

2015 Seminar Fee

IEEE Members \$125.00

Non IEEE Members \$150.00

IEEE Student Members \$ 60.00

Registration after May 27 \$175.00

Fee includes meals and lecture notes.

Register Online

<https://meetings.vtools.ieee.org/m/33191>



For registration questions, please contact

Andrew Baker
abaker@ieee.org

Clock Tower Resort

7801 E State Street
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<http://www.clocktowerresort.com/>

The Clock Tower Resort is offering reduced room rates for reservations. Mention “IEEE” when making room reservations.

Direct bus service from Chicago/O’Hare airport is available. For information visit:

<http://www.coachusa.com/>

Exhibitor Displays and Demos

The seminar will feature exhibits and demos from vendors in the Chicagoland and Northern Illinois area. Attendees will have the opportunity to network with exhibitors during breaks, at lunch, and at the post-seminar social event.

Interested in being an exhibitor?

Visit our website at:

<https://meetings.vtools.ieee.org/m/33195>

Questions? Please Contact

Jamal Shafii - EMC Chapter Chair

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Jitendra Solanki - RRRVS Section Chair

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Thank You to the Diamond Sponsor:



The EMC and PELS Chapters of the
IEEE Rock River Valley Section
present

EMI Suppression Skills for Power Electronic System Design

A technical seminar
by

Dr. Shuo Wang

Associate Professor at the
University of Florida, Gainesville

Tuesday
June 9, 2015



Clock Tower Resort
Rockford, IL
815-398-6000

<http://www.ieee.org/rrvs>

Welcome... from Jamal Shafii, IEEE RRVS EMC Chapter Chair

The IEEE Rock River Valley Section (RRVS) EMC and PELS Chapters are pleased to sponsor the 4th EMC Educational Seminar in Rockford, Illinois. Our goal is to provide regional affordable seminars that provide critical educational value to engineers working in the diversified industries in the region.

This seminar focuses on the issues Engineers need to know about EMI prevention and management techniques when designing modern day electronic systems. The evolution of high speed switching devices such as MOSFETs and IGBTs, high speed digital control, electromagnetics and capacitors has paved the way for low cost, high density power electronics. However, like high speed digital circuits, these switched power circuits are capable of generating significant conducted or radiated interference. The thrust of this seminar is to ensure the Electro Magnetic Compatibility of the power circuits in designs.

Dr. Shuo Wang received the Ph.D. degree from Virginia Tech, Blacksburg, VA, in 2005. He has been an associate professor with the Department of Electrical and Computer Engineering, University of Florida, Gainesville, FL, since 2015. From 2010 to 2014, he was with University of Texas at San Antonio, TX, first as an assistant professor and later as an associate professor. From 2009 to 2010, he was a senior design engineer in GE Aviation Systems, OH.

Dr. Shuo Wang has published more than one hundred IEEE journal and conference papers and holds 7 US patents. He received the Best Transaction Paper Award from the IEEE Power Electronics Society in 2006 and two William M. Portnoy Awards for the papers published in the IEEE Industry Applications Society in 2004 and 2012, respectively. In 2012, he received the prestigious National Science Foundation CAREER Award.

EMI Suppression Skills for Power Electronic System Design

7:30 – 8:20am

Registration and Continental Breakfast

8:20 – 8:30am

Welcome and Introductions

8:30 – 10:00am

EMI Fundamentals and Coupling Mechanisms

- Fundamentals of EMI for power electronics systems
- Effects of parasitic parameters in power electronics systems on EMI
- Electric field, magnetic field and related EMI issues in power electronics systems
- EMI suppression techniques for electric field and magnetic field noise couplings

10:00 – 10:30am

Morning Refreshment Break

Exhibitors Display and Demonstrations

10:30 – 12:00pm

EMI Suppression through Component and Filter Design

- EMI suppression components, filters and their high frequency performance
- Improve EMI component and filter's performance with parasitic cancellation techniques
- Active and hybrid EMI filters to achieve high power density design
- Transformer design for EMI reduction



12:00 – 1:00pm

Lunch with the Exhibitors & Keynote Speaker

1:00 – 2:30pm

EMI Suppression through System Design

- Grounding, parasitic couplings in grounding and the principles of grounding
- EMI due to unbalance and using impedance balancing to reduce EMI
- Shielding and its effectiveness on EMI suppression for power electronics systems

2:30 – 3:00pm

Afternoon Refreshment Break

Exhibitors Display and Demonstrations

3:00 – 3:15pm

IEEE Recognition Awards

3:15 – 4:45pm

EMI Measurement Principles and Predictions

- Principles of EMI/EMC spectrum analyzers
- Predict EMI spectrum based on the principles of EMC spectrum analyzers
- Single-phase and three-phase EMI noise measurement and diagnosis

4:45 – 4:50pm

Closing Comments and Seminar Survey

4:50 – 6:00pm

Social Hour with Exhibitors

This seminar qualifies for 7.2 hours of Professional Development Hours (PDH) in the state of Illinois.