

Forum #5

ADVANCES IN WIRELESS EMC BROAD APPLICATIONS

Continuing Progress in Medical Device - Wireless Compatibility

October 27-28, 1998

**Key Bridge Marriott Hotel
Arlington (Rosslyn), VA**

Keynote Address: Julius Knapp, Chief, FCC Policy and Rules Division

ABOUT THE FORUM

This annual forum is the fifth in the series which brings together industry, government, users of electronic and wireless devices, and academia to share experiences, be brought up to date on current wireless EMC research, standards progress, immunity design techniques, and future related activities. This forum will provide expanded time on major issues with no parallel sessions to allow full interaction between the attendees and the speakers.

As the number of wireless devices grows and other electronic products become part of our everyday lives, the probability for these devices to come in contact and interact with each other increases. This is especially true for devices which are used in hospital and home care situations and with devices which are used in motor vehicles with critical electronic functions. This forum is part of a continuing effort to highlight the issues, provide the status of remedial methods to lessen the interaction effects, and demonstrate progress in the standardization of measurement techniques and applicable conformity assessment levels. In addition, this forum will contain workshops presenting design techniques.

Those who should attend include wireless manufacturers and service providers, medical and automotive device manufacturers and designers, government agencies directly involved in potential regulations that might stem from these interactions, quality assurance managers, representatives to affected standards bodies, trade organizations, and those in academia who are performing the research to further understand the phenomena and develop solutions.

Agenda and Speakers

Tuesday, October 27, 1998

Overview and Progress Reports

- 8:00 – 9:00 AM** **Registration/Continental Breakfast**
- 9:00 – 9:30 AM** **1. Plenary Session**
Keynote: **Julius Knapp**, FCC
- 9:30 – 10:30 AM** **2. Research Progress Report**
OU Wireless EMC Center
Hank Grant and **Bob Schlegel**, OU
Pacemakers
Defibrillators
Hearing Aids
- 10:30 – 11:00 AM** **Break**
- 11:00 – 12:00 PM** **3. Panel: Wireless & Accessibility (SEC 255)**
Virginia Parker, QUALCOMM (Moderator)
Elizabeth Lyle, FCC
Brian Fontes, CTIA
Stephen Berger, AAES
- 12:00 – 1:00 PM** **Lunch**
- 1:00 – 1:45 PM** **4. Basic EMC Immunity Designs**
Norm Violette, Violette Engineering
- 1:45 – 2:30 PM** **5. Regulatory Outlook**
Don Witters, FDA
FDA EMC Activity
Julius Knapp, FCC
Spectrum Planning
- 2:30 – 3:15 PM** **6. EMC Standards Activity**
Jeffrey Silberberg, FDA
IEC 60601-1-2 Draft Second Edition
(international medical device immunity standard)
Kwok Chan, FCC
Cell Phone Emission Models
- 3:15 – 4:00 PM** **7. Wireless and Medical Education**
Misty Baker, GWEC
Hank Grant, OU Wireless EMC
- 4:00 PM** **Close of First Day**
- 4:30 – 6:00 PM** **Reception (No-Host Bar)**

Wednesday, October 28, 1998

User Workshops/Tutorials

- 7:30 – 8:30 AM** **Registration/Continental Breakfast**
- 8:30 – 8:35 AM** **Workshop Introduction**
Don Heirman, OU Wireless EMC
- 8:35 – 9:15 AM** **8. Basic EMC (Part II*)**
Don Heirman, Lucent Technologies
- 9:15 – 10:00 AM** **9. Wireless Technology Fundamentals**
Paul Moller, Motorola
Nikolai Leung, QUALCOMM
- 10:00 – 10:30 AM** **Break**
- 10:30 – 11:45 AM** **10. Wireless Workshop**
Michael Julian, Ericsson
Burt Calloway, Ericsson
- 11:45 – 1:00 PM** **Lunch**
- 1:00 – 1:45 PM** **11. Managing EMC in Hospitals (tutorial)**
Gene Butler, Horizon Bio-Medical
Hospital Medical Device EMI
Hank Grant, OU Wireless EMC
Modeling the Use of Wireless
- 1:45 – 3:00 PM** **12. Guide to Hospital EMC Workshop**
Bernard Segal, McGill University & SMBD-Jewish General Hospital
Nancy Pressly, FDA
Sean Boyd, FDA
Gene Butler, Horizon Bio-Medical
Hank Grant, OU Wireless EMC
- 3:00 – 3:30 PM** **Break**
- 3:30 – 4:15 PM** **13. Medical Device EMC Design Workshop**
Hearing Aids
Tom Victorian, Starkey
Alwin Fransen, Microtronic
- 4:15 – 4:45 PM** **14. Successful Wireless Use In Hospitals**
Vera Arnett, Ingalls Health System
- 4:45 – 5:00 PM** **15. Wrap-Up and Questionnaire**
Hank Grant and **Don Heirman**
- 5:00 PM** **Conclusion of Forum**

* Basic EMC (Part II) is a continuation of Forum #4 Part I tutorial.

Successful Fifth Annual EMC Forum Brings Together Industry, Government Together to Discuss Solutions

With conferees coming from as far away as Japan and Taiwan, this year's University of Oklahoma Center for the Study of Wireless Electromagnetic Compatibility (EMC) "Continuing Progress in Medical Device- Wireless Compatibility" Forum took on a new look.

Nearly 100 industry, government, users of electronic and wireless devices, and academia came together to share experiences, be brought up to date on current wireless EMC research, standards progress, immunity design techniques, and future related activities.

The first day sessions focused on compliance with the Disability Access Requirements of the Telecommunications Act of 1996, Basic Immunity Designs, Regulatory Outlook, EMC Standards Activity, and Wireless and Medical Evaluation.

The second day featured workshops and tutorials on Basic EMC, Wireless Technology Fundamentals, Managing EMC in Hospitals, Medical Device EMC Design and Successful Wireless Use in Hospitals.