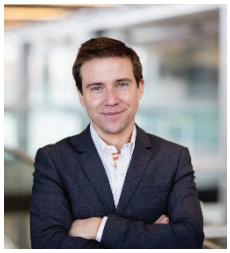

Dr. Regan A. Zane

Director ASPIRE NSF Engineering Research Center

David G. and Diann L. Sant Endowed Professor
Department of Electrical and Computer Engineering

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SHORT BIO

Dr. Regan Zane is the Director of the Center for Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE), an NSF sponsored engineering research center involving 9 universities, more than 65 faculty, 200 students and a dozen full-time staff, 4 national lab partners, and more than 50 industry and innovation partners. He holds the David G. and Diann L. Sant Endowed Professor position at Utah State University in the Department of Electrical and Computer Engineering, where he founded the USU Power Electronics Lab (UPEL), the Electric Vehicle and Roadway (EVR) research facility and test track, and the Battery Limits and Survivability Test (BLAST) lab.

Dr. Zane has published more than 200 peer-reviewed articles, served as co-inventor on more than 30 issued patents, has received international and institutional recognition in research, teaching and innovation, and has raised more than $65 million in research funding to date. His research programs cover key aspects of electrified transportation charging systems and infrastructure, from battery, vehicle, and charging systems to grid integration, smart charge management, demand response and distributed energy resources. His programs maintain a strong emphasis on collaboration with academic, government and industry partners to develop and transition innovative technologies into the marketplace.

Additional research topics include wireless power transfer, control of series/parallel input/output converters, high efficiency, high frequency, high power density, and high performance dc-dc, ac-dc, dc-ac power converters, ac and dc microgrids, battery management systems, drivers for LEDs and discharge lamps in energy efficient lighting systems, active stability control and adaptive tuning in multi-input, multi-output converter systems, active converter and system health monitoring, power integrated circuit design, and low-power energy harvesting.

EMPLOYMENT

2020 – present **Director**, NSF Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE) Engineering Research Center, College of Engineering, Utah State University.

2012 – present **Full Professor**, *Department of Electrical and Computer Engineering*, Utah State University. ***David G. and Diann L. Sant Endowed Professor*** (since 2018) and ***USTAR Professor*** (2012 – 2018). Founding Director of the Center for Sustainable Electrified Transportation (SELECT), Electric Vehicle & Roadway (EVR) Research Facility and Test Track and USU Power Electronics Lab (UPEL).

2008 – 2016 **Associate Professor**, *Department of Electrical, Computer, and Energy Engineering*, University of Colorado at Boulder.

2001 – 2008 **Assistant Professor**, *Department of Electrical and Computer Engineering*, University of Colorado at Boulder.

1999 – 2001 **Senior Research Scientist**, *Electronic Power Conversion*, Corporate Research & Development Center, General Electric, Niskayuna, NY. Principle researcher in area of custom integrated circuits for power management applications within GE businesses with an emphasis on miniature controllers for energy efficient lighting systems.

EDUCATION

Institution	Degree	Year	Field of Study
University of Colorado at Boulder	Ph.D. (GPA: 4.0)	1999	Electrical Engineering
Dissertation title, "*Development, analysis, and implementation of an ASIC controller for single-phase power factor correction*."			
University of Colorado Boulder	M.S. (GPA: 4.0)	1998	Electrical Engineering
University of Colorado Boulder	B.S. (GPA: 4.0)	1996	Electrical Engineering

HONORS AND AWARDS

2021	Campus Researcher of the Year Award, Utah State University
2020	Utah Clean Cities Sustainability Partner of the Year (for SELECT & ASPIRE Centers)
2019	Utah Innovation Award in Clean Technology and Energy for "Robust and Efficient Battery Management System," sponsored by Utah Governor's Office of Economic Development
2018	David G. and Diann L. Sant Endowed Professor, Utah State University
2017	Department Researcher of the Year Award, ECE Department, Utah State University
2015	Inaugural Director of the USU Electric Vehicle and Roadway (EVR) Research Facility and Test Track
2011	Selected member of the 2012-2013 Defense Sciences Study Group (DSSG), Institute for Defense Analyses (IDA), US Defense Advanced Research Projects Agency (DARPA)
2011	Holland Teaching Award, University of Colorado
2009	IEEE Power Electronics Society Transaction Prize Letter Award
2008	IEEE Power Electronics Society Richard M. Bass Outstanding Young Power Electronics Engineer Award
2008	Coleman Institute Faculty Sabbatical Fellowship
2008	John and Mercedes Peebles Innovation in Teaching Award, University of Colorado
2007	IEEE Power Electronics Society Transaction Prize Letter Award
2007	Senior Member, IEEE
2006	Provost Faculty Achievement Award, University of Colorado
2006	Inventor of the Year Award, Technology Transfer Office, University of Colorado
2006	IEEE MTT Microwave Prize for best journal paper
2004	NSF Faculty Early Career Development (CAREER) Program Award Recipient
2001	Six-Sigma Green Belt Certificate, GE Corporate Research and Development
2001	Manager's Award, General Electric Corporate Research and Development
1993 – 1998	Member Dean's list, University of Colorado
1995 – 1996	Marcellus and Geraldine Merrill Scholarship, University of Colorado
1992	National DECA competition, 2nd place in marketing and business

PUBLICATION RECORD

Books (published or in press)

[1] L. Corradini, D. Maksimovic, P. Mattavelli, R. Zane, *Digital control of high-frequency switched-mode power converters*, Hoboken, NJ: Wiley, 2015.

Journals (published or in press)

[1] T. Saha, A. C. Bagchi, H. Wang and R. Zane, "Bidirectional LCL–T Resonant DC–DC Converter for Priority Loads in Undersea Distribution Networks," in IEEE Transactions on Power Electronics, Jun. 2022, doi: 10.1109/TPEL.2022.3187133.

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*Received the 2007 IEEE Power Electronics Society Transaction Prize Letter Award.

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