Dr. Johnson’s 40-Years of Teaching, Service

Dr. Carroll Johnson has moved into a new area where only a select few UAH employees and no UAH faculty have ventured. He is celebrating his 40th year of full-time teaching at UAH. Carroll joined the faculty of UAH in 1963 while it was still a one-building branch campus of UA, Tuscaloosa. He had recently graduated from Purdue University (Ph.D.) where he was a National Science Foundation Science Faculty Fellow, A Ford Foundation Fellow, and an Instructor in Purdue's School of Electrical Engineering where he established and served as director of the School's Analog Computer Simulation laboratory.

UAH and Dynetics Inc. Establish Information Assurance Engineering Lab

Dynetics Inc. and The University of Alabama in Huntsville have established a laboratory that will improve efforts to maintain secure information over wired and wireless networks. Discussions between the Huntsville-based company and UAH have been taking place since last fall to establish The Laboratory for Education and Research in Information Assurance Engineering.

Dynetics CEO Marc Bendickson, who earned a Ph.D. from UAH, said the company's $100,000 gift will help start what he envisions as a world class facility that is designed to replicate a "real world" wired and wireless information network infrastructure.

The laboratory will be located in the Electrical and Computer Engineering Department within UAH's College of Engineering. UAH Dean of Engineering Dean Jorge Aunon said the establishment of this laboratory creates numerous opportunities for researchers and students. The laboratory will provide:

- A facility for students to effectively gain hands-on experience in computer and network protection.
- For the education and training of engineers who will design and develop future trusted systems.
- A workforce that is well educated in cyber trust issues.
- Ethical responsibilities to those who will manage, configure, and operate such systems, and to provide fundamental cyber security education for all citizens to secure systems of the future.
- UAH with a world-class facility in which to conduct research in the design and implementation of effective information warfare techniques.

Dynetics Inc. is a privately held company based in Cummings Research Park. The company has 800 employees in eight locations around the United States. The company is primarily involved in research and development, engineering services, information technology, and guided missiles and space vehicles.

New Courses in Information Assurance Engineering, page 5
Commencement 2003-2004, ECE Graduates

Doctors of Philosophy

Robert Daniel Adams  Balsam, NC
Field:  Electrical Engineering
Dissertation:  “Mathematical Modeling of Electrocardiographic Applications”
Advisor:  Dr. Nagendra Singh

Joonwan Kim  Changwon-Si, S. Korea
Field:  Electrical Engineering
Dissertation:  “Adaptive Filtering Based on Variable Step Size and Signal to Noise Ratio”
Advisor:  Dr. Alexander Poularikas

Dejan Raskovic  Fairbanks, Alaska
Field:  Computer Engineering
Advisor:  Dr. Emil Jovanov

Antonis Valkanas  Athens, Greece
Field:  Electrical Engineering
Dissertation:  “Adaptive Space-Frequency Coding for Multiple-Input and Multiple-Output Orthogonal Frequency Division Multiplexing Systems”
Advisor:  Dr. Alexander Poularikas

Seunghyun Kim  Anyang, S. Korea
Field:  Optical Science and Engineering
Dissertation:  “Hybrid Photonic Crystal and Conventional Waveguide Structures”
Advisor:  Dr. Gregory Nordin

Li Lixia  Madison
Field:  Optical Science and Engineering
Dissertation:  “Compact Waveguide Bends and Application in a Waveguide Depolarizer”
Advisor:  Dr. Gregory Nordin

Masters of Science, Thesis

Mohammad M. Al-Shurman (Computer)  Irbid, Jordan
Thesis:  “Performance Study for Route Maintenance in Wireless Ad Hoc Networks”
Advisor:  Dr. Seong-Moo Yoo

Ashkan Ashrafi (Electrical)  Tehran, Iran
Thesis:  “Mapping From Phase to Sine Amplitude in Direct Digital Frequency Synthesizers Utilizing Chebyshev Polynomial Interpolation”
Advisor:  Dr. Reza Adhami

David G. Crandall (Electrical)  Huntsville
Thesis:  “Rigorous Coupled Wave Analysis of an Embedded Current Source in a Planar Dielectric Slab”
Advisor:  Dr. John Jarem

Tiffany Davis (Computer)  Huntsville
Thesis:  “Alex: An Efficient Computer Network Based Education System”
Advisor:  Dr. Rhonda Gaede

Chakravarthy M.C. Deverapalli (Computer)  Guntur, India
Advisor:  Dr. Seong-Moo Yoo

