Greeting From The CSE Chair  March 26, 2012

Dear Colleagues:

I am pleased to share with you some news about the Department of Computer Science and Engineering which can also be found in http://www.cse.uta.edu. Within this letter you can find some news about our faculty's research and educational achievements, as well as about distinctions of our students and staff.

We are very excited by the arrival of our new dean in January, Jean-Pierre Bardet, and look forward to working with him on some college wide initiatives. Some departmental-level initiatives include planning online MS and certificate programs, updating courses, joint programs with departments in China and India and promoting activities that bond us more with our undergraduates.

Please drop me a line (makedon@uta.edu) with your feedback and, as always, thank you for your support of our department.

Fillia Makedon, Distinguished Professor and Chair
Computer Science and Engineering Department
College of Engineering, The University of Texas at Arlington

Engineering Research Building, New Home for CSE Department
CSE department welcomed several new adjunct faculty: Vana Kalogeraki, Dimitrios Gunopulos, David Hanson, Dick Schoech, Jeff Smith and Mario Di Francesco.

Vana Kalogeraki: Professor Kalogeraki is currently at the Department of Informatics at Athens University of Economics and Business where she is leading the Distributed Systems research. She has been working in the field of distributed and real-time systems, distributed sensor systems, peer-to-peer systems, resource management and fault-tolerance for over 15 years.

Dimitrios Gunopulos: Professor Gunopulos is currently an Associate Professor in the Department of Informatics and Telecommunications at the University of Athens. His research is in the areas of Data Mining, Knowledge Discovery in Databases, Databases, Sensor Networks, Peer-to-Peer systems, and Algorithms.

David Hanson: Dr. Hanson received his Ph.D. from the UT Dallas in Aesthetic Studies/Interactive Arts and Engineering. He founded Hanson Robotics to pursue character robot research and applications. Hanson and his team introduced numerous noted robots. These robots serve a wide range of research in cognitive science, autism treatment, and robotics at institutions including JPL, Cambridge University, KAIST, UCSD, and the University of Geneva, U. Pisa, and the Autism Treatment Center in Dallas.

Dick Schoech: Dr. Schoech is a professor at UT Arlington, previously in the School of Social Work but currently an Adjunct Professor in Computer Science & Engineering. He edits the Journal of Technology in Human Services and chairs HUSITA, an international organization to further technology that serves humanity. Current projects involve automated web-phone care management, a tablet based game for preventing teen substance abuse and relationship violence, and child welfare infrastructure change.

Jeff Smith: Dr. Smith is a Distinguished Alumnus of CSE department. He is a former scientist for Motorola, The Robotics Institute, and the Super Collider. Dr. Smith co-founded and served as president and CEO of OnRamp Technologies, a leading internet Service Provider. He is also the founder of SensorLogic and Ublip. He serves on the Board of Trustees of the University and is a member of IAB of CSE department.

Mario Di Francesco: Dr. Francesco received his Ph.D. degree from the Department of Information Engineering in the University of Pisa, in 2009. He is now a postdoctoral researcher at the Department of Computer Science and Engineering of Aalto University in Finland. He is a member of the Data Communications Software research group, as well as of the Center for Research in Wireless Mobility and Networking (CReWMaN). His research interests mainly lie in wireless sensor networks (WSNs) and pervasive computing.
Ms. Pam McBride, one of our outstanding staff members was recognized at the 2011-12 Outstanding Maverick Awards Ceremony, held on January 11. Ms. McBride was honored for her dedication and service in the Computer Science and Engineering Department and throughout the College of Engineering. More information can be found at .http://www.uta.edu/engineering/news-events/2012/staff-award.php

Professor Gautam Das has received the "IEEE ICDE Influential Paper Award". Typically, this award is given to older papers that proved to be influential in starting new research fields with high citation and impact. In Prof. Gautam Das’ case, a paper he wrote 10 years ago titled "DBXplorer: A System for Keyword-Based Search over Relational Databases" was selected that started the field of "keyword search in databases".

Associate Professor Matthew Wright and Professor Mohan Kumar are leading a new project, funded by the National Science Foundation, on designing robust and secure peer-to-peer (P2P) systems. P2P systems are a core part of the systems used by millions of people every day, such as the Skype Internet phone system, file-sharing systems like Bittorrent, and privacy systems like Tor. The project, titled "ReDS: Reputation for Directory Services in P2P Systems," investigates the use of reputation to ensure reliability for finding information and resources in these systems. It also includes the study of novel mechanisms that leverage social networks to limit Sybil attacks, in which attackers attempt to overwhelm the system with malicious peers.

