AIChE FUELS & PETROCHEMICALS DIVISION

FLASHPOINT

Vol:22, Issue 1



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https://www.aiche.org/fpd

Summer 2019

2019 AIChE Annual Meeting Transforming the Future through Chemical Engineering

November 10 - 15, 2019 Hilton Regency, Orlando



Chair Corner

Hello F&PD membership,

I'm excited and honored to serve as the new Division Chair for AIChE's Fuels and Petrochemi-

cals Division and I welcome your ideas to best serve the needs of practicing engineers in our industry. My involvement in AIChE and the Fuels and Petrochemicals Division helped me with my professional growth and gave me the opportunity to follow the trends in our industry. It also allowed me to network with a wide range of talented professionals from other organizations.

We had an exciting program for the 2019 AIChE Spring Meeting which took place in New Orleans. The programming team organized an array of sessions in Refining, Petrochemicals and Gas Utilization areas. The F&PD Keynote address and welcome session was jointly organized with Big Data Analyt-

ics focusing on the Application of Big Data Analytics, Artificial Intelligence, Machine Learning & Cloud Computing in Refining & Petrochemicals Industry. We also had a panel session focusing on the challenges and opportunities that our industry will face to meet the demand for more and cleaner energy while dealing with a shifting global energy mix.

I hope to see you all in the 2019 Annual Meeting in Orlando, FL on November 10-14, 2019. F&PD organized several sessions in areas including 3D printing, conceptual process design, methane coupling, refining and petrochemical plant modeling and developments in alternative fuels and enabling technologies. F&PD also sponsors the Harry West Award that recognizes outstanding undergraduate research projects presented at the Undergraduate Student Poster Session at the conference. If you would like to help judge the posters in the F&PD category, we welcome the help! Plus, it's another great way to for F&PD members to meet future engineers and potential F&PD members!

I would like to also remind F&PD members to take advantage of the ongoing AIChE/F&PD partnership with Gulf Publishing & Hydrocarbon Processing magazine. As part of your \$10 F&PD annual membership, you are entitled to a free subscription to Hydrocarbon Processing – an exclusive benefit available only to F&PD members. With this new partnership, F&PD has the option to publish up to 1 submission each month to the magazine. If you are interested in submitting an article on a case study, technology development, or market metrics and trends related to F&PD, please contact me at fpdchair@aiche.org. All submissions must meet the publishing standards of Gulf Publishing.

As mentioned in our previous newsletters, F&PD and AIChE have been working hard to keep our division's website up to date with member only curated technical content, conference proceedings and announcements. Please visit our website to access this information.

https://www.aiche.org/fpd

Sincerely, Saadet Ulas Acikgoz, Ph.D. Senior R&D Manager, Optimization Honeywell UOP

Call for Committee Volunteers

We encourage everyone to consider taking an active role in the Fuels and Petrochemicals Division by volunteering to serve as session chairs, participating in our high school outreach program, presenting papers in our technical conferences and serving as a division officers. As division chair, I'm also looking for volunteers and leaders to support these areas and grow our division:

<u>Membership committee:</u> Attracting young and diverse set of individuals as volunteers, members and leaders for the division

<u>Bylaws committee:</u> Updating our bylaws to better serve the needs of the division members and officers

<u>Awards and Nominations Committee:</u> Organize F&PD's annual officer elections by recruiting the candidate slate and working with AIChE staff to execute the election and selecting the annual F&PD Award and F&PD Distinguished Award winners. You can find more information about this committee below in the F&PD Award and Nominations for 2020 section.

<u>Webinars committee:</u> Increase frequency of collaboration and knowledge sharing across our membership base through webinars. You can participate either by organizing a webinar or sharing your knowledge in one of the F&PD webinars

<u>Hydrocarbon Processing committee:</u> Increase our collaboration with Hydrocarbon Processing magazine, soliciting, writing and submitting articles to increase the exposure of F&PD

If you are interested in volunteering for these committees, please contact the Division Chair at <u>fpdchair@aiche.org</u>.

