The Center of Excellence in Wireless and Information Technology

NEWSLETTER
AUGUST 2015

CEWIT is an unparalleled resource, advancing the science and technology underlying the next epoch of the information revolution.

CEWIT2015 CONFERENCE
THE ENTREPRENEURIAL ADVANTAGE ✦ INTERNATIONAL BUSINESS TO BUSINESS NETWORKING

RESEARCH
CYBER RESEARCH INSTITUTE AND NIKIFORAKIS TACKLE TECH SUPPORT SCAMS
BORODIN: HONOREE OF MIT TECHNOLOGY REVIEW'S ANNUAL INNOVATORS UNDER 35

NEWS & EVENTS
TWO DAYS OF TECH: STONY BROOK UNIVERSITY'S COMPUTER SCIENCE TECH DAY ✦ CS INTERFACE
LONG ISLAND TECH DAY 2015

Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

Stony Brook University

CEWIT 2015

THE 12TH INTERNATIONAL CONFERENCE & EXPO ON EMERGING TECHNOLOGIES FOR A SMARTER WORLD

October 19 & 20 • Melville Marriott Long Island • Melville, New York

Gaining recognition as one of the most prestigious and highly attended programs, CEWIT2015 is an excellent opportunity to network and listen to industry and academic experts discuss innovative ideas and applications in infrastructure, healthcare and energy — three of the most critical components of a smarter global environment.

FEATURING
- 65 academic and industry experts in 9 diverse technical sessions
- 16 distinguished panelists in a specialized business and entrepreneurship track
- 2 renowned keynotes
- 75 high quality posters
- 600 attendees from 15 countries
- Over 130 unique participating private and public companies, research institutions, and universities
- 40+ company delegation from Israel and Korea with specialized B2B networking
- Parallel big data and data science tutorials

JOIN OUR SPONSORS AND EXHIBITORS
Support New York's only major IT conference and the premier international forum on emerging technologies, with more than 30 exhibitors on the show floor. To join, contact Kathleen Ferrell at (631) 632-4625 or Kathleen.Ferrell@stonybrook.edu.

FOR MORE INFORMATION/REGISTRATION
Secure your reduced registration and hotel rates.
VISIT • WWW.CEWIT.ORG/CONFERENCE2015
EMAIL • conference@cewit.org
CALL • (631) 216-7000
FOLLOW • @CEWITConference

CONFERENCE AGENDA
MONDAY, OCTOBER 19, 2015
Big Data Analytics and Visualization
Health Technologies and Medical Devices
Cybersecurity
Entrepreneur's Toolkit I · Funding 101

Distinguished Keynote
Harry L. Leider, MD, MBA
Chief Medical Officer, Walgreen Company
Digital Health — Where is Value Created and Who Will Pay?

Big Data Analytics and Visualization
Internet of Things
Smart Urban Systems
Venture Capital Trends; Is There Another Way?

TUESDAY, OCTOBER 20, 2015
Information Technology and Society
Health Technologies and Medical Devices
Smart Energy
Entrepreneur's Toolkit II · Funding 201
Big Data Tutorials • Python • R

Distinguished Keynote
Girish Rishi
Executive Vice President, Tyco International
IoT: Hype or Reality? Outlook for Schools, Hospitals, Stores, Offices and Beyond
International Business to Business Networking Session

ca technologies

Softheon

ZEBRA

SVAM INTERNATIONAL, INC.

THE VALUE OF PERFORMANCE.
NORTHROP GRUMMAN

HENRY SCHEIN®

Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

Stony Brook University

CEWIT KOREA
Center Of Excellence Wireless And Infomation Technology

CEWIT2015 CONFERENCE

REGISTRATION NOW OPEN

RESERVE YOUR SEAT at New York's premier IT conference and international forum on emerging technologies.

DISCOUNTS FOR IEEE, LIFT, AND LISTnet MEMBERS, and **REDUCED RATES THROUGH SEPTEMBER 18, 2015**. Registration Now Open for both General Conference and Big Data and Data Science Tutorials: https://secure2.events-registration.com/cewit2015/

BIG DATA AND DATA SCIENCE TUTORIALS

Two, 3-hour, for-pay, workshops on Python Data Analytics and R Data Mining, instructed by experts from the NYC Data Science Academy Team and certified by The Center for Corporate Education at Stony Brook University. For registered conference attendees.

