

# 7<sup>th</sup> International Conference on Networking, Systems and Security (7<sup>th</sup> NSysS 2020)

## Program

### [NSysS 2020 Participants](#)

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

Day 1: December 22, 2020, Tuesday	
9:00 AM – 10:00 AM	<p>Keynote Talk: “Limitations on Malicious Secure Protocols” by Dr. Chris Clifton, Professor of Computer Science and (by courtesy) Statistics, Purdue University</p> <p>[Session Chair - Dr. Md. Abul Kashem Mia, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1 <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1weVdsUkEydC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1weVdsUkEydC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
10:00 PM – 10:30 PM	<p>Invited Talk: “Being ‘LoCO’: Design &amp; Experiments With a Low-Cost Open-Source Autonomous Underwater Vehicle” by Dr. Junaed Sattar, Assistant Professor, CSE, University of Minnesota</p> <p>[Session Chair - Dr. Muhammad Abdullah Adnan, Associate Professor, CSE, BUET, Bangladesh ]</p> <p>Webinar Link: NSysS 2020 Room 2 <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
10:30 AM – 10:45 AM	Break and Networking
10:45 AM – 12:00 PM	<p>Welcome Speech from Organizing Co-Chairs and Remarks on Departmental History</p> <p>Webinar Link: NSysS 2020 Welcome Session <a href="https://bdren.zoom.us/j/64728878540?pwd=MGF4OU1wUU9rN2oySzVOdGQ3a3E4Zz09">https://bdren.zoom.us/j/64728878540?pwd=MGF4OU1wUU9rN2oySzVOdGQ3a3E4Zz09</a> (ID: 647 2887 8540, Passcode: 145949)</p> <p>[The detailed program is available below.]</p>
12:00 PM – 1:05 PM	<p>Technical Paper Presentation Session: “Data Analytics for Healthcare” [Session Chair - Dr. Abu Sayed Md. Latiful Hoque, Professor, CSE, BUET, Bangladesh]</p> <p>1. <i>Meer Muttakin Alam and Atanu Shome. Attacks on Health Workers during COVID-19 Pandemic - Data Exploration and News Article Detection using NLP and GRU model</i></p>

	<p>2. <i>[Short Paper] Akif Ahmed, Md. Saddam Hossain Mukta, Fardin Muntasir and Shaguffa Rahman. Can COVID-19 Change the Big5 Personality Traits of the US Health Workers?</i></p> <p>3. <i>[Short Paper] Salman Sadiq Shuvo, Md Rubel Ahmed, Sadia Binta Kabir and Shaila Akter Shetu. Application of machine learning based hospital up-gradation policy for Bangladesh</i></p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
1:05 PM – 2:15 PM	Lunch Break and Prayer Break
2:15 PM – 3:05 PM	<p>Technical Paper Presentation Session: “Text Analysis”  [Session Chair - Dr. Muhammad Masroor Ali, Professor, CSE, BUET, Bangladesh]</p> <p>1. <i>Rifat Rahman. A Benchmark Study on Machine Learning Methods using Several Feature Extraction Techniques for News Genre Detection from Bangla News Articles &amp; Titles</i></p> <p>2. <i>Abu Saleh Md. Abir, Sanjana Rahman, Samia Ellin, Maisha Farzana, Md. Hridoy Manik and Chowdhury Rafeed Rahman. Confronting the Constraints for Optical Character Segmentation from Printed Bangla Text Image</i></p> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
3:05 PM – 3:55 PM	<p>Poster Presentation: 3-Minute Enlightening Talk  [Session Chair - Dr. Md. Monirul Islam, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
3:55 PM – 4:15 PM	Prayer Break and Networking
4:15 PM – 5:00 PM	<p>Business Meeting of Organizers and Steering Committee  [Moderator - Dr. M. Sohel Rahman, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
<b>Day 2: December 23, 2020, Wednesday</b>	
9:00 AM – 10:00 AM	<p>Keynote Talk: “Machine Learning for Computer Program Synthesis”  by Dr. Chris Jermaine, Professor, Computer Science, Rice University, USA</p>