Professors Manfred Huber (PI) and Ishfaq Ahmad (Co-PI) have received award from NSF for their proposal titled “REU Site: Research Experiences for Undergraduates in Intelligent Environments for Healthy Living and Aging in Place”. This project renews a highly successful and long running REU site in the Department of Computer Science and Engineering at the University of Texas at Arlington with a research focus on national priorities in healthy living, care technologies, and aging in place. The goal is to augment the students’ educational experience and to attract qualified undergraduates to graduate studies and careers in health technologies.

Professor Sajal Das received NSF funding to support graduate students and speakers to participate in PerCom 2012 held in Lugano, Switzerland at March 19-23, 2012. PerCom is the flagship international conference in pervasive computing.

Professor Fillia Makedon (PD), Assistant Professors Heng Huang, Vassilis Athitsos, and Gian-Luca Mariottini have received $23K award from NSF.
to support Doctoral Consortium student-authors to attend the UTA-sponsored International conference on Pervasive Technologies Related to Assistive Environments (PETRA 2012 - WWW.PETRAE.ORG) which will take place in the Island of Crete in Greece, June 06-08, 2012.

Professor Fillia Makedon is invited to deliver a keynote presentation at the 10th International Conference on Information Communication Technologies in Health (ICICTH 2012), Samos, Greece. Her presentation is titled, "A Smart Patient-Centered Rehabilitation System to Promote Physical Activity and Enhance Physical Therapy for Rheumatoid Arthritis (RPLAY)".

Professor Sharma Chakravarthy was awarded ACM Distinguished Scientist (http://awards.acm.org/homepage.cfm?srt=all&awd=157) in November 2011 and IEEE Senior member in August 2011. The Distinguished Member Grade recognizes those ACM members with at least 15 years of professional experience and 5 years of continuous Professional Membership who have achieved significant accomplishments or have made a significant impact on the computing field.

Assistant Professors Junzhou Huang and Gian-Luca Mariottini received the highly competitive Research Enhancement Program Grants. Dr. Huang's work is to develop algorithms to achieve higher acceleration for Magnetic Resonance Imaging. Dr. Mariottini’s proposal is titled “Improved Surgery Precision with Surg3D: a Software System for the Accurate Overlay of Radiological Data onto Live Surgical Video”.

**DEPARTMENT NEWS**

**Message From Associate Chair**

We are happy to report that our enrollments for both undergraduate and MS programs has grown by about 20 percent this academic year. We hope that this trend will continue, as there is a general upswing in computer science enrollments nationwide. Also, the university recently conducted an assessment of all UTA PhD programs, and our PhD program was found to meet or exceed the evaluation measures.

*Ramez Elmasri, Professor and Associate Chair*

**Salvation Army Angel Tree**

The COE Admins are sponsoring two kids from the UTA Salvation Army Angel Tree, CHASE, an 10-years old boy and Dayana, 11-years old girl. The CSE department contributed the RC car for the boy and the MP3 player for the girl. We also collected a total of $160. Thank you Sherri, Pam, and everyone who contributed!!
Industrial Advisory Board Meeting (Feb. 3, 2012)

The Industry Advisory Board (IAB) meeting of the Department of Computer Science and Engineering was held on Friday, February 03, 2012.

Dean Bardet welcomed the IAB members and gave an overview of the planned activities at the College level. CSE Chair, Prof. Fillia Makedon presented a summary of the department's research and teaching activities, while Prof. Bob Weems gave an overview of our degree programs respectively. There were research presentations by professors Vassilis Athitsos, Christoph Csallner, Sharma Chakravarthy, Chengkai Li and Dave Kung. This was followed by an open panel session presented by several members of the IAB. The IAB members also provided valuable feedback and comments on our curriculum as well as performance of our alumni in their organizations. The open session was attended by approximately 20 students. The industrial participants included, Ayoka, BNSF, LifeSafe, Lockheed, Numerex, Ratheon, and Sabre.

Thanks go to Professor Mohan Kumar and Associate Professor Yonghe Liu for their organization. If you are interested in participating in our next IAB meeting please send email to Ms. Pam McBride (mcbride@UTA.EDU) with your contact information.

