Greeting From The CSE Chair  

March 13, 2011

On January 3rd of this year we moved into our new building, the Engineering Research Building, or ERB for short. After countless years of our department being divided among five and sometimes seven different buildings, we are all finally under one roof! And a wonderful “roof” this is, covering a total of 234,000 sq. feet out of which we occupy about a third. We simply love it.

The facilities office and the CSE staff organized an effortless move while we, the faculty, complied and followed procedures. We feverishly packed before the holidays, not really sure what to expect after we returned to campus. But then the move “happened” and suddenly we found our academic lives magically transported inside thousands of yellow crates into our new home.

The building is 6 stories tall, forming an imposing new gateway from the north to the UTA campus. A tall square “arch” in the middle forms a breezeway of ideas and innovations flying between the university and the world around us. The Arch of Triumph, where the Sciences, Engineering and Computing join forces.

Now every day at work means also becoming used to the imposing views or being tempted to sit on terraces overlooking the green next to students who have already discovered this as a great place to combine homework with sunbathing. It also means getting used to lots of windows and feeling the day pass around you as the daylight ages and changes from morning to sunset. My favorite is the magnificent Texas limestone walls inside and out, exposing fossil marks connecting us to millions of years ago. I touch as many of them as I can when I pass by. I try to imagine the future generations of students who may also touch these fossil marks but also be touched by the marks we leave behind through our work.

Now that the ribbon cutting ceremony is over, and most of the media blitz has subsided, we are honing inside our labs and offices to continue the work that we have been assigned to do. As we are doing this, we are also discovering the need to get to know what our ERB neighbors are doing, the bioengineers and the scientists from the College of Science. Since my undergrad training and first Ph.D. work were in the sciences, Biochemistry and Biophysics, respectively, I feel very much connected to our ERB neighbors.

As a problem solving science by nature, our department is constantly seeking out new applications, new collaborations and new problems to solve. Now that we are finally together in this great space, CSE is eager more than ever to reach out, to forge new collaborations with other disciplines and link to faculty coming from all departments in the university. Applications in energy, sustainability, marine conservation, healthcare, drug discovery, devices, and others, are of interest to us.

With this, let me close by inviting all UTA faculty and students, to visit our department and join us in celebrating a new era at UTA, the ERB era, where ERB may also stand for “Era for Relationship Building” or, maybe, computing and engineering without walls.

Fillia Makedon, Professor and Chair
Engineering research building Grand opening

All Faculty and Students of Computer Science and Engineering department settled in to the new Engineering Research Building (ERB) in January, 2011.

The $126 million facility will provide approximately 234,000 square feet of space for state-of-the-art, multidisciplinary research and teaching labs and classrooms, faculty and graduate student offices, administrative offices, conference rooms and support areas. The building is designed to meet LEED Silver standards for sustainability and incorporates several energy-saving features, including green and light-reflecting roofs, window designs for improved use of available light, rain and condensate water capture and storage for landscaping, use of recycled materials, and others that will allow the facility to meet requirements for LEED Silver certification.

The new building houses the Departments of Computer Science and Engineering and Bioengineering, it also integrates research teams from biology, biochemistry, genomics, math, neuroscience and physics. The new building enables researchers to work closely and allows for more collaborative projects.

For more details see:
- channel 5 news: http://www.criticalmention.com/report/9776x202277.htm#
- UTA My Unbranded Story: http://www.uta.edu/uta/mystory/2011/erb.php
NEW ADJUNCT FACULTY

Four new adjunct faculty from The Institute of Informatics and Telecommunications (IIT) of National Centre for Scientific Research (NCSR) “Demokritos” joined CSE department as Adjunct Faculty. NCSR is the largest research center in Greece and the Balkans, involved in multidisciplinary research with institutes in different disciplines. The IIT focuses on research and development in the areas of Telecommunications, Networks, Web Technologies and Intelligent Systems. The new adjunct faculty are:

Vangelis Karkaletsis, Dr. Karkaletsis is research director at NCSR “Demokritos”, head of the software and knowledge engineering Lab. His research interests lie in the areas of Language and Knowledge Engineering, as applied to information filtering and extraction, natural language generation, knowledge discovery, ontology engineering, personalization.

