Dear Colleagues and Friends:

We are happy to announce that this fall, our enrollment has increased by 20% in both the undergraduate and the Masters programs. This has led to some difficulty covering courses but this is a good problem to have.

We also would like to announce the new dean of the College of Engineering, Dr. Jean Pierre Bardet, who is joining UTA in January. Dr. Bardet comes from USC, where he served as chair of the Civil Engineering Department. We are excited about his impending arrival and his belief that Computer Science is central to advancing innovation and multidisciplinary research developments in the college and the university. Dr. Erian Armanios, Chair of Mechanical Engineering at UTA, is serving at Interim Dean of the College until Dr. Bardet comes in January 2012.

We want to take this opportunity to thank Dean Bill Carroll who stepped down in August. We appreciate his service to the College and his support of CSE throughout the years. We welcome Dean Carroll back to our Department and look forward to collaborating with him and taking advantage of his experience and wisdom.

We start this fall focused on doing whatever is needed to help lead the school towards Tier 1 status. Although our program has the highest number of PhD students in the College, we want to be proactive at recruiting top PhD students and double the number we graduate, preferably one student per faculty every other year. This means that we also need to increase the amount of funding to support these students. In parallel to these efforts, we are focused on quality and quantity of peer reviewed publications.

As one can see in the newsletter, several of our faculty, received prestigious NSF funding as PI or CoPI: Profs Christoph Csallner, Chengkai Li, Leonidas Fegaras, Fillia Makedon, Heng Huang, Vassilis Athitsos.

In closing, we want to thank our staff for their continuing hard work and service to the department. We also want to thank our graduate and undergraduate advisors. This fall, the graduate advisors, are Professors Elmasri, Fegaras, Khalili, and Odell. The undergraduate advisors are Professors Linda Barasch, Bob Weems, and Eric Becker. We thank Prof. Brezeale for serving as graduate advisor this past summer.

Fillia Makedon, Chair  
Ramez Elmasri, Associate Chair
In 2011, we hired Dr. Junzhou Huang as Assistant Professor in the CSE Department. Dr. Huang received his Ph.D degree in Computer Science at Rutgers, The State University of New Jersey, New Brunswick, NJ at 2011, His major research interests include biomedical imaging/informatics, machine learning/vision, signal/video processing and statistical data analysis. He is also working on content based image retrieval and computer aided diagnostics. He won the MICCAI Young Scientist Award 2010, and was selected as one of the 10 emerging leaders in multimedia and signal processing by the IBM T.J. Watson Research Center in 2010. He enjoys to develop efficient algorithms with nice theoretical guarantees to solve practical problems involved large scale data.

Assistant professors Christoph Csallner (PI), Chengkai Li (Co-PI) and Associate professor Leonidas Fegaras (Co-PI) have been awarded an $497K NSF grant for their proposal entitled “SHF: Small: Testing Large-Scale Database-Centric Applications”. Modern organizations such as social networking service providers, life-science research centers, or security agencies own an unprecedented amount of data. Such organizations want to analyze their data via software applications that are written against that data. Writing, testing, and debugging such data-intensive software applications is notoriously complex. This research develops novel techniques for dealing with this complexity.

Assistant professor Chengkai Li has been been awarded a 2011 HP Labs Innovation Research Award of $40,000 for Aug.1, 2011-July 31, 2012, on "Entity-Centric Querying of Enterprise Information for IT Management". More information can be found at http://www.hp.com/hpinfo/newsroom/press/2011/110907xb.html.

Assistant Professor Christoph Csallner was invited to attend the twelfth annual Microsoft Research Faculty Summit. This event provided a forum for lively debate of the development, application, and funding of technologies in the environmental, medical, and educational spheres over a long period of time.
Professors Fillia Makedon (PI), Assistant Professors Heng Huang, and Vassilis Athitsos, have received two REU grants from NSF for their proposal “CPS: Medium: A Novel Human Centric CPS to Improve Motor/Cognitive Assessment and Enable Adaptive Rehabilitation” and “MRI: Development of a Next-Generation Multimodal Data Management Human-Sensing Instrument for Trustworthy Research Collaboration and Quality of Life Improvement” to support undergraduate students doing research.

Assistant professor Heng Hunag (PI) and Professor Fillia Makedon (Co-PI) got a new NSF grant for their proposal titled "A Large-Scale Data Mining Framework for Genome-Wide Mapping of Multi-Modal Phenotypic Biomarkers and Outcome Prediction". This is a three-year project with a total budget of $499,904, collaborating with the Indiana University School of Medicine. The goal of this project is to develop new computational methods to integrate multi-modal genetic and pheotypic biomarkers in imaging genetics.

The paper "Multi-Subspace Representation and Discovery" by Dijun Luo, Feiping Nie, Chris Ding, Heng Huang got the Best Paper Runner-up Award in Machine Learning in The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD 2011), which is one of the top-tier conference in machine learning and data mining.

Professor Fillia Makedon was invited to deliver a KEYNOTE PRESENTATION at the 9th International Conference on information Communication Technologies in Health (ICICHTH 2011), Samos, Greece. Her presentation was entitled, "Psychological Monitoring and Rehabilitation Enhancement in Post-Stroke Depression".

Professor Makedon also served as Conference Chair of PETRA 2011 (WWW.PETRAE.ORG) which received NSF funding to bring US doctoral consortium fellows to the conference. The conference was a great success, with over 100 attendees and several excellent keynote presentations from famous scientists in related areas.

