

Fuels & Petrochemicals Programming Grid

Sunday, March 31st	
6:00 PM – 7:30 PM	2019 AIChE Spring Meeting and 15th GCPS Opening Reception Grand Salon & Grand Ballroom A/B
Monday, April 1st	
7:00 AM	2019 AIChE Spring Meeting and 15th GCPS AGILE Keynote Continental Breakfast Grand Ballroom C/D
8:00 AM	2019 AIChE Spring Meeting and 15th GCPS Opening Plenary Session: Kim Ogden, AIChE President and June C. Wispelwey, AIChE CEO & Executive Director Grand Ballroom C/D
8:15 AM	2019 AGILE Award Keynote Address Grand Ballroom C/D Keynote Address: “Embracing Transitions Today – Assuring a Robust Future Tomorrow” Presented by Sharon Beshouri , VP Catalyst, Analytical and Refining Technology; Chief Engineer R&D Technical Function; President, Shell Global Solutions (US) Inc.
9:00 AM	Coffee and Networking Break Grand Salon & Grand Ballroom A/B
9:30 AM	Industry 4.0 Plenary - Impact of AI in the Industry 4.0 Era Churchill C1 Chair: Leo Chiang , The Dow Chemical Company Co-Chair: Scott McWhorter , Savannah River National Lab “Artificial Intelligence in Chemical Engineering: Quo Vadis?” Presented by Venkat Venkatasubramanian , Professor of Chemical Engineering, Columbia University “McKinsey on the Next Digital Leap to AI” Presented by Sam G. Samdani , Global Chemicals & Agriculture Practice, McKinsey & Company
10:30 AM	Session #13: Fuels & Petrochemicals Division and Big Data Joint Keynote Address Churchill C1 Chair: Saadet Ulas Acikgoz Co-Chair: Ivan Castillo Keynote Address: “Application of Big Data Analytics / Artificial Intelligence / Machine Learning & Cloud Computing in Refining & Petrochemicals” Presented by Paul Bonner , Vice President of Consulting & Data Analytics, Honeywell Connected Plant
12:00 PM	AIChE Spring Meeting & GCPS Luncheon with Speaker: Bruce Chinn , President, Chevron Oronite Company LLC Grand Ballroom C/D “Inclusion & Diversity: An Innovation Imperative”

FUELS & PETROCHEMICALS PROGRAMMING GRID

Monday, April 1st (continued)					
	Simulations/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	*No programming at this time.	Session #29: Refinery Profitability, Flexibility, and Optimization I Magazine Chair: Kirtan K. Trivedi Co-Chairs: Jayce Mathews and Honglin Qu	*No programming at this time.	Session #16: Developments in Biopetrochemicals I Royal Chair: Asanga B. Padmaperuma Co-Chair: Gokhan Celik	Session #19: Gas Utilization Topical Conference Keynote Commerce Chair: Jeffery Gaspard
1:30 PM–3:00 PM		Robust Operational Optimization of Crude Oil Distillation Systems <i>Xiao Yang</i> Performance of Bimetallic Hydroprocessing Catalysts for LCO Upgrading in Liquid-Full Isotherming Reactors <i>Hasan Dindi</i> Optimising Chemical Cleaning of Heat Exchangers <i>Francesco Coletti</i>		Techno-Economics of Catalytic Conversion of Ethanol to Chemical Grade n-Butanol and 1-Hexene <i>Steven D. Phillips</i> Estimating Reid Vapor Pressure for Mixtures of Oxygenates Blended in a CA-Rbob <i>Steven D. Phillips</i> Quantifying the Impact of Catalyst Architecture on Yield and Activity Lifetime through Mesoscale Modeling and Simulation <i>Peter N. Ciesielski</i>	Exploring Options for Cryogenic NGL Recovery from Natural Gas with Emphasis on Process Optimization <i>Mahdi Nouri</i>
3:00 PM	Coffee and Networking Break Grand Salon & Grand Ballroom A/B				

Monday, April 1st (continued)