Dimitrios Kosmopoulos: Dr. Kosmopoulos is a research scientist in NCSR, “Demokritos”. He is currently teaching CSE 2320 Algorithms and Data Structures in UTA CSE department. His research interests are in the field of computer vision, robotics and machine learning.

Stavros Perantonis: Dr. Perantonis is research director at NCSR, “Demokritos”. His current research areas include Computational intelligence, artificial neural networks, image and multimedia processing, pattern classification and recognition.

Gerasimos Potamianos: Dr. Potamianos is research director of Software and Knowledge Engineering Laboratory (SKEL). His research interests span the areas of multimodal speech processing with applications to human-computer interaction and ambient intelligence.

ASSISTANT PROFESSOR VASSILIS ATHITSOS WINS CAREER AWARD

CSE Assistant Professor Vassilis Athitsos recently received Faculty Early Career Development (CAREER) award from the National Science Foundation (NSF) for his research project entitled, “CAREER: Large Vocabulary Gesture Recognition for Everyone: Gesture Modeling and Recognition Tools for System Builders and Users.” The CAREER award recognizes and supports junior faculty who “exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations.”

Dr. Athitsos' project aims to develop new methods for automatically annotating, recognizing, and indexing large vocabularies of gestures, and to use these methods to create an integrated set of tools for sign language recognition. Project outcomes will significantly improve the ability of sign language users around the world to search databases of sign language videos and to perform tasks such as looking up the meaning of an unknown sign or retrieving occurrences of a sign of interest in videos of continuous signing. These search tools will have an impact in educational settings, facilitating both learning a sign language and accessing arbitrary information available in a sign language.
Assistant Prof. Jeff Lei (PI) and Tao Xie (NC State) got NIST grant for their proposal titled “Fault Localization Based on Combinatorial Testing”. This is a three-year project with a total budget of $250K. The goal of this project is to develop effective, efficient, and scalable techniques for fault localization in software-intensive systems as well as in models of simulated processes.

Assistant Prof. Christoph Csallner has been awarded an NSF grant for his proposal “SHF: Small: Collaborative Research: Preserving Test Coverage While Achieving Data Anonymity for Database-Centric Applications”. The amount is $250K for three years. This research program addresses a fundamental question of software engineering: how can a data owner protect private information so that the data subjects (e.g., persons, equipment) cannot be re-identified while the data retains their efficacy for software engineering tasks?

Assistant Prof. Christoph Csallner's paper “Is Data Privacy Always Good For Software Testing?” received the best paper award at 21st IEEE International Symposium on Software Reliability Engineering (ISSRE2010). This paper is focused on innovative techniques and tools for assessing, predicting, and improving the reliability, safety, and security of software products.

Assistant Prof. Chengkai Li’s paper titled “Computational Journalism: A Call to Arms to Database Researchers” was awarded the third place in the Outrageous Ideas and Visions paper award at the 5th Biennial Conference on Innovative Data Systems Research (CIDR). This paper is collaborative work with Sarah Cohen (Duke University), Jun Yang (Duke University) and Cong Yu (Google). CIDR is a systems-oriented conference, complementary in its mission to the mainstream database conferences like SIGMOD and VLDB, emphasizing the systems architecture perspective.

Professors Fillia Makedon, Heng Huang, Vassilis Athitsos, Leonidas Fegaras and Gian-Luca Mariottini have been noticed to receive $20K award from NSF to support student travel for the UTA-sponsored conference on Pervasive Technologies Related to Assistive Environments (PETRA 2011 - WWW.PETRAE.ORG) which will take place in Crete Island, Greece May 25-27, 2011.

Prof. Sajal Das received the Graduate Dean's Excellence in Doctoral Mentoring Award. This award acknowledges and praises excellence in doctoral
student mentoring. Dr. Das supervised over 30 Ph.D students and numerous MS students. One of his former Ph.D student Habib M. Ammari recently got NSF CAREER award. Congratulations to Prof. Das for his achievement.