FLASHPOINT

BELONG TO SOMETHING



FUELS & PETROCHEMICALS A DIVISION OF AICHE

AIChE The Global Home of Chemical Engineers

Bigger ideas. Bigger networks. Bigger paths to career advancement.

AIChE[®] membership means access to bigger ideas, bigger networks, and bigger opportunities for career advancement and enhancement. To grow this community, we are offering an exclusive membership offer specifically-designed for Chemical Engineers working within Fuels & Petrochemicals.

Become an AIChE member and join our **Fuels & Petrochemicals Division** to immediately access these **benefits valued at over \$7,000 for the price of \$209**.

- Download 17 Fuels & Petrochemicals Division Conference Recordings (2013-2018) & Proceedings (2006-2018), valued at \$2,635. Get access to new F&PD conference proceedings each year with continued membership. More to come in the near future!
- Downloadable curated Fuels & Petrochemicals CEP magazine article bundles featuring 26 articles, valued at \$780.
- * Receive a subscription to *Hydrocarbon Processing*, valued at \$399.
- Access to 8 Fuels & Petrochemicals Division Webinar Bundles, valued at \$3,192. Want more? AIChE members receive 6 free annual credits to apply to purchasing live and archived webinars and conference presentations.
- Receive a subscription to *CEP* magazine, an invaluable resource for engineers. Like to read on the go? Access the latest issues on the new *CEP* Mobile App, for members only.

Belong to AIChE and the Fuels & Petrochemicals Division.

Join at www.aiche.org/JoinFPD

Congratulations to F&PD Award Winners

AIChE Spring Meeting, New Orleans, LA 2019

The Fuels and Petrochemicals Division held their Monday night Award Dinner at the Palace Café

in New Orleans. Several F&PD members and guests attended the dinner to network with their peers, enjoy some great food and drink and hear the inspiring F&PD Award Presentation by Syamal Poddar. Syamal Poddar is the founder and President of the consulting company Poddar & Associates. Syamal has served as chair of the Fuels and Petrochemical Div. and the South Texas Local Section, director of the Management Div., and has also served on the Societal Impact Operating Council (SIOC).

In addition to F&PD members, AIChE leadership and many AIChE staff members also attended the dinner. After an hour of cocktails and networking, all enjoyed dinner, followed by presentation of the awards. All outgoing F&PD officers and directors received plaques, and incoming chair, Saadet Ulas Acikgoz of Honeywell UOP gave an update on her plans for the coming year.

Professor Naz Karim, who unfortunately passed away recently, was the winner of the F&PD Service award recognizing his many years of service to the Division. You can find an article in memory of Professor Karim in this newsletter.

In addition to the award dinner, F&PD also hosted a Sunday Night Volunteer Reception and Long Range Planning Dinner organized by Lori McDowell. This event was held at Annunciation where invited volunteers gathered to network and share their long range ideas for the Division. It was a successful event and many ideas were generated to grow the division which will be evaluated and implemented over the next year and beyond.







F&PD Award and Nominations for 2020

Hello F&PD membership.

I am humbled to conclude my time on the F&PD Executive Committee as Past Chair and kindly ask for your assistance on the following items.

The Past Chair runs the Awards and Nominating Committee which oversees two important tasks. First, the committee organizes F&PD's annual officer elections by recruiting the candidate slate and working with AIChE staff to execute the election. It is not too soon to think about running for one of the following spots. These positions offer the opportunity for members to extend their contributions to AIChE and our division.

- 2nd Vice Chair. This position is a 4-year commitment. After serving as 2nd Vice Chair, this person then becomes 1st Vice Chair for 1 year, followed by assuming the Chair's position for one year. The commitment ends with a 1 year term as Past Chair
- Secretary: This position helps keep and maintain F&PD's general correspondence including files, paperwork, and meeting minutes. It is a 2-year commitment beginning at the 2020 Spring AIChE meeting
- Directors: There are 3 spots open for election and serve as part of the rotating group of 9 Directors. Many F&PD members and future leaders of the Division begin their contributions as a Director. Directors are tasked to help execute F&PD programs and initiatives globally, submit articles for our newsletters, and be potentially involved with F&PD technical programming for the Spring and Annual meetings. Additionally, one of the Director positions also serves as F&PD's Liaison to the Young Professionals member group within AIChE.

