# AGENDA

## SPECIAL MORNING SESSION

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Chair</th>
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<tbody>
<tr>
<td>10:00 am – 10:15 am</td>
<td>RESEARCH IMPROV: THE MISSING “E”</td>
<td>Dr. Yildirim Hurmuzlu, ME Professor and Event Chair</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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<tr>
<td>10:15 am – 10:30 am</td>
<td>REMARKS</td>
<td>Dr. Marc Christensen, Dean</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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<tr>
<td>10:30 am – 11:15 am</td>
<td>KEYNOTE ADDRESS</td>
<td>Dr. James E. Quick, SMU’s Associate Vice President – Research</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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<td>11:15 am – 11:30 am</td>
<td>Q&amp;A</td>
<td>Dr. Yildirim Hurmuzlu, ME Professor and Event Chair</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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## SPECIAL AFTERNOON SESSION

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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Chair</th>
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<tbody>
<tr>
<td>1:30 pm – 2:15 pm</td>
<td>RESEARCH PERSPECTIVES – PANELISTS</td>
<td>Dr. Volkan Otugen, Sr. Associate Dean, Moderator</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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<td>Dr. Brett Story – CEE</td>
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<td>Dr. Jennifer Dworak – CSE</td>
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<td>Dr. Dinesh Rajan – EE</td>
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<td>Dr. Eli Olinick – EMIS</td>
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<td>Dr. Edmond Richer – ME</td>
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<td>2:15 pm – 2:30 pm</td>
<td>Q&amp;A</td>
<td>Dr. Volkan Otugen, Sr. Associate Dean</td>
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<td>Vester Hughes Auditorium, Caruth Hall</td>
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AWARD PRESENTATIONS

5:00 pm – 5:30 pm  
1ST PLACE ANNOUNCEMENTS  
Huitt–Zollars, J. Lindsay Embrey Building

IMPROV CELEBRATIONS

5:00 pm – 6:30 pm  
LIVE JAZZ, PIZZA, AND FUDGE SUNDAES  
Huitt–Zollars, J. Lindsay Embrey Building

COMPETITIONS

9:00 am – 5:00 pm  
ELECTRONIC POSTER  
Monitors – Lyle School of Engineering Quad

LAB EXPOSITION  
Labs – Lyle School of Engineering Quad

INNOVATION GYM SHOWCASE  
Garden Level – Caruth Hall

REGISTER NOW
The Jerry R. Junkins Building, completed in 2002, was the first building constructed as part of the school’s strategic plan to design an Engineering Quadrangle with modern, state-of-the-art facilities. The building is home to the Electrical Engineering Department and hosts classrooms, lecture halls, faculty offices, and a variety of teaching and research labs.

Labs and offices open for tours:...
003  Photonics Architecture – Developing advanced conformal adaptive digital cameras for the Department of Defense.
008  Wireless Networking Lab – Learn about diverse wireless technologies including current and emerging cellular and WiFi standards. Also, get a glimpse of what next-generation mobile devices and networks will offer.
012  Microstrip Antenna Testing Laboratory – This lab houses testing equipment to measure the performance metrics of various types of antennas.
013  Photonics Characterization – Demonstrations today include semiconductors that emit blue and red light and a semiconductor detector that produces electrical current in response to light.
014  Microstrip Antenna Manufacturing Laboratory – This lab has facilities to manufacture flat antennas from copper sheets.
018  Clean Room – Learn about solid state devices and semiconductor processing. Processes, equipment, packaging, and testing are a part of the Cleanroom experience. From MOSFETs to lasers and silicon to lithium niobate.
206 Integrated Circuits and Systems – Designing high-performance and low-power circuits and systems for a variety of applications, including biomedical instruments, communications, and circuits that support scientific discovery in the European Particle Accelerator at CERN.