Damien Galzi (Electrical)  Orly, France
Advisor:  Dr. C. D. Johnson

Swarthi Tanjore Gurumani (Computer)  Chennai, India
Advisor:  Dr. B. Earl Wells

Tadeusz Janik (Electrical)  Huntsville
Advisor:  Dr. Reza Adhami

Ajayshanker Krishnamurthy (Computer)  Secunderabad, India
Advisor:  Dr. Rhonda Gaede

Bardhyl Mehmeti (Electrical)  Huntsville
Advisor:  Dr. C. D. Johnson

Suhir Vijay Pandkar  Pune, India
Advisor:  Dr. C. D. Johnson

Michael Walter Payton (Electrical)  Huntsville
Thesis:  “A Physically-Derived Large-Signal Nonquasi-Static MOSFET Model for Computer Aided Device and Circuit Simulation”
Advisor:  Dr. Fat. D. Ho

Thomas A. Phillips (Electrical)  Madison
Thesis:  “Modeling of a Double-Gate Metal Oxide Semiconductor Field Effect Transistor (MOSFET)”
Advisor:  Dr. Fat. D. Ho

Sergey Plekhanov (Electrical)  Huntsville
Advisor:  Dr. Yuri B. Sh特斯sel

Leif J. Sandstrom (Electrical)  Harvest
Thesis:  “A Theoretical Analysis of Mimo Processing Over Copper Twisted-Pair Channels”
Advisor:  Dr. Laurie Joiner
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree/Course</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erik Abromitis (Electrical)</td>
<td></td>
<td>Fort Payne</td>
</tr>
<tr>
<td>Gladstone Michael Adderley II (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Shaun C. Annis (Electrical)</td>
<td></td>
<td>Pikeville, TN</td>
</tr>
<tr>
<td>Esteban Arango (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Kristi Leann Armstrong (Computer)</td>
<td></td>
<td>Red Bay</td>
</tr>
<tr>
<td>*David Lee Ashby (Electrical)</td>
<td></td>
<td>Winchester, TN</td>
</tr>
<tr>
<td>Osama M. Babiker (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Yaya O. Bamba (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Shelby E. Basham (Electrical)</td>
<td></td>
<td>Somerville</td>
</tr>
<tr>
<td>Chad M. Brouillette (Computer)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>*Nicholas Stephen Bryant (Computer)</td>
<td></td>
<td>Trussville</td>
</tr>
<tr>
<td>Lynn LeMay Buckle (Electrical)</td>
<td></td>
<td>Decatur</td>
</tr>
<tr>
<td>*Matthew C. Cabaniss (Electrical)</td>
<td></td>
<td>Florence</td>
</tr>
<tr>
<td>*Stephen Mark Cagle (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Phillip M. Campbell (Electrical)</td>
<td></td>
<td>Vinemont</td>
</tr>
<tr>
<td>*Eulice Chapman (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Barbara Jo Clark (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Mark A. Coble (Electrical)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>Charles Jason Connor (Computer)</td>
<td></td>
<td>Harvest</td>
</tr>
<tr>
<td>*Lloyd Lee Copeland II (Electrical)</td>
<td></td>
<td>Lewisburg, TN</td>
</tr>
<tr>
<td>Eva P. Courtney (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Andrew Patrick Cusack (Electrical)</td>
<td></td>
<td>New Market</td>
</tr>
<tr>
<td>Ellsworth St. Clair Dacon (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Abouzar Dastmalchi (Computer)</td>
<td></td>
<td>Birmingham</td>
</tr>
<tr>
<td>*Thu Thi Duong (Electrical)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>*Joseph Egbe Egbe (Electrical)</td>
<td></td>
<td>Memphis, TN</td>
</tr>
<tr>
<td>Melissa Dianne Evans (Computer)</td>
<td></td>
<td>Leighton</td>
</tr>
<tr>
<td>John Thomas Ferguson (Computer)</td>
<td></td>
<td>Clinton, TN</td>
</tr>
<tr>
<td>James David Hargrave II (Electrical)</td>
<td></td>
<td>Athens</td>
</tr>
<tr>
<td>Katherine Hellen Heningburg (Electrical)</td>
<td></td>
<td>Prattville</td>
</tr>
<tr>
<td>Stephanie Herring (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Matthew Van Hester (Electrical)</td>
<td></td>
<td>Russellville</td>
</tr>
<tr>
<td>Jill Marie Hollins (Computer)</td>
<td></td>
<td>Athens</td>
</tr>
<tr>
<td>Jennifer Lynn Howard (Computer)</td>
<td></td>
<td>Albertville</td>
