

# Welcome to KU Engineering A. Murat Tekalp, Dean







- Computer Engineering
- Electrical and Electronics Engineering
- Mechanical Engineering
- Industrial Engineering
- Chemical and Biological Engineering





#### **Research Centers and Labs**

#### **University Centers**

Surface Sciences and Engineering Lab - KUYTAM (DPT) KU-TÜPRAŞ Energy Research Center – KUTEM

#### Electrical and Electronics Engineering

Optical Microsystems Lab

Multimedia Vision and Graphics Lab

Next Generation Wireless Communications Lab

Wireless Vehicular Networks Lab

Nanophotonics Lab

#### Computer Engineering

**KU-Microsoft Software Engineering Center** 

Next-Generation User Interfaces Lab

Artificial Intelligence Lab

Networked and Distributed Systems Lab

#### Mechanical Engineering

Manufacturing Automation Research Center

Robotics and Mechatronics Lab

Mechanical Characterization Lab

Micro Nano Fabrication Lab (Cleanroom)

Vibration and Acoustics Lab

Advanced Materials Lab

Composite Materials Manufacturing Lab

Biofluidics and Cardiovascular Mechanics Laboratory

Industrial Engineering

**KU-IBM Supply Chain Research Center** 

Chemical and Biological Engineering

Supercritical Fluids and Energy Technologies Lab

Biomimetic Materials and Islet Cell Bioengineering Lab

Molecular Biochemistry Research Lab

#### **Inter-disciplinary MS/PhD Programs**

Bio-medical Sciences and Engineering

Computational Science and Engineering

Center for Computational Biology & Bioinformatics

Computational Systems Biology Lab (COSBİ)

Computational and Quantitative Biology Lab (CQBL)

Nanomaterials, Energy and Molecular Modeling Group

Materials Science and Engineering

Optoelectronics and Photonics Engineering



### **Computer Science and Engineering**

- Attila Gürsoy, PhD Illinois, parallel comp, bioinformatics
- Serdar Taşıran, PhD Berkeley, verification, multi-core
- Metin Sezgin, PhD MIT, intelligent user interfaces
- Deniz Yüret, PhD MIT, AI, natural language
- Yücel Yemez, PhD Boğaziçi, multimedia, graphics
- Engin Erzin, PhD Bilkent, multimedia, speech
- Öznur Özkasap, PhD Ege, distributed sys., networks
- Alptekin Küpçü, PhD Brown, security, cryptography
- Emine Yılmaz, PhD Northeastern, info retrieval



# Serdar Taşıran <a href="http://msrc.ku.edu.tr">http://msrc.ku.edu.tr</a>

Concurrent Software Verification Energy Efficient Multi-Core Computing Noise in Nano-Transistors and {SD}RAMs

Alper Demir (Electrical Eng) <a href="http://home.ku.edu.tr/~aldemir">http://home.ku.edu.tr/~aldemir</a>

#### **Collaborators**

- UC Berkeley
- Microsoft Research
- BarcelonaSupercomputing Center
- > IST Austria

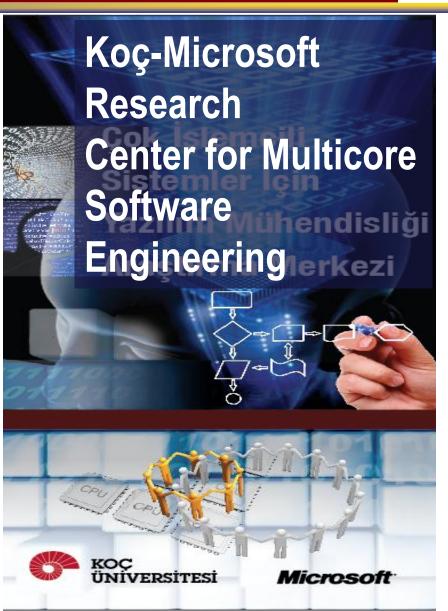
## COMMUNICATIONS OF THE ACM TO DESCRIPTIONS

Home » Magazine Archive » 2010 » No. 11 » Goldilocks: A Ra

**RESEARCH HIGHLIGHTS** 

Goldilocks: A Race-Aware Java Runtime

Tayfun Elmas, Shaz Qadeer, Serdar Tasiran





# Center for Computational Biology and Bioinformatics



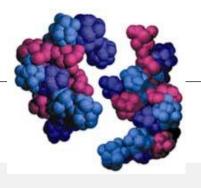


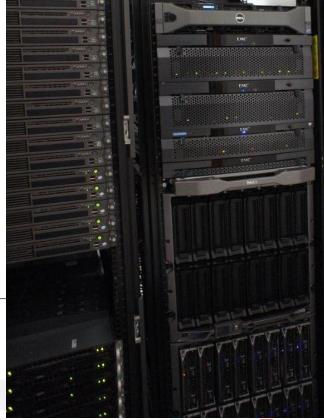
Prof. Özlem Keskin

Prof. Attila Gürsoy

http://prism.ccbb.ku.edu.tr

Prof. Burak Erman





#### SCIENCE WATCH

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2010 • December 2010 - Fast Breaking Papers • Attila Gursoy & Ozlem Keskin Discuss Understanding Drug-Protein Interactions