Assistant Prof. Vassilis Athitsos got two new NSF grants. The first grant is titled "Development of Publicly Available, Easily Searchable, Linguistically Analyzed, Video Corpora for Sign Language and Gesture Research". This is a collaborative project with Boston University, Rutgers, and Gallaudet, and the UTA portion of the award is $66,630. The goal of the project is to further organize the large collections of sign language video and annotations that we have collected over the years, so that both researchers and the general public can have better access to those collections. The second grant is titled "Gesture Recognition Challenge". This is a collaborative project with Dr. Isabelle Guyon from Clopinet (a company), and the UTA portion of the award is $49,920. The goal of this project is to support our efforts to organize a gesture recognition challenge, that will invite gesture recognition participants to produce and evaluate demo systems performing various real-world gesture recognition tasks.

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!
CSE Study Abroad in Greece Program

CSE department had six weeks Study in Greece program in 2011 Summer and will continue to provide this program for 2012. This is a six weeks program lead by Prof. Fillia Makedon. CSE Study in Greece program is designed for both graduate and undergraduate students. 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 and counties, giving them the opportunity to encounter many of the world's cultures in one of the most beautiful city in Greece. In 2012, this program will add new courses jointly developed with Biology department. Several parallel activities will also be included in the program.

Department Sponsored Conferences

PETRA 2011 (May 25-27, 2011, Crete, Greece)

The 4th International Conference on PErvasive Technologies Related to Assistive Environments (PETRA'11) was held in Crete Island, Greece, May 25-27, 2011. (Chaired by Professor Fillia Makedon) with a great success. The conference attracted paper submissions from 15 countries. 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. PETRA 2012 will be held in Crete Island again at Jun 6-8, 2012.
ACM Student Association

Prof. Fillia Makedon was invited to give talk to ACM association at UTA on Sep. 16, 2011. The title of the talk is - "It is never too early" : CSE efforts to engage undergraduates early on in compelling research projects. In her talk, Dr. Makedon discussed lab projects and ways for undergraduates can participate and work side by side with graduate students to produce novel results. She also described opportunities to publish papers in the international online journal for undergraduate research in computer science (www.CSURJ.org).

ACM, the Association for Computing Machinery (www.acm.org), is the world's largest educational and scientific computing society, uniting educators, researchers, and professionals to inspire dialogue, share resources, and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

The UTA chapter of ACM (acm.uta.edu) meets every two weeks, and each meeting focuses on a topic that concerns CSE students. The topic is presented by a special speaker who is either an industry professional or a UTA faculty member. In addition to meetings, the chapter organizes various events throughout the year to benefit students. These events include student lead instructional sessions, programming competitions, and stress relief parties. The chapter also serves as a means for upperclassmen and underclassmen to connect and share knowledge.

Ph.D Student John Staton Won President’s Award

Ph.D Student John Staton won the President’s Award for graduate afternoon oral presentation at the The Annual Celebration of Excellence by Students. His research interests focus on building a smart wheelchair that will prevent users from running into walls or other hazardous obstacles. He has been working on this project for three years. According to Mr. Staton, he entered ACES not only to win, but also to gain recognition for his lab. Mr. Staton is working with associate professor Manfred Huber. More information can be found at http://www.theshorthorn.com/index.php/news/university/1278-john-staton-wins-aces-presidents-award-for-graduate-afternoon-oral-presentation.

Alumni News

Robert Walls Won Yahoo KSC Award

Former Master student student Robert Walls won a Yahoo Key Scientific Challenge award for his groundbreaking research. KSC is extremely competitive national award. Only Twenty-seven exceptional PhD students have been selected to receive this prestigious award in its third year. More information can be found at http://labs.yahoo.com/ksc Mr. Walls got his Master degree in Summer 2009 with Dr. Matthew Wright. He is now a Ph.D student in the department of Computer Science at the University of UMass Amherst.
Congratulations to **Courtney Lyons** and Victor Lyons for the arrival of their son Stanley Lyons. Courtney got her BS from CSE at UTA at Spring 2004. She is now the fourth year PhD student in Church History at Baylor University. Picture on the right shows Stanley in his CSE@UTA Shirt

## Research Labs and Internship Opportunities

**Internship Opportunities for Undergraduate Students - Dr. Chengkai Li**

We are looking for 2 paid undergraduate research assistants for an NSF REU (Research Experience for Undergraduate) project. Please contact Dr. Chengkai Li (cli@uta.edu) for more details.

**Project Summary:** The continuous evolution of the Web has made it the primary knowledge source for many people. It has become an information repository full of entities (material or virtual) and descriptions of their properties and relationships. In discovering and exploring the entities that fascinate them, Web users are in need of structured querying facilities, coupled with text retrieval capabilities, that explicitly deal with the entities, their properties, and relationships. Our project investigates a novel declarative query mechanism, entity-relationship queries (ERQ), for users to discover and explore the rich structured and entity-centric information on the Web. For example, it helps users to find "Silicon Valley companies founded by Stanford alumni". With only a conventional search engine, a user would have to laboriously break down the task into time-consuming and error-prone iterative steps of searching, reading and re-searching. The research objective of the project is to produce general methods for efficient processing and optimization of entity-relationship queries and automatic ranking of query results, and to systematically develop a query engine for such queries. We believe that this is an important, timely and challenging problem that has the potential of truly transforming the current framework and technologies by which users exploit Web text information. The research results will have broader impacts on the higher education system, high-tech industries, the scientific community, and the general public.

**URL of the project:** http://idir.uta.edu/erq/ and http://idir.uta.edu/facetedpedia