	<p>[Session Chair -Dr. Md. Monirul Islam, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
10:00 AM – 11:00 AM	<p>Keynote Talk: “Knowledge Graph and Beyond”  by Dr. Ying Ding, Bill &amp; Lewis Suit Professor at School of Information, University of Texas at Austin, USA</p> <p>[Session Chair -Dr. Latifur Khan, Professor, Computer Science, UT Dallas, USA]</p> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
11:00 AM – 11:30 AM	Break and Networking
11:30 AM – 12:00 PM	<p>Invited Talk: “Deriving tone, emotions and sentiment from text” by Dr. Jalal Mahmud, IBM Almaden Research Center, USA</p> <p>[Session Chair - Dr. Mohammad Saifur Rahman, Associate Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
12:00 PM - 12:45 PM	<p>Students’ Forum</p> <p>Speakers: Tanvir Ahmed Khan, Fariha Tasmin Jaigirdar, and Md. Iftekhharul Islam Sakib</p> <p>[Moderator - Dr. Rezwana Reaz, Assistant Professor, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
12:45 PM - 2:05 PM	Lunch Break and Prayer Break
2:05 PM – 3:15 PM	<p>Technical Paper Presentation Session: “Applications of Machine Learning on Limited Data”</p> <p>[Session Chair - Dr. Abm Alim Al Islam, Professor, CSE, BUET, Bangladesh]</p> <ol style="list-style-type: none"> <li>1. Md Ashiqur Rahman, Abdullah Aman Tutul and Abm Alim Al Islam. Solving The Maze of Diagnosing Parkinson’s Disease on Portable EEG Sensing to be Adaptable to Go In-The-Wind</li> <li>2. Syed Mostofa Monsur and Muhammad Abdullah Adnan. Distributing Active Learning Algorithms</li> <li>3. [Short Paper] Shuhana Azmin and A. B. M. Alim Al Islam. Network Intrusion Detection System based on Conditional Variational Laplace AutoEncoder</li> </ol>

	<p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
3:15 PM – 4:00 PM	<p>Technical Paper Presentation Session: “Networking and Security”  [Session Chair - Dr. Salekul Islam, Professor &amp; Head, CSE, UIU, Bangladesh]</p> <ol style="list-style-type: none"> <li>1. <i>Onur Barut, Matthew Grohotolski, Connor DiLeo, Peilong Li, Yan Luo and Tong Zhang. Machine Learning Based Malware Detection on Encrypted Traffic: A Comprehensive Performance Study</i></li> <li>2. <i>[Short Paper] Imtiyaz Hossain, Sakib Eshra, Minha Jami Auvik, Syed Faiz Nasim, Raqeebir Rab and Ashikur Rahman. Efficient Feature Selection for Detecting Botnets based on Network Traffic and Behavior Analysis.</i></li> </ol> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXl4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
4:00 PM – 4:20 PM	Prayer Break and Networking
4:20 PM – 5:20 PM	<p>Industry Session: Talk from Valued Sponsors  [Session Chair - Dr. Anindya Iqbal, Associate Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
<b>Day 3: December 24, 2020, Thursday</b>	
9:00 AM – 10:00 AM	<p>Invited Talks:</p> <ol style="list-style-type: none"> <li>1. “Security and Privacy Risks of Machine Learning” by Dr. Shagufta Mehnaz, Assistant Professor, Computer Science, Dartmouth College</li> <li>2. “Building Security and Privacy from the Ground up for Complex Networks and Systems” by Dr. Syed Rafiul Hussain, Assistant Professor, CSE, Pennsylvania State University</li> </ol> <p>[Session Chair - Dr. Rifat Shahriyar, Associate Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
10:00 AM – 10:30 PM	<p>Tutorial on “Data Wrangling for NLP” by Dr. Jalal Mahmud, IBM Almaden Research Center, USA</p> <p>[Session Chair - Dr. Rifat Shahriyar, Associate Professor, CSE, BUET, Bangladesh]</p>

	<p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
10:30 AM – 11:00 AM	Break and Networking
11:00 AM – 12:00 PM	<p>Keynote Talk: “Cross-Layer Security of Embedded and Cyber-Physical Systems in the Era of Internet-of-Things”  by Dr. Mohammad Abdullah Al Faruque, Associate Professor, Department of Electrical Engineering &amp; Computer Science, Department of Computer Science, Department of Mechanical and Aerospace Engineering, University of California, Irvine</p> <p>[Session Chair - Dr. Mohammed Eunus Ali, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
12:00 PM – 1:00 PM	<p>Panel Discussion on “Cybersecurity in 2021: New Threats, Challenges, and Opportunities.”  Speakers: Dr. Ragib Hasan, Dr. Md Sadek Ferdous, Dr. Syed Rafiul Hussain, Dr. Nashid Shahriar, Dr. Sazzadur Rahaman, and Khaza Newaz Muhammad.</p> <p>[Moderator - Dr. Mahmuda Naznin, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
1:00 PM – 2:00 PM	Lunch Break and Prayer Break
2:00 PM – 3:15 PM	<p>Technical Paper Presentation Session: “Scalable Systems and Visualization”  [Session Chair -Dr. Md. Saidur Rahman, Professor, CSE, BUET, Bangladesh]</p> <ol style="list-style-type: none"> <li>1. <i>Jannat Ara Meem, Farzana Yasmin Ahmad and Muhammad Abdullah Adnan. Distributed Principal Component Analysis for Real-time Big Data Processing</i></li> <li>2. <i>Farhan Feroz and A. B. M. Alim Al Islam. Scaling Up Bit-Flip Quantum Error Correction</i></li> <li>3. <i>Ajoy Das, Kanak Das and Md. Shohrab Hossain. An Integrated Inspection and Visualization Tool for Accurate Android Collusive Malware Detection</i></li> </ol> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEy dC9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
3:15 PM – 4:00 PM	<p>Technical Paper Presentation Session: “Machine Learning for Security”  [Session Chair -- Dr. Md. Shohrab Hossain, Professor, CSE, BUET, Bangladesh]</p>

