

# Smart Manufacturing – What it is, Why it Matters, and How to Get Started

## Speaker Bios



B. Wayne Bequette is a Professor of Chemical and Biological Engineering and Technology Manager for the Smart Manufacturing Innovation Center (SMIC) at Rensselaer Polytechnic Institute, where his research efforts are focused on the modeling and control of chemical process, biomedical, biopharma and food manufacturing systems. He serves as the Board Secretary for the American Automatic Control Council (AACC) and as a Trustee of the Computer Aids for Chemical Engineering (CACHE) Corporation. Dr. Bequette is a founding member of the Editorial Board of the Journal of Diabetes Science and Technology, and serves on the Editorial Board of Industrial & Engineering Chemistry Research. He is a Fellow of IEEE, AIChE and the American Institute of Medical and Biological Engineers (AIMBE), and was inducted into the Arkansas Academy of Chemical Engineers.

Dr. Bequette received his BS from the University of Arkansas, and his PhD from the University of Texas, both in chemical engineering. He is the author of *Process Control: Modeling, Design and Simulation* (2003); and *Process Dynamics: Modeling, Analysis and Simulation* (1998), both published by Prentice Hall. His extracurricular activities include bicycling and pole-vaulting (where competition in the Master's Division denotes age rather than skill level).



Sam Chiappone is the Director of Manufacturing Innovation for the School of Engineering (SOE) at RPI. As director, Sam works with administration and faculty to provide strategic vision that guides the direction of the manufacturing classes and facilities within SOE. Sam ensures manufacturing programs align with the SOE vision, Accreditation Board for Engineering and Technology requirements, and current industry practices. He is an instructor or part of a teaching team for various manufacturing classes at the graduate and undergraduate level. Sam is past chairperson of the Society of Manufacturing Engineers CH20 and currently serves as advisor for Rensselaer's Student Chapter of SME, S141. Sam is also a past University Representative on the Haas Technical Education Council.



Craig Dory is Director of CESMII's Northern Smart Manufacturing Innovation Center (SMIC) hosted at Rensselaer Polytechnic Institute (RPI) in Troy, New York, a Smart Manufacturing Center of Excellence. There, he leads the SMIC's efforts to build and operate a rich Smart Manufacturing R&D and demonstration facility, create an agile Smart Manufacturing learning environment for RPI students, and connect manufacturers with a broad range of resources to help democratize and accelerate adoption of Smart Manufacturing technologies and systems.

Prior to his work with CESMII, Craig was Director for Business Development for the Center for Automation Technologies and Systems (CATS) at RPI, an Institute-wide research center focused on industrially driven topics in advanced manufacturing. He started his career in the telecommunications industry at AT&T Bell Laboratories in Holmdel, New Jersey, and went on to found Dorian Recordings, an international award-winning classical-music record label.

Craig earned a B.S. in Mathematics from Iowa State University and an M.S. in Industrial and Operations Engineering from the University of Michigan. He is an avid sports and nature photographer and, on occasion, dusts off his sax to play some jazz.



John Dyck was appointed CEO of CESMII - The Smart Manufacturing Institute, in June of 2018. CESMII is a Manufacturing USA Institute chartered with transforming the U.S. manufacturing market and increasing global competitiveness through the democratization of Smart Manufacturing technologies, knowledge, and business practices.

John brings a highly pragmatic perspective to CESMII, and a crisp focus on outcomes that will benefit the Nation's energy and economic security by sharing existing resources and co-investing to accelerate development and commercial deployment of innovative technologies. He was recognized by the Society of Manufacturing Engineering (SME) in 2020 as one of '30 Leaders Transforming Manufacturing in the USA'.

Prior to joining CESMII, John held senior leadership positions in large corporations like GE and Rockwell Automation, and was effective in raising VC funding and building a successful software startup called Activplant.



Michael Hughes is a member of the director team heading up the [Rensselaer at Work](#) division of RPI that delivers online, faculty-mentor-led graduate degrees and certificates for mission critical employees and the organizations that depend on them. In addition to teaching project-based classes across mechanical and systems engineering curricula, he has spearheaded the development of more than a dozen programs aimed at the needs of working professionals and believes in finding new ways to build partnerships between academia and industry. He holds a PhD and bachelor's degree in mechanical engineering with a focus on modeling, simulation, and solar energy.



Aaron Muhl is passionate about helping manufacturing companies achieve maximum return with their smart manufacturing initiatives by aligning technology, processes, and culture. His vision is to help clients thrive and win in today's complex competitive landscape. He founded Toward Zero in 2015, backed by more than 25 years' industry experience. He continues to leverage his network of resources and put it to work helping companies understand the opportunities available with select technology, implementation, and change management. Aaron's extensive background in management, manufacturing technology, and systems architecture has also helped him drive enterprise communication standards for manufacturing as a voting member of ISA-95 for over 12 years. Earlier in his career, Aaron held key engineering and management roles for companies like Siemens and GE, and led engineering groups focused on automation and manufacturing systems.



Jim Wetzel is a proven manufacturing-industry executive in leading change, creating vision and influencing the organization into action. He's an experienced Technical leader with a demonstrated history of working in the consumer goods industry and Smart Manufacturing. Jim was chairman of the board of the Smart Mfg Leadership Council (SMLC) and interim CEO of CESMII (Clean Energy Smart Manufacturing Innovation Institute). He spent 6 years in the plastics industry and 32 years at General Mills – Director of Engineering – Global Reliability. In this role, he was responsible for improving the company's existing global asset base, focusing on technology, standardization, reliability and maintenance, and energy reduction.

Jim is the co-founder of the NxGen Group, focused on assisting manufacturing organizations to evolve in response to today's 21st-century competitive environment of continuous disruption.



Don Wiesenforth, Senior Vice President, Business Growth Solutions and Center Director for the Manufacturing Extension Partnership (MEP)

Don is a seasoned leader with over twenty-six years of diverse professional experience including as owner and president of a local manufacturing company, founder and partner of an exhibition management company, leading a lean transformation in healthcare, as well as a strategic business advisor to manufacturing and technology companies.

Throughout his career, Don has been successful using the servant leader mindset to drive staff engagement, operations excellence, and change management. Don is a certified TWI (Training within Industry) Job Instruction, Job Relations and Job Method Improvement Instructor, a certified Innovation Engineering blackbelt through the NIST Manufacturing Extension Partnership, and a highly experienced lean leader/practitioner. Don holds a Master of Business Administration from the State University of New York at Albany and a Bachelor of Science from Bentley College with a major in Marketing Management.