The Awards and Nomination committee is also charged with selecting the annual F&PD Award and F&PD Distinguished Service Award winners.

F&PD Award

This award recognizes individuals who have made substantial contributions in the fuels and petrochemicals industries. The award recognizes a nominee's distinguished track record of technical, management, and commercial achievements.

The F&PD Award winner is presented with a plaque at F&PD's Annual Networking and Awards Dinner at the Spring meeting. The winner is also asked to be the guest speaker at the dinner.

F&PD Distinguished Service Award

This award recognizes a member's outstanding service and contributions to the Division. The candidate must have demonstrated extensive involvement in a variety of F&PD and leadership activities over a period of at least 5 years. The nominee must be a member of the division and AIChE. The award includes a plaque presented at the F&PD's Annual Networking and Awards Dinner and a \$500 honorarium.

If would like to participate on the Awards & Nomination committee or would simply like to nominate someone for one of the open 2020 officer roles or for one of the F&PD awards, please contact me.

As a reminder, also keep in mind that AIChE administers over 60 awards outside of F&PD. Refer to the following page: <u>https://www.aiche.org/community/awards</u> Please feel free to nominate F&PD members for these awards too or contact me for further assistance.

Sincerely,

Bill Rooney, PhD. F&PD Past Chair 2019-2020 fpdpastchair@aiche.org william.rooney@honeywell.com

312-218-7253 (call or text)



The inaugural Heat Exchangers Topical Conference, organized by the Fuels & Petrochemicals Division, will occur at the 2020 AIChE Spring Meeting in Houston, Texas, U.S.A. An industrial application focused program, the Topical seeks papers on topics covering thermal-hydraulic modeling, mechanical design, operation, monitoring, maintenance, optimization, fouling, and cleaning of all types of heat exchangers. Please consider participation in this new Topical by submitting an abstract for one of the offered sessions.

The Call for Abstracts remains open through 22 November 2019 via the following link: <u>https://aiche.confex.com/aiche/s20/cfp.cgi</u>. For additional information, please contact Topical Chairs Francesco Coletti (<u>f.coletti@hexxcell.com</u>) and Nicholas Urbanski (<u>sepdivarea2a@aol.com</u>).

News: AIChE Chicago Section

AIChE Chicago had a great finish to its 2018-2019 programming year. The 11th annual Midwest Regional Conference in March drew approximately 100 attendees and was highlighted by a nice variety of content throughout 12 technical sessions, an excellent evening poster session, and a fantastic group of keynote speakers: Erin Kane (AdvanSix), Huimin Zhao (University of Illinois at Urbana-Champaign), Markita Landry (University of California, Berkeley), Asha Oroskar (Orochem), and Randy Snurr (Northwestern). The symposium furthermore continued its tradition of incorporating a high school outreach component, in which local area students have a chance to interact with attendees and learn about careers in engineering.

The April monthly meeting featured our annual poster competition and presentation of the McCormack Awards to three gifted students from the University of Illinois at Chicago, Illinois Institute of Technology, and Northwestern University. AIChE Chicago proudly awarded over \$1,000 during the evening and was happy to welcome Jim Riggs (Texas Tech), who provided a career-oriented presentation that was no doubt pertinent to the many students in the audience.

We concluded the programming year in May, with a fun elementary school outreach event early in the month and then our monthly meeting near the end. The meeting included an interesting presentation on innovative waste gas conversion technology by Freya Burton (LanzaTech). Student recipients of the annual AIChE Chicago scholarship were also honored during the evening, as the section is very enthusiastic to support the education of future chemical engineers. Last but certainly not least, local section volunteers were deservedly recognized, and our annual election was held to establish the officers for 2019-2020.