Congratulations to Dr. Vassilis Athitsos for his achievement of getting early promotion to Associate Professor with Tenure. (http://vlm1.uta.edu/~athitsos/)

Congratulations to Dr. Heng Huang for his achievement of getting early promotion to Associate Professor with Tenure. (http://ranger.uta.edu/~heng/)
CSE SUPPORTED CONFERENCES


The Tenth IEEE International Conference on Pervasive Computing and Communications (PerCom 2012) was held in Lugano, Switzerland during March 19-23, 2012. The conference attracted more than 350 participants from all over the world. More information about the conference is available at [http://www.percom.org](http://www.percom.org). PerCom was founded by the faculty of the Department of Computer Science and Engineering in 2003. Professors Sajal Das, Mohan Kumar, David Levine and Gergely Zaruba have played various key roles over the last 10 years in making PerCom the premier international conference in pervasive computing. CSE@UTA is a cosponsor of PerCom.


The 12th Privacy Enhancing Technologies Symposium will be held in Vigo Spain, July 11-13. PETS2012 addresses the design and realization of privacy services for the Internet and other data systems and communication networks by bringing together anonymity and privacy experts from around the world to discuss recent advances and new perspectives. CSE Associate Professor Matthew Wright serves as Program Committee Co-Chair for PETS2012.

PETRA 2012 (June 6-8, 2012, Crete Island, Greece): [www.petrae.org](http://www.petrae.org)

The 5th International Conference on PERvasive Technologies Related to Assistive Environments (PETRA12) will be hold on the Island of Crete in Greece, June 6-8, 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. PETRA12 has been awarded with prestigious NSF funding to support graduate student authors to participate in the conference.

WoWMoM 2012 (June 25-28, San Francisco, CA, USA)
[www.wowmom2012.it.uc3m.es](http://www.wowmom2012.it.uc3m.es)

The 13th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, WoWMoM 2012, will take place in San Francisco, California, USA June 25-28, 2012, at Marriott hotel in San Francisco’s famous Fisherman's Wharf neighborhood. WoWMoM provides researchers and students a friendly and interactive forum for exchanging results and visions that shape the future of wireless, mobile and multimedia systems. CSE department is sponsor of this conference.
CSE Study Abroad Program in Greece: Studyabroad.cse.uta.edu

Last summer the CSE department led the first College of Engineering Study Abroad Program on Marine Conservation and Computer technologies on the beautiful island of Samos in Greece [LINK]. Twelve students had the opportunity to work on exciting terrestrial and marine sustainability projects. Working in mixed teams with Biologists, Chemists, Marine Experts from different schools (Princeton, Columbia, Tulane, Cardiff, Leeds Essex and other universities), they learned how to do interdisciplinary problem solving, interact with professors in Greece and then publish their work in an international journal.

This summer, the CSE Study Abroad will run again working with the Archipelago Marine Conservation Institute (http://www.archipelago.gr/) and with professors at the University of the Aegean [http://www3.aegean.gr/]. For the first time, CSE students will be joined by Biology students who will be led by Professor Robert McMahon, a well known marine biologist at UTA. In fact, the Biology Department is adding its own courses and the two disciplines will work together in interdisciplinary projects. Drs. Eric Becker and Vangelis Metsis will lead the CSE students. Through this program students will participate in exciting boat-field trips tracking dolphins, chameleons, jackals, monitoring pollution and creating software and tools to facilitate the work of conservationists. The students, upon arrival in Athens, will also have the chance to spend a week being tutored by research scientists at “Demokritos”, the National Center for Scientific Research (http://www.demokritos.gr/), led by Dr. Karkaletsis, and the largest research center in the Balkans, located in a vast pine-wooded hilly area just 20 minutes east of downtown Athens.

While on Samos island [http://en.wikipedia.org/wiki/Samos], the students will live in hotel-type of dorms and mingle with U. of the Aegean students. They will use their cafeteria for a minimal cost provided by the Greek government, use the basket ball and soccer fields, share hiking trips on the gorgeous mountains of Samos and attend local festivals. The hotel accommodations provide for excellent air conditioned rooms, with full breakfast, and LCD screens for a very low price, located in the heart of Neo Karlovasi town (http://www.travel-to-samos.com/place.php?place_id=4) and just minutes walk from endless blue beaches.

In the next two pages we show posters from the two "sister" study abroad programs that bond and join the College of Engineering and the College of Science at UTA. Next year we hope to include students from the College of Arts to come and take photographs and video and join in the effort to keep precious sea and terrestrial life from extinction.

