

September 30, 2008

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ECE Chair

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Online Version: Click News &  
Events at [www.uml.edu/ece/](http://www.uml.edu/ece/)

## Welcome ECE Students!



I hope you had a great summer and are fully engaged in your courses for the Fall 2008 semester. We

would like to welcome our freshman and transfer students to the ECE Department. Our numbers continue to grow - we have 85 freshman and 34 transfer joining our department this semester.

I am happy to report that three ECE faculty have received approval for tenure and promotion to Associate Professor. Please join me in congratulating Prof. Akyurtlu, Prof. Hu and Prof. Lu for their achievement and for reaching this important milestone in their careers.

Three of our ECE students participated in the Intel Cup Undergraduate Embedded System Design Contest held in Shanghai, China this summer. Kevin Lemoi, Jason Gustin and Tony Song formed the team under the direction of Profs. Luo and Cheney. See the article below for details.

We continue to improve the ECE facilities with new equipment. A video capture system was installed in Ball 328 that will enable students to review lectures for courses conducted in that classroom. We have also added more Sun workstations to our recently constructed VLSI Design Lab to keep up with the increased interest in VLSI design. Several of our other laboratories (Microprocessor, Analog Labs) have also been updated with new equipment.

I hope to see you at department activities such as the Deans List reception and the ECE-sponsored

colloquia. I would also encourage that you participate in ECE organizations such as the IEEE and Eta Kappa Nu.

Have a great semester!

Professor Armiento

## Research

### GRANTS:

Project Title: *A Quantum Approach to Optical Negative Index Metamaterials (NIMs): Homogeneous NIMs in the Solid State*

Sponsor: AFOSR  
Amount: \$449,932  
Duration: 5/08-4/11  
PI: Alkim Akyurtlu

Project Title: *SiC Nanowire Field Effect Transistors using Pre-ceramic Polymers*

Sponsor: NSF  
Amount: \$60,000  
Duration: 9/1/08 - 8/31/09  
PI: Joel Therrien  
Co-PI: Dan Schmidt

### BOOK:

Prof. Oliver Ibe's new book titled "Markov Processes for Stochastic Modeling" has been published by Elsevier Academic Press.

### INVITED TALK:

Professor D. K. Kalluri has accepted the invitation of the EECS department of the University of California at Berkeley in their "Distinguished Lecture Series" which schedules presentations of internationally distinguished speakers who are brought to campus to interact with the department's community." The presentation is scheduled for October 22, 2008 from 4-5 PM in

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Soda Hall of the Berkeley campus. The title of the talk is: "Frequency and Polarization Transformer: A Switched Magnetoplasma Medium in a Cavity."

### PATENT:

Quentin Diduck, Martin Margala, "Frequency modulation based flash Analog-to-Digital Converter", US Patent 7,425,915.

### CONFERENCE PRESENTATIONS:

N. Angkawisittpan and A. Akyurtlu, "Conformable Wireless Sensors for Strain/Crack Detection," *2008 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting*, San Diego, CA, July 5-12 2008.

A. G. Kussow and A. Akyurtlu, "Homogenous Negative Index of Refraction Metamaterials in the THz Regime," *2008 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting*, San Diego, CA, July 5-12 2008.

N. Limberopoulos, A. Akyurtlu, A. S. Karakashian, and W. D. Goodhue, "Design, Fabrication, and Validation of Optical Metamaterials," *2008 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting*, San Diego, CA, July 5-12 2008.

A. Bandremer, J. Therrien, and A. Akyurtlu, "Novel Fabrication Methods for Isotropic Optical Negative Index Metamaterials", Invited, Special Session on "Nanoelectromagnetics," *2008 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting*, San Diego, CA, July 5-12, 2008.

Kanti Prasad, "A Consummate Model of Engineering Education for Preparing The Workforce Towards Global Challenges Through Industrial Partnership," *ASEE's International Conference*, Cape Town, South Africa, October 21, 2008.

Sohan Purohit, Marco Lanuzza, Stefania Perri, Pasquale Corsonello, Martin Margala, "Design-Space Exploration of Energy-Delay-Area Efficient Coarse-Grain Reconfigurable Datapath", *22nd IEEE International Conference on VLSI Design*, New Delhi, India, 5-9th January 2009.

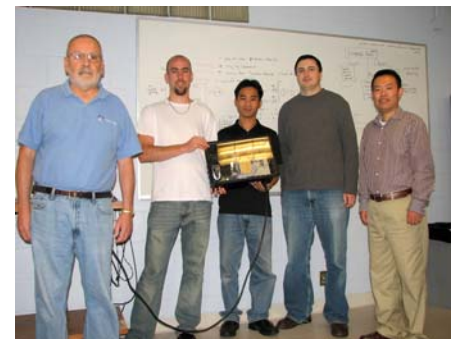
Sai Rahul Chalamalasetti, Sohan Purohit, Martin Margala, Pasquale Corsonello, "Power-Efficient High Throughput Reconfigurable Data path Design for Portable Multimedia Devices", *2008 International Conference on ReConfigurable Computing and FPGAs*, December 3-5, 2008, Cancun, Mexico

Vikas Kaushal, Quentin Diduck, Martin Margala, "Performance Optimization of Room Temperature Deflection Transistors Through Modified Geometry", *1st IEEE Microsystems and Nanoelectronics Research Conference*, Ottawa, Canada, October 15, 2008.

Yan Luo and Chunhui Zhang, "The Design of A Programmable Network Edge Node with Hybrid Multi-core Processors for Virtual Networks," *IEEE International Conference on Computer Communications and Network*, St Thomas, VI, August 3-8, 2008.

### Student Activity

Three ECE undergraduate students, Kevin Lemoi, Jason Gustin, Tony Song participated in Intel Cup Undergraduate Embedded System Design Contest 2008. Directed by Profs. Yan Luo and George Cheney, the students designed a "Voice Message Management System for Two-way Radio Communication", which was built on an Intel multi-core processor based embedded development board to detect and archive two-way radio communications. Jason Gustin, representing the UML team, presented the project in front of a panel of contest judges in Shanghai, China on July 20, 2008. Our team finally won the third place in this contest.



### Calendar

#### **October**

13 Monday \*Columbus Day  
(University Closed)

#### **15 Wednesday \*Monday Class Schedule**

21 Tuesday \*Mid-Semester: At least one evaluation required in each Course.

#### **27 Monday \*Faculty Advising Period Begins.**