</tr>
<tr>
<td>Deniece Maarie Jones (Computer)</td>
<td></td>
<td>Rogersville</td>
</tr>
<tr>
<td>Zachary Strub Jordan (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Ernesto Ryuki Kawamoto (Electrical)</td>
<td></td>
<td>Ogasa-kun, Japan</td>
</tr>
<tr>
<td>*David Courtney Keith (Electrical)</td>
<td></td>
<td>Chattanooga, TN</td>
</tr>
<tr>
<td>Allis Marie Kennedy (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Christopher Lee Kramer (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>*Ka Fung Lam (Electrical)</td>
<td></td>
<td>Hong Kong, China</td>
</tr>
<tr>
<td>Jared Lee Lawson (Computer)</td>
<td></td>
<td>Priceville</td>
</tr>
<tr>
<td>Wade A. Makin (Electrical)</td>
<td></td>
<td>Zanesville, OH</td>
</tr>
<tr>
<td>*Rodge Maxwell (Computer)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>Brandon Allen May (Electrical)</td>
<td></td>
<td>Killen</td>
</tr>
<tr>
<td>Christopher James Meacham (Computer)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>Jonathan Alexander Mills (Optical)</td>
<td></td>
<td>Toney</td>
</tr>
<tr>
<td>Scott Cameron Montgomery (Computer)</td>
<td></td>
<td>Decatur</td>
</tr>
<tr>
<td>Anthony Ray Moore (Computer)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>*Douglas Eric Moore (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Amanda Beth Mosher (Optical)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>Courtney Clay Mount (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>*Sang Ngoc Nguyen (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Daniel Weber Nielsen (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>James Robert Nore (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Sutton Lowe O'Neal II (Electrical)</td>
<td></td>
<td>Hazel Green</td>
</tr>
<tr>
<td>John Douglas Phillippe (Electrical)</td>
<td></td>
<td>Scottsboro</td>
</tr>
<tr>
<td>Sean Patrick Pollard (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Eric Wayne Potter (Electrical)</td>
<td></td>
<td>Hazel Green</td>
</tr>
<tr>
<td>Paul Marion Robinson (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Austin James Rogers (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>*Roy James Seaton, Jr. (Electrical)</td>
<td></td>
<td>Newton</td>
</tr>
<tr>
<td>Daniel J. Sharpe (Computer)</td>
<td></td>
<td>Jacksonville, FL</td>
</tr>
<tr>
<td>*Dustin Donavon Sierk (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>*Seung-mi Son (Electrical)</td>
<td></td>
<td>Madison</td>
</tr>
<tr>
<td>Thomas C. Sullivan (Computer and Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>Wendy Ling Sweatt (Computer)</td>
<td></td>
<td>Huntsville</td>
</tr>
<tr>
<td>*William N. Tallman (Computer)</td>
<td></td>
<td>Fayetteville, TN</td>
</tr>
<tr>
<td>*Daichi Tanaka (Electrical)</td>
<td></td>
<td>Anniston</td>
</tr>
<tr>
<td>Deliah Graham Terry (Computer)</td>
<td></td>
<td>Trinity</td>
</tr>
<tr>
<td>James Daniel Tidwell (Electrical)</td>
<td></td>
<td>Oneonta</td>
</tr>
<tr>
<td>Gregory Thomas Trammell (Comp. &amp; Elec.)</td>
<td></td>
<td>Fayetteville, TN</td>
</tr>
<tr>
<td>*Jason L. Waddell (Electrical)</td>
<td></td>
<td>Lexington</td>
</tr>
<tr>
<td>John Mark Weber (Electrical)</td>
<td></td>
<td>Mobile</td>
</tr>
<tr>
<td>Brandon Lee Williams (Electrical)</td>
<td></td>
<td>Cleveland, OH</td>
</tr>
<tr>
<td>Airrin St. Auburn Wisdom (Electrical)</td>
<td></td>
<td>Pomona, NY</td>
</tr>
<tr>
<td>*Elfath Gariballa Yousif (Electrical)</td>
<td></td>
<td>Huntsville</td>
</tr>
</tbody>
</table>

**National Defense Industry Association Software Engineering Scholarship**

Gregory Reed was awarded a National Defense Industry Association Software Engineering Scholarship in March 2004. The Scholarship was presented by Joel F. Thomas, President, National Defense Industry Association, Tennessee Valley Chapter.