	<ol style="list-style-type: none"> <li>1. <i>Mosaddek Hossain, Suzzana Rafi and Md. Shohrab Hossain. An Optimized Decision Tree based Android Malware Detection Approach using Machine Learning</i></li> <li>2. [Short Paper] <i>Yeaseen Arafat, Kazi Samin Yeaser, Ashikur Rahman and Arnab Dasgupta. A Machine Learning based Approach for Protecting Wireless Networks Against DoS Attacks</i></li> </ol> <p>Webinar Link: NSysS 2020 Room 2  <a href="https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09">https://bdren.zoom.us/j/68481035483?pwd=OFN3TXI4M0RpeURuU3h3WmxMNHpkZz09</a> (ID: 684 8103 5483, Passcode: 417561)</p>
4:00 PM – 4:30 PM	Prayer Break, and Networking
4:30 PM – 5:30 PM	<p>Students' Poster Presentation: 3-Minute Enlightening Talk  [Session Chair - Dr. Md. Shohrab Hossain, Professor, CSE, BUET, Bangladesh]</p> <p>Webinar Link: NSysS 2020 Room 1  <a href="https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09">https://bdren.zoom.us/j/66021921077?pwd=R0JQYU1wcVdsUkEydc9CNmdQTjR0QT09</a> (ID: 660 2192 1077, Passcode: 644639)</p>
5:30 PM – 6:00 PM	Prayer Break
6:00 PM – 7:00 PM	Closing Session

Closing Session	
December 24, 2020 6:00 PM – 7:00 PM	
<p>Webinar Link: NSysS 2020 Closing Session  <a href="https://bdren.zoom.us/j/62148685841?pwd=SGk2SGN1Z1MzejVUclVnR29YWEZUZz09">https://bdren.zoom.us/j/62148685841?pwd=SGk2SGN1Z1MzejVUclVnR29YWEZUZz09</a>  (ID: 621 4868 5841, Passcode: 634503)</p>	
6:00 PM – 6:05 PM	Welcome speech from Local Organizing Co-Chair (Dr. M. Kaykobad, Distinguished Professor, Brac University, Bangladesh)
6:05 PM – 6:10 PM	Conference statistics from TPC Co-Chair (Dr. Muhammad Abdullah Adnan, Associate Professor, Bangladesh University of Engineering and Technology, Bangladesh)
6:10 PM – 6:15 PM	Speech & announcement of awards from TPC Co-Chair (Dr. Latifur Khan, Professor, University of Texas at Dallas)
6:15 PM – 6:30 PM	Speeches from valued Financial Co-sponsors
6:30 PM – 6:35 PM	Speech from the Special Guest (Dr. Raouf Boutaba, Professor, University of Waterloo, Canada and Member of the Steering Committee, NSysS 2020)

6:35 PM – 6:40 PM	Speech from the Special Guest (Dr. Abdul Jabbar Khan, Professor & Honorable Pro-Vice Chancellor, Bangladesh University of Engineering and Technology, Bangladesh)
6:40 PM – 6:55 PM	Speech from the Chief Guest (Dr. Satya Prasad Majumder, Professor & Honorable Vice Chancellor, Bangladesh University of Engineering & Technology, Bangladesh)
6:55 PM – 7:00 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)

<b>Welcome Session</b>	
<b>December 22, 2020 10:45 AM - 12:00 PM</b>	
Webinar Link: NSysS 2020 Welcome Session <a href="https://bdren.zoom.us/j/64728878540?pwd=MGF4OU1wUU9rN2oySzVOdGQ3a3E4Zz09">https://bdren.zoom.us/j/64728878540?pwd=MGF4OU1wUU9rN2oySzVOdGQ3a3E4Zz09</a> (ID: 647 2887 8540, Passcode: 145949)	
10:45 AM - 10:50 AM	Welcome speech from Local Organizing Co-Chair (Dr. M. Kaykobad, Distinguished Professor, Brac University, Bangladesh)
10:50 AM - 10:55 AM	Speech from General Co-Chair (Dr. A.K.M. Ashikur Rahman, Professor & Head, Department of CSE, Bangladesh University of Engineering and Technology, Bangladesh)
10:55 AM - 11:05 AM	Speech from Dr. Syed Mahbubur Rahman (Former Head, Department of CSE, Bangladesh University of Engineering and Technology, Bangladesh)
11:05 AM - 11:15 AM	Presentation on Departmental History
11:15 AM - 12:00 PM	Alumni Session Moderator - Dr. Latifur Khan, Professor, Computer Science, UT Dallas, USA  Batches: 86, 87, and more.