We invite UTA alumni to join our UTA students in this effort. Please contact Professor Fillia Makedon for any further information (makedon@uta.edu).
BIOLOGY STUDY ABROAD IN GREECE

STUDYABROAD.CSE.UTA.EDU

May 21 - June 30, 2012

Apply Online: http://studyabroad.uta.edu/?go=CSEinGreece

BIOL3310/5310: Selected Topics in Biology
BIOL4379: Directed Study/5391: Individual Problems in Biology

- Earn six credits in six weeks
- Participate in boat-field trips and understand environmental issues first hand
- Study the biology, ecology, biodiversity and conservation of eastern Mediterranean marine habitats
- Conduct joint research projects with UT Arlington students from other academic disciplines
- Interact with scientists at the International Archipelagos Marine Institute of Conservation
- Collaborate with students from Leeds, Essex Cardiff, Yale, Stanford, Princeton, Tulane, etc
- Experience the beauty and biodiversity of the Aegean
- Optional 5 day field trip to the island of Crete to visit aquarium research team (www.cretaquarium.gr) and attend workshop

Dates:
- May 21-25: Orientation Week at UTA
- May 28-31: Lectures at Demokritos Inst. in Athens
- June 1-29: Samos Island, U. of Aegean & Archipelago
- June 30: Return to USA

Projects:
- Ecology of the Marine Intertidal Habitat
- Fisheries and Sustainability
- Patterns of Seashore Zonation
- Invasive Species - Endangered Species
- Impacts of Climate Change
- Environmental Training
- Tracking Oil Spills and their Impacts
- Monitoring, Seals, Dolphins and Sharks
- Bird Life and Behavior
- and more

Students from all universities and departments are welcome to apply

Contact:
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Rong Zhang, CSE study abroad program Coordinator
Tel: 817 272 9088  Email: rongz@uta.edu
CSE STUDY ABROAD IN GREECE

STUDYABROAD.CSE.UTA.EDU

May 21 - June 30, 2012

Apply Online: http://studyabroad.uta.edu/?go=CSEinGreece

CSE3392: Special Topics/CSE5393: Directed Study
CSE4391: Individual Project/CSE6397: Graduate Research

- Earn six credits in six weeks
- Participate in boat-field trips and understand environmental issues first hand
- Study state of the art European research projects at the NCSR “Demokritos”
- Learn how to apply computational methods to marine environments
- Interact with scientists at the International Archipelagos Marine Institute of Conservation
- Collaborate with students from Leeds, Essex Cardiff, Yale, Stanford, Princeton, Tulane, etc.
- Experience the beauty and biodiversity of the Aegean
- Optional 5 day field trip to the island of Crete to visit aquarium research team (www.cretaquarium.gr) and attend workshop

Projects:
- Shipping Hazards
- Fisheries and Sustainability
- Invasive Species
- Endangered Species
- Climate Changes
- Environmental Training
- Building Accident Data Bases
- Tracking Oil Spills and their Impacts
- Monitoring Seals, Dolphins and Sharks
- and more

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Students from all universities and departments are welcome to apply

Contact:
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2011-2012 Crossvale Software Technology Scholarship Recipients

Five CSE students have been awarded Crossvale scholarship (http://crossvale.com/news). These five winners are Shawn Gieser, John Giliberto, Daniel Hudlow, Jessica Reese, and Jonathan Rich.

Shawn Gieser is an Undergraduate Research Intern in the Heracleia Human Centered Computing Lab. He is a graduating senior. After graduation, Shawn plans to take the BS to PhD program at UTA. His interests are in Computer Vision and Robotics, he has also done research in treatment of depression.

John Giliberto received his B.S. in Visualization from Texas A&M University in December 2009. He is currently working on his second Bachelor Degree at UTA.

Jessica Reece is a junior at UTA and expects to graduate in Summer 2013 with a Bachelor of Science in Computer Engineering.

Daniel Hudlow is a former homeschooler from a family of six children, all of which have graduated or are attending UT Arlington. Daniel is a senior in Software Engineering and will be starting his career in the workforce after his graduation. Daniel wants to be a Software Architect and/or Software Project Manager.

Jonathan Rich is currently a research assistant in the Heracleia Human Centered Computing Lab (http://heracleia.uta.edu). He graduated in December of 2010 with a Bachelor of Science in Computer Science, and will graduate in May 2012 with a Master of Science and Engineering.

Congratulations to all of them and thank you Crossvale for making this possible!