SESSION I · PYTHON DATA ANALYTICS WORKSHOP
NUMPY, PANDAS, MATPLOTLIB, SCIPY

SESSION II · R DATA MINING WORKSHOP
CARET, RPART, RANDOMFOREST, GBM, BOOSTING

NYC DATA SCIENCE ACADEMY

INTERNATIONAL BUSINESS TO BUSINESS NETWORKING SESSION

Featuring a 40 company delegation from Israel and Korea as well as our regional base of 30+ exhibiting and participating organizations, joined by the Israeli and Korean ambassadors, the Empire State Development Corporation, and key business and financial leaders from in and around the Long Island and New York State regions.

The session will provide optimal visibility for particpating companies, allow for opportunities of accessing international and local markets, and offer a rich environment for technology exchange and ultimately, incorporation into your product portfolio.

Interested? Complete and submit the **B2B COMPANY PARTICIPATION FORM** to be added to the B2B database and circulated in advance to participating companies. Meetings will be held throughout the Conference with an emphasis during the session on Day 2, Tuesday, October 20, 2015, from 2:00 PM-5:00PM EST as well as an additional closed executive dinner piece on the previous evening hosting all company participants and session representatives.

Conference sponsorship, or exhibition, or individual registration is required to participate in this session. For further information on the session: *conference@cewit.org. Visit www.cewit.org/conference2015 weekly for an updated list of participating compnaies.*

JOIN THE SESSION

THE ENTREPRENEURIAL ADVANTAGE

The CEWIT Conference program has built a significant business culture over the years providing a wide range of entrepreneurial and technological gain for participating organizations. In additon to specialized International Business to Business Sessions, CEWIT2015's Business Track will host 16 distinguished, Long Island-based panelists lecturing on a wealth of key topics including venture capital investment, intellectual property, crowdfunding, licensing, and strategies to both properly pitch and communicate your technology.

Robert Brill, Managing Parter, Newlight Management, returns as a panelist to CEWIT's 3rd Annual Venture Capital Panel and principal evaluator in the session's early phase company funding Pitch Clinic, bringing and his executive insight and leading investor knowledge to the floor. His thoughts on Long Island's innovation economy and more in the debrief with Innovate LI.

Adding to the powerhouse of professionals, Stony Brook University's Peter Donnelly, Director of Technology Licensing and Industry Relations, joins the Entrepreneur's Toolkit and Funding 201 session offering insight on working with the University's Technology Transfer office and IP environment. Donnelly's expertise in developing markets for science and technology commercialization continues to build the high potential for ingenuity of both the University and the region; Innovate LI with the details.

BUSINESS TRACK DAY I · OCTOBER 19

ENTREPRENEUR'S TOOLKIT I · FUNDING 101 · Focuses on burnishing your company for a venture capital investment. It includes value creation through Intellectual Property, specific recommendations for attracting and managing funds placement, and culminates in a Pitch Clinic in which early phase companies present their funding pitches interactively to CEWIT's expert Panel.

DAY II · OCTOBER 20

TRENDS IN VENTURE CAPITAL AND IS THERE ANOTHER WAY? · Kicks off with CEWIT's 3rd Annual Venture Capital Panel, a traditionally rousing moderated discussion of current trends in equity investing. Following, presentations delivered by entrepreneurs who found their way to the success of an ongoing business without venture capital funding. Culminating this Session is a discussion of an entrepreneur's considerations when negotiating an out-license of technology, another potentially venture capital-free means of achieving commercial success.

ENTREPRENEUR'S TOOLKIT II · FUNDING 201 · Covering a number of novel subject areas such as how Crowdfunding investors make their decisions and the importance of being able to communicate science to business people, as presented by the Alan Alda Center. The Session transitions to information regarding government sponsored programs focused on helping entrepreneurs address funding and other issues.

Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

R E S E A R C H

CYBER RESEARCH INSTITUTE AND NIKIFORAKIS TACKLE TECH SUPPORT SCAMS

Tech Support Scams appeared first in 2008 and since then, despite various crackdowns by the Federal Trade Commission, there have been thousands of individuals who have fallen victim and lost hundreds of millions of dollars. Nick Nikiforakis, an Assistant Professor of Computer Science at Stony Brook University and member of the National Security Institute, has been awarded a $67K grant from the Cyber Research Institute (CRI) to continue his research and work in technical support scams to help this ongoing issue. The grant will fund his research project, Tools and Techniques for Understanding and Detecting Technical Support Scams, which investigates the techniques used by scammers and designs effective defense systems against those scams.