June and July have flown by, and the start of the upcoming programming year is fast approaching. The summer transition has been smooth, as the section was fortunately able to retain much of its leadership board, and the team has already made good progress in planning the agenda under the direction of Jarad Champion, who is settling into his role as the new Chair. Please feel free to contact Jarad (jarad.champion@aichechicago.org) with questions or perhaps if you have thoughts on collaboration opportunities between F&PD and AIChE Chicago, and of course visit our website (<u>https://www.aiche.org/chicago</u>) to keep informed on what we are up to. A great year of events is in store!

Bob Tsai AIChE Chicago Section Past Chair

In Memorium of Dr. Nazmul Karim

Dr. Muhammad Nazmul Karim, born in Muktagacha, Mymensingh District of Bangladesh, passed away on Friday, June 21, 2019 in Delft, The Netherlands, while on a work trip where he was giving the M. Sam Mannan Memorial Lecture Keynote. Karim received his Ph.D. in chemical engineering from the University of Manchester Institute of Science and Technology on a British Commonwealth Scholarship. Prior to that, he graduated from the Bangladesh University of Engineering and Technology (BUET) in 1972, where he was the First in Order of Merit, first Honors Graduate of BUET University in Chemical Engineering. His professors at BUET described him as one of the most brilliant students they had ever encountered.

From the University of Manchester, he became a member of the research faculty in the Dynamics and Control Laboratory at Twente Technical University in Eschede, Holland, followed by a research associate at the Department of Chemical Engineering at the University of Alberta in Edmonton, Canada. In 1978, he became an assistant professor at The University of Texas Permian Basin and in 1980, he joined the faculty at Colorado State University in Fort Collins, Colorado, where he eventually became the associate department chair from 1993-99. In 2010, he became the Whitacre Endowed Department Chair in Chemical Engineering at Texas Tech University, and in 2012, he became the holder of the Michael O'Connor Chair II Professor and head of Artie McFerrin Department of Chemical Engineering at Texas A&M University.

Karim, or "Naz" as he was commonly known among his friends and colleagues, was a tremendous scholar and teacher. In addition to his hundreds of publications and dozens of grants, he will be remembered for his energetic lectures, as well as his incredible mentoring and relationshipbuilding skills. Often quoting Tagore or simply starting talks with a joke — he once started a lecture to graduating seniors by walking into the room wearing sunglasses because, "Boy, the future was bright," — and he knew how to capture the audience's attention. He helped launch the careers of over 21 Ph.D. students and influenced thousands of undergraduates. He was invited to give hundreds of talks all around the world, including spending two sabbaticals at the International Center for Cooperative Research in Biotechnology at Osaka University in Japan; the Department of Chemical and Process Engineering at the University of Newcastle, England; the Laboratory of Automation at the Helsinki University of Technology in Espoo, Finland; and the Department of Chemical Engineering at the Technical University of Denmark in Lyngby.

Naz had been an active member in the Fuels and Petrochemicals Division of AIChE, serving as Session Chairs, and the Director. He also started the "<u>Professor M. Nazmul Karim Award in Process Control and Automation</u>". He is survived by his wife, two daughters, two grandchildren, and his brother and sister. A memorial service was held in Colorado on June 30.

The Fuels and Petrochemicals Division Collegiate Academic Scholarship 2020 for Chemical Engineering Majors

Description: The Fuels and Petrochemicals Division of AIChE (F&PD) is pleased to sponsor up to two (2) \$1,000 one-time awards to exemplary undergraduate students in the major of Chemical Engineering. F&PD is committed to introducing undergraduate students to careers in Fuels & Petrochemicals through its programs, helping to fuel the industry's need for top talent in the future.

Eligibility: Eligible applicants are college students with exemplary academic records and demonstrated leadership potential through their involvement with educational, philanthropic and/ or community-based activities and organizations. The scholarship award is available to undergraduate students that fulfill the following criteria:

- Undergraduate students must major in chemical engineering and must be members of AIChE and the Fuels and Petrochemicals Division (F&PD).
- Undergraduate applicants must have completed 1 year of the chemical engineering curriculum in order to apply for this scholarship
- The applicant must be attending an ABET accredited college.
- Applicants are limited to schools within the United States at this time.
- Previous Award winners of the F&PD Collegiate Academic Scholarship Award are not eligible.