Professors Fillia Makedon, Heng Huang and Vassilis Athitsos’s REU proposal for “MRI: Development of a Next-Generation Multimodal Data Management Human-Sensing Instrument for Trustworthy Research Collaboration and Quality of Life Improvement” got funded from NSF. This would allow involvement of undergraduate students in the research project.

Prof. Makedon with her students and "robokind" humanoid robot

Congratulations to Dr. Donggang Liu and Dr. Matthew Wright for their promotion to Associate Professors with Tenure.

CSE FACULTY AND STAFF FAMILY NEWS

Congratulations to Prof. Fillia Makedon for the arrival of her third grandson, Theodore, the French boy.

Prof. Makedon and her first grandson Leonidas

Dimitrios, son of Alex and Prof. Athitsos
CSE SUMMER STUDY ABROAD PROGRAM

CSE department is providing two study abroad programs - Study in Greece and Study in China - for 2011 Summer. These programs are designed for both graduate and undergraduate students.

APPLY NOW AT: http://cse.uta.edu/studyabroad/

STUDY IN GREECE PROGRAM

This is a six weeks program lead by Prof. Fillia Makedon. Through this program Students can participate in boat-field trips and understand the environmental issues first hand. They will also have the opportunities to work with top scientist from NCSR “Demokritos” (http://www.iit.demokritos.gr) and Archipelagos Marine Institute (http://www.archipelago.gr). They can also collaborate with students from other universities.

Location: Samos Island, Greece

Courses:
CSE 3392: Special Topics/CSE 5393: Directed Study
CSE 4391: Individual Project/CSE 6397 Graduate Research

Instructors:
Dr. Dimitrios Kosmopoulos, Dr. Vassilis Athitsos

Timetable:
May 16 - May 20: Instruction and orientation at UTA
May 23 - May 28: Instruction in Greece

Field Trips By Interns: http://www.vimeo.com/15957483

STUDY IN CHINA PROGRAM

This is a four weeks program lead by Prof. David Kung. Enrolled students will have the opportunity to visit local software development companies, collaborate with students at the University of Science and Technology of China, one the the top university in China. They can also take local courses at USTC for credit. Shanghai, one of the fastest growing city in the world, is just 25 minutes away.

Location: SuZhou, China

Courses:
CSE 4361/CSE 5332: Software Design Patterns

Instructors:
Dr. David Kung

Timetable:
May 13 - July 8: Instruction in China
CSE SUPPORTED CONFERENCES

IPCCC 2010 (Dec. 9-11, 2010, New Mexico, USA)

Assistant professor Chengkai Li co-chaired the 29th IEEE International Performance Computing and Communications Conference (IPCCC) that held in Dec. 9-11, 2010, Albuquerque, New Mexico. IPCCC is the premier IEEE conference presenting research in the performance of computer and communication systems. For more than two decades, IPCCC has been a research forum for academic, industrial, and government researchers. More information can be found at http://www.ipccc.org/


The 4th International Conference on PErvasive Technologies Related to Assistive Environments (PETRA'11) will be held in Crete Island, Greece, May 25-27, 2011. (Chaired by Professor Fillia Makedon). The PETRA Conference brings together different researchers to study how to best provide healthcare for @home and @work humans using sensor network technologies, robotics, imaging, improved interfaces and non-interventional monitoring. PETRA'11 has been awarded with prestigious NSF funding to support graduate student authors to participate in the conference.

STUDENT NEWS

RoPro - CSE@UTA High School Robot Programming Contest

The RoPro 2011 competition was held Friday, February 12th, 2011 with a great success. The participating teams came from high schools in three school districts with Arlington, Sam Houston, and James Bowie from Arlington ISD, the Science and Engineering Magnet and the Talented and Gifted Magnet from Dallas ISD, Granbury High School from Granbury ISD, and a Texas charter school. Some of these schools have participated since our first competition and they use the RoPro contest as a way to motivate their students to practice concepts learned in class and then apply them for the competitions. These excellent teachers are preparing students to become the engineers of the future at UT Arlington and elsewhere.

The RoPro High School Robot Programming contest is sponsored by the Computer Science and Engineering Department of UT Arlington as a way to recruit high school students to UTA and to introduce the fun of programming. Former RoPro participants are now current students at UTA and some of them come volunteer to help run the contest each year.