Gregory graduated from Grissom High School in 2002, and is currently an Electrical Engineering major in his junior year, minoring in Mathematics. He will enter his second term as a co-op in ADTRAN’s Test Design department, working on various hardware and software projects relating to the testing of ADTRAN’s telecommunication products.

Gregory was recently inducted into Tau Beta Pi with a 4.0 GPA. He received the UAH Foundation Presidential Scholarship and is on the College of Engineering Dean’s List and Honor-Scholar list. He is also an Engineering Representative for the University’s Student Government Association, webmaster for the SGA, and a volunteer for the Campus .NET project.
Emily Vandiver Dickson received the 2004 College of Engineering Distinguished Engineer Alumni Award for her outstanding contributions in Electrical Engineering.

Ms. Dickson graduated Magna Cum Laude from The University of Alabama in Huntsville, Huntsville, Alabama, with a degree in Electrical Engineering. She is currently the Director of the Applied Technology Initiatives (ATI) Directorate in the Research, Development, and Engineering Center (RDEC). ATI is the technology executing activity for development and integration of advanced technologies with evolving user requirements in coordination with user organizations. Additionally ATI conducts experiments, demonstrations, and analyses to transition major non-project management system developments or product improvement efforts to validation phase decision points in a streamlined acquisition process.

Ms. Dickson also served as the Technical Program Manager for the Rapid Force Projection Initiative (RFPI) Advanced Concept Technology Demonstration (ACTD). She was responsible for the integration of Advanced Technology Demonstrations, Technology Demonstrations, and other well-established weapons systems development efforts from this and other RDECs into a system-of-systems that was tested in a large-scale field experiment at Fort Benning, Georgia. This system-of-systems was designed in conjunction with the appropriate TRADOC battle labs to enhance the lethality and survivability of early entry forces. Testing these systems in the field experiment included the first ever, seamless integration of live and virtual entities on a test battlefield.

Ms. Dickson worked in the Infrared Technology Area, Advanced Sensors Directorate of the RDEC at MICOM. She was lead engineer on the Two Color IR Seeker (TCIRS) Program, and the Infrared Terminally Guided Submunition (IRTGSM), a candidate smart weapon for the Army Tactical Missile Block II. Ms. Dickson provided technical management for three major imaging infrared (EIR) technology investigations including VSMIR, a visible and mid IR sensor, and a Wide Field-of-View (WFOV) seeker. She served as the technical manager for the development of an imaging infrared seeker for The Army Combined Arms Weapon System (TACAWS).

Dr. George T. O’Reilly received the 2004 Distinguished Engineer Alumni Award for his outstanding contribution in Electrical Engineering.

Mr. Miley received a Bachelor of Science in Electrical Engineering (BSEE) from the University of Alabama in Huntsville (UAH) in 1979.

Mr. Miley is currently with Systems Development Corporation, Inc., Huntsville, Alabama, where he has developed X-Windows based GUIs applications for controlling and processing Tactical Digital Information (TADIL A/B/J, TIBS and TRAP) and Distributed Interactive Simulation (DIS) data. These applications were developed to support tactical data collection during Theater Missile Defense (TMD) Family of Systems (FoS) test and evaluation exercises. He served as field support engineer for the Forward Area Air Defense Command and Control (FAAD C2) project. His duties included the fielding plan, fielding of the latest releases of the FAAD software, and training of personnel on new releases at CONUS and OCONUS military sites. He supported field training exercises, including All Service Combat Identification Evaluation Team 99 (ASCIENT 99) and Roving Sands 99.

Mr. Miley was previously with Hilton Systems Incorporated (HSI), Huntsville, Alabama, where he provided engineering support to the Product Assurance Directorate (PAD) at MICOM, analyzed and reviewed Automated Test Equipment (ATE) Test Program Sets (TPSs) on HAWK, PATRIOT, AVENGER, MLRS, CHAPARRAL, JAVELIN, ATACMS, and UAV, including analyzing military schematics and specifications and providing comments on Technical Data Packages (TDPs). He participated in Formal Qualification Testing (FQT) for JAVELIN; Customer Acceptance Testing (CAT) for MLRS IFTE; Software Functional Configuration Audit (FCA) for UAV (OCONUS); MLRS Fire Direction Data Manager (FDDM) FQT, and Chaparral Depot Manual Verification. He provided support to the PATRIOT Command Post Automation System (PCPAS) program, and was responsible for the hardware engineering changes and modifications and the configuration management tasks relating to PCPAS. He was also responsible for hardware testing and modifications to the PCPAS unit, and fielding of prototype PCPAS units, both CONUS and OCONUS.
Alumni of Achievement Awards recognize UAH graduates who exemplify the high standards of the university through their professional and personal accomplishments. The Alumni Association's highest honor, the award was created in 2001 as part of the university's 50-year anniversary celebration. Alumni of Achievement Award winners are honored with an engraved paver permanently embedded near the M. Louis Salmon Library.

