage of his or her career. Dr. You was selected for the award for his outstanding contributions in the area of environmental systems engineering, including environmental life cycle assessment and optimization and environmentally conscious design and operations of chemical and energy processes.

Two awards have been given by the Environmental Division to graduate students for their contributions to the scientific literature. **Sijie Ge** from Lamar University in Beaumont, TX won 1st place in the Environmental Division Graduate Student Paper competition for "Impact of chemical plant start-up emissions on ambient ozone concentration." See: Ge, S., Wang, S., Xu, Q., & Ho, T. (2017). *Atmospheric Environment*, 164, 20-30.

**Won Jun Jo** from MIT won 2nd place in the Environmental Division Graduate Student Paper competition for "Oxidative Chemical Vapor Deposition of Neutral Hole Transporting Polymer for Enhanced Solar Cell Efficiency and Lifetime." See: Jo, W. J., Nelson, J. T., Chang, S., Bulović, V., Gradečak, S., Strano, M. S., & Gleason, K. K. (2016). *Advanced Materials*, 28(30), 6399-6404.

#### 5. SERVICE AWARD

The Service Award of the Environmental Division of AIChE recognizes outstanding service to the Division. The recipient has demonstrated a considerable record of sustained service to the Environmental Division and the environmental area over an extended period of time. This year's recipient, **Mr. Kurt Rindfusz**, has been extremely involved with numerous activities of our Division over the years and was recognized for his outstanding service.

## 5. JOIN THE CONVERSATION

As evidenced by the many recent threads on Engage, climate change and climate policy are top-of-mind for many AIChE members. Like other professional societies, AIChE is finding increased member interest in public policy and advocacy. With this in mind, AIChE's Public Affairs and Information Committee (PAIC) Climate Change Task Force, specifically its Climate Change Policy Review Project Team (PRP Team), is spearheading a broad effort to review and revise the Institute's existing climate policy through communication with, and input from, members and the standard Board review and approval process. The PAIC PRP Team welcomes AIChE members to our discussion with this "Welcome Blog."



## 6. OUTREACH



For the last 5 years the Environmental Division has co-sponsored a high school & middle school OutReach Program at the AICHE Spring Meeting. The event is usually held at a local university or college in the city where the AICHE Spring meeting is being conducted. The 2017 Spring Meeting OutReach event was held at UTSA in San Antonio, on March 28th. The OutReach Program was attended by over 350 students from 8 local high schools.

This program has been very successful and is very popular with the students, teachers, and school administrators in our local communities around the country.

“Words cannot express our appreciation for letting our students experience engineering in action. The students had such an awesome time and the hands-on experience was awesome. I would love for you to have our students visit again in the near future. The impact that you and your team had on our students will last a lifetime.”

-Davina Allen, Teacher Jesse Owens High School Chicago

“Thank you for all your efforts in today’s event. We thought everything was wonderful and the students really enjoyed it. We appreciate everything you did for our group to accommodate us. Thanks again.”

- Christina Marasigan, Career Advisor, James B. Conant High School

The goal of the OutReach Program, is to expose the students to chemical engineering and other engineering professions and to encourage the students to stay in school, and study math and science. The program gives students the opportunity to interact with industry professionals and includes presentations from keynote speakers, such as NASA Astronaut Al Sacco and practicing chemical engineers. Students are presented with current topics of interest from general engineering practices to developments in green energy projects. The program also includes an interactive game about engineering and an open panel discussion, which will allow students to ask questions and directly converse with practicing engineers. At the conclusion of the OutReach Program a complementary lunch is provided for the students, teachers, and OutReach Program volunteers. During the lunch, the students sit with practicing engineers and can talk with the engineers in an informal setting about pursuing a career in the field of engineering or science.

The 2017 OutReach event in Chicago will be held Nov. 13 -15 and is expected to attract close to 1000 middle & high school students. In 2018 there is an OutReach Program Scheduled for the week of Jan 22nd at Tulane University in New Orleans.