Application Package:

• Application Form- Complete and signed application.

• **Transcript-** Official copy of applicant's most recent undergraduate college transcript(s). (to be sealed by the academic institution where the applicant attends).

• **Essay-** Applicant must submit an original, typed, single-sided, double-spaced essay which discusses how Chemical Engineers impact & contribute to the Fuels & Petrochemicals Industry. The candidate is encouraged to provide examples from their experiences through their courses, internships/co-op, and/or research. Essays are suggested to not exceed 1000 words in length.

- Resume- A resume detailing the applicant's academic and professional (i.e internships, coop) achievements (Limit: 2 typed pages).
- Letter of Reference- Applicant must submit two recommendation letters from professors and, one letter from a person who working as a practicing engineer in industry.

Submission Instructions:

All applications must be postmarked by October 21, 2019. Applicants are encouraged to submit their applications in a timely manner. All materials must be mailed in one envelope or package. Incomplete applications will not be considered. Address the application packages to:

Fuels & Petrochemicals Division of AIChE

Attn: Scholarship Panel/ Professor Sheima Khatib

Texas Tech University Department of Chemical Engineering Box 43121 Lubbock, TX 79409–3121

Award Determination: The Scholarship Panel will review the applications and rank applicants for the award. Award will be based on academic merit, Letters of Recommendation and creativity/ clarity and merit of the essay. Any special situations may also be considered. The Scholarship Panel will be made up of approximately 2-5 members of F&PDs Executive Committee.

Notification of Award: Winners will be notified either via phone or e-mail by F&PD's Scholarship Panel. The winner will be requested to answer a list of survey questions which will be used to highlight the award winner in a future issue of F&PD's Newsletter, Flashpoint.

Questions: Questions about the program may be sent to <u>fpduniv-scholar@aiche.org</u>

F&PD Collegiate Academic Scholarship Application

Application Deadline: October 21, 2019

First Name:	MI:		Last:	
DOB:		Gender (M/F)		
Home Address:				
City:	State:		Zip:	
Home Phone: ()				
Email Address:				

EDUCATION

Undergraduate University/College:
Undergraduate GPA: (e.g. 3.5 out of 4.0):
Major:

(Add more lines if needed for multiple schools)

HONORS/AWARDS

List honors and special recognitions received. Provide details. Attach additional sheets if necessary.

EDUCATIONAL, PHILANTHROPIC AND/OR COMMUNITY-BASED ACTIVITIES DEMOSTRAT-ING LEADERSHIP POTENTIAL

Describe activities and leadership roles held in educational, philanthropic, and/or community organizations. Describe your role specifically, contributions, and challenges that were overcome. Attach additional sheets if necessary.

TALENTS/SPECIAL INTERESTS

List talents and special interests. Attach additional sheets if necessary.

Other

Anything else you would like the scholarship panel to know? Attach additional sheets if necessary.

Certification: I believe that all of the information furnished on this application is true, complete, and correct to the best of my knowledge. I understand that such information is confidential and subject to verification by the F&PD Scholarship Panel.

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The Fuels and Petrochemicals Division High School Academic Scholarship 2019 Winners

Congratulations to our 2019 F&PD high school scholarship recipients!!

Jill Bohnet

Throughout my years in school, I have always loved math and science. I participated in science fair since seventh grade, and through these experiences, I was able to apply my math and science knowledge to various projects. In 10th and 11th grade, I was fortunate to be able to perform testing in labs at Halliburton and Baker Hughes, where I was mentored by professionals in the energy industry. After doing research and lab experimentation, I created two different science fair projects in the chemical engineering category. As a result of my work, I was a finalist in both 2017 and 2018 at the Intel International Science Fair, which helped to pique my interest in engineering.