	Simulations/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	*No programming at this time.	<p>Session #47: Refinery Profitability, Flexibility, and Optimization II Magazine</p> <p>Chair: Kirtan K. Trivedi Co-Chairs: Jayce Mathews and Honglin Qu</p>	<p>Session #52: Women in Fuels and Petrochemicals Parish</p> <p>Chair: Lori McDowell Co-Chairs: Saadet Ulas Acikgoz and Cristina Thomas</p>	<p>Session #42: Developments in Biopetrochemicals II Royal</p> <p>Chair: Asanga B. Padmaperuma Co-Chair: Gokhan Celik</p>	<p>Session #48: Simulation, Optimization and Controls for LNG Applications Commerce</p> <p>Chair: Matthew J. Okasinski Co-Chair: Vinod Rajkumar</p>
3:30 PM – 5:00 PM		<p>Innovative Catalyst Solutions to Improve Refining Margins <i>Hemendra Khakhar</i></p> <p>Mass Balance and Loss Control, A Study in the Process to Identify and Quantify Losses at a Refinery and Best Practices for Managing These Losses <i>Julie Valentine</i></p> <p>Improve Refinery Profitability with Modus Technology <i>R.E. (Ed) Palmer</i></p>	<p>Panelist: <i>Sharon Beshouri, Shell Global Solutions (US) Inc.</i></p> <p>Panelist: <i>Meagan Lewis, Honeywell UOP</i></p> <p>Panelist: <i>Meredith Lansdown, Chevron</i></p> <p>Panel Discussion, Moderated by <i>Lori McDowell, Matheson</i></p>	<p>Molecular Modelling of Co-Processing Biomass Pyrolysis Oil with Vacuum Gasoil in an Oil Refinery Fluid Catalytic Cracking Unit <i>Mohamed Al Jamri</i></p> <p>The Process Chemistry of Lipid Hydrodeoxygenation <i>Ramin Abhari</i></p>	<p>Safer and Improved Process Design of LNG Plants Using Dynamic Simulation <i>Dimitrios Georgis</i></p> <p>Design and Operability Analysis of Multi-Tank Boil Off Gas Compressor System Using Dynamic Simulation <i>Subhash Patil</i></p> <p>Optimum Compressor Controls for Closed Loop Refrigeration <i>Matthew Okasinski</i></p> <p>Multi-Variable LNG Optimization Using Parallelized Simulator with Integrated Optimizer <i>Trevor Rice</i></p>
5:00 PM – 7:00 PM	<p>Sessions #54 – 59: AIChE Spring Meeting & GCPS Poster Sessions and Networking Reception (Includes Electronic Presentations of Select Posters and Meet the Industry Candidates Poster Session) Grand Salon & Grand Ballroom A/B</p> <p>Chair: Kirtan Trivedi</p>				

FUELS & PETROCHEMICALS PROGRAMMING GRID

Tuesday, April 2nd					
	Simulations/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	Session #72: Plant Simulation and Design I Canal Chair: Eberhard Lucke Co-Chairs: Andrew W. Sloley and Jialin Xu	Session #73: Process Reliability and Data Analytics I Magazine Chair: Tim Olsen Co-Chairs: Ahmed Khogeer and Barnali Bhattacharjee	*No programming at this time.	Session #63: Developments in Aromatics and C3-C5 Petrochemicals Royal Chair: John Senetar Co-Chair: Ammar Bakheet	Session #69: LNG Facility Design and Operations Commerce Chair: Steven Vallee Co-Chair: Jeffery Gaspard
8:00 AM – 9:30 AM	Applying Modeling/Simulation to Deliver Insight, Understanding, and Economic Value <i>Stephen Tieri and Paul M. Braswell</i> Tracking the Impact of Operating Condition Changes across Refinery Units <i>Pedro Rojas</i> An Integrated MINLP Model of Simultaneous Crude Procurement Planning and Movement Scheduling for Refineries <i>Honglin Qu</i>	Using Big Data Techniques to Tackle Refining Reliability and Optimization <i>Johnny Gipson</i> Transforming Abundant Data into Improved Process Reliability <i>Tim Olsen</i> Digital Plant: The Convergence of Process and Operational <i>Tim Holtan</i>		Controlling Deactivation of ZSM-5 Catalysts in the Methanol-to-Hydrocarbons Reaction By Co-Feeding Water <i>Jose Valecillos</i> Demonstrating Sandwich Packing Performance in Butadiene Extraction Units <i>Gustavo A. Lozano</i> Kinetic Modeling and Reaction Pathways of C ₂ to C ₇ Olefin Transformation over an H-ZSM-5 Catalyst <i>Felix Warnecke</i>	Novel Energy-Efficient Configurations of LNG Cascade Refrigeration Cycles Based on Structural Modifications <i>Fernando Almeida-Trasvina</i> A New, Powerful Technology: Integrated LNG to Power <i>Scott Schroeder</i> Maintaining Optimum Process Trains Operation Mode to Achieve Specified LNG Product Quality during Feed Gas Entrance <i>Fajar Singgih Kurnia Putra</i> Liquefaction Technology Selection for Mid-Scale LNG Plants <i>Yoshitsugi Kikkawa</i>
9:30 AM	Coffee and Networking Break Grand Salon & Grand Ballroom A/B				