Germej S. Sandhu was born in India. After graduating from college there he earned a Master's Degree in Electrical Engineering at the Illinois Institute of Technology in Chicago. Ten years later in 1979 he received his Doctor of Philosophy Degree in Electrical Engineering from UAH.

Dr. Sandhu's dissertation involved using radar scattering discrimination algorithms to estimate the length of space re-entry missions. He continued his research in Missile Sensor and Seeker Signal processing and developed target discrimination algorithms for the Advanced Technology Center of the U.S. Army Space and Strategic Defense Command.

In 1986, he founded Sigmatech, Incorporated and grew this high technology corporation to more than 150 professionals and over $13 million in annual revenues. He is currently Sigmatech's Chief Executive Officer. For the past five years, Sigmatech has been heavily focused on the e-learning technologies for developing Internet classrooms of the future. Dr. Sandhu has authored nearly 100 technical publications on system science and signal processing, and has been affiliated with nearly a dozen international technical societies over his 35-year career. When notified of his selection Dr. Sandhu said, “I am proud to be the product of the University of Alabama in Huntsville, my learning institution, my learning launch pad, and my alma mater.”

In addition, the program will include 12 hours of support courses from the following list:

- Probability
- Modeling and Analysis of Computer and Communications Systems
- Combinatorial Enumeration
- Graph Theory
- Combinatorial Algorithms
- Analytical and Computations Methods in EE I
- Analytical and Computations Methods in EE II

Note that this is just a suggested program of study. Graduate students’ Program of Study must be approved by an advisory committee.

Courses offered in Information Assurance Engineering are hands-on, students will spend a good portion of their time in the laboratory.

The ECE Department congratulates the graduating class of 2004 with best wishes for their continued success!
Laboratory News...

Dennis Hite,
ECE Lab Manager

All the lab upgrades that were scheduled to take place over the past three years will be completed in the summer of 2004. The total cost of the upgrades exceeds $300,000 in equipment and computers. I am thankful that the funds were available to complete these upgrades and hope that the students and faculty make good use of the new equipment. The Electronics labs will have Pentium 4 computers and flat panel monitors installed prior to the summer term. The flat panel monitors should cure some of the resolution and heat problems the two labs have experienced in the past.

The Real Time Systems lab will have Pentium 4 computers and flat panel monitors installed by the Fall 2004 term. New printers will be placed in the Microcomputers and Computer Engineering Design labs, it is time for the Hp-660(s) to be retired. Additionally, new signal generators have been purchased for the Digital Signal Processing/Microcontroller and Computer Engineering Senior Design labs. Unfortunately, we have decided not to renew the Cadence software program for the third year. Looking into its usage over the past two years the cost of renewal cannot be justified. However, we have purchased the latest version of Multisim v7.0, formally Electronics Workbench, it will be installed in the labs by mid summer 2004. There are several new tools offered with version 7.0 I encourage you to explore them.

The department is continually trying to improve its existing facilities and laboratory curriculum, over the past few months Mahesh Nalasani, one of the ECE graduate students, has been developing a new lab manual for the Concepts in Digital Signal and Systems (EE100) course. The purpose of the manual is to reinforce the fundamental concepts in electrical engineering covered in the lectures. The Manual starts with some basic topics such as Introduction to MATLAB, complex numbers, analog and digital design using Multisim, and matrices. The manual will also cover several intermediate topics which will include audio processing, image processing and an introduction to Simulink. The expected completion date is August 2004.

Information Assurance Engineering Lab

Meetings between Dynetics, Inc, Huntsville, Alabama and the Electrical and Computer Engineering Department at UAH to discuss the establishment of a world class Laboratory for Education and Research in Information Assurance Engineering (EAR_IAE) were initiated during the fall 2003. The purpose of these sessions was to identify a common foundation from which a UAH-based, Dynetics supported Information Assurance Engineering Laboratory could be jointly developed and operated. In March 2004, UAH and Dynetics agreed to establish the facility.

With the financial support and expertise from Dynetics and UAH, a unique world-class facility, which will be a replica of the “real world” wired and wireless information network infrastructure, is now being implemented and tested in the Department of Electrical and Computer Engineering.

