

April 30, 2007

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Research

GRANTS:

Project Title: Terahertz speed ballistic circuits for space applications

Sponsor: AFOSR

Amount: \$400,000

Duration: 01/07-12/10

PI: Martin Margala

Project Title: Modeling of Superlattices made of GaAs/Al_xGa_{1-x}As and GaN

Sponsor: Tyco Electronics

Amount: \$16,875

Duration: June-July 2007

PI: Sam Mil'shtein

Project Title: Evaluation of a new Type of Wind Turbine: The 1.8kw Windstream

Sponsor: National Grid

Amount: \$16,000

PI: Ziyad Salameh

JOURNAL PUBLICATIONS:

M. Wieckowski, M. Margala, "Portless SRAM - A High-Performance Replacement For The 6T Methodology", accepted for *IEEE Journal of Solid State Circuits*, March 2007.

B. Jasionowski, M. Lay, M. Margala, "Processor-in-Memory for Video Compression", *IEEE Transactions on VLSI*, to appear in April 2007.

J. Liobe, M. Margala, "Novel Process and Temperature-Stable, IDD Sensor for the BiST Design of Embedded Digital, Analog, and Mixed-Signal Circuits", accepted for *IEEE Transactions on Circuits and Systems-Part I*, April 2007.

Alex Raj and Oliver Ibe, "A Survey of IP and Multiprotocol Label Switching Fast Reroute Schemes" *Computer Networks*, volume 51, pp. 1882-1907, 2007.

CONFERENCE

PRESENTATIONS:

M. Lanuzza, P. Corsonello, S. Perri, M. Margala, "A New Reconfigurable Coarse-Grain Architecture for Multimedia Applications", *Second NASA/ESA Conference on Adaptive Hardware and Systems*, (AHS 2007), August 2007, invited.

J. Liobe, M. Margala, "Novel Process and Temperature-Stable, On-line Solution for Embedded Analog and Mixed-Signal Test", accepted for publication in *Proceedings of IEEE International On-Line Testing Symposium*, July 2007.

R. Geisler, J. Liobe, M. Margala, "Process and Temperature Calibration of PLLs with BiST Capabilities", accepted for publication in *Proceedings of IEEE International Symposium on Circuits and Systems (ISCAS)*, 27-30 May 2007.

S. Patil, M. Wieckowski, M. Margala, "Self-Biased Charge Transfer Sense Amplifier with Integrated Output Latch", accepted for publication in *Proceedings of IEEE International Symposium on Circuits and Systems (ISCAS)*, 27-30 May 2007.

Amanda Davis and Z. Salameh, "Compatibility of Small-Scale Wind and Photovoltaic Systems Used as Distributed Generation", *IASTED Asia PES*, Phuket, Thailand, April 2007.

P. Buasri and Z. Salameh, "Harmonics generated by a distributed generation system using Wind/Photovoltaic/Fuel cell with battery storage", *IASTED Asia_PES*, Phuket, Thailand, April 2007 .

S. Mil'shtein, A. Churi and A. Shendye, "Infra-Red Medical Imaging. Like x-rays, only better!" *2nd Intern. Bio Convention*, accepted, May 9, 2007

S. Mil'shtein, A. Pillai, J. Palma, C. Liessner and M. Baier, "Line Scanner for Biometric Applications", *IEEE Homeland Security Confer.*, accepted, May 17, 2007

Hien D. Bui, Douglas A. Teeter, David Widay, and Sam Mil'shtein, "The Doherty Power Amplifier with Collector Current and Voltage Controls for Handset Application", *accepted, IEEE Bipolar/BiCMOS Circuits and Techn. Conference*, Aug. 26, 2007

Kanti Prasad, "Imparting Consummate Instructions in Microelectronics Engineering and VLSI Technology at the University of Massachusetts, Lowell," *ASEE Regional Conference*, Kingston, RI, April 21, 2007

BOOK CHAPTERS:

M. Margala, "Low-Power Memory Circuits", *VLSI Handbook, 2nd edition*, Wai-Kai Chen ed., CRC Press, February 2007.

PATENTS:

S. Mil'shtein, J. Palma, "Field Effect Transistor with Independently Biased Gates", U.S. Patent Appl. No. 11,406,838

THESIS DEFENSE

Carlos Bejar Colonia, "A Generalized Multi-sensor 3D Image Registration and Data Fusion Method Using a Multi-resolution Approach", Ph.D in Computer Engineering, April 18, 2007, Megherbi (Advisor).

ECE Seminar Series

Seminar on Wednesday, May 2, in Ball 236 at 3:30 pm. The speaker is Professor Bob Gallager of MIT, one of the fore-fathers of information and coding theory, and the topic is "The Information Theoretic Roots of Digital Communication."

Student News

John F. Palma has been selected as the recipient of the outstanding graduate student award

Calendar of Important Dates

May

3 Thursday *Last Day for Faculty to Administer quizzes and examinations prior to Final examination period

10 Thursday *Friday class schedule

*Last Day of Spring Semester Classes

*Last Day for Faculty to File Grades for Incompletes, and Changes of Course Grades for Fall Semester (2006) Courses

11 Friday *Reading Day

12 Saturday *Spring Semester Examinations Begin

18 Friday *Spring Semester examinations end 6:00 P.M.
*Residence halls close 6:00 P.M.

28 Monday *Memorial Day (University closed)

June

3 Sunday *University Commencement