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WORLD'S BIGGEST STUDENT CYBER SECURITY GAMES EXPAND TO INDIA, MIDDLE EAST, AND NORTH AFRICA

NYU Tandon, NYU Abu Dhabi, and the Indian Institute of Technology, Kanpur, Will Lure Best Young Hackers and Protectors to a Vital Field of Study

The world's largest student-run cyber security event, founded 13 years ago by the New York University Tandon School of Engineering, will expand this year to NYU Abu Dhabi and the Indian Institute of Technology, Kanpur, where finalists from India, the Middle East, North Africa, and the United States will compete simultaneously in November 2016.

The schools also announced they are accepting registrations for the Cyber Security Awareness Week (CSAW) elimination rounds in August and September, which last year pitted nearly 20,000 students – from high schools through doctoral programs – against global competitors, all working from their own computers. The competitions will challenge their knowledge of virtually every aspect of information security, from hardware and software penetration testing and protection to digital forensics and government policy.

This year the best students from India, the Middle East, North Africa, and the United States will earn travel awards to participate in the final rounds, which will be held November 10-12, 2016 at IIT Kanpur, NYU Abu Dhabi, and NYU Tandon. At the regional CSAW campuses, students will network with top professionals who serve as judges, hear experts address emerging issues, meet recruiters eager to fill what is expected to be a <u>shortfall</u> of 1.5 million cyber security professionals by 2020, and face tough competition from teams from other schools.

The CSAW games were founded by Professor <u>Nasir Memon</u>, now chair of the NYU Tandon Department of Computer Science and Engineering, and his students. Students continue to design the contests under the mentorship of information security professionals and faculty and run them from NYU Tandon's student-led <u>Offensive Security</u>, <u>Incident Response and Internet Security</u> (OSIRIS) lab, home also to weekly Hack Nights.

"Data security is a critical global issue. Attackers know no national boundaries, and neither should those who protect our personal privacy and institutions," Memon said. "We are pleased that IIT Kanpur, a world-leading engineering school, recognized the ability of CSAW to engage and educate information security students and decided to introduce the contests to students throughout India. I am equally excited about the role that NYU Abu Dhabi will play this year. In the past CSAW brought high school teams to New York. This year, thanks to the leadership of students and faculty, it will expand its reach to high school and university students across the Middle East and North Africa." Memon heads NYU Abu Dhabi's cyber security program, as well as NYU Tandon's.

"With hobby hackers, foreign state actors, terrorist organizations and other adversaries abounding, cyber security is not just a computer science issue but a national security issue. IIT Kanpur is delighted to join hands with the New York University Tandon School of Engineering to bring the cyber security awareness competitions to India. We hope that Indian institutes and universities will participate in large numbers and show their competitiveness against the teams from all over the world," said <u>Manindra Agrawal</u>, N Rama Rao Professor in IIT Kanpur's Department of Computer Science and Engineering. Professor <u>Sandeep Shukla</u>, Poonam and Prabhu Goel Professor in the same department, added: "Building man power in cyber security is imperative to the security of our cyber space. Here at IIT Kanpur we founded a center for cyber security to innovate as well as educate in this field. Organising CSAW in India as part of this global cyber security competition will bring awareness among the youth in India which will translate to more students opting for higher studies and research in this field. For Indian students it will provide a unique opportunity to compete globally and establish a reputation as an emerging student population in cyber security and residence."

Each of the regional finalist competitions will vary slightly in the content. Winners of the final rounds can walk away with cash prizes, scholarships, and more. Bragging rights are often the biggest motivator – CSAW has become a boldface line for recruiters and university admissions officers.