Dr. Adhami, Chair of the Electrical and Computer Engineering Department (ECE), will be the Information Assurance Engineering Director. From Dynetics, Dr. Bill Maloney will receive corporate support while working with the ECE faculty members to develop materials for the Information Assurance Engineering. Mr. Jon Naumann and Mr. Paul Depriest, both from Dynetics, Inc., will provide support during the establishment of the laboratory and will serve as Laboratory Assistants.

College of Engineering
Outstanding ECE Student Awards 2004

Outstanding Student in Optical Engineering
Beth Mosher

Beth Mosher completed the Bachelor of Science in Engineering requirements in Spring 2004 with summa cum laude honors. She is a member of Tau Beta Pi, a member of the new UAH SPEI chapter, and past president of Eta Kappa Nu. In June 2004, she will be begin her career as an Electronics Engineer at Redstone Technical Test Center (RTTC) at Redstone Arsenal.

Outstanding Student in Computer Engineering
Anthony Moore

In 1998 Tony Moore joined SAIC and restarted his college career at UAH, in Computer Engineering. For the next 6 years he attended school part-time and worked full-time, while raising a family of 6 (ie, his wife and four children), and being very active in several areas in his church (children's choir, children's Sunday School, youth ministries, adult choir, Sunday morning praise band). While not easy, he feels he's done a fairly good job of managing all the different tasks that have vied for his attention over the past 6 years.

Outstanding Student in Electrical Engineering
Austin Rogers

Austin Rogers, a resident of Huntsville, grew up in Fort Payne, Alabama. He was homeschooled by his mother, a certified teacher, from the eighth through twelfth grades. Homeschooling provided him the opportunity to gain valuable work experience; he had worked for three computer companies in DeKalb County before coming to UAH. He continued to work for them part-time as a private contractor during his first three years at UAH. After his junior year, Mr. Rogers took an internship with Dynetics, Inc., where he continued to work part-time during his senior year. Upon graduation, he was promoted to a full-time engineer. He intends to work at Dynetics while pursuing graduate studies at UAH under Dr. Aleksandar Milenkovic. Mr. Rogers loves the banjo in all of its forms. He plays and handcrafts them.

Outstanding Graduate Student, Pete Meenen

Pete Meenen received his BS in Physics and Computer Science from Berry College in 1998 and his MSEE from UAH in 2000. His current research interests include digital image and audio processing, data compression, and pattern recognition. Pete is currently working on his PhD, researching biometric fingerprint recognition and analysis in the Engineering Department’s Integrated Biometrics Laboratory.
**UAH Co-op Student of the Year**

**Stephen Cross**

Stephen Cross, 2004 UAH Co-op Student of the Year, is an Electrical Engineering student who worked as a Co-op at SAIC. He began his Co-op assignment during the summer after his freshmen year, when the company was known as Quality Research. As a Co-op he worked on numerous projects, including the Non-Line of Sight Launch System and other projects for the Common Missile Project Office.

Stephen worked in the Advanced Prototype Experimentation Lab as a System Administrator. He learned computer simulation, mostly on the high-fidelity Missile Server. He tested different combat scenarios, developed code, and analyzed test data. He was a ‘technical lead’ for a time-line analysis for the Common Missile Project Office. With the same Weapon System Simulator, he worked for the Non-Line of Sight Launch System and continued with it to the next level of fidelity. He received a letter of accommodation for his data systems effort on that project.

His supervisor writes that he shows great tenacity for learning and accomplishing the tasks assigned to him. He works with limited supervision and delivers projects on deadline. He provides valuable solutions for the customer and has gained personal and professional respect from colleagues, employees and customers.

Stephen is also a successful student and heavily involved in campus activities. He has held a number of leadership positions while earning a 3.7 GPA. He held various offices in the Student Government Association, including his current office as Speaker of the House. He is a UAH Lancer, and was Lancer of the Year in 2005. He has held offices in his Alpha Tau Omega fraternity and is currently the Alumni Relations Officer. He received the Outstanding Leadership Award for fraternities/sororities and from the Student Government Association in 2003. He was also the UAH Homecoming King the same year, and belongs to a number of campus honor societies.

Stephen says that his Co-op experience helped him experience the corporate environment in a very positive way while learning valuable skills.

---

**Helen Foster Retires with 12 Years of Service**

Helen Foster, Staff Assistant, retired from UAH on March 31, 2004, with 12 years of service in the ECE Department.

