8th International Conference on Networking, Systems and Security (8th NSysS 2021)

Program

(All times are in Bangladesh Standard time (BST) - GMT+6:00)

Day 1: December 21, 2021, Tuesday	
6:30 PM - 7:00 PM (virtual)	Welcome Session
8:00 PM – 9:00 PM (virtual)	Keynote Talk: **Can Security Risk Management Become Practical?** by *Trent Jaeger*, Professor of Computer Science and Engineering, The Pennsylvania State University, USA [Session Chair - *Rifat Shahriyar,* CSE, BUET, Bangladesh]
9:00 PM – 11:00 PM (virtual)	Special session: **Communication and Computation for Smart Cities** Invited Speakers: *Abhishek Dubey*, Vanderbilt University, USA *Dong Wang*, University of Illinois Urbana-Champaign, USA *Baek-Young Choi*, University of Missouri Kansas City, USA *Cheng-Hsin Hsu*, National Tsing Hua University, Taiwan [Organizer and Session Chair - *Md Yusuf Sarwar Uddin*, University of Missouri Kansas City, USA]

Day 2: December 22, 2021, Wednesday	
10:00 AM – 11:00 AM (virtual)	Keynote Talk: **Enabling a rich and trustworthy nexus of AI and IoT** by *Mani Srivastava*, Professor of Electrical & Computer Engineering, University of California, Los Angeles, USA [Session Chair - *Mohammad Al Faruque,* University of California, Irvine, USA]
11:00 AM – 11:30 AM	Registration
11:00 AM – 11:30 AM	Business Meeting of Organizers and Steering Committee
11:30 AM – 12:25 PM (physical)	Technical Paper Presentation Session: **Networking and Security** [Session Chair - *Muhammad Abdullah Adnan*, CSE, BUET, Bangladesh] ➢ Syeda Farzia Afroze and Ashikur Rahman. *A Target-Oriented Conflict Graph-based Approach for the Coverage Problem in Directional Sensor Networks* (long paper) ➢ *Pritam Goswami, Sangita Patra and Buddhadeb Sau,* **Hole Healing in Mobile Sensor Network** (short paper) ➢ Ishita Haque, Rudaiba Adnin, Sadia Afroz, Faria Huq, Sazan Mahbub and A. B. M. Alim Al Islam. *A Tale on Abuse and Its Detection over Online Platforms, Especially over Emails: From the Context of Bangladesh* (long paper)
12:25 PM – 1:05 PM	Technical Paper Presentation Session: **Software and Systems Security** [Session Chair - *A.K.M. Ashikur Rahman*, CSE, BUET, Bangladesh]

(physical)	➢ Farhaan Fowze and Tuba Yavuz. *Finding Memory Vulnerabilities in Protocol Stack Implementations using Hybrid Program Analysis* (long paper) ➢ Md Shihabul Islam, Masfiqur Rahaman and A. B. M. Alim Al Islam. *Securing Firearms inside An Arsenal through Using A Remotely-Operated Sensor-Based Safety Mechanism* (long paper)
1:05 PM - 2:00 PM	Lunch Break
7:00 PM – 8:30 PM (virtual)	Special Session: **When AI Meets Security and Privacy** Invited Speakers: *Elisa Bertino*, Purdue University, USA *Ninghui Li*, Purdue University, USA *Anupam Das*, North Carolina State University, USA [Organizer and Session Chair - *Syed Rafiul Hussain*, The Pennsylvania State University, USA]
9:00 PM – 11:00 PM (virtual)	Special Session: **Industrial Internet of Things** Invited Speakers: *Qi Han*, Colorado School of Mines, USA *Octav Chipara*, University of Iowa, USA *Sanjay Madria*, Missouri University of Science & Technology, USA *Nirmalya Roy*, University of Maryland Baltimore County, USA [Organizer and Session Chair - *Abusayeed Saifullah*, Iowa State University, USA]
Day 3: December 23, 2021, Thursday	
11:00 AM – 11:40 AM (physical)	Technical Paper Presentation Session: **Autonomous and Distributed Systems** [Session Chair - *Mahmuda Naznin*, CSE, BUET, Bangladesh] ➢ Tanvir Arafat, Mehedi Hasan Emon, Sujan Sarker, Md. Abdur Razzaque and Md. Mustafizur Rahman. *Balancing Worker Utility and Recruitment Cost in Spatial Crowdsensing: A Nash Game Approach* (long paper) ➢ Supravat Samanta, Subhajit Pramanick and Partha Sarathi Mandal. *Fault-Tolerant Covering Points by UAVs* (short paper)
11:40 AM – 12:20 PM (physical)	Technical Paper Presentation Session: **IoT and Embedded Systems** [Session Chair - *A.B.M. Alim Al Islam*, CSE, BUET, Bangladesh] ➢ Avishek Das Gupta, Zafar Sadek Fuad, Md. Harunur Rashid Bhuiyan, Md. Golam Kibria, Tarik Reza Toha and Shaikh Md. Mominul Alam. *A Low-Cost IoT Based Automatic Water Quality Monitoring System for Textile Industry* (long paper) ➢ Ashish Sutradhar, Md. Harunur Rashid Bhuiyan, Faria Tashnim Mazumder, Pritom Goswami, Saiful Islam Salim, Tarik Reza Toha and Shaikh Md. Mominul Alam. *Devising a Dust and Noise Pollution Monitoring System for Textile Industry* (short paper)