CSE Student Received an IEngage Sustainability in the Curriculum Grant

Christopher McMurrrough (http://heracleia.uta.edu/~mcmurrrough/) has been selected to receive an IEngage Sustainability in the Curriculum Grant in the amount of $2238 for development of an I Engage Sustainability course component within CSE Senior Design II. The ISC Program for Doctoral Students was developed jointly by the Office of Graduate Studies and the Curriculum, Research and Community Engagement workgroup of the University Sustainability Committee. The funds will be used to support the development and/or implementation of a course component that addresses sustainability in the community. The component should allow students in the course use their disciplinary training and intellectual capital to address problems in the community, region or nation related to sustainability. Sustainability represents societal efforts to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Mr. McMurrrough's proposal was to have a two part workshop on disassembling old printers/scanners to extract useful parts (motors, precision steel rods, etc), and how to use them in other projects to reduce e-waste.
UROP Scholarship Recipients

Five CSE Undergraduate Students, **Rebeka Halbert**, **An Nguyen,** **Jesus Alcala,** **Thaddeus Madison** and **Shawn Gieser,** have been competitively selected to receive the Undergraduate Research Opportunity Award (UROP).

**An B Nguyen** is a computer engineering junior. He’s working at Heracleia Human-Centered Computing Lab as a research intern. His primary research is mobile robotics and assistive technologies. An was invited to speak at the Chancellor’s Council Meeting and Symposium in Austin in April 2011,

**Rebeka Halbert** is a senior of Software Engineering. She joined the Navy reserves eight years ago as an IT and currently serves in Fort Worth maintaining the 9th Naval Construction Regiments networks and communication equipment. She has been admitted to CSE Ph.D program starting in Fall 2012. She has been working as a research intern in the Heracleia Human-Centered Computing Lab.

**Jesus Alcala,** supervised by Assistant Prof. Gutemberg Guerra-Filho, is a Junior of CSE department. He is expecting to graduate in Spring 2014.

**Shawn Gieser** is a Senior in CSE. He is also a recipient of 2011-2012 Crossvale Software Technology Scholarship. Shawn has been working as a research intern in the Heracleia Human-Centered Computing Lab.

Recently Graduated Students

**Vritant Jain,** advised by Associate Professor Matthew Wright, defended his MS thesis on defending against sybil defenses in online social networks with online partial graph information in December 2011. He will be taking a position at Red Hat, Inc.

**Vangelis Metsis,** advised by Professor Fillia Makedon, graduated from our PhD program in December 2011. He is now working as a postdoc in Heracleia Human-Centered Computing Lab. His research interests include Machine Learning, Pervasive Technology in Assistive Living environment. More information can be found http://heracleia.uta.edu/~vangelis/

**Munib Ahmed** received his Ph.D degree with Prof. Ishfaq Ahmad in December 2011. His Ph.D thesis is on Scalable Parallel Processing of Multi-Objective Optimized DNA Sequence Assembly.

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!
Internship Opportunities for Undergraduate Students

Heracleia Human Centered Computing Lab is looking for 4 paid undergraduate research assistants for NSF REU (Research Experience for Undergraduate) projects. Students will have the opportunity to conduct research related to technology in assistive living environments. The projects may involve Game Design, Sensor Networks, Computer Vision, Robotics, Machine Learning and other. Please contact Dr. Fillia Makedon (Makedon@uta.edu) for more details.

Eight research assistantships are currently available for qualified undergraduate sophomore, junior and senior computer science and engineering students to participate in research in the field of intelligent environments for health and aging. The program will be conducted at an NSF supported REU Site in the Department of Computer Science and Engineering at the University of Texas at Arlington (CSE@UTA). The student participants will investigate problems related to sensor systems, intelligent data management, smart care support, unintrusive health monitoring, and assistance technologies in the context of non-invasive technologies for health self-management and for aging-in-place. Detail information can be found at http://ranger.uta.edu/~reu/

FIRST outreach robot challenge for high school students

The FIRST outreach robot challenge for high school students was hosted by College of Engineering at UT Arlington on March 04. Twenty-five high school teams from all across North Texas took part in this competition. FIRST is an organization that designs accessible innovative programs to help build not only science and technology skills and interests but also self-confidence and leadership. FIRST is the national organizer of this event. Dr. Carter Tiernan, College of Engineering's Assistant Dean, organized the challenge as a part of UTA's outreach program. More information can be found at http://www.theshorthorn.com/index.php/news/university/29519-college-of-engineering-hosts-first-outreach-robot-challenge-for-high-school-students.

FACULTY AND STAFF FAMILY NEWS

Congratulations to Antonietta and Gian-Luca for the arrival of their son Francesco Mariottini. Francesco was born on Feb. 2nd at 7:34 pm, 8lbs 4oz, 21 inches.