



## IEEE NEWS FOR MAY 2010

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Rochester IEEE home page at: <http://rochester.r1.ieee.org>

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### Rochester Section Meeting - Tuesday, May 4, 2010

The next Rochester Section business meeting is on Tuesday, May 4, 2010 at Noon, at the Shanghai Restaurant, 2920 West Henrietta Road, just south of the intersection with Brighton-Henrietta Town Line Road.

Any IEEE member is welcome to attend and to participate, or just to observe. Lunch is only \$3 for IEEE members. No reservation or RSVP is needed, just show up.

### IEEE Electromagnetic Compatibility (EMC) and Product Safety Engineer (PSE) Joint Chapters

This meeting features the IEEE EMC Society Distinguished Lecturer Mark Steffka. It is being co-sponsored by the IEEE Power and Energy and Industrial Applications Societies joint chapter.

**Title:** Conducted Emissions, Power Supplies, and LISNs

**Speaker:** Mark Steffka, EMC Technical Specialist, GM Powertrain, Milford, Michigan

**Date:** Tuesday, May 11, 2010

**Time:** 6:00 PM Networking and refreshments. 6:30 – 7:30 PM Presentation.

**Location:** Rochester Institute of Technology, Building 13, Room 1360

An RIT campus map is at: <http://facilities.rit.edu/campus/maps/general/general.pdf>

Park in Lot J or H and walk up the hill and between buildings 17 and 70 and under the skyway connecting these buildings. Building 13 will be the one-story building ahead on your left.

**R.S.V.P.** by May 9 (for food and beverage count) to Gene Saltzberg at 585-381-1078, or by email to [gene.saltzberg@ieee.org](mailto:gene.saltzberg@ieee.org)

**Cost:** Free to IEEE members and IEEE student members. Open to non-members.

**Abstract:** With the proliferation of digital methods from data communication to machine and equipment control, as well as the increasing use of switched mode power supplies (SMPS), conducted emissions are becoming more of a concern. This topic discusses the

physics involved in conducted emissions, how to measure those emissions, the trade-offs in power supply issues versus EMC, and effective filtering methods. Diagnostic methods to identify the nature and source of conducted emissions are presented as well as corrective actions to solve those problems are identified.

**Biography:** Mark Steffka, B.S.E., M.S., is with the Electromagnetic Compatibility (EMC) Engineering Group of General Motors (GM) Powertrain and is a faculty member of two universities. He is an adjunct lecturer at the University of Michigan-Dearborn, in the Electrical and Computer Engineering (ECE) department for the undergraduate and graduate classes on EMC. He is an adjunct professor at the University of Detroit – Mercy and teaches undergraduate and graduate engineering courses on EMC. He is a member of Institute of Electrical and Electronics Engineers (IEEE), has served as an invited session chair for the IEEE EMC Symposium. His publications have covered topics on EMC and RFI. He is a co-author of the book “Automotive Electromagnetic Compatibility”.

## **IEEE Power and Energy and Industrial Applications Joint Chapter**

On May 11, the chapter is co-sponsoring a talk by the IEEE EMC Society Distinguished Lecturer Mark Steffka. For details, see the IEEE EMC-PSE Society meeting notice above.

## **IEEE Engineering in Medicine and Biology Society Chapter**

The Rochester EMB Society hosted two technical presentations at the Rochester IEEE Joint Chapter Meeting on March 31st. Thomas Gaborski, President of Simpore Inc. discussed commercializing nanotechnology to improve biomedical research and development. Michael Connolly, President & CEO, Integrated Nano-Technologies, discussed how nanotechnology and its utility as a biodetection platform. The EMB Society would like to thank Drs. Gaborski and Connolly for their superb presentations at the JCM this year.

## **Rochester Joint Chapters Meeting Review**

The Rochester Section of the IEEE hosted its annual Joint Chapters Meeting on March 31 at the RIT Inn and Conference Center in Henrietta, NY. The evening event was an extraordinary success and was attended by 118 people including: 82 IEEE members, 13 non-members, and 23 students. The keynote speaker was RES Rochester Engineer of the Year finalist, Dr. Kevin Parker, Dean Emeritus from the University of Rochester, College of Engineering. Dr. Parker discussed the history and use of ultrasound technology for imaging the hidden elastic properties of tissues. Applications for discovering tumors difficult to detect with other imaging techniques were discussed.

Several local chapters also sponsored technical presentations including: the Electron Devices and Circuits and Systems Joint Chapter, the Computer Society, the Signal Processing Society, the Electromagnetic Compatibility/Product Safety Engineering Joint Chapter, the Microwave Theory & Techniques Chapter, the Engineering in Medicine & Biology Chapter, and the Technology Management Council.

We would like to express our sincere thanks to the Rochester Engineering Society. The meeting would not have been possible without their efforts in advertising and managing the reservations. We would also like to thank the Section leadership and the leadership of each of the Societies that participated in the Joint Chapter Meeting this year. The expertise of the speakers and breadth of topics presented really showcased the engineering talent within the Rochester region. We also thank all of the invited speakers. Their presentations clearly defined the success of the meeting and made it a wonderful experience for all of the meeting attendees. Finally, we would like to acknowledge and thank all of the students that helped to make the meeting run smoothly.