In my free time, I like to stay busy. While I was in high school, I worked a few different jobs, volunteered at school and church, played varsity volleyball and belonged to a County leadership group. This year, I will attend Louisiana State University, where I will be a member of LSU's NCAA volleyball team.



Jack Maher

My name is Jack Maher and I will be attending the University of Wisconsin-Madison this upcoming year, majoring in biomedical engineering. I aspire to develop cutting-edge biotechnology, having specific interests in tissue and cellular engineering. Next year I also hope to participate in the University of Wisconsin-Madison Marching Band as a trumpet player. I am incredibly grateful for this amazing scholarship from the American Institute of Chemical Engineers, helping me reach my goals as a future innovator.



VOL:22, ISSUE I

"SAVE THE DATE"

AICHE 2020 AICHE Midwest Regional Conference Chicago, IL – March 11-12, 2020 Hosted by Illinois Institute of Technology Organized by Chicago Local Section of AICHE

The AIChE Midwest Regional Conference continues into its 12th consecutive year, with the Chicago Local Section organizing a conference that provides an opportunity for engineers and scientists in the region to learn about new technologies, as well as of-fer a relaxed atmosphere for networking.

Important Dates

-	
Call for Oral Contributions Opens	August 30, 2019
Call for Oral Contributions Closing Date	October 31, 2019
Notice of Acceptance of Oral Contributions	December 1, 2019
Call for Poster Contributions Closing Date	January 16, 2020
Notice of Acceptance of Poster Contributions	January 23, 2020
Registration Site Opens	November 7, 2019
Early-Bird Registration Deadline	January 31, 2020
Pre-Registration Deadline (On-site rates begin)	February 29, 2020

Updated information at:

https://www.aiche.org/community/sites/local-sections/chicago/new-mrc12-2020

Volunteer Opportunities

Interested in helping with MRC 12? Contact the Conference Chair and we'll find a role that is of your inter-est. This is a great occasion to meet new friends and help your technical community.

Submission questions?

Contact the Programming Chair at chmielewski@iit.edu

F&PD Sessions @ 2019 AIChE Annual Meeting, Orlando

There are sixteen F&PD-sponsored/co-sponsored sessions at the 2019 Annual Meeting. F&PD sponsored eleven topic sessions (with 70 oral presentations) and one poster session (with 10 posters). In addition, F&PD co-sponsored four topical sessions (with 28 oral presentations).

Among the topic sessions, four new topics are introduced this year to broaden the technical scope of the division program: 1) 3D Printing Applications in Catalysts, Reactions, and Energy Industry (7 oral presentations), 2) Advances in Methane Coupling Reaction and Aromatization (8 oral presentations), 3) Biomass Thermal Deconstruction via Fast Pyrolysis (6 oral presentations), and 4) Environmentally Friendly Product and Process Development for Sustainability (7 oral presentations). All these topics are very relevant for F&PD and the sessions have attracted important contributions from industry, academia and national laboratories.

A brief schedule of these sixteen F&PD sessions is given below. Please do join us in Orlando.

o SUNDAY, NOVEMBER 10, 2019

3:30 PM - 6:00 PM

<u>8 3D Printing Applications in Catalysts, Reactions, and Energy Industry</u> (Topical Conference: Next-Gen Manufacturing; Co-Sponsors: Area 20 - Catalysis and Reaction Engineering Division; Area 02 - Separations Division; Area 07 - Transport and Energy Processes)

o MONDAY, NOVEMBER 11, 2019

8:00 AM - 10:30 AM <u>64 Developments in Catalytic Conversion to Chemicals</u> (Co-Sponsors: Area 20 - Catalysis and Reaction Engineering Division)

12:30 PM - 3:00 PM <u>129 Developments in Electrochemical Reactors, Fuel Cells, and Electrolyzers</u> (Co-Sponsors: T4C - Hydrogen Production and Storage; T4E - Alternative Energy & Enabling Technologies; Area T4F - BioFuels)

