



Fort Wayne Wireless Summer School Agenda

Wednesday, June 17, 2009

07:30-08:00	Registration/Check-in	
08:00-08:05	Opening Remarks	<i>Todor Cooklev, IPFW</i>
8:05-8:15	Welcoming address	<i>Dr. Michael Wartell, Chancellor, IPFW</i>
08:15-09:15	JPEO Joint Tactical Radio System <ul style="list-style-type: none">• Status, JTRS networking waveforms• Business opportunities	<i>Capt Jeff Hoyle, JPEO</i>
9:15-10:00	Software-Defined Radios: Are they that hard? <ul style="list-style-type: none">• SDR can be simple or hard• The requirements impact the design	<i>Dr. Larry Williams, ITT, San Diego, CA</i>
10:00-10:30	Coffee Break and Rohde Schwarz equipment demo	
10:30-11:15	Academia's Role in Educating Students to be SDR Engineers <ul style="list-style-type: none">• Required: technical depth in one area and working knowledge of other areas• System engineering mindset	<i>Dr. Sven Bilen, Penn State Univ.</i>
11:15-12:00	Vertically Integrated Projects, Testbeds, and Applications of Sensor Networks and SDR in Transportation Systems and Large Event Management The perspective from the Center for Wireless Systems and Applications at Purdue	<i>Dr. Jim Krogmeier, Purdue Univ., West Lafayette, IN</i>
12:00-01:15	Lunch	
01:15-02:00	A Transmitter for the Thales ADS-B Ground Station Universal Access Transceiver – supporting the FAA/ITT Surveillance Broadcasting Services System Program <ul style="list-style-type: none">• The FAA's Automatic Dependent Surveillance – Broadcast (ADS-B) Air Traffic Modernization Program	<i>J. Johnston, Thales ATM, Inc.</i>
2:00-02:45	ADS-B RF coverage analysis <ul style="list-style-type: none">• How to achieve system performance, safety, and interference requirements while providing RF coverage in the entire airspace of the United States.	<i>Erton Boci, ITT, Herndon, VA</i>
02:45-03:15	Coffee Break and Rohde Schwarz equipment demo	
03:15-04:00	The SCA in a nutshell	<i>J. Marks, G. Bickle, Raytheon,</i>



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04:00-04:45	<ul style="list-style-type: none">• Features, characteristics, and components of the SCA The network layer of JTRS	<i>Fort Wayne, IN</i> <i>Tony Michel, BBN, Boston, MA</i>
04:45-05:30	<ul style="list-style-type: none">• Networking architectures• Internet Routing• Mobile Internet Next-Generation FPGA Middleware – Minimizing Latency in Multi-Processing SCA-Compliant Platforms,”	<i>Steve Jennis, PrismTech, Dallas, TX</i>
06:00-08:00	Banquet <ul style="list-style-type: none">• Kevin Piekarski Jazz Trio• Presentation: The RF Alliance	<i>Matt Harvey, TSC, Bloomington and Deputy Director, the RF Alliance</i>

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08:00-08:45	“The IEEE P1900 standards for cognitive networks” <ul style="list-style-type: none">• The IEEE SCC41 standards projects for dynamic spectrum access and cognitive radio• Policies and cognitive radios	<i>Lynn Grande, General Dynamics, Boston, MA</i> <i>Dr. Mark Cummings, enVia, Atherton, CA</i>
08:45-09:30	"Defense Spectrum Management Transformation - Dynamic Spectrum Access" <ul style="list-style-type: none">• DoD spectrum challenges• DoD dynamic spectrum access roadmap	<i>Mary Lin, Defense Spectrum Organization</i>
09:30-10:00	Coffee break	
10:00-10:45	Cognitive Radio Networks <ul style="list-style-type: none">• Future wireless networks• DARPA programs	<i>Dr. Bruce Fette, Dr. Paul Kolodzy, DARPA, Strategic Technology Office, Alexandria, VA</i>
10:45-11:30	Whitespace, femtocell, network fragility drive need for Metalanguage,” <ul style="list-style-type: none">• How did the Metalanguage start• Why is it necessary• Where to from here	<i>Dr. Mark Cummings, enVia, Atherton, CA</i>
11:30-12:15	"Compatible, Cooperative, and Cognitive Communications using Software Radio"	<i>Dr. J. Nicholas Laneman, Univ. Notre Dame</i>



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12:15-01:30	Lunch	
1:30-02:15	"Adaptive wireless networks for mobile broadband communications," <ul style="list-style-type: none">• Channel adaptation• Novel MIMO algorithms	<i>Dr. David Love, Purdue Univ., West Lafayette, IN</i>
02:15-03:00	"Wireless Security on Embedded Devices,"	<i>Aaron Ault, Purdue Univ., West Lafayette, IN</i>
03:00-03:30	Coffee break	
03:30-04:15	Affordable SDR Components for JTRS	<i>Elizabeth Suet Tse, Lisa Rulli, CERDEC, US Army</i>
04:15-05:00	"A COTS Solution for Mobile Command and Control," <ul style="list-style-type: none">• A mobile Command and Control solution• Provides also role-based subscriptions on commercial or military mobile devices	<i>Steven Webb, General Dynamics, Fort Wayne, IN</i>
05:00-05:45	"Specifying RF Phase Noise Requirements for High Performance Waveforms," <ul style="list-style-type: none">• Phase noise characteristics• Effect of phase noise on system performance• Analytic and measurement techniques	<i>J. Rose, Dr. J. Isaacs, ITT, Fort Wayne, IN</i>