

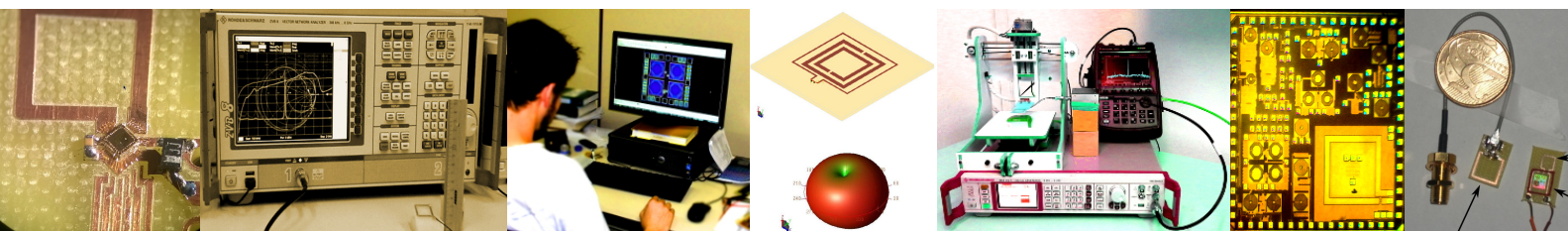
# 2<sup>nd</sup> Workshop

## on RF and Microwave Technology

November 25-27, 2015 - Universidade Federal de Santa Catarina - Florianópolis, Brazil



The “2nd Workshop on RF and Microwave Technology” is organized by the Radio Frequency Research Group at the Federal University of Santa Catarina – UFSC, the IEEE IMS/CAS/COMMSOC technical chapter, and the IEEE Student Branch at UFSC. The workshop will be held on November 25, 26 and 27, 2015, at Florianópolis, Santa Catarina, Brazil. Its main goal is sharing technical knowledge on the RF and Microwave fields among students, researchers, and industry members from electrical/electronics engineering and related sciences in our region. Moreover, the meeting also allows a broad academic and professional public to be in contact with innovative ideas and distinguished lecturers. The workshop also aims to promote and to create research opportunities and technical partnerships between the academy and local companies. Florianópolis and its urban surroundings have the potential to become one of the most important technology centers in Brazil, home of an ever increasing number of entrepreneurs, start-up companies and incubators. This edition of the Workshop on RF and Microwave Technology will have oral presentations and short-courses.



### LECTURES

**Maysam Ghovanloo, PhD**

(Georgia Institute of Technology)

**Hassan Aboushady, PhD**

(University of Pierre & Marie Curie, Paris VI)

**Germán Botero, Dr**

(Universidad Nacional de Colombia)

**José Güntzel, Dr**

(Universidade Federal de Santa Catarina)

**Vinícius Livramento, MSc**

(Universidade Federal de Santa Catarina)

**Victor Pusch**

(Sensorweb)

### COURSES

**RFIC Design Flow**

with **CADENCE Virtuoso**

(Henrique Hayasaka/Rodrigo Rottava)

**RF-MW Circuit Design**

with **ADS Keysight**

(Carlyle Câmara/Juan Moya)

### FLASH TALKS

**Wireless Power Transfer  
for Miniaturized Implants**

(Fabian Cabrera)

**Human Body**

**Communication**

(Maicon Pereira)

### ORGANIZATION

Radio Frequency Laboratory

(LRF @ UFSC)

<http://rfic.ufsc.br>

Technical Chapter

IEEE-IMS/ CAS/COMMSOC

(Florianópolis/ South)

### SPONSORS



**COURSES**  
Wednesday  
25/11

**RFIC Design Flow  
with CADENCE Virtuoso**

**Part 1  
8h00**

**RF-uW Circuit Design  
with ADS Keysight**

**Part 1  
10h00**

**LECTURES**  
Thursday  
26/11

**Practical Issues in RF/Microwave  
Measurements Using VNAs**

Germán Botero, Dr

**10h30**

**RF Sigma-Delta ADC:  
Realizing the Cognitive Radio Dream**

Hassan Aboushady, PhD

**14h00**

**FirstPlace: a Fast and Effective Incremental  
Timing-Driven Placement Flow**

José Güntzel, Dr and Vinícius Livramento, MSc

**16h00**

Auditório da FEESC/CTC

**COURSES**  
Friday 27/11

**RFIC Design Flow  
with CADENCE Virtuoso**

**Part 2  
8h00**

**RF-uW Circuit Design  
with ADS Keysight**

**Part 2  
10h00**

**LECTURES**  
Friday 27/11

**Efficient Power and Wideband Data  
Transmission in Near Field**

Maysam Ghovanloo, PhD

**14h00**

**"IoT: Serão 1 trilhão de sensores em 2020.**

**Mas onde? Fazendo o que?**

Victor Pusch

**16h30**

Auditório Teixeira/CTC

**ORGANIZATION**

**SPONSORS**

Radio Frequency Laboratory  
(LRF @ UFSC)  
<http://rfic.ufsc.br>

Technical Chapter  
IEEE-IMS/ CAS/COMMSOC  
(Florianópolis/ South)





