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BIOGRAPHY

Abe Ellis

Manager, Photovoltaic & Distribution Systems
Sandia National Laboratories

Dr. Ellis joined Sandia National Laboratories in 2008. He currently serves as manager of Photovoltaics and Distributed Systems Integration. He is involved in multiple technical and strategic initiatives in the area of renewables integration and grid modernization. Prior to his employment at Sandia, Abraham worked in the Transmission Planning and Operations department at Public Service Company of New Mexico (PNM), where he conducted transmission and generation expansion studies, including interconnection of large-scale wind and solar resources in New Mexico and beyond. He has served as key member and chair of several technical and standards development groups under the Western Electricity Coordinating Council (WECC), North American Electricity Reliability Council (NERC) and the Institute of Electrical and Electronics Engineers (IEEE). Dr. Ellis graduated from New Mexico State University (NMSU) with BSEE, MSEE and PhD degrees in Electrical Engineering and Power Systems.

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BIOGRAPHY

Juan Torres

Deputy to the Vice President, Energy and Climate Programs
Sandia National Laboratories

Mr. Juan Torres is deputy to Sandia's vice president for Energy and Climate Programs, comprising a $200 million annual budget for research in renewable energy, grid modernization, nuclear energy, transportation energy, climate and environment, and other basic and applied energy research. Mr. Torres is also chief of operations and chief of staff for the Energy and Climate Programs office. He currently leads the Security and Resilience team for the U.S. Department of Energy (DOE) Grid Modernization Laboratory Consortium. From 2011 to 2016, as Senior Manager of Sandia's Renewable Energy Technologies organization, Mr. Torres managed four departments (Wind Energy, Water Power, Concentrating Solar, and Materials for Renewables) and oversaw Sandia's annual renewable energy research portfolio of approximately $65M. Prior to serving as deputy, Mr. Torres managed the Energy Surety Engineering & Analysis department that conducted research in advanced smart grid concepts, novel techniques for improving management and control of transmission and distribution power grids, Energy Surety MicrogridsTM, and grid integration of renewable energy resources. Mr. Torres is the former assistant technical manager on the SPIDERS microgrid project, a DoD-DOE collaboration to demonstrate cyber secure microgrids with renewable energy resources at three military installations. He facilitated Sandia's collaboration with the State of Vermont on a state-wide smart grid initiative and with Japan on smart grid demonstration projects in New Mexico. Mr. Torres also led Sandia's support of the DOE-sponsored Hawaii Clean Energy Initiative to help Hawaii achieve its goal of obtaining 70% of its energy from clean energy sources by 2030. In 1998, Mr. Torres was a member of the DOE Critical Infrastructure Protection Task Force charged with developing a national plan to protect both the U.S. energy infrastructure and the DOE infrastructure. From 1999 to 2005, Mr. Torres led Sandia's Center for SCADA Security, a core element of the DOE National SCADA Test Bed, to secure the U.S. energy infrastructure from cyber attack.

Mr. Torres has been with Sandia National Laboratories since 1990, working in the areas of energy, cyber security, critical infrastructure protection, and command and control systems. He chairs Sandia's Hispanic Leadership and Outreach Committee. Mr. Torres received a bachelor of science degree in electronics engineering technology from the University of Southern Colorado, earned a master of science degree in electrical engineering from the University of New Mexico, and has completed additional graduate work in electrical engineering and management science at Stanford University.

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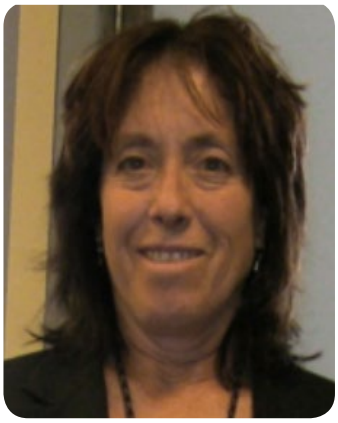

BIOGRAPHY

Debra Kirshner

Manager, AGT Accelerator Operations
Sandia National Laboratories

Ms. Kirschner joined Sandia National Laboratories in 2010. She is currently the manager of Accelerator Operations which includes the Saturn, HERMES and SPHINX accelerators. Prior to her employment at Sandia, Ms. Kirschner worked for Argonne National Laboratory as the as the Radiation, Fire and Safety Manager in Idaho supporting nuclear reactor operations and nuclear fuels research. Ms. Kirschner graduated from the University of Cincinnati with a Master of Science degree in Industrial Hygiene.

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BIOGRAPHY

Charles Hanley

Senior Manager, Grid Modernization and Military Energy Systems Program
Sandia National Laboratories

Mr. Hanley is a Senior Manager at Sandia National Laboratories and manages the Grid Modernization and Military Energy Systems Program. His group executes advanced research on several aspects of our critical electric infrastructure, including energy storage; power systems research such as microgrids, resilient infrastructures, optimization, and controls; renewable energy integration; power electronics; and advanced analytics for efficient military developments and operations.

He has been working in Sandia's renewable energy and electric grid programs since 1994. From 2005 through 2014, Charlie managed Sandia's Photovoltaics and Distributed Systems Integration Program. Prior to that, he managed Sandia's international renewable energy programs, through which he oversaw the implementation of more than 400 photovoltaic and wind energy systems in Latin America.

He received his Bachelor of Science degree in Engineering Science from Trinity University in San Antonio, Texas, and his M.S. degree in electrical engineering from Rensselaer Polytechnic Institute, in Troy, New York.