## ATTILA GURSOY & OZLEM KESKIN DISCUSS UNDERSTANDING DRUG-PROTEIN INTERACTIONS



## **Robotics and Mechatronics Lab**



- Haptics and mechatronics
- Virtual reality interfaces with haptic feedback
- Haptic tele-robotics





# Our graduates are entrepreneurs



#### Emre EROL

BS, Koç Üniversitesi, Computer Engineering, 2005

#### Gün Makinabakan

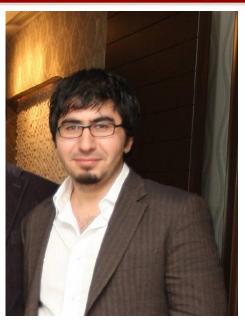
BS, Koç Üniversitesi, Computer Engineering, 2005 MS, Purdue, Electrical and Computer Engineering, 2007

#### Cahit Taşkın

BS, Koç Üniversitesi, Computer Engineering, 2005

Kurucu Ortaklar @ iMobileCode www.imobilecode.com

Koç Üniversitesi'nin yarattığı en büyük farklardan birisi mühendislik öğrencilerini sosyal konularda çok donanımlı eğitmesi. Bu vizyon sayesinde ben de dahil çoğu mezun meslektaşımın iş hayatında sadece teknik departmanlarda değil her alanda başarılı olduklarını görüyorum. Koç üniversitesi sadece teori öğreten bir okul olmakla kalmayıp öğrencilerine ders seçimlerinde okuduğu alanın dışında dersleri de almasına fırsat tanıdığı için kendimi şanslı ve ayrıcalıklı hissediyorum.





#### Selçuk Atlı

BS, Computer Engineering, 2006 MS, Information Technology, 2008 Rensselaer Polytechnic Institute, NY, USA

#### Barış Can Daylık

BS, Computer Engineering, 2006

#### **Deniz Oktar**

BS, Computer Engineering, 2006

Founder and CEO, iletken Teknoloji Founder and CEO, Socialwire

http://www.iletken.com.tr/

I had two great take-aways from my time at Koc University. Working on challenging problems in computer science with valuable professors like Dr. Tasiran and having a well rounded course load in business and marketing had a great impact in my graduate studies and career in software entrepreneurship.



# Our graduates attend the best universities worldwide for PhD



#### Ceyhun Barış Akçay

BS, Electrical and Electronics Engineering, 2011 PhD student, Electrical Engineering, Stanford University, Stanford, CA (USA)

#### Erman Timurdoğan

BS, Electrical and Electronics Engineering, 2010 PhD student, Massachusetts Institute of Technology, Boston, MA (USA)

#### Deniz Altınbüken

BS, Computer Engineering, 2009 Ph.D. candidate in Computer Science at Cornell University, Ithaca NY, USA



# Our PhDs are employed worldwide



#### **Tayfun Elmas**

PhD, Computer Engineering, 2010 MS, Electrical and Computer Engineering, 2005

Received BS degree from Ege University in 2003 before coming to Koç University.

#### **Current position:**

Postdoctoral Research Associate, The Parallel Computing Laboratory, UC Berkeley, CA, USA

Advisors:

Assist. Prof. Serdar Taşıran and Dr. Shaz Qadeer, Microsoft Research (MSR)

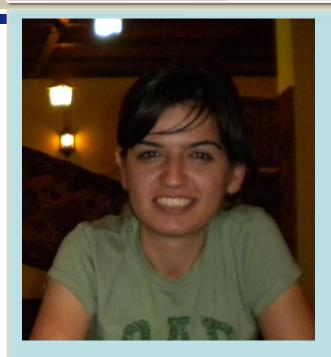
Publications at Koç University:

Journal: 4

**International Conference: 13** 

**National Conference: 3** 

Koç University created from a passionate coder a world-class researcher. Prof. Serdar Taşıran was not only an advisor but also a life coach to me; his experience, understanding, and patience added considerably to my experience at Koç University. I must give immense gratitude to all faculty and staff for helping me in adapting intensive academic research.



Advisors: Prof Dr. Ozlem Keskin and Prof Dr. Attila Gursoy Computational Systems Biology Laboratory (COSBI)

Publications at Koç University: **Journal Publications: 10 Inter. Conference Papers: 15** 

#### Nurcan Tunçbağ

PhD, Computational Science and Engineering, 2010

MS, Computational Science and Engineering, 2007

Received BS degree from Istanbul Technical University before coming to Koç University

#### **Current position:**

Postdoctoral Associate at Massachusetts Institute of Technology, Boston, MA, USA

Koc University Koc University was a milestone in my life where my dreams became reality. My works on computational biology under supervision of Prof Ozlem Keskin and Prof Attila Gursoy inspired my growth from being a student to being a researcher.



## Thank you!!

http://eng.ku.edu.tr www.facebook.com/kocuniveng