IEEE IM09/CAS04/COM19  
Florianópolis-SOUTH BRAZIL  
Technical Chapter

# IEEE Technical Chapter IM09/CAS04/COM19 (Florianópolis/South)

## IEEE-CAS DISTINGUISHED LECTURE

# Efficient Power and Wideband Data Transmission in Near Field

by **Prof. Maysan Ghovanloo**

GT-Bionics

Georgia Institute of Technology

**August 27<sup>th</sup>**  
**14h00**

**Auditório Teixeira**



**Biography of the lecturer: Maysan Ghovanloo** received the B.S. degree in electrical engineering from the University of Tehran, and the M.S. degree in biomedical engineering from the Amirkabir University of Technology, Tehran, Iran in 1997. He also received the M.S. and Ph.D. degrees in electrical engineering from the University of Michigan, Ann Arbor, in 2003 and 2004.

Dr. Ghovanloo developed the first modular Patient Care Monitoring System in Iran where he also founded Sabz-Negar Rayaneh Inc. to manufacture physiology and pharmacology research laboratory instruments. From 2004 to 2007 he was an assistant professor in the Department of ECE at the North Carolina State University, Raleigh, NC. Since 2007 he has been with the Georgia Tech School of Electrical and Computer Engineering, where he is an associate professor and the founding director of the GT-Bionics Lab. He has authored or coauthored more than 150 peer-reviewed conference and journal publications on implantable microelectronic devices, integrated

circuits and micro-systems for IMD applications, and modern assistive technologies.

Dr. Ghovanloo is the general chair of the IEEE Biomedical Circuits and Systems (BioCAS 2015) in Atlanta, GA (Oct- 22-24, 2015). He is an Associate Editor of the IEEE Transactions on Biomedical Engineering and IEEE Transactions on Biomedical Circuits and Systems. He served as an Associate Editor of IEEE Transactions on Circuits and Systems, Part II (2008-2011), as well as a Guest Editor for the IEEE Journal of Solid-State Circuits and IEEE Transactions on Neural Systems and Rehabilitation Engineering. He has also served on the Imagers, MEMS, Medical and Displays subcommittee of the International Solid-State Circuits Conference (ISSCC) from 2009-2014. He has received the National Science Foundation CAREER Award, the Tommy Nobis Barrier Breaker Award for Innovation, and Distinguished Young Scholar Award from the Association of Professors and Scholars of Iranian Heritage.



IEEE IM09/CAS04/COM19  
Florianópolis-SOUTH BRAZIL  
Technical Chapter

# IEEE Technical Chapter IM09/CAS04/COM19 (Florianópolis/South)

## INVITED LECTURE

### RF Sigma-Delta ADC: Realizing the Cognitive Radio Dream

by **Prof. Hassan Aboushady**

LIP6 Laboratory

University of Pierre & Marie Curie

Paris VI

**August 26<sup>th</sup>**

**14h00**

**Auditório FEESC**



**Biography of the lecturer:** Hassan Aboushady is currently an Associate Professor at the University of Pierre and Marie Curie, Paris VI, France. He received the B.Sc. degree in Electrical Engineering from Cairo University, Egypt, in 1993, the M.Sc. and Ph.D. degrees in Electrical Engineering and Computer Science from the University of Pierre & Marie Curie, Paris VI, France in 1996 and 2002 respectively. He also obtained his accreditation to supervise research (HDR) from the same University in 2010. In 1999, he worked on the design of high resolution audio Digital-to-Analog converters at Philips Research Laboratories, Eindhoven, The Netherlands. In 2001, he worked on the implementation of a baseband continuous-time Sigma-Delta modulator for RF receivers at STMicroelectronics, Crolles, France. In 2002, he was a post-doctoral research scientist at the Center of European Research in MicroElectronics, working on design automation for analog integrated circuits.

Hassan Aboushady was a visiting professor for several months at the French University in Egypt, UFE, the Federal University of Rio Grande do Norte, UFRN, Brazil, and "Technologico de Monterrey", ITESM, Guadalajara, Mexico, in 2007, 2011 and 2013 respectively. During the academic year 2012-2013, he was on a sabbatical leave at the Ecole Polytechnique, LIPCM laboratory, working on the design of analog circuits using organic electronics.

His research interests include Sigma-Delta modulation, analog and RF circuit design and Analog-to-Digital conversion. He is the author and co-author of more than 60 publications in these areas. He is the recipient of the 2004 best paper award in the IEEE Design Automation and Test in Europe Conference, as well as the recipient and the co-recipient of the 2nd and the 3rd best student paper awards of the IEEE Midwest Symposium on Circuits and Systems in 2000 and 2003 respectively. Dr. Aboushady has also served as a TPC member of the IEEE International Conference on Microelectronics (ICM), the IEEE Latin American Symposium on Circuits and Systems (LASCAS) and the Symposium on Integrated Circuit Design (SBCCI). He is also a member of the IEEE Circuits and Systems for Communications Committee (CASCOP), San Diego, USA, general chair of IEEE MeMeA 2014, Lisbon, Portugal and as TPC co-chair of ICST 2014, Liverpool, UK. He is regular member of Technical Committee of IEEE IMTC, IEEE MeMeA, IEEE IDAACS and IEEE ICST.