Helen joined the ECE staff in 1992. She produced the first brochure for the department. Her duties included budget and accounting; travel coordinating; electronic purchasing; maintaining pictorial directory of faculty, staff, and distinguished ECE alumni; being responsible for all departmental Xerox accounts; planning and coordinating functions for the department, and assisting the chairman in day-to-day duties.

“The feeling has been like leaving a best friend behind and moving away, I suppose. There is so much “catch-up” work that needs to be done at home...have been busy planting tons of flowers and trying to beautify the ole home place outside...trying to add color to nature's handiwork! I miss everyone in the Dept. Thank all of you for the wonderful reception and gifts.” — Helen Foster

---

**Pat Smith Retires with 19.5 Years of Service**

Pat Smith, Staff Assistant, retired from UAH ECE Department on April 30, 2004, with 19.5 years of service to the University.

Pat has been on the UAH staff since 1984 and joined the ECE department in 1997 when Linda Hooper retired. Pat’s duties for the ECE Department included scheduling classes, ordering books for the department, maintaining and updating faculty files, distributing and preparing student evaluation forms for processing, maintaining undergraduate student files and helping to prepare paperwork for graduation. Pat also assisted the chairman with appointments and various other duties.

“I have enjoyed knowing and working with you. As I leave UAH, I take with me many memories. Thank you for my gifts and everything you have done for me. My best wishes for you always and good luck with all your future endeavors.” — Pat Smith

---

**Welcome to the Staff Sherri Webb**

Sherri Webb joined the ECE Department as a Staff Assistant in March 2004 to take over for Helen Foster.

Sherri comes to UAH with 13 years of experience from the University of Tennessee in Knoxville. There she worked in the College of Social Work, the College of Human Ecology and most recently the College of Nursing.

She moved to the Huntsville area in November 2003 after her husband accepted a new job. She has three boys and in her spare time, she likes to cross-stitch and read.

---

**Welcome to the Staff Josephine Ferrando**

Jo Ferrando joined the ECE staff on April 26 as the technical Staff Assistant to take over for Linda Grubbs (who took over for Pat Smith).

Jo comes to us from the private business sector where she worked in a variety of administrative areas and personnel.

Jo also spent over 16 years in the military in Personnel and Logistics fields. She served as both military instructor and drill instructor in the Maryland Army National Guard NCO and OCS academies.
**Dr. Timothy Boykin**  
Associate Professor

**Journal Articles**


**Conference Papers**


**Dr. Alex Poularikas**  
Assistant Professor

**Conference Papers**


**Dr. Jennifer English**  
Assistant Professor

**Conference Papers**

C.H. Newborn, J.M. English, and D.J. Coo, “A MEMS-Based High Temperature Pressure Release Valve using LTCC”, IMAPS International High Temperature Electronics Conference, Santa Fe, New Mexico, May 2004:


**Congratulations, Dr. English, on your 2004 College of Engineering Outstanding Junior Faculty Award!**

**Dr. Johnson’s 40 Years at UAH**  
(continued from page 5)

Dr. C. D. Johnson has been a keynote speaker at a U.S. Navy symposium on Naval Weapon Systems and Modern Control Theory and at several national conferences. He has lectured at universities throughout the U.S. and in Europe. He has supervised the research for more than 30 Master's Theses and Ph.D. Dissertations and has been a consultant to numerous corporations and government-agencies. He served on two U.S. national advisory panels commissioned to study topics related to Ballistic Missile Defense.

Dr. Johnson’s scholarly contributions have been recognized in many ways, including a special-issue of a scientific Journal and special-sessions of invited technical papers held at four national conferences, devoted to his control theories. In addition, the Huntsville Section of the Institute of Electrical and Electronic Engineers (IEEE) named him the “Outstanding Controls Engineer” in 1979. He has been UAH’s “Outstanding Engineering Faculty Member” twice, and he received the “Outstanding Educator Award” by the IEEE/Huntsville twice. In 1990, he was named a “Distinguished Professor” of ECE by the UA Board of Trustees. In 1996, he received the UAH Alumni Association’s Distinguished Research Award.

Dr. Johnson invited Prof. R. E. Kalman, discoverer of the famous Kalman-Filter and many other fundamental principles in modern system theory, to be the guest speaker at the banquet event of the 34th Southeastern Symposium on System Theory (SSST), hosted by the UAH ECE Department and held at the Huntsville Marriott Hotel on March 18-19, 2002. The 34th SSST was dedicated to Prof. Kalman in recognition of “…his unparalleled influence on the evolution of System Theory to the scientific discipline it is today.” Prof. Kalman sends his greetings for Dr. Johnson’s 40 years at UAH.

