

# Strategies & Tactics for Product EMI Compliance Success

## John Kraemer, P.E.

**September 20, 2022**  
7:30AM—6:00PM

**Tebala Event Center**  
7910 Newburg Rd,  
Rockford, IL 61108

### Seminar Overview

**Session 1 – EMI Control  
Foundations & Strategies**

**Session 2 -The Tactics of  
Grounding, Bonding, Shielding  
& Filtering**

**Session 3 – Printed Circuit  
Board Design**

**Session 4 – Testing &  
Troubleshooting**

### Seminar Registration

IEEE Members(in person) \$130.00  
IEEE Members (online) \$120.00  
Non-IEEE Members \$185.00  
IEEE Student Members \$70.00  
Group Rate (4 + from same  
corporation), please email:  
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Almost all electronic products, whether a personal computer, an automobile engine controller, or an aircraft cockpit display, must comply with a set of Electromagnetic Interference (EMI) control requirements before being offered for sale and/or put in use. Failing to comply with the applicable requirements can often add notable development costs, recurring product costs, as well as significant project schedule growth.

**This seminar will present strategies and tactics that can be used during the product design and development process to allow compliance to the many EMI requirements that may be applicable to your product.** An overview of Electromagnetic Compatibility (EMC) and EMI control foundations will be presented followed by pre-design EMI control strategies. Next, the basic tactics of grounding, bonding, shielding, and filtering will be presented, followed by key strategies and tactics for EMI control with respect to printed circuit board layout. Finally, strategies and tactics will be presented for developing a successful EMI compliance test program, and for EMI troubleshooting, should the need arise.

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!



**John Kraemer PE** is a Fellow at Collins Aerospace with over 40 years of adventures in electronics design and the control of Electromagnetic Interference (EMI). Prior to joining the Collins EMI/EMC group over 35 years ago, Mr. Kraemer was an Army Signal Corp officer where he performed EMI, signal analysis and TEMPEST research and development efforts focused on satellite communications equipment. While completing his education at Iowa State

University, John designed electronics for controlling animated musical ensembles at a company in SW Wisconsin; the EMI problems encountered on his initial designs introduced him to the need to learn about designing for EMI control and intra-system Electromagnetic Compatibility (EMC). Both his BSEE and MSEE degree work subsequently focused on electromagnetics. John is a licensed professional engineer in the State of Iowa. He holds multiple patents related to EMI control methods, has published several papers, and has held leadership positions on various IEEE technical committees and standards development working groups.

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. For more information about things to see and do in Rockford, Visit <https://www.gorockford.com>

Please follow local CDC guidelines for wearing face coverings. Mask will be provided upon request.

**Visit our website:**

<https://site.ieee.org/rockrivervalley/>

**Registration Link:** <https://tinyurl.com/rrvs2022>