

# EMC Society



Central Texas Section

Chapter Meeting

April 21, 2010

Austin, TX

IEEE

# Agenda

- Chapter Meeting
  - Introduction
  - Chapter calendar
  - May Presentation Topic
  - Future events
- Technical Presentation
- Wrap Up

# Introductions

- Name
- Company or school
- Your connection to or interest in EMC

# Introductions

- Chapter Leadership Team
  - Chair - Ross Carlton  
National Instruments, ross.carlton@ni.com
  - Vice Chair - Mike Royer  
Foxconn, mroyer@mikeroyer.com
  - Secretary/Treasurer - Mark Prchlik  
Panashield, mark@prchlik.com

# Chapter Calendar

## ● 2010 Technical Program

\* EMCS Distinguished Lecturer  
\*\* EMCS Respected Speaker

Month	Topic
January	Design of a Medium Power RF Absorber by Mechanical Approach, Dr. Vince Rodriguez, ETS-Lindgren
February *	EMC/EMI Issues in Biomedical Engineering, Dr. Ji Chen, University of Houston
March	Standards Development: CISPR 32 and CISPR 35, Richard Worley, Dell
→ April	IEC 61000-4-2, -4, -5, -11 Standards Revisions , Tom Revesz, HV Technologies
May **	<i>Topic TBD</i> , Elya Joffe, KTM Project Engineering (Outgoing EMCS President)
June	
July	2010 IEEE EMC Symposium, Ft. Lauderdale, FL
August	<i>Topic TBD</i> , Bob Scully, NASA
September	EMI/EMC Simulation and Modeling, David Johns, VP Engineering, CST
October *	Metamaterials for EMC Engineers, Omar Ramahi, Univ. of Waterloo
November	
December	

# Chapter Calendar

- 2010 Administrative Activities
  - April
    - None
  - May
    - None
  - June
    - Call for 2011 officer nominations

# May Presentation Topic

- Elya Joffe will speak
  - Topics
    - Path of Least Impedance
    - EMC Grounding Fundamentals
    - Cost of EMC
    - Frequently Asked EMC Questions (and Answers)
    - Who's Afraid of Maxwell's Equations? A Practical Approach

# Current Events

## Iceland's Disruptive Volcano



Smoke billows from an erupting volcano which seems to be close to the top of the Eyjafjalla glacier on April 14, 2010 near Reykjavik. All London flights, including those from Heathrow, will be suspended from noon (1100 GMT) today due to volcanic ash from Iceland that has already caused almost 300 cancellations here, officials said. (AFP/Getty Images)



# Current Events

## Iceland's Disruptive Volcano



Terrestrial photos taken by Marco Fulle on April 16th, 2010.

[http://www.swisseduc.ch/stromboli/perm/iceland/eyafallajokull\\_20100416-en.html](http://www.swisseduc.ch/stromboli/perm/iceland/eyafallajokull_20100416-en.html)

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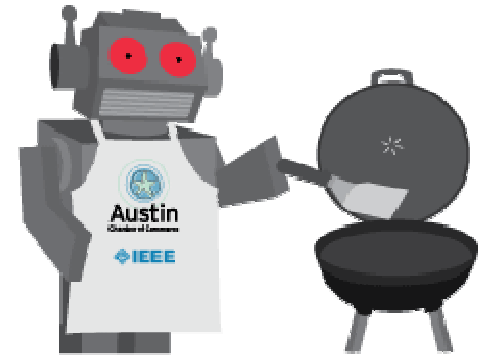
# Future Events

## International Instrumentation & Measurement Technology Conference



- May 2-6, 2010
- Hilton, Austin, TX
- [imtc.ieee-ims.org](http://imtc.ieee-ims.org)

# Future Events



- Austin Brain Party
  - May 4, from 5:30 to 7:30 p.m.
  - Hilton Austin Downtown
  - To register, submit your name, email address, company and IEEE membership status to [vsegna@austinchamber.com](mailto:vsegna@austinchamber.com).
  - Admission at the door with business card or student ID.

<http://www.AustinHumanCapital.com/BrainParty>

# Future Events

## 2010 IEEE EMC Symposium

July 25-30, 2010, Convention Center, Ft. Lauderdale, FL



- Update
  - Technical papers reviews in process
  - Advance Program
    - In preparation. Will come out in late April
  - Conference hotels are filling up
    - Make your reservations now!
  - Experiment & Demo proposals due by 4/30

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- ## Workshops & Tutorials

### Monday

Fundamentals of EMC

Practical Radiated Measurements using Antennas and Field Probe

Power Quality and Low-Frequency EMC in Electrical Systems

ESD and Lightning Testing Additions to MIL-STD-461G

Introduction to EMI modeling techniques

All about EMI above 1 GHz

How to simplify real-world complex systems into realistic, solvable, accurate models

Application of Reverberation Chambers

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- **Workshops & Tutorials**

### Friday

EMC Leadership

Application of Time Domain Measurements for Test Site Validation and Antenna Calibration

EMC Society History

Fundamentals of Signal Integrity

Emissions and Immunity near field scanning techniques

Basic EMC Measurements

Capturing the Electromagnetic Environment

EM Field Coupling with Transmission Lines, from Classical Theory to Recent Enhancements

Practical Tips on 17025 Compliance

**IEEE EMC Society - Central Texas Chapter**



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- ## Special Sessions

### Tuesday, Wednesday & Thursday

Multi-Gbps Interconnect Simulation and Measurement for Signal Integrity and EMI  
Requested afternoon session.

EMI Information Leakage

Modeling/Simulation Validation Standards and Applying the FSV Technique to Quantify  
Validation Quality

Nanomaterials and Nanodevices for EMC Applications

Hybrid Techniques for EMC Analysis of Complex Systems

Evolving Trends in Spectrum Management and Engineering



# Technical Presentation

## EMC Standards Development: CISPR 32 and CISPR 35

*New EMI Requirements for Multimedia Equipment*

by Richard Worley  
Sr. Regulatory Engineer  
Dell

# Wrap-Up

# See You Next Time?

**Wednesday, May 19, 2010**

**Elya Joffe of KTM Project Engineering will demystify the very basics of electromagnetic theory - Maxwell's Equations. The presentation will provide explanations in everyday terms and without the need for mathematics the meaning and implication of Maxwell's equations for the practicing engineer.**