

Department of Electrical and Computer Engineering
Annual Graduate Research Conference
April 26, 2013
The Hilton UH Hotel & Conference Center
Houston, Texas

Program

8:00 - 8:55 am	Breakfast and registration, Waldorf Astoria Room 210, Lobby
8:55 - 9:00 am	Opening Ceremonies, Plaza Room 247 <ul style="list-style-type: none">• Opening Remarks by Dr. Pauline Markenscoff, Conference Chair• Welcome to Technical Sessions by Dr. Wanda Wosik
9:00 - 10:00 am	Technical Program - Oral Session A, Plaza Room 247
10:00 -10:30 am	Remarks <ul style="list-style-type: none">• Dr. Rathindra Bose, VC/VP for Research and Technology Transfer• Dr. Badri Roysam, Chairman, ECE Department
10:30 - 10:45 am	Coffee Break, Waldorf Astoria Room 210, Lobby
10:45- 11:30 am	Technical Program - Oral Session B, Plaza Room 247
11:30- 12:30 pm	Lunch, Waldorf Astoria Room 210
12:30 - 1:00 pm	Plenary Presentation “Life, Liberty and the Pursuit of Happiness: Advice on Maximizing Your Impact?” by Dr. Milton Morris, Vice President of Research and Development of Cyberonics, Waldorf Astoria Room 210
1:00 - 3:00 pm	Technical Program - Poster Session C, Shamrock Ballroom, Room 261
3:00 – 4:00 pm	Technical Program - Oral Session D, Plaza Room 247
4:00 - 4:15 pm	Coffee Break, Waldorf Astoria Room 210, Lobby
4:15 - 5:15 pm	Technical Program - Oral Session E, Plaza Room 247
5:45 - 6:45 pm	Awards Ceremony, Waldorf Astoria Room 210

GRC 2013 TECHNICAL PROGRAM

The Hilton UH Hotel & Conference Center

April 26, 2013

8:00 – 8:55 am Breakfast

8:55 – 9:00 am Opening Remarks in Plaza

Session A: Neural Sensing And Bioengineering

Session Type: Oral

Time: 9:00 – 10:00 am

Location: Plaza

Faculty Chair: Dr. Jose Contreras-Vidal

9:00 – 9:15 am AUTONOMIC MARKERS OF VISUAL AWARENESS 3
Ziyang Li and Bhavin R. Sheth

9:15 – 9:30 am INFORMATION PROCESSING BOTTLENECKS 5
OF HUMAN VISUAL SYSTEM
D. Huynh, O. Ekiz, S. P. Tripathy, H. E. Bedell, and H. Ogmen

9:30 – 9:45 am FABRICATION OF NEURAL PROBES FOR 7
SIMULTANEOUS IN VIVO OPTICAL STIMULATION
AND ELECTRICAL RECORDING IN THE BRAIN
M. M. Gheewala, W.-C. Shih, G. Purushothaman, J. A. Dani, and
J. C. Wolfe

9:45 – 10:00 am DECODING THE EVOLVING GRASPING STRUCTURE 9
FROM ELECTROENCEPHALOGRAPHIC (EEG)
ACTIVITY
Harshavardhan A. Agashe, and Jose L. Contreras-Vidal

10:00 – 10:30 am Welcoming Remarks and Addresses in Plaza

10:30 – 10:45 am Coffee Break

Session B: Electromagnetics in Broad Applications

Session Type: Oral

Time: 10:45 – 11:30 am

Location: Plaza

Faculty Chair: Dr. David Jackson

10:45 – 11:00 am	SCALABLE SPARSE OPTIMIZATION FOR BIG POWER GRID DATA L. Liu and Z. Han	11
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11:15 – 11:30 am	AN ANALYSIS OF COPPER SURFACE ROUGHNESS EFFECTS ON SIGNAL PROPAGATION IN PCB TRACES Xichen Guo, David R. Jackson, and Ji Chen	15
11:30 – 12:30 pm	Lunch , Waldorf Astoria Room 210	
12:30 – 1:00 pm	Plenary Presentation by Dr. Milton Morris , Vice President of Research and Development of Cyberonics, Waldorf Astoria Room 210	

Session C: POSTER PRESENTATIONS

Time: 1:00 – 3:00 pm

Location: Shamrock

Faculty Chairs: Dr. Ji Chen and Dr. Zhu Han

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Session D: Imaging For Bio- And Nano-Structures

Session Type: Oral

Time: 3:00 – 4:00 pm

Location: Plaza

Faculty Chair: Dr. Jack Wolfe

3:00 – 3:15 pm OPTICAL IMAGING BASED NANO HOLE SYSTEM FOR ULTRASENSITIVE BIO-DETECTION. 75
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4:00 – 4:15 pm	Coffee Break	

Session E: Electromagnetics: Nanoparticles, Materials and Devices

Session Type: Oral

Time: 4:15 – 5:15 pm

Location: Plaza

Faculty Chair: Dr. Jarek Wosik

4:15 – 4:30 pm	ACCURATE CHARACTERIZATION OF NANOPARTICLES HEATING EFFICIENCY FOR DRUG DELIVERY AND CANCER THERAPY Dhivya Ketharnath, Rohit Pande, Leiming Xie, Biana Godin, and Jarek Wosik	83
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