

# Samantha Deeney

**SAMANTHA DEENEY** joined Mitsubishi Electric Power Products, Inc. (MEPPI) Power Systems Engineering Division in February 2018. Prior to joining MEPPI, she graduated from the University of Pittsburgh at Johnstown with her Bachelor of Science degree in Electrical Engineering Technology. She then continued her education at the University of Pittsburgh as a graduate student researcher and earned her Master of Science degree in Electrical Engineering with a focus on power. During her time researching at the University of Pittsburgh, Samantha focused on grid-tied microgrid protection schemes for upstream faults researching ways to safely disconnect and island microgrids in the event a fault would occur upstream on the bulk electric system.

Samantha is a Senior Engineer at MEPPI in the Power Systems Engineering Division (PSED). She has continuously developed her skills at MEPPI in various niche areas. Throughout her career, Samantha has performed load flow and dynamic stability analysis for system impact and generation interconnection/retirement, as well as large scale resiliency analysis, such as CIP-014. She has executed and managed multiple Flexible AC Transmission System (FACTS) studies for STATCOM devices, involving PSCAD and PSS/E studies such as control tuning, dynamic performance, short-circuit, interaction analysis, harmonic stability screening, and electromagnetic transient analysis. Samantha has also performed various steady-state feasibility analyses for potential HVDC placements and planning evaluations, specifically within dense load pocket areas, such as data center concentrated load. She has executed harmonic analysis and is experienced in filter design. She has modeling and software experience in platforms such as EMTP-RV, PSCAD, PSS Sincal, PSS/E, and TARA PowerGEM. Her responsibilities at MEPPI include leading, managing, and executing projects for the reliable integration of

power electronic and FACTS devices and other resources.

Samantha has authored several publications and has received a patent for the creation of a power oscillation damping controller with dynamic gain control, such that the control adaptively detects and adjusts gain whilst damping sustain power oscillation utilizing reactive power, which is integrated into devices such as STATCOMS.

Samantha looks to stay on the cusp of technology given the ever-changing industry and continues to pursue advancement in education and industry activity. She continues to be involved in groups such as CIGRE and continues to actively publish papers on developments within her group in PSED, as well as participating in internal organizations within MEPPI such as the company's Professional Women's Network (PWN).

MEPPI's culture has continuously proven as a supportive environment from our leaders to grow and develop skills within the organization with equal opportunity amongst women and men. Innovative ideas and advancement are encouraged at MEPPI, which fosters technical solutions for the challenging problems that are faced presently by the overall power industry and in the years to come.



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