Tuesday, April 2nd (continued)

10:15 AM – 11:45 AM **Session #87: F&PD Executive Panel: Embracing the Challenge: Meeting the Global Demand for More and Cleaner Energy - Panel Discussion**
 Churchill C1
Chair: Frank L. Del Nogal
Panelists Include:
Laurel Harmon, Vice President, LanzaTech
Debalina Sengupta, Associate Director, Texas A&M's Gas and Fuels Research Center
Doris Fujii, Carbon Management Project Lead, BP America
Cary Garcia, Demand Forecaster, California Energy Commission's Energy Assessments Division

11:45 AM **AIChE Spring Meeting & GCPS Luncheon with Speaker: Sunita Satyapal, Director, U.S. Department of Energy's Fuel Cell Technologies Office, Office of Energy Efficiency and Renewable Energy**
 Grand Ballroom C/D
"Innovation and Emerging Technology Perspectives in Hydrogen and Fuel cells at the U.S. Department of Energy"

	Simulations/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	Session #111: Plant Simulation and Design II Canal Chair: Eberhard Lucke Co-Chairs: Andrew W. Stoley and Jialin Xu	Session #113: Process Reliability and Data Analytics II Magazine Chair: Tim Olsen Co-Chairs: Ahmed Khogeer and Barnali Bhattacharjee	Session #100: Carbon Management and Sustainability I Royal Chair: Brian Kolodji Co-Chair: Debalina Sengupta	Session #105: In Honor of Bipin Vora (Invited Talks on Olefin & Detergent Technologies) Fulton Chair: Dennis O'Brien Co-Chairs: Meagan Lewis and Ellen Arnold	Session #109: LNG Safety Commerce Chair: Christopher S. Buehler Co-Chair: Yoshitsugi Kikkawa
1:30 PM – 3:00 PM	Rate-Based Column Simulation in the Complex Domain <i>Jaeide B. Jawahill</i> Modelling of an Industrial Trickle Bed Reactor for Mapd Selective Hydrogenation with CFD Assistance <i>Emerentino B. Quadro</i> Molecular Composition Modelling of Vacuum Gas Oils Via a Molecular Reconstruction Approach <i>Luis Pereira de Oliveira</i>	Fault Isolation Using a Multiscale PCA Reconstruction-Based Approach <i>Byanne Malluhi</i> Fouling Early Detection in Ethylene Plant Steam Turbines <i>Maddalena Pondini</i>	California Energy Commission Integrated Energy Policy Report <i>Cary Garcia Jr.</i> Effects of Elevated CO ₂ Concentrations on Yields of Agricultural Crops <i>Bruce Kimball</i>	The Development of the Detal Process <i>Miguel A. Calderon</i> The Origin, Development and Commercialization of the UOP Oleflex™ Process, Bipin Vora's Vision and Leadership in Making It Happen <i>James A. Johnson</i> The Research, Development and Commercialization of the Methanol-to-Olefins (MTO) Process <i>John Senetar</i> The Development and Commercialization of the Oleflex Process Unit <i>Dennis O'Brien</i>	Sensitivity Analysis of Transport Conditions on Liquefied Gas Hazards <i>Jessica M. Morris</i> CFD-Based Probabilistic Explosion Hazard Analysis As an Early Tool to Improve FLNG Design <i>Scott Davis</i> Time to Consequence Simulation in LNG Facility <i>Haribabu Chittibabu</i>

