
GCSC Seminar Series

210 ASB
(Aline Skaggs
Building)

ALL ARE WELCOME

Refreshments &
meet the speaker at
3:45

Tuesday, September 17, 2019
4:00-5:00 PM

Masood Parvania

Assistant Professor, Electrical and Computer Engineering, U Utah

“Sustainability at the Intersection of Power and Water Infrastructure: An Engineering Perspective”



Co-optimization of interdependent power and water infrastructure enhances the energy and economic efficiency of both systems.

Abstract

Water distribution system facilities, including desalination as well as water and wastewater treatment plants, are energy-intensive infrastructure that account for considerable electricity consumption in many communities. Traditionally, however, power and water infrastructure have been designed and operated as separate systems, leaving an untapped opportunity for enhancing the energy and economic efficiency of both systems. This seminar will outline the ongoing research in Utah Smart Energy Laboratory (U-Smart) on how closer collaboration and operation co-optimization of interdependent power and water infrastructure enhances the energy and economic efficiency of both systems.

Bio

Dr. Masood Parvania is the Director of Utah Smart Energy Laboratory (U-Smart), and Assistant Professor of Electrical and Computer Engineering at the University of Utah. His current research, funded by NSF, DOE, ONR and power industry, looks at enhancing sustainability and cyber-physical resilience of power, water and electrified transportation infrastructure. Dr. Parvania serves as Associate Editor for the IEEE Transactions on Smart Grid, the IEEE Power Engineering Letters, and the IET Renewable Power Generation, and is the Chair of IEEE Utah Power and Energy Society Chapter. He is the recipient of 2018 Engineering Educator of the Year Award from the Utah Engineers Council, and 2019 Faculty Recognition Award from the University of Utah.