The project aligns with the CRI's mission, which is to encourage partnerships that leverage the federal, state and private training, research, development, demonstration and technology transfer resources to: - Protect the integrity of cyber-based infrastructure - Facilitate the transfer of cyber technology to effective market applications - Establish and foster a sustainable program that will grow the cyber-based economy in NY - Expand the region's cyber-based workforce - Promote New York State as the leader in public/private sector collaboration in cyber-based research and protection.

"I am excited about this project because we have the chance to make a lasting difference," said Nikiforakis. "People that fall victims to these scams lose not only money and time, but also confidence on the Internet and its great advantages. I'm thankful to the Cyber Research Institute and Stony Brook for providing support to be able to spend the time and resources necessary to protect innocent users from technical support scams."

Technical support scams trick users into thinking that they are interacting with a technician of a large software company, when, in reality, they are interacting with a scammer posing as a technician. Scammers then use a wide range of social engineering techniques to get access to the computers of their victims, convince them that they are infected with malware, and then charge them a fee for removing the purported infection.

Nikiforakis, whose academic interests revolve around hands-on security and privacy, including analysis of online ecosystems and understanding domain squatting, said that he is thankful to the Cyber Research Institute for the grant he received. "Without their support, we would not be able to spend the time and resources necessary to protect innocent users from technical support scams," he said.

Prior to joining Stony Brook University in 2014, Nikiforakis worked as a Postdoctoral Researcher at KU Leuven where he earned his PhD in Computer Science in 2013. He received his B.Sc and M.Sc in Computer Science from the University of Crete. Nikiforakis teaches Network Security and System Security courses at Stony Brook and is a member of the National Security Institute. *-Stony Brook University, August 2015*

YEVGEN BORODIN RECOGNIZED AS AN HONOREE OF MIT TECHNOLOGY REVIEW'S ANNUAL INNOVATORS UNDER 35

On August 18, 2015, MIT Technology Review revealed its annual list of Innovators Under 35. For over a decade, the global media company has recognized a list of exceptionally talented technologists whose work has great potential to transform the world. For his work in the field of computer accessibility, Stony Brook University's Yevgen Borodin has been recognized as a humanitarian in the Internet and Web category.

Dr. Borodin is a Research Assistant Professor in the Department of Computer Science and his innovations have pushed the envelope in computer accessibility research and, today he is regarded as one of the leading researchers in the field of computer accessibility. Dr. Borodin has invented an array of methods for improving web accessibility and usability for people with vision impairments, greatly enhancing their productivity with the Web. MIT Technology Review's recognition primarily focuses on Borodin's invention, Capti Narrator, a universally-accessible application empowering users to read and/or listen to textual content from different sources, formats, and on different platforms. Capti Narrator (www.captivoice.com) is already used by hundreds of thousands of people around the world for productivity, education, entertainment, and as an assistive technology.

To accelerate the delivery of his innovations to the people who need the Web to be more accessible (at least 25 Million people in the U.S. and 10 times as much worldwide), Dr. Borodin founded Charmtech Labs LLC at the Center of Excellence in Wireless and Information Technology (CEWIT) through which he is commercializing his innovative research. The technology developed by Charmtech Labs is usable to the largest extent possible by anyone and in any circumstance. For example, Capti is used by people with dyslexia, vision impairments, students, busy professionals, and commuters.

Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

"Over the years, we've had success in choosing young innovators whose work has been profoundly influential on the direction of human affairs," says editor in chief and publisher Jason Pontin. "Previous winners include Larry Page and Sergey Brin, the cofounders of Google; Mark Zuckerberg, the cofounder of Facebook; and Jonathan Ive, the chief designer of Apple. We're proud of our selections and the variety of achievements they celebrate, and we're proud to add Yevgen Borodin to this prestigious list."