3:00 PM **Coffee and Networking Break**
 Grand Salon & Grand Ballroom A/B

FUELS & PETROCHEMICALS PROGRAMMING GRID

Tuesday, April 2nd (continued)					
	Simulations/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	Session #137: Process Control and Optimization Developments I Canal Chair: Mark Darby Co-Chair: M. Nazmul Karim	Session #138: Processing Unconventional Crudes / Alternative Fuels <i>Magazine</i> Chair: Michael Stern Co-Chairs: Abyar Aejaz and Phuong Do	Session #127: Carbon Management and Sustainability II <i>Royal</i> Chair: Brian Kolodji Co-Chair: Debalina Sengupta	*No programming at this time.	Session #124: Advances in Gas Processing Design, Purification, and Separation <i>Commerce</i> Chair: Mahdi Nouri Co-Chair: Matthew Okasinski
3:45 PM – 5:15 PM	Unique Applications for Embedded Model Predictive Control Technology <i>James Beall IV</i> Linear Control in a Nonlinear World (A Practical Perspective) <i>Keith A. Lehman</i> Shifting Real Time Optimization Tasks to Plant-Wide APC Layer By Introducing Unconstrained and Constrained Optimum Concepts <i>James Wu</i>	Impact of Time on Asphaltene Destabilization Detection in Unconventional Fuels <i>Claudio Vilas Boas Favero</i> Heavy Oil Reforming <i>Girish Srinivas</i> Producing Renewable Distillate Products in Refineries <i>Edward McCoy, Suzy Anderson and Christopher Ploetz</i> Development of Thermodynamic Parameters for Amine-Containing H ₂ S Scavengers <i>Linh Doan</i>	A Practical System for Enrichment of CO ₂ in Ambient Air for Commercial Agriculture <i>George Hendrey</i> Profit from Flue Gas to Increase Crop Yields <i>Brian Kolodji</i> California Department of Food and Agriculture Carbon Management Leadership <i>Amrith Gunasekara</i>		Rational Screening of Adsorbents for Natural Gas Upgrading By Pressure Swing Adsorption Using Dynamic Simulation of Process Performance Metrics <i>Taehun Kim</i> Shortcut Modeling of Natural Gas Supersonic Separation <i>Wajdi Alnoush</i> Natural Gas Decomposition and Separation of Solid Carbon and Hydrogen Products in High Temperature Molten Salts <i>Eric McFarland</i>

Wednesday, April 3rd

	Simulation/Control	Refinery Processing	Environment and Sustainability	Petrochemicals	Gas Utilization
	Session #153: Process Control and Optimization Developments II Canal Chair: Mark Darby Co-Chair: M. Nazmul Karim	Session #156: YP Session - Soft Skills Magazine Chair: Diane Hayes Co-Chair: Roomi Kalita	Session #148: Energy Conservation I Royal Chair: Francesco Coletti Co-Chair: Andrew W. Sloley	*No programming at this time.	Session #154: Syngas Processing and Technology Development I Commerce Chair: Hebab Quazi Co-Chairs: Eric Peterson and Belma Demirel
8:00 AM – 9:30 AM	Open Process Automation: Unlocking Value Capture with Next Generation DCS <i>Bradley Houk</i> The 8 Rules for Successful Controls Implementations <i>Michael Taube</i> A New Look at Industrial Incidents Driving Operating Discipline in the Control Environment <i>Tom Nolan</i>	Soft Skills for Young Professionals <i>Shweta Karwa</i> The Trusted Advisor: A Model for Career Success <i>Elliott Robertson</i> Networking Strategies to Propel Your Career <i>Joseph Hernandez</i> Engineering Creative Thinking <i>Meha Jha</i>	Estimation of Fouling Threshold Parameters for Crude Oil Heat Exchanger Networks Using Data Reconciliation and Gross Error Detection <i>José Loyola-Fuentes</i> Application of Plate Heat Exchangers into Crude Oil Preheat Trains <i>Kexin Xu</i> Utilizing Smart Meter Verification for Greenhouse Gas Emissions Reporting <i>Meha Jha</i>		Minimizing CO ₂ production during Syngas Catalysis Mediated By Nano-Sized Iron Supported on Silica Spheres <i>Lyufei Chen</i> Comparison of Equilibrium Constant of the Reaction Water Gas Shift (WGS) for Determination of the Conversion of the Reaction <i>Vagner dos Santos</i> Process Optimization of Drm+Cosorb Process for Syngas Production <i>Shaik Afzal</i>
9:30 AM	Coffee and Networking Break Grand Salon & Grand Ballroom A/B				

