

THE ROLE OF SIMULATION IN INDUSTRY

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ABSTRACT

This panel discusses the role of simulation research/researchers in industry and for what type of work industry hires Ph.D. or M.S. students in the simulation field. The panelists include simulation experts in industry, and university professors who had rich working/consulting experience in industry. This panel also aims to give an insight into what to expect when searching for a job in industry and working in industry as an engineer with advanced degrees in the simulation field.

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BAHAR BILLER is a Principal Operations Research Specialist at the Advanced Analytics Center of Excellence of SAS Institute. In this role, she collaborates with clients, product managers, and researchers to improve the efficiency and resiliency of industrial supply chains and healthcare and life sciences operations. Previous roles include Senior Operations Researcher at General Electric's Global Research Center and Associate Professor at Carnegie Mellon University's Tepper School of Business. Bahar received a National Science Foundation CAREER award in 2006 and the Presidential Early Career Award for Scientists and Engineers in 2007. She is a past-President of the INFORMS Simulation Society and the General Chair of Winter Simulation Conference 2023. Her email address is Bahar.Biller@sas.com.

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Biller, Chen, Frazier, Greenwood, Henderson, and Kim

PETER FRAZIER is the Eleanor and Howard Morgan Professor of Operations Research and Information Engineering at Cornell University. He is also a Senior Staff Applied Scientist at Uber. At Cornell, he does research in Bayesian optimization, multi-armed bandits, and other areas at the interface between machine learning and operations research. He also leads Cornell's COVID-19 Mathematical Modeling Team, which helped design Cornell's asymptomatic COVID-19 testing program and provides university leadership with decision support for the pandemic. At Uber, he managed UberPool's data science group and currently helps to design Uber's pricing and incentive systems. His email address is pf98@cornell.edu.

ALLEN GREENWOOD, Ph.D., P.E. (retired) is Professor Emeritus of Industrial and Systems Engineering at Mississippi State University and Simulation Education Specialist at FlexSim Software Products, Inc. In addition, he was a Professor of Engineering Management at Poznan University of Technology in Poland, Professor and Chair of the Department of Engineering Management at Prince Sultan University in the Kingdom of Saudi Arabia, Professor of Engineering at the American University of Armenia, and Assistant Professor of Management Sciences at Northeastern University and Virginia Tech. At all of these institutions, he developed and taught courses in systems simulation at the undergraduate, graduate, and professional levels and led or was a principal contributor to numerous projects in industry. He has authored or co-authored over 150 creative works, including journal and conference papers, technical reports, software programs, etc. In addition, he is co-author of *Applied Simulation: Modeling and Analysis Using FlexSim*, currently in its fifth edition. Allen received his BSIE, MSIE, and Ph.D. (Management Science) degrees from North Carolina State University, the University of Tennessee, and Virginia Tech, respectively. His email address is allen.greenwood@flexsim.com.

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