Teamwork Simulation for System Design: The Effects of Knowledge Transfer and Process Loss on Team Performance

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Abstract: Many organizations have considered implementing teamwork as an approach to improve organizational performance and boost the learning process of workers. Despite the benefits offered by teamwork, literature has also shown negative aspects of this kind of work setting, including the transient initial team underachievement known as process loss. Studies have been dedicated to investigate the effect of implementing teamwork strategies on team productivity. However, most of these studies remain observational in nature, partially due to the complexity associated with performing physical experimentation in a teamwork context and the study of human cognition. This work capitalizes on simulation as a strategy to conduct experimentation in this kind of setting, investigating the joint effect of knowledge transfer and process loss on team productivity and consequently on system design. This seminar will introduce several projects that are being conducted by the researcher in this area.

Bio: Yaileen Mendez-Vazquez obtained a Ph.D. in Industrial Engineering from Oregon State University and a Masters of Science in Industrial Engineering from the University of Puerto Rico Mayaguez Campus. She is Assistant Professor at Milwaukee School of Engineering. Her research interests include experimental design for large systems, virtual manufacturing applications, simulation-optimization, and human cognition simulation for system design. Her current projects include the application of simulation-optimization approaches for manufacturing systems and cyberlearning systems applications.