This year, CSAW will include:

- Capture the Flag (CTF) hacking competition This cornerstone challenge attracts upwards of 10,000 remote players each year and provides entry- and mid-level problems to solve at the preliminary stage. Students find themselves competing against professionals and amateurs of all ages in the September remote round, but only the best undergraduate teams qualify for the 30-hour-long marathon of the final round, which is notoriously difficult.
- High School Forensics The entryway into cyber security, this competition attracts students who enjoy solving puzzles, in this case a fictional murder mystery. To encourage newcomers, NYU Tandon students and their mentors developed an <u>online, self-taught curriculum</u> and offer digital workshops.
- Embedded Security Challenge In the world's oldest hardware hacking contest, a Blue Team from NYU Tandon designs a target system. Everyone else Red Teams will hack it, to mimic real-world attacks. The finalists will present their findings to security experts in this challenging, research-oriented contest.
- Applied Research Competition To participate in what is recognized as the most prestigious Best Paper Award for young researchers, doctoral students must submit papers that have already been published in peer-reviewed journals or presented at conferences.
- Policy Competition Challenging contestants to think about the big picture of law, policy, economics, and governance, this competition requires students to develop a policy paper

proposing how to overcome market failures in cyber security and better protect consumer privacy and critical infrastructure.

- Department of Homeland Security Quiz Held during the finals, this trivia contest challenges students on technical knowledge as well as history and current events. This year players can use their own smartphones thanks to an app written by former CSAW student team leader Kevin Chung.
- Security: Open Source This new, one-day workshop for professionals, organized by NYU Tandon Computer Science and Engineering Assistant Professor <u>Brendan Dolan-Gavitt</u>, will bring open-source software authors to NYU Tandon and NYU Abu Dhabi to explain their tools.
- Entrepreneurial Pitch Competition Competitors will be invited to pitch commercially viable ideas for real-world security problems to potential funders.

The 2016 CSAW is supported by Gold Sponsors <u>Palo Alto Networks</u> and the <u>U.S. Department of</u> <u>Homeland Security</u>; Silver Sponsor <u>IBM</u>; Bronze Sponsors <u>Navy Civilian Careers-U.S. Navy</u>, <u>NCC Group</u> and <u>Raytheon</u>; and Supporting Sponsors <u>Bloomberg</u>, <u>Cubic Corporation</u>, and <u>Intel</u>.

For more information and to register, visit <u>https://csaw.engineering.nyu.edu</u>. Follow @CSAW_NYUTandon. Preliminary rounds for the Embedded Security Challenge will be held in August; the other preliminary challenges will be in September.

About the NYU Tandon School of Engineering

The NYU Tandon School of Engineering dates to 1854, when the NYU School of Civil Engineering and Architecture as well as the Brooklyn Collegiate and Polytechnic Institute (widely known as Brooklyn Poly) were founded. Their successor institutions merged in January 2014 to create a comprehensive school of education and research in engineering and applied sciences, rooted in a tradition of invention, innovation and entrepreneurship. In addition to programs at its main campus in downtown Brooklyn, it is closely connected to engineering programs in NYU Abu Dhabi and NYU Shanghai, and it operates business incubators in downtown Manhattan and Brooklyn. For more information, visit <u>http://engineering.nyu.edu</u>.

About IIT Kanpur

Indian Institute of Technology, Kanpur, is one of the premier institutions set up by the Government of India. Registered in 1959, the institute was assisted by nine leading institutions of U.S.A in the setting up of its academic programs and laboratories during the period 1962-72. With its record of path-breaking innovations and cutting edge research, the institute is known the world over as a learning centre of repute in engineering, science and several inter-disciplinary areas. In addition to formal undergraduate and postgraduate courses, the institute has been active in research and development in areas of value to both industry and government. For more information, visit <u>www.iitk.ac.in</u>.

About NYU Abu Dhabi

NYU Abu Dhabi consists of a highly selective liberal arts and science college (including engineering), and a world center for advanced research and scholarship — all fully integrated with each other and connected to NYU in New York. Together, NYU New York, NYU Abu Dhabi, and NYU Shanghai form the backbone of a unique global network university, with faculty and students from each campus spending "semesters away" at one or more of the numerous study-abroad sites NYU maintains on six continents. For more information, visit <u>http://nyuad.nyu.edu/en</u>.

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