

RF WORKSHOP 2011

RADIO FREQUENCY ENGINEERING APPLICATIONS

May 6, 2011 • 8:00 a.m.- 4:00 p.m. • IPFW Campus Walb 126 • Fort Wayne , IN



This workshop on Radio Frequency (RF) Engineering Applications aims to bring academicians, professionals, and students together to communicate the applications and advances in Radio Frequency Engineering in today's technology. Instructive and interactive exchange of technical information and research ideas will contribute significantly to the researchers and professionals in the area. Attendees from industry and academia from Northeastern Indiana will be meeting on the IPFW campus. The workshop will consist of oral presentations, poster session and demos. There is no registration fee but seating is limited. Registration is required by April 29, 2011 at <http://ipfw.edu/rfworkshop> or by emailing your request to eroglua@ipfw.edu.

Workshop Sessions

8:00	Introduction	Prof. Don Mueller, Chair of Engineering Dept.	IPFW
8:05 - 8:15	Welcome and Opening Remarks	Prof. William J. McKinney, Vice Chancellor for Academic Affairs	IPFW
	IEEE Fort Wayne Section		
8:15 - 8:30	Applications of Radio Frequency Engineering Application Smart Grids - Session Chair : Carlos Pomalaza Raez	Prof. Abdullah Eroglu	IPFW
8:30 - 8:50	Smart Grid - Beyond Smart Meter	Prof. David Momoh	IPFW
8:50 - 9:10	A Labview Based Automatic Paralleling of Synchronous Generator System	Samuel J. Loeffler ,Nicholas J. Dykhuizen	IPFW
9:10 - 9:30	How Government Regulations Drive Industrial Transformer Design	Kenneth Harden	Schneider Electric
9:30 - 9:50	Planning for Electronic Obsolescence in the Era of Smart Phones	Prof. Steve Walter	IPFW
9:50 - 10:10	Coffee Break		
10:10 - 10:30	Keynote Speech	Nichole Lustre , Deputy Director	RF Alliance
	RF Power Amplifier Design Applications - Session Chair : Robert Smith		
10:30 - 10:50	Power Amplifier Measurements: Nonlinear Characterization and Modeling	Andy Owen	Agilent
10:50 - 11:10	Model Driven HPA Characterization for WCDMA Suitability	Andrew Marcum	Raytheon
11:10 - 11:30	Digital Predisortion	Mike Leffel	Rhode&Schwarz
	OFDM and MIMO - Session Chair : Calude Setzer		
11:30 - 11:50	OFDM: Efficiency in Communication	Dr. Claude Setzer	IPFW
11:50 - 12:10	LTE: a different flavor of OFDMA	Mike Leffel	Rhode&Schwarz
12:10 - 12:30	MIMO: Enhanced OFDM	Dr. Claude Setzer	IPFW
12:30 - 13:00	Lunch		
	RF Passive Component - Session Chair : Abdullah Eroglu		
13:00 - 13:20	Length of Geometry Dependence of Quilt Packaging at Microwave Frequencies	David Kopp, Prof. Gary H. Bernstein, Prof. Patrick Fay	Notre Dame
13:20 - 13:40	An Interlocking 2D Chip to Cip Interconnect fo Quilt Packaging	Quanling Zheng, Prof. Patrick Fay, Prof. Gary H. Bernstein	Notre Dame
13:40 - 14:00	CAD Tool for Microstrip Circuit Design	Bill Westrick, Prof. Abdullah Eroglu, IPFW	IPFW
14:00 - 14:20	Coffee Break		
	Sensors and Networks - Session Chair : Chao Chen		
14:20 - 14:40	RFID Applications	Robert Palevich	IPFW
14:40 - 15:00	Active Self-Landmarking to Mobile Robot Navigation through Wireless Communic	Glenn Harden	IPFW
15:00 - 15:20	A Wireless Energy Custodian Network	Renee Chandler, Nusaybah Abu-Mulawah	IPFW
	RF and Microwave Materials - Session Chair : Thomas Laverghetta		
15:20 - 15:40	RF/Microwave Material History	Prof. Thomas Laverghetta	IPFW
15:40 - 16:00	Active Device Characterization	Joseph.Astroski, Seth Colclasure, Jeremy.Reinhard, Prof. A. Eroglu	IPFW, ITT
16:00 - 16:05	Closing Remarks	Prof. Don Mueller, Chair of Engineering Department	IPFW

Poster Sessions

Non-linear Measurements on Microwave Power Amplifiers	Dr. Claude Setzer	IPFW
Modeling PCB via Interconnect - Rose Hulman	Jon Klein, Kyson Mathieu	Rose-Human Ins. Tech.
Affecting Electronics and Wireless Devices Using Low Energy Intentional Electromagnetic Interference (LE-EMI)	David Silwanowicz, Alex Wolf	Rose-Human Ins. Tech.
A Wearable Wireless System for Unobtrusive Measurement of Human Motion	Prof. C. Chen, Prof. C. Pomalaza-Raez, S. Hendershot, Ma Oo, A. Hilton	IPFW
Design and Implementation of Single Stub Tuning Network	Justin Coulton, Scott Crawford, Prof. A. Eroglu	Raytheon, Fort Wayne Metals, IPFW

Demos

Agilent, Rhode & Schwarz, LLC Electronics, IVY Tech

Organizing Committee

Prof. A. Eroglu, Chair; Prof. C. Chen, Co-Chair; Prof. C. Pomalaza-Raez, Co-Chair; Prof. T. Laverghetta; Dr. C. Setzer; Dr. E. Gose; R. J. Smith; W. Westrick

Advisory Committee

Prof. S. Walter and Prof. D. Mueller

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