"Capti provides a unified interface – I can just use Capti, and don't have to switch applications anymore. I just search and add content to the playlist." – Chieko Asakawa, PhD, IBM Fellow leading accessibility research projects both within and outside of IBM. Asakawa lost sight when she was 14 years old due to a swimming accident. *-Stony Brook University, August 2015*

TANNENBAUM: USING CURVATURE OF CELLULAR NETWORKS TO IDENTIFY CANCER CELLS

A recent issue of the scientific research journal Scientific Reports, published by Nature, highlighted the cancer cell research of computer science professor Allen Tannenbaum, post-doctoral researchers, Romeil Sandhu and Liangjia Zhu from Stony Brook University; Tryphon Georgiou (University of Minnesota); and researchers from Memorial Sloan Kettering Cancer Center.

The paper titled Graph Curvature for Differentiating Cancer Networks reveals the role of curvature as a cancer network characteristic, and its relationship to robustness as a functionality of the network.

The research demonstrates that a certain geometric feature of protein networks can be used to identify cancer cells. Though this study, the research team addresses a key challenge in cancer therapy which is to explain and quantify the robustness of cancer cells. Using proposed geometric notions of curvature on weighted graphs, researchers investigated the features of gene co-expression networks obtained from large-scale genomic cancer studies.

Advances on this front may significantly impact targeted treatment of cancer cell networks. While the paper is focused on cancer cells, it points to the use of the analytical approach to the study of complex cellular networks to understand phenomena in molecular biology.

The project was supported in part by grants from the National Center for Research Resources; the National institute of Biomedical Imaging and Bioengineering of the National Institutes of Health; and Air Force Office of Scientific Research.

NEWS & EVENTS

TWO DAYS OF TECH · NOT TO MISS!
SEPTEMBER 18 · CONNECT WITH CS · CS TECHDAY 2015

Stony Brook University's Department of Computer Science and the Stony Brook University Career Center have teamed up again to host Computer Science Technology Day (CS Tech Day). This year, the focus of CS Tech Day is CS Interface: Multimedia, VR, and Gaming in 2015

In addition to the employer Job & Internship Fair, activities include a student Fast Forward session that showcases their latest digital media research/projects and a Human Computer Interaction (HCI) panel focused on the importance of the User Experience (UX) in software development lead by industry professions including Applied Visions, eGifter, Consortium for Digital Arts, Culture, and Technology (cDACT), and CA Technologies.

Students will also have the opportunity to participate in Bloomberg's Code Con programming contest. Sponsorship of the event is a great way for an employer to promote their company to 1500+ students and faculty, and 7,000+ alumni. CS Tech Day will welcome international, national, and local companies and will bring together researchers and industry leaders; start-up and top technology companies; and employers and job seekers. It is a unique opportunity for companies to interact with students and faculty at an event that celebrates computer science at Stony Brook University.

Participation & sponsorship interests: www.cs.stonybrook.edu/about-us/News/Computer-Science-and-Career-Center-Present-CS-Tech-Day-2015-September-18

NOVEMBER 10 · LONG ISLAND TECH DAY

Long Island Tech Day a revolutionary one-day expo created for Long Island-based tech companies. "We create an event that benefits Long Island-based tech companies of all sizes and gives them the opportunity to directly interact with the Long Island community with a focus on their individual needs – they can demo new products & services, recruit for open positions, interact with high caliber investors or just say hello to the tech community. The result transforms Long Island Tech Day into the biggest Tech Expo for Long Island-based tech companies," says Andrew S. Hazen, Founder of Long Island Tech Day and CEO of LaunchPad. For more information and to register, visit www.litechday.com.

THE ALAN ALDA INDUSTRY INITIATIVE

The Alda Center Industry Initiative is for scientists, engineers and other technical professionals in industry who want to become better at communicating about their work with varied audiences, including clients, corporate leaders, marketing personnel, policy makers and colleagues in other disciplines.

Companies are invited to send scientists and engineers to participate in an innovative two-day workshop, Oct. 15-16, 2015 at Stony Brook University. More information and registration available at www.centerforcommunicatingscience.org/alda-center-industry-initiative/.

Center of Excellence
WIRELESS AND INFORMATION TECHNOLOGY
AT STONY BROOK UNIVERSITY

REGISTER NOW

REDUCED RATES THROUGH SEPTEMBER 18, 2015

The 12th International Conference & Expo on Emerging Technologies for a Smarter World
CEWIT2015
OCTOBER 19 & 20, 2015
Melville Marriott Long Island, Melville, New York

FOR MORE INFORMATION & TO REGISTER:
WWW.CEWIT.ORG/CONFERENCE2015