Dr. Leo H. Chiang
Technology Director
The Dow Chemical Company
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Location: D3 W122

Unlocking Value with AI – An Industrial Perspective

Abstract: To ensure safety, reliability, and productivity of industrial processes, artificial intelligence (AI) and data science techniques have been widely used in process industries for decades and the benefits of process monitoring and control are well documented. In the current Industry 4.0 era, AI propels advancement in a wide range of applications including image analysis, text analytics, and real-time analytics. This talk will highlight future research direction and how academia plays a critical role to educate both undergraduate and graduate students in data science.

Biography: Dr. Leo H. Chiang is the Technology Director at The Dow Chemical Company, leading chemometrics and big data analytics implementations for manufacturing. He has developed several data analytics techniques to solve complex manufacturing problems, resulting in 11 Dow Manufacturing Technology Center Awards. In 2016, he received the Dow R&D Excellence in Science Award in recognition of his scientific achievement in industrial research. He has a BSc from U. Wisconsin at Madison, M.S. and Ph.D. degrees in chemical engineering from U. Illinois at Urbana-Champaign. He has published over 40 peer reviewed journal/proceeding papers and has given more than 100 conference presentations and university lectures. Leo has co-authored two books published by Springer Verlag. His textbook, *Fault Detection and Diagnosis in Industrial Systems*, is available in English and Chinese and has received more than 2000 citations according to Google Scholar. Leo is active in the American Institute of Chemical Engineers (AIChE), having served as 2014-2016 Computing and Systems Technology (CAST) director, 2016 CAST 10E programming chair, and 2017-2018 AIChE spring meeting program chair (MPC). Leo was instrumental in setting up the Big Data Analytics Topical Conference (2015 to 2017) and the Industry 4.0 Topical Conference (2018) at the AIChE spring meeting. He was recognized by AIChE with the 2016 Herbert Epstein Award for his leadership on Big Data Analytics technical programming and the 2016 Computing Practice Award for his world-class leadership in the development and application of methodologies in analytics for batch and continuous processes known as Big Data.