

Circuit Board Design to Control EMI at the Source

Rick Hartley

June 12, 2018

7:30AM—6:00PM
Giovanni's Restaurant
and Conference Center
Rockford, IL

Seminar Overview Session 1

Grounding to Control Noise and EMI

Session 2

Power Distribution to Control SI and EMI

Session 3

Layout of Switch Mode Power Supplies

Session 4

PC Board Stack-ups to Improve Grounding and Power Delivery

Seminar Registration

IEEE Members \$125.00
Non-IEEE Members \$175.00
Student/Life Members \$60.00

Group Rate (4 + from same corporation), please call.

Seminar Fee includes seminar attendance, a copy of the presentation material, and breakfast, lunch, and refreshments.

Registration help for payment:
Adrian Vandergrift
aevandergrift@ieee.org
815-226-2518

This seminar will focus on the issues PCB designers and engineers need to know to prevent EMI, signal integrity, crosstalk and grounding problems in high-speed digital. Knowing how to design circuit boards to contain and control energy (fields) and knowing how to mitigate and control the effects of high-speed devices is the key to successful design of low noise circuits. The speaker will simply explain where energy truly resides in a PC board and how we need to design because of that to prevent problems. Specifically, the speaker will explain proper grounding, proper power distribution design, layout of switch mode power supply, and proper stackup to control noise and contain fields. For complete seminar outline refer to link below. Attendees will have the opportunity to network with EMC and Test Equipment vendors from across the U.S. Past seminars have featured up to 32 exhibitors!

Rick Hartley, recently retired senior principal engineer at L-3 Avionics Systems, is the principal of RHartley Enterprises, through which he consults and teaches internationally to resolve noise, signal integrity and EMI problems. Rick's focus is on correct design of PC boards to prevent and/or solve problems. He has consulted with major corporations in the US and 12 other countries. His design career focused on circuits and PC boards for computers, aircraft avionics and telecommunications. His consulting focuses on those same areas, as well as the automotive and appliance space. Rick has an engineering degree and 52 years of experience. He has dedicated the past 42 years to PC board and circuit development with emphasis on control of noise, in digital, analog and RF circuits. Rick has taught seminars at numerous conferences, including the IEEE EMC Symposium, PCB West, IPC Apex/Expo and others. He is a member of the executive board of the IPC Designers Council and past member of the Editorial Review Board of Printed Circuit Design Magazine. Rick has written numerous technical papers and articles on methods to control noise, EMI and signal integrity.



Rockford, Illinois is located just over an hour's drive from Chicago's O'Hare airport. Direct bus service from Chicago/O'Hare airport is available. There are several hotels within few blocks of the Giovanni's Conference Center. For more information about things to see and do in Rockford, Visit <https://www.gorockford.com/>

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This seminar will qualify for 7.2 Professional Development Hours (PDH).

Questions? Please contact:
Jamal Shafii - Jamalshafii@ieee.org
Phone: 608-658-6830
Steve Davidson
steve.davidson@ieee.org
Phone: 815-218-8249

For more information and how to register, visit our website:
<http://sites.ieee.org/rvssseminar/>

To Register Now: [Attendee Registration](#)

IEEE RRV Section, Annual Picnic and Elections
SERVING IEEE MEMBERS OF NORTH CENTRAL ILLINOIS AND SOUTH CENTRAL WISCONSIN

WHEN Thursday, June 29, 2017

WHERE

Hamilton Sundstrand Association Park
North Pavilion 2
2288 Newburg Rd
Belvidere, Illinois 61008



AGENDA

6:00 PM Networking
6:30 PM Dinner
7:30 PM Elections

PROGRAM

Join us for our annual cookout and officer elections. Food and drinks will be provided for FREE to all IEEE members. **Family members are welcome to join us as well.**

The members running for officer positions are listed on the next page.

MEAL INFORMATION

This event is FREE for IEEE members and their immediate family members.
Dinner will include a choice of vegetarian, steak, or chicken as well as appetizers and dessert.

Members and Family—Free
Non-Members—\$20
Student Non-Members—\$10

Please register online at
<https://meetings.vtools.ieee.org/m/173797>

or by emailing Diane Sennebogen at diane.brock@utas.utc.com by Thursday, June 28, at 1 pm. Please include the following: name, phone number, email address, and IEEE member number. The meeting is open to the general public.

IEEE RRV Section, Elections
SERVING IEEE MEMBERS OF NORTH CENTRAL ILLINOIS AND SOUTH CENTRAL WISCONSIN

2019 RRVs Executive Committee Election Candidates

Position	Candidate
Chair	Rakesh Vasudevan
Vice Chair	Terry Johnson
Secretary	Patrick Conner
Treasurer	Adrian Vandergrift
PELS Chapter Chair	Mark Harris
EMC Chapter Chair	Steve Davidson
IAS Chapter Chair	Joe Etminan
Computer/Controls Chapter Chair	Alkesh Patel
Life Member Chair	Larry Wachowiak
Young Professionals Chair	Eduardo Vasquez
WIE Chair	Marjan Shirani

If you would like to run for an officer position, please contact Andrew Baker at abaker@ieee.org before May 28 to start the nomination process.

IEEE Rock River Valley Section 2018 Calendar of Events

January 22: IEEE Chicago/Rockford Consultants' Network Meeting

January 25: RRVS Section Meeting

February 22: RRVS Section Meeting, Engineer's Week

February 24: [Discover Engineering at Discovery Center Museum](#)

March 29: RRVS Section Meeting

April 20 NIU Student Branch Networking Social at Northern Illinois University

April 26: RRVS Section Meeting,

May 31: RRVS Section Meeting with Chicago-Rockford Consultants' Network

June 12: EMC Seminar.

June 28: RRVS Section Meeting, Annual Picnic and Officer Elections at Hamilton Sundstrand Park

August 30: RRVS Section Meeting

September 27: RRVS Section Meeting

October 25: RRVS Section Meeting

November 15: RRVS Section Meeting at NIU

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Missed a meeting? Check out our Google Drive for previous presentations.

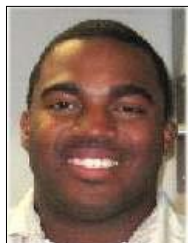
IEEE RRVS Google Drive: <https://drive.google.com/a/ieee.org/>

1. Login with IEEE account
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RRVS Calendar

Visit our website for the full 2018 meeting schedule

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IEEE Collabratec:

<https://ieee-collabratec.ieee.org/>

Rock River Valley Section Chapters

Industry Applications Society Chapter
Established 1992

Joint Computer/Control Systems Society Chapter
Established 1995

Power Electronics Society Chapter
Established 1996

Electromagnetic Compatibility Society Chapter
Established 2007

The Rock River Valley Section gratefully acknowledges the following companies and colleges for supporting Section Officers:

- [UTC Aerospace Systems](#) • [Northern Illinois University](#) •
[Rock Valley College](#) • [River North Solutions](#)