

# ISMI 2018 & IEEE SMILE 2018

International Symposium on Semiconductor Manufacturing and  
Intelligence & IEEE International Conference on Smart Manufacturing,  
Industrial & Logistics Engineering

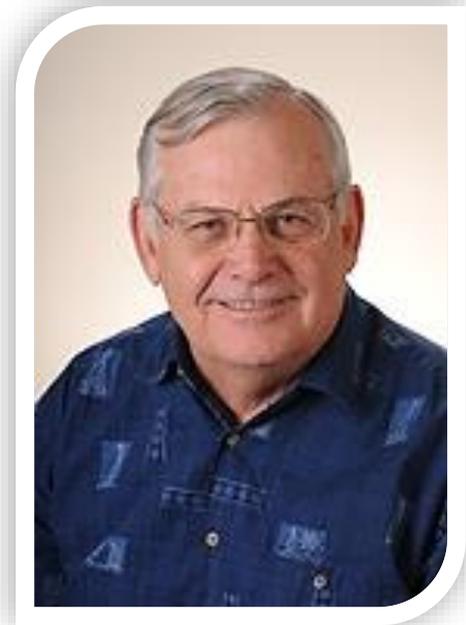


February 7-9, 2018, Hsinchu, Taiwan

## Keynote Speech (V)

### From Smart Machines to Smart Supply Chains: Some Missing Pieces

LEON MCGINNIS is Professor Emeritus in the Stewart School of Industrial and Systems Engineering at Georgia Tech where he remains active in teaching and research. He is internationally known for his leadership in the material handling research community and his research in the area of discrete event logistics systems. A frequent speaker at international conferences, he has received several awards from professional societies for his innovative research, including the David F. Baker Award from IIE, the Reed-Apple Award from the Material Handling Education Foundation, and the Material Handling Innovation Pioneer award from Material Handling Management Magazine. He is author or editor of eight books, one journal special issue, and more than 110 technical publications. At Georgia Tech, Professor McGinnis has held leadership positions in a number of industry-focused centers and multi-disciplinary programs, including the Material Handling Research Center, the Computer Integrated Manufacturing Systems Program, the Manufacturing Research Center, the Sustainable Design and Manufacturing Program, the Tennenbaum Institute for Enterprise Transformation, and the Model-Based Systems Engineering Center. His current research explores the adaptation of Model Driven Architecture, formal systems modeling methods and model-to-model integration to support model based decision making in the engineering of discrete event logistics systems. Professor McGinnis is a Fellow of the Institute of Industrial Engineering.



Leon F. McGinnis  
Professor Emeritus  
Georgia Institute of Technology

**Abstract**—In product design, the “digital thread” concept is transforming the way designs are created and shared across the supply chain, based on the emergence of standards for representing products and for sharing representations across different software platforms. This progress, along with rapidly maturing information and computing technologies is encouraging the development of “smart” factories and supply chains, where real-time information about processes can be shared and used to drive faster, better operational decision making. The vision of the “smart supply chain” where information is shared in real-time and products are delivered on-time with minimal inventories, minimal transportation costs, and no excess capacity is indeed appealing. There is at least one thing missing, and this talk will identify that missing element, and discuss what is needed to supply it.



ISMI



清華-台積電 卓越製造中心  
NTHU-TSMC Center for Manufacturing Excellence