Many thanks to Dr. Carter Tiernan for her excellent work!
Ph.D student in Grace Hopper Celebration of Women in Computing

Ph.D student Shahina Ferdous attended Grace Hopper Celebration of Women in Computing from Sep. 28 to Oct. 2, 2010, at Atlanta, Georgia. This conference unites women from diverse computational research areas and industries. It was a great association of about 2,500 participants. Many leading researchers presented their work at the conference and there are special sessions focus on the role of women in today’s technology fields.

“It was the first time, I attended such a big conference and am really amused after being able to meet and listen to many accomplished women in computer science,” Shahina said. “It was a great opportunity for a girl like me, who just started her PhD, to listen to the great minds in my field and to learn how they managed both the family life while building such a successful career. Everybody was very cooperative and helpful irrespective of his/her school or affiliation”,

Ms. Ferdous is currently working in the Heracleia Human-Centered Computing Lab. Her research interests include Sensor Networks, Privacy, Collaborative Automated Trust Negotiation, Data Mining.

GAANN Fellowships for doctoral students

CSE department provides prestigious GAANN fellowships (Graduate Assistance in Areas of National Need) for U.S. citizens or permanent residents to pursue a Ph.D. degree in our department. These fellowships are provided by a grant awarded to CSE department by the U.S. Department of Education. They are awarded on a competitive basis to outstanding applicants satisfying the eligibility criteria. Many thanks for the faculty who contribute to this program, they are Dr. Ishfaq Ahmad, Dr. Phil Cohen, Dr. Gautam Das, Dr. Donggang Liu, Dr. Fillia Makedon, Dr. Carter Tiernan, and Dr. Matthew Wright. Current GAANN Fellows are:

Nickolas A Bielik: the 1st year Ph.D. student, working with Prof. Ishfaq Ahmad. His research interests include sustainable (Green) Computing, Game Theory, Evolutionary Algorithm.

John H Staton, the 3rd year Ph.D. student, working with Prof. Manfred Huber, his research interests include Artificial Intelligence, Robotics, and Human/Computer Interaction.

Michael Knadle: the 1st year Ph.D student, working with Prof. Ishfaq Ahmad, research interests include Computer Vision, Neural Networks, and Artificial Intelligence.

Charles Gatz the 1st year Ph.D. student, working with Prof. Matthew Wright. His research interests include anonymous communication, applications of artificial intelligence and game theory to security and privacy.

Billy Fortenbury: the 1st year Ph.D student, working with Prof. Gutemberg Guerra-Filho, his research interests include Machine Learning & Computer Vision.

Aaron Staranowicz: the 1st year Ph.D student, advised by Prof. Gian Luca Mariottini. His research focuses on Robotics and Computer Vision.
An Nguyen Wins UT System Chancellor’s Council Speaker Award

Undergraduate student An Nguyen was invited to speak at the upcoming Chancellor’s Council Meeting and Symposium on April 8, 2011 on the UT Austin campus. This year’s theme of the meeting is titled “Best in Class” and will feature some of the best and brightest students across the 15 UT institutions.

An B Nguyen is a computer engineering junior. He’s working at Heracleia Human - Centered Computing Lab as a research intern, advised by Dr Fillia Makedon, mentored by Chris Mccmurrough (Ph.D Student). His primary research is mobile robotics and assistive technologies. “I am very grateful for the chance to participate in research projects and work with faculty and Ph.D students. They helped me to win UT System Chancellor's Council Speaker Award,” An said. He is currently working on a project called “Mobile robot navigation for assistive applications”. This work focuses on using commercially available human sensing and interaction devices as input to an assistive mobile robot for navigation in human-centric environments. Knowledge about human presence in the environment is gained by analyzing the visual sensor data. This knowledge is then used to perform safe and useful mobile robot navigation.

Recently Graduated Students

- Dr. Nha Nguyen, supervised by Assistant Prof. Heng Huang, recently got hired by University of Pennsylvania as Post-doc researcher. His research focuses on bioinformatics, genomics and proteomics.