216 Multimedia Systems – Houses a recording studio with an acoustic chamber and audio control room for acoustic experiments. Research focuses on advanced algorithms for separating multiple speech signals as recorded by multiple microphones for teleconferencing and surveillance applications.
In addition to the Jerry R. Junkins Building, the Lyle School of Engineering recently added the J. Lindsay Embrey Engineering Building, opened in 2006, to the planned Engineering Quadrangle. The Embrey Building is home to the departments of Mechanical Engineering and Environmental and Civil Engineering. As one of the very first buildings in North Texas to be designed and constructed to LEED environmental standards, the Embrey Building is a living laboratory for our students and faculty, as well as a showpiece for sustainable design and construction in our region.

Labs and offices open for tours:...
001 Research Center for Advanced Manufacturing and Center for Laser-Aided Manufacturing – Center consists of the following laboratories: Rapid Prototyping and Manufacturing Laboratory, Laser Materials Processing Laboratory, Electron Beam Materials Processing Laboratory, R&D in Welding Laboratory, Abrasive Water-jet Materials Processing Laboratory, Friction Stir Welding Laboratory, Laser-based Micro-machining Laboratory, and Materials Characterization Laboratory.
023 Geotechnical Engineering Lab – Determination of physical and mechanical properties of soils.
027 Structures and Materials – The use of experimental techniques for mechanical behavior of engineering materials and structural testing. The facility is also used to teach undergraduate mechanics of material labs.
034 Machine Shop for Undergraduate Projects and Society of Automotive Engineers Exhibit
Huitz Zollars Pavilion – The Guildhall at SMU – Premier video game education program in the United States that offers a graduate certificate and Master’s of Science degree in interactive technology to prepare professionals for the gaming industry.

Financial Aid Representative

SMU Admissions Counselor
215 Micro-Sensors – Developing ultra sensitive micro-sensors based on the optical micro-resonators also called the “Whispering Gallery Mode resonators”. These resonators can be spheres, cylinders or disks made of various optical quality materials including silica and polymers.


219 Transportation Research Lab – Research effort is ongoing in the area of intelligent transportation systems, real-time traffic network management, modeling of pedestrian dynamics in crowded facilities, and infrastructure security.

223 Biomedical Instrumentation and Robotics Laboratory – Research topics include medical robotics with applications in Robotic Prosthetics and Orthotics, Minimally Invasive, Natural Orifice, and Image Guided Surgery, and advanced imaging techniques with applications in cancer diagnostics and treatment and in vivo measurement of biological tissue mechanical properties.

225 Experimental Fluid Mechanics – Experimental quantification and evaluation of unsteady fluid flow processes including vortex formation, unsteady flow transport through porous interfaces, and the performance of pulsed-jet micropulsion.

227 Laser Micromachining – Investigates the use of lasers for fabrication of micro and nanoscale structures and devices. The laboratory is equipped with high energy infrared, visible, and ultraviolet lasers with nanosecond pulse duration.
Water Quality/Aquatic and Soil Chemistry – Analytical testing of water, determination of contaminant source(s), development of processes and materials for contaminate removal.
The new Caruth Hall is home to the Engineering Management Science and Computer Science & Engineering Departments.
Caruth Hall houses many of the Lyle School of Engineering’s top initiatives such as:

• The Caruth Institute for Engineering Education, dedicated to innovative math and science programs and curricula for students from kindergarten through college.

• The Hart Center for Engineering Leadership, focusing on developing strong, creative leaders for the high-tech economy.

• The Stephanie and Hunter Hunt Institute for Engineering and Humanity, dedicated to using the power of engineering, collaboration and the free market to develop and implement solutions to the problems of the poor, both here and abroad.

• The Lockheed Martin Skunk Works® Innovation Gymnasium, involving small, focused groups of students and faculty who work together under tight schedules to solve challenging real-world problems.

The second engineering building at SMU to be constructed to LEED (Leadership in Energy and Environmental Design) Gold Standards, Caruth Hall is the third engineering facility built at SMU in the past eight years, providing new and improved space for teaching, research and innovation.

It serves as the gateway to SMU’s new east quadrangle, which includes the Embrey Engineering Building, Junkins Engineering Building and Blanton Student Services Building.
THANK YOU!

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