

# LSI: Showcasing Rochester's Innovative Spirit

By Joel Seligman

The spirit of innovation is alive and well in Rochester. From September 12 to 14, Rochester will host the inaugural celebration of Light and Sound Interactive (LSI), a unique conference and expo that focus on light- and sound-based technologies and their 21st-century applications to some of the fastest growing markets in the world, including virtual and augmented reality, video games, media, film, and music. LSI includes an interactive conference, trade show, career fair, live demos, museum tours, networking opportunities, and events for start-up companies.

The inspiration for LSI grew out of activities at the Center for Emerging and Innovative Sciences, a New York State-funded Center for Advanced Technology at the University of Rochester. With economic development as a core mission of the center, Director and Chair of Electrical and Computer Engineering Mark Bocko and Executive Director Paul Ballentine sought ways to draw attention to the vast technical and creative resources of our community and to build enthusiasm about possibilities. Drawing inspiration from the highly successful South by Southwest Conference in Austin, Texas, an annual event celebrating the convergence of the interactive, film, and music industries and bringing 50,000 registrants to Austin, they had the idea of creating LSI.

The field of virtual and augmented reality (VR/AR) is projected to grow from \$6 billion in 2016 to more than \$100 billion in 2020. Companies such as Apple, Google, Facebook, and Amazon are investing heavily in light- and sound-based technologies that underlie these developments. LSI's promise of in-depth and interdisciplinary immersion in this field will draw people from across the United States and Canada. Audiences will include technologists, artists and musicians, media creators, students, teachers, entrepreneurs, investors, and others. The timing of LSI, immediately preceding the KeyBank Rochester Fringe Festival, will allow attendees to stay past the conference to experience a broad spectrum of music and other performance art.

The topic of the LSI conference is consistent with the University's core research



**VIRTUAL TOUCH:** Lucian Copeland '16 was part of a student team that developed a prototype for a virtual reality system that mimics the sensation of touch.

strengths, building on optics, photonics, and imaging, as well as in music and clinical care. LSI will highlight topics central to the University's field-defining Institute of Optics, our world-renowned music culture anchored by the Eastman School of Music, and our pathbreaking clinical programs at the Medical Center, as well as one of our newest signature programs, audio and music engineering. Attendees will be able to explore how light and sound technologies are used to create immersive experiences that span arts, games, social interactions, and live performances, and understand how they are being used to detect and treat illnesses, improve the quality of life, and help people with visual and auditory impairments.

One particularly exciting conference session will highlight medical applications of virtual reality. Three University physicians, Dave Mitten, Charles Duffy, and Benjamin Crane, will share their expertise, clinical experience, and insights on a panel moderated by University faculty member Gregory DeAngelis. They will discuss uses of virtual reality to enable enhanced physical exams of patients and more effective treatments for a range of impairments.

University faculty members Krystel Huxlin, Ajay Kuriyan, and David Williams will be joined by speakers from other institutions in panel sessions that address the needs of the blind and visually impaired community and emerging technologies for

visual correction, restoration, rehabilitation, and assistance. Emmy Award-winning composer and conductor Mark Watters, inaugural director of Eastman's Beal Institute for Film Music and Contemporary Media, along with Rochester native Jack Allocco, Seattle-based Guy Whitmore, and other prominent composers of music for media ranging from television to video games, will join in a session to mark the launch of the Beal Institute. Our Del Monte Neuro-medicine Institute Director John Foxe and Sophie Molholm, a faculty member at the Albert Einstein College of Medicine, will host a panel addressing audiovisual processing in neurodevelopmental disorders.

A key part of LSI will be a trade show featuring local optics and imaging companies as well as start-ups from across the country. In parallel, a career fair will be open to job seekers, including students from all area colleges and universities and individuals who are already in the workforce.

As with the South by Southwest Conference, we expect that LSI will lead to economic development in Rochester through new company incubation, growth of the area's existing optics, imaging, and audio companies and by attracting new companies to the region. LSI provides an opportunity for visitors to the region to see firsthand the vibrancy and innovation of the city of Rochester as well as our numerous and variegated strengths as a research university. 