3:30 PM - 6:00 PM <u>01 Developments in Petroleum and Biofuels Refining Technologies</u> (Co-Sponsors: Area T4F - BioFuels)

o TUESDAY, NOVEMBER, 2019

8:00 AM - 10:30 AM <u>258 Conceptual Process Design in Refining, Petrochemicals and Gas Processing</u> (Co-Sponsors: Area 12A - Process Research and Innovation) 12:30 PM - 3:00 PM

308 Advances in Methane Coupling Reaction and Aromatization

(Topical Conference: Advances in Fossil Energy R&D; Co-Sponsors: Area 20 – Catalysis and Reaction Engineering Division)

<u>358 Refining and Petrochemical Plant Modelling and Operations Improvements</u> (Co-Sponsors: Area 02A – Distillation and Absorption)

3:30 PM - 6:00 PM <u>390 Biomass Thermal Deconstruction via Fast Pyrolysis Biorefineries</u> (Sustainable Engineering Forum; Co-Sponsors: Area T6B - Process Intensification & Modular Chemical Processing) Top of Form

398 Developments in Shale Gas, LNG, CNG, and LPG

o WEDNESDAY, NOVEMBER 13, 2019

8:00 AM - 10:30 AM

<u>459 Environmentally Friendly Product and Process Development for Sustainability</u> (Co-Sponsors: Area 09 - Environmental Division; Area 23 - Sustainable Engineering Forum; Area 09G - Sustainability; Area 12 - Process Development Division)

<u>480 Properties and Phase Equilibria for Fuels and Petrochemicals I</u> (Co-Sponsors: Area 01A - Thermodynamics and Transport Properties)

12:30 PM - 3:00 PM <u>547 Properties and Phase Equilibria for Fuels and Petrochemicals II</u> (Co-Sponsors: Area 01A - Thermodynamics and Transport Properties)

3:30 PM - 5:00 PM 563 Poster Session: Fuels and Petrochemicals Division

o THURSDAY, NOVEMBER 14, 2019

8:00 AM - 10:30 AM 636 Developments in Shale Oil, Oil Sands and Other Heavy Fuels

12:30 PM - 3:00 PM **<u>684 Developments in Alternative Fuels and Enabling Technologies I</u>** (Co-Sponsors: Area T4E - Alternative Energy & Enabling Technologies)

3:30 PM - 6:00 PM

<u>723 Developments in Alternative Fuels and Enabling Technologies II</u> (Co-Sponsors: Area T4E - Alternative Energy & Enabling Technologies)

By: Chau-Chyun Chen

F&PD Officers Contact Information

POSITION	ALIASES ADDRESS	Name
Chair	fpdchair@aiche.org	Saadet Ulas Acikgoz
1 st Vice Chair	fpd1vchair@aiche.org	Ahmed Khogeer
2 nd Vice Chair	fpd2vchair@aiche.org	Debalina Sengupta
Past Chair	fpdpastchair@aiche.org	Bill Rooney
Secretary	fpdsec@aiche.org	Clayton Sadler
Treasurer	fpdtreasurer@aiche.org	Ellen Arnold
Communications Director	fpdcommdir@aiche.org	Azita Ahmadzadeh
Webmaster	fpdweb@aiche.org	Abyar Aejaz
Newsletter Editor	fpdnewsletter@aiche.org	Sarika Goel
Director – YP Liaison	fpdypliaison@aiche.org	Sharon Maydak
Programming Chair	fpdprograming@aiche.org	Jeffery Gaspard
Director – HS Scholarship	fpdHS-scholar@aiche.org	Sheima Khatib
Director – University Scholarship	fpduniv-scholar@aiche.org	Sheima Khatib
Director (2017-2020)		Mahdi Nouri
Director (2017-2020)		Dominic Varraveto
Director (2018-2021)		John Senetar
Director (2018-2021)		Nicholas Urbanski
Director (2019-2022)		Beth Carter
Director (2019-2022)		Francesco Coletti
Director (2019-2022)		Chris Buehler
CTOC Liaison		Virginia Sommer