- Dr. Wenhua Wang, supervised by Associate Prof. Jefflei, recently graduated and get position at Marin Software in San Francisco, CA. His research focuses in Software Testing.

- Mr. Titus Abraham got his MS degree with Assistant Prof. Matthew Wright in May 2010. He is currently working as a Senior Engineer at Qualcomm Inc. His research interest includes 3GPP LTE and anonymous communication.

- Mr. Pranav Krishnamoorthy is employed at Microsoft Corporation now. He recently got his MS degree with Assistant Prof. Matthew Wright.

- Mr. Arnab Biswas got MS degree with Assistant Prof. Gutemberg Guerra-filho. He is currently working with Microsoft XBox team.

- Dr. Nayantara Mallesh is starting a postdoctoral position at the University of Minnesota, Twin-Cities in the Security and Cryptograph Lab in March 2011. Dr. Mallesh got his Ph.D degree with Assistant Prof. Matthew Wright in Dec. 2010.

- Mr. Kartik Siddhabathula, supervised by Assistant Prof. Donggang Liu, is working as a Web Developer at Companion Data Services. He got his MS degree in Fall 2010.

- Mr. Yong Lin supervised by Prof. Fillia Makedon got his Ph.D degree in 2010 and is working with a mobile computing company in Austin.

CSE Student Associations

There are many great student organizations in CSE department. These organizations connect students with a stronger sense of community and provide opportunities for students to engage in organizational and leadership development. CSE department and faculty provide comprehensive advising and resources for all student organizations. Below lists some of these organizations:
**CSE Alumni News**

Dr. **Habib M. Ammari** is an Assistant Professor of Computer Science in the Department of Computer Science at Hofstra University and is the founding director of the Wireless Sensor and Mobile Ad-hoc Networks (WiSeMAN) Research Laboratory. As a member of the Center for Research in Wireless Mobility and Networking (CReWMaN), he received the Ph.D. degree in Computer Science and Engineering from The University of Texas at Arlington (UTA) in May 2008 under the supervision of Prof. **Sajal K. Das**. His main research interests lie in the areas of wireless sensor and mobile ad hoc networking, multi-hop mobile wireless Internet architectures and protocols, and cyber physical systems.

Dr. Ammari received a three-year US National Science Foundation (NSF) Research Grant Award in July 2009 and the US National Science Foundation Faculty Early Career Development (CAREER) Award in January 2011. He is the Hofstra's first ever NSF CAREER Award recipient. He published his first book “Challenges and Opportunities of Connected k-Covered Wireless Sensor Networks: From Sensor Deployment to Data Gathering” (Springer, 2009). He also received several other awards including the Faculty Research and Development Grant Award from Hofstra College of Liberal Arts and Sciences. He serves as an Associate Editor of several journals, including ACM Transactions on Sensor Networks (ACM TOSN). Also, he has served as Program (Co) Chair, Publicity (Co) Chair, and Technical Program Committee member of several IEEE or ACM conferences, symposia, and workshops.

“CReWMaN, the CSE Dept., and UTA remain the best places to me. I have excellent memories from my short stay at UTA. I will never forget those very nice days at UTA and any of my modest achievements is mainly due to the wonderful background I gained from my Ph.D. advisor, the faculty, and friends in the CSE Dept. at UTA.” Dr. Ammari said, “I advise myself and the graduate students to work very hard and be patient as research is a continuous thinking process. I wish all people in CReWMaN, the CSE Dept., and UTA, all the best of luck and success in their endeavors”.

**TO CSE ALUMNI AND FRIENDS**

Please send us your news! We want to hear how you are doing, your latest accomplishments, family news, travel and events you are organizing so that we can add it into our next newsletter issue. Perhaps you know that Alumni of the Department of Computer Science and Engineering at UTA, rank as top professionals in their fields. They work in America's leading corporations and in small enterprises and are advancing the field of computer science and engineering through research and development, leadership, technical management, teaching excellence and in other ways. We appreciate the support from alumni that is helping us build a stronger CSE program and we highly value relationships with our alumni. Please send your news to rongz@uta.edu. We want to hear from you!