12:20 PM – 1:00 PM (physical)	Technical Paper Presentation Session: **Machine Learning Applications** [Session Chair - **Abu Wasif,** CSE, BUET, Bangladesh] ➤ Sourav Dey Roy, Anindita Mohanta, Dipak Hrishi Das and Mrinal Kanti Bhowmik. *Cloud Pattern Classification for Rainfall Prediction using Convolutional Neural Network* (short paper) ➤ Nabil Intehaz and Mahmuda Naznin. *Determining Confused Brain Activity from EEG Sensor Signals* (short paper)
1:00 PM – 2:00 PM	Prayer Break and Lunch Break
2:00 PM – 4:30 PM (physical)	Students' Poster Presentation [Session Chair - **Mahmuda Naznin**, CSE, BUET, Bangladesh]
4:30 PM – 5:15 PM	Prayer and Tea Break
5:15 PM – 6:30 PM (physical)	Industry Session: Talk from Valued Sponsors [Session Chair - **Md. Shohrab Hossain**, CSE, BUET, Bangladesh]
6:30 PM – 7:30 PM	Closing Session and Award Ceremony
7:30 PM - 8:00 PM	Banquette Dinner
8:00 PM - 9:00 PM (virtual)	Keynote Talk: **Energy Efficiency in Smart Buildings through IoT Sensor Integration** by **Saifur Rahman**, Professor and Director, Advanced Research Institute, Virginia Tech, USA, President, IEEE Power & Energy Society 2018 and 2019, IEEE President-elect 2022 [Session Chair - **Mohammad Al Faruque,** University of California, Irvine, USA]
9:00 PM - 11: 00 PM (virtual)	Special Session: **Mobile Health (mHealth)** Invited Speakers: **Santosh Kumar**, University of Memphis, USA **Jaimes Luis**, Florida Polytechnic University, USA **Bashima Islam**, Worcester Polytechnic Institute, USA **Yasser Khan**, University of Southern California, USA [Organizer and Session Chair - **Md Mahbubur Rahman**, Staff Research Engineer, Digital Health Lab, Samsung Research America, Mountain View, California, USA]

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Welcome Session	
December 21, 2021 Tuesday	
Time: 6:30 PM - 7:00 PM	
6:30 PM – 6:40 PM	Welcome speech from Local Organizing Co-Chair (Dr. M. Kaykobad, Distinguished Professor, Brac University, Bangladesh)
6:40 PM – 6:50 PM	Speech from General Co-Chair (Dr. A.K.M. Ashikur Rahman, Professor & Head, Department of CSE, Bangladesh University of Engineering and Technology, Bangladesh)
6:50 PM – 7:00 PM	Presentation on NSysS and Departmental History

Closing Session and Award Ceremony	
December 23, 2021 Thursday	
Time 6:30 PM – 7:30 PM	
6:30 PM – 6:35 PM	Welcome speech from Local Organizing Co-Chair (Dr. M. Kaykobad, Distinguished Professor, Brac University, Bangladesh)
6:35 PM – 6:40 PM	Conference statistics from TPC Co-Chair (Dr. Rifat Shahriyar, Professor, Bangladesh University of Engineering and Technology, Bangladesh)
6:40 PM – 6:45 PM	Speech & announcement of awards from TPC Co-Chair (Dr. Mohammad Al Faruque, Associate Professor, University of California, Irvine, USA)
6:45 PM – 7:00 PM	Speeches from valued Financial Co-sponsors
7:00 PM – 7:05 PM	Speech from ACM Chapter Chair (Dr. Md. Shohrab Hossain, Professor, Bangladesh University of Engineering and Technology, Bangladesh)
7:05 PM – 7:10 PM	Speech from the Special Guest (Dr. Mohammad Ataul Karim, Professor, Professor, Electrical and Computer Engineering, University of Massachusetts, Dartmouth, Member of the Steering Committee, NSysS 2021)
7:10 PM – 7:15 PM	Speech from the Special Guest (Dr. Abdul Jabbar Khan, Professor & Honorable Pro-Vice Chancellor, Bangladesh University of Engineering and Technology, Bangladesh)
7:15 PM – 7:25 PM	Speech from the Chief Guest (Dr. Satya Prasad Majumder, Professor & Honorable Vice Chancellor, Bangladesh University of Engineering & Technology, Bangladesh)
7:25 PM – 7:30 PM	Closing remarks and vote of thanks from General Co-Chair (Dr. A.K.M. Ashikur Rahman, Professor & Head, Department of CSE, Bangladesh University of Engineering and Technology, Bangladesh)