FUELS & PETROCHEMICALS PROGRAMMING GRID

Wednesday, April 3rd (continued)					
	Simulations/Control	Operations	Environment and Sustainability	Petrochemicals	Gas Utilization
	Session #171: Process Control and Optimization Developments III Canal Chair: Mark Darby Co-Chair: M. Nazmul Karim	Session #173: Projects and Resource Monetization Magazine Chair: Azita Ahmadzadeh Co-Chair: Roomi Kalita	Session #166: Energy Conservation II Royal Chair: Francesco Coletti Co-Chair: Andrew W. Sloley	*No programming at this time.	Session #175: Syngas Processing and Technology Development II Commerce Chair: Hebab Quazi Co-Chairs: Eric Peterson and Belma Demirel
10:15 AM – 11:45 AM	Use of Nonlinear and Machine Learning Techniques for Improved APC Modeling <i>Junho Park</i> Compressor Surge Modeling and Control <i>Gregory McMillan</i> A Model-Centric Framework for the Smart Manufacturing of Polymers <i>Santiago D. Salas</i>	Cost Estimating Benchmarks for Brownfield Automation Capital Projects. Determining What Your Project Really Costs <i>Laurie Ben</i> The Journey Towards 2030, Are We There Yet? An Impact of 2030 Vision and 2020 Transformation Program on Energy, Infrastructure and Other Projects in the Region <i>Ahmed Khogeer</i> Oil-to-Chemicals Pathways Renewed By Separations and Catalysis <i>Armen Abazajian</i>	Heat Exchanger Fouling and Cleaning Analysis for Complex Network <i>Yanling Wu</i> Performance Evaluation of Alternative Technologies for Fouling Mitigation in Refinery Pre-Heat Trains <i>Francesco Coletti</i> Crude Unit Fouling: Consequences and Costs <i>Andrew W. Sloley</i>		Dry Reforming of Methane: An Alternative Option for Carbon Capture <i>Mohamed Sufiyan Challiwala</i> Fischer-Tropsch Synthesis: Product Distribution, Operating Conditions, Iron Catalyst Deactivation and Catalyst Speciation <i>Joshua Gorimbo</i> Solar Thermochemical Splitting of H ₂ O/CO ₂ Using Sol-Gel Derived Ferrite Materials <i>Rahul Bhasale</i>
11:45 AM	AIChE Spring Meeting & GCPS Luncheon with Speaker: Gavin Towler , Vice President and Chief Technology Officer, Performance Materials Technologies, Honeywell Grand Ballroom C/D “Integrated Safety Management - Taking Safety Performance to the Next Level”				

Wednesday, April 3rd (continued)

	Simulations/Control	Operations	Environment and Sustainability	Petrochemicals	Gas Utilization
	<p>Session #186: Process Control Monitoring and Analytics <i>Canal</i></p> <p>Chair: Mark Darby Co-Chair: Swapnil Fegade</p>	*No programming at this time.	<p>Session #184: Environmental and Water Solutions Royal</p> <p>Chair: Swapnil Fegade Co-Chairs: Eberhard Lucke and Diane Hayes</p>	*No programming at this time.	<p>Session #185: LNG Storage and Transportation Management Commerce</p> <p>Chair: Frank L. Del Noyal Co-Chair: Steven Vallee</p>
1:30 PM – 5:00 PM	<p>Controlling Alarm Floods to Meet ISA 18.2 Metrics <i>Erin Daly</i></p> <p>Specifying Control Valve Performance to Achieve Desired Process Performance <i>James Beall IV</i></p> <p>Monitoring Process Degradation through Operating Regime Based Process Monitoring <i>M. Ziyen Sheriff and Mohamed Nounou</i></p> <p>“Data Scientist in a Box” for The Industrial Practitioner <i>Aswin N. Venkat</i></p> <p>Detection and Isolation of Abnormal Event in Nonlinear Industrial Processes By a Novel Data-Based Method <i>Chiranjivi Botre</i></p>		<p>Aligning Business Drivers to Create Win-Win Water Reuse Partnerships between Refineries and Municipalities <i>Nick Johnson</i></p> <p>Investigation of Hydrocarbon Utilization By <i>Debaryomyces Hansenii</i> (LAF-3 10 u) in Desalter Effluent <i>Leila Azimian</i></p> <p>Energy and Exergy Analysis of a Single Evacuated Tube Heat Pipe Solar Collector Applicable for the Solar Powered Desalination <i>Gorakshnath Takalkar</i></p> <p>Impact of Nutrients on Water Environment: Control Technologies and Policy <i>Somnath Basu</i></p> <p>Optimization of Alkaline Peroxide Pretreated Rice Husks Using Response Surface Methodology <i>Zhixuan Wang</i></p>		<p>Jetty Bog Recovery <i>Yoshitsugi Kikkawa and David Hill</i></p> <p>Analysis of Process Dynamics During Transient Operations on LNG Vessel Gas Management System <i>David Hill</i></p> <p>A CFD Study of LNG Boil-Off Consider Both Heat Leakage and Vibration Effect <i>Xingchun Wang</i></p> <p>Optimal Operation for LNG Multiple Ship Tanks Commissioning and Uploading Via Rigorous Dynamic Simulations <i>Song Wang</i></p> <p>Operations Improvement in LNG Re-Gasification Terminal through Corrected Storage Tank Model <i>Mohd Shariq Khan</i></p>