Dear C.D.,

All your friends, past and present students, administrators, everyone, wish you the very best for the next forty years. As we know, life begins at forty. I imagine it works like this: no more formal duties, no committee meetings, "just" assignments only, real-time full-pay (or more), your choice of secretaries, unlimited budget for copying, computers, telephone, publishing, travel, and the like. If needed—unlikely—we are ready to help with the minor details. We do greatly appreciate all you did in the past and offer our hopes for the future.

R. Kalman
Dr. Fat Duen Ho  
Professor

Conference Papers
Todd MacLeod and Fat Duen Ho, “Ferroelectric Field Effect Transistor Model Using Partitioned Ferroelectric Layer and Partial Polarization,” presented in the 16th International Symposium on Integrated Ferroelectrics, Gyeongju, South Korea, April 5-8, 2004.

Dr. Richard Fork  
Professor

Journal Article

Conference Papers

Dr. C. D. Johnson  
Distinguished Professor

Conference Papers

Congratulations, Dr. C. D. Johnson, on your UAH 40-year Service Award!

Dr. Emil Jovanov  
Associate Professor

Journal Article

Conference Paper


Congratulations, Dr. Emil Jovanov, on being awarded Tenure at UAH!
Dr. Alex Milenkovic
Assistant Professor

Conference Papers


Pan and Ortega, “Improved Buffer Control of Fano Decoders using Channel Memory,” submitted to IEEE Global Communications Conference (Globecom’03), San Francisco, CA, December 2003.


Journal Article

Conference Papers


ECE Dept., UAH 10 Real Time, Spring 2004
Dr. Yuri Shtessel
Professor

Journal Article

Conference Papers

Congratulations, Dr. Yuri Shtessel, on your 2004 UAH Research and Creative Achievement Award!

Dr. John Stensby
Professor

Conference Papers


Dr. Sam Yoo
Associate Professor

Journal Article

Conference Papers


Editing

Dr. Earl Wells
Associate Professor

Conference Papers


Dr. Dahsen Shen
Professor

Journal Articles


We celebrated the graduation of the fifth group of Master's students from our new ADTRAN Technical Development Program (TDP) in Electrical and Computer Engineering on June 2, 2004. Three students graduated from the TDP in Spring/Summer 2004. This was not simply a worthy achievement for these individual students, but it is a milestone for a unique partnership between UAH and ADTRAN, and a tribute to a new kind of alliance between academia and industry.

The TDP is a two-year program that integrates engineering design work experience with university graduate study. TDP participants are full-time employees at ADTRAN while active in the program. Participants receive paid, 50% released time from work during academic terms when taking nine semester hours. Both internal and external candidates may apply to the program (e.g., current employees, new graduates, and experienced non-employees). TDP participants are selected using the normal evaluation and selection process utilized by ADTRAN.

Javier Lopez is originally from Lima-Peru. Javier came to the US in 1996 on a tennis scholarship. After playing for two years in a small college in North Carolina he transferred to University of Missouri - Rolla where he received his BS degree in Electrical Engineering. Javier began working at Adtran as a co-op student in 1999. After his third and last co-op term in the summer of 2000, Adtran offered Javier a full time position. Javier enjoys playing sports, especially tennis and soccer, he also loves to ride motorcycles and travel around the world.

Mark Zeien is originally from Springfield, Missouri where he completed his pre-engineering work at Southwest Missouri State. He transferred to University of Missouri - Rolla where he graduated with his BS in Electrical Engineering in December 2001. Immediately after graduation he moved to the Huntsville area to begin work at Adtran as an engineer designing Carrier products. Mark enjoys the typical engineer hobbies, like experimenting with computers and tweaking his home theater setup. He also enjoys being outdoors, enjoying the warm southern weather doing things like hiking and bar-b-queuing.

Donny Neal received his BS in Electrical Engineering at the University of Alabama in Huntsville in 1996. Donny began working at ADTRAN on January 4, 1993. His current position is Mixed Signal ASIC Engineer. Donny is married with two daughters, a 4 year old and an 11 month old. Donny’s main hobby is cars.

Congratulations ADTRAN Grads!

We want to hear from you!

The ECE Department looks forward to hearing your views and your success stories. Contact us to share your news and comments about your career and interests. Your story should be sent to realtime@ece.uah.edu

UAH
The University of Alabama in Huntsville

Electrical and Computer Engineering
The University of Alabama in Huntsville
Huntsville, AL 35899

Address Service Requested