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BIOGRAPHY

Dr. Jason Stamp

Research & Development, Special Cyber Initiatives
Sandia National Laboratories

Jason is a Distinguished Member of the Technical Staff in the Special Cyber Initiatives department at Sandia National Laboratories in Albuquerque, New Mexico. His primary research area is cyber security for control systems (including military, government, and industry applications), where he has been leading or supporting R&D efforts since 1999.

His cyber security experience includes control system/component assessments, security taxonomies and metrics, threat characterization, cyber/physical impacts, and hybrid modeling/simulation, in addition to electrical power analysis in the areas of grid management, protective relaying, and resilient energy systems for military applications.

He was the lead design engineer for the SPIDERS (Smart Power Infrastructure Demonstration for Energy Reliability and Security) microgrid project. He received a BS degree in Electrical Engineering from Rose-Hulman Institute of Technology in Terre Haute, Indiana in 1995, and his PhD in Electrical Engineering from Clemson University in 1998.

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BIOGRAPHY

Jordan Henry

Research and Development Science & Engineering, Electrical Engineering
Sandia National Laboratories

Jordan Henry is a Senior Staff member and has a background in electrical engineering, specifically power systems and power electronics, but devotes most of his time applying engineering principles to cyber security for industrial control systems. Jordan has significant experience in Sandia Emulytics platforms both in developing and improving Emulytic and SCEPTRE capabilities as well as leading teams in developing SCEPTRE environments for the use of testing, evaluation, and training. Jordan's research areas include power system controls, cyber security for critical infrastructure systems, novel methods for improved control system situational awareness, and Emulytics involving control system network and control system process modeling/simulation.

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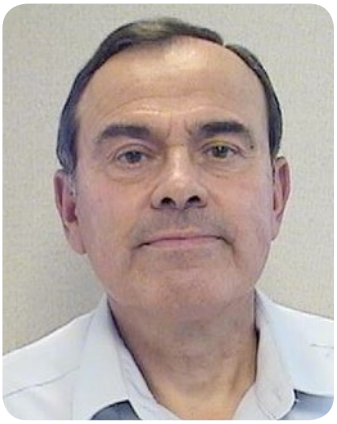

BIOGRAPHY

Michael A. Dinallo

Manager, EM Systems Engineering & Qualification
Sandia National Laboratories

Mr. Dinallo has been with Sandia National Laboratories since 1991. He currently is manager of the Electromagnetics Systems Engineering and Qualification Department. He is both managing and serving as technical lead for nuclear stockpile system qualification programs, Sandia partnership programs and in collaboration with other government agencies is a project lead in the area of nuclear weapon detonation effects to power distribution systems.

Mr. Dinallo has 36 years of experience in electromagnetic effects to complex electrical systems and has worked programs for numerous DOD/DOE and other government agencies, and industry R&D laboratories. Programs have included nuclear electromagnetic pulse and high power microwave effects to nuclear power plants sponsored by the Nuclear Regulatory Commission (2007-2010), the US Congress sponsored EMP Commission (2003-2007), DOD sponsored Urban/Municipal power distribution consequences of a ground level nuclear bomb detonation and numerous strategic aerospace platforms (2012 – present).

Mr Dinallo has an extensive bibliography including technical reports, conference proceedings, proposals, unsolicited concept papers, and briefing presentations. Mr Dinallo graduated from Washington State University with a Master's Degree in Physics, and a Bachelor of Science Degree in Mathematics and Physics.

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BIOGRAPHY

Larry Schneider, PE

Senior Manager, Electrical Services
Sandia National Laboratories

Mr. Schneider is Senior Manager of the Electrical Sciences group within the Radiation and Electrical Science Center at Sandia National Laboratories. This five department group supports a broad portfolio of research, development and engineering programs in electromagnetics, plasma physics, high voltage sciences, circuits and devices and power systems and controls. His current responsibilities include the development of advanced modeling and simulation capabilities across this portfolio as well as maintenance and development test and experiment capabilities in RF electromagnetics, electromagnetic pulse (EMP), high power microwave (HPM), high voltage breakdown (including ESD and lightning), circuit and device characterization, and advanced power and control systems. These capabilities support design and qualification of nuclear weapon systems in electromagnetic and radiation environments and other national security missions including design of advanced electrical microgrids and modeling, simulation and experiments to evaluate the impact of nuclear EMP on critical US infrastructure systems.

Throughout his career, Mr. Schneider has engaged significantly with other federal agencies, universities and industry. This background included project manager responsibilities within the DOD National Hypersonic Wind Tunnel research program, technical manager for an international DOE Industrial Partnering Program, and project leader in the development of a FAA sponsored aging aircraft wiring diagnostic which won both an R&D 100 award and an Interagency Partnership Award from the Federal Laboratory Consortium.

From 1990 to 1994, Mr. Schneider was a staff member and manager in the Physics Research Division of the DOE Superconducting Super Collider laboratory (SSC) where he had responsibilities for the design and testing of accelerator components and non-conventional AD/DC power and control systems for underground particle detector facilities.

Mr. Schneider began his career at Sandia National Laboratories in 1978 and has contributed to the design and construction of several of the world's highest power accelerator systems including PBFA II (Z), Hermes III, and RHEPP II. Mr. Schneider received his Bachelors and Masters of Science degree in Electrical Engineering and Power Systems from Oregon State University, is a Registered Professional Engineer, and a senior member of IEEE.

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