

# ISEA-ISAP 2020

Third ISEA International Conference on Security and Privacy 2020

27 February - 1 March 2020, IIT Guwahati

Venue: Conference Center, IIT Guwahati

Thursday, 27th February 2020 (Pre-Conference)		
Time	Event	Venue
8:30 am – 9:15 am	Registration	Lobby
9:15 am – 12:30 pm (15 mins tea break)	<b>Tutorial 1:</b> MITRE ATT&CK™ and Threat Intelligence <b>Prof. Manikantan Srinivasan, IIT Madras, India</b>	Hall 2
	<b>Tutorial 2:</b> Advanced Real World Pentesting <b>Nishant Sharma &amp; Jeswin P. Mathai, Pentester Academy</b>	Hall 1
12:30 pm – 1:30 pm	Lunch Break	Lobby
1:30 pm – 4:30 pm (15 mins tea break)	<b>Tutorial 1 continued</b>	Hall 2
	<b>Tutorial 2 continued</b>	Hall 1
5:00 pm – 6:00 pm	<b>Pre-conf talk:</b> Tradeoff between Disclosable and Private Latent Information Revealed via Compressed One: an ADMM-Based Approach, <b>Prof. Shuangqing Wei, Louisiana State University, USA</b>	Hall 2
Friday, 28th February 2020		
9:00 am – 9:30 am	Registration	Lobby
9:30 am – 11:00 am	Conference Inauguration and High Tea	Hall 2
11:00 am – 12:40 pm	Paper Session – T1 (4 papers)	Hall 2
	Paper Session – T2 (4 papers)	Hall 1
12:40 pm – 2:00 pm	Lunch Break	Lobby
2:00 pm – 3:00 pm	<b>Keynote I:</b> A New Quality-Time-As-An-Advantage Paradigm for Zero-Pre-Configuration Pairing Schemes for IoT Devices/ Networks, <b>Prof. Guan Yong, Iowa State University, USA</b>	Hall 2
3:00 pm – 4:40 pm	Paper Session – T3 (4 papers)	Hall 2
	Paper Session – T4 (4 papers)	Hall 1
4:40 pm – 5:00pm	Tea break	Lobby
5:00 pm – 5:30 pm	Demonstration of <b>Vishleshakee: An Online Social Media Analytic Tools, OSINT Lab, IIT Guwahati</b>	Hall 2
5:30 pm – 6:30 pm	<b>Invited Talk by Defence Security Expert – AI in Cyber Defence</b> <b>Col. Inderjeet Singh (Retd)</b> <b>Chief Cyber Security Expert, Vara Tech Pvt Ltd</b>	Hall 2
7:00 pm – 8:00 pm	Cultural program, Announcement of Best Papers	Senate Hall
8:15 pm onwards	Banquet	Lobby

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Saturday, 29th February 2020		
9:00 am – 9:30 am	Registration	Lobby
9:30 am –10:30 am	<b>Keynote II: Securing Hardware for Designing Trustworthy Systems, Prof. Prabhat Mishra, University of Florida, USA</b>	Hall 2
10:30 am –11:00 am	Tea break	Lobby
11:00 am– 12:40 pm	Paper Session – T5 (3 papers)	Hall 2
12:40 pm –2:00 pm	Lunch Break	Lobby
2:00 pm – 2:45 pm	<b>Keynote-III: Mastering the Social Networks, Prof. Rami Puzis, Ben-Gurion University, Israel</b>	Hall 2
2:45 pm – 4:25 pm	Paper Session – T6 (4 papers)	Hall 2
	ISEA Appraisal Workshop	Hall 1
4:25 pm – 4:45 pm	Tea break	Lobby
4:45 pm – 7:00 pm	<b>Industry Talk and Discussion (NXP, Cisco, Microsoft)</b>  Secure Connectivity for a Smarter World, <b>Bedanta Choudhury, NXP Semiconductors, Noida</b>  Secure your organizations network, <b>Prabhu Kumar, Cisco, Bangalore</b>  Android Threat Landscape- An industrial perspective, <b>Aditi Bhatnagar, Microsoft IDC, Hyderabad</b>	Hall 2
7:30 pm onwards	Banquet	Lobby
Sunday, 1st March 2020		
9:00am – 11:00am	Doctoral Dissertation Presentation (6 thesis)	Hall 2
11:00am– 11:45am	PhD Forum Poster Demonstration and Tea Break	Lobby
11:45am –12:45pm	<b>Keynote IV: Malware Analysis: Beating the Bad Guys Prof. Rajeev Barua, University of Maryland , USA</b>	Hall 2
1:00pm – 1:30pm	Award presentation & Valedictory function	Hall 2
1:30pm onwards	Lunch Break	Lobby

## Friday, 28<sup>th</sup> February 2020

<b>T1: 11:00 am –12:40 pm; Session Chair - Prof. Sabu Emmanuel, IIT Palakkad</b>	
T1-1	Security Notions for the VeraGreg Framework and Their Reductions [Paper id: 6] Jakub Klemsa and Ivana Trummova, Czech Technical University
T1-2	Singleton Flow Traceback (SFT) Mechanism (DDoS) [Paper id: 58] Ram Charan Baishya and Dhruva Bhattacharyya, Tezpur University
T1-3	A secured land registration framework on Blockchain [Paper id: 54] Meghali Nandi, Rajat Kanti Bhattacharjee, Amrit Jha and Ferdous Ahmed Barbhuiya, Indian Institute of Information Technology Guwahati
T1-4	Detection of DDoS Attack and Classification Using a Hybrid Approach [Paper id: 15] Suman Nandi, Santanu Phadikar and Koushik Majumder, Maulana Abul Kalam Azad University of Technology
<b>T2: 11:00 am –12:40 pm; Session Chair - Dr. Moumita Patra, IIT Guwahati</b>	
T2-1	Implementation of AES Using Composite Field Arithmetic for IoT Applications [Paper id: 47] Thockchom Birjit Singha, Roy Paily Palathinkal and Shaik Rafi Ahamed, Indian Institute of Technology Guwahati
T2-2	On The DSA Key Recovery Attack with Variable Partial Nonces Known [Paper id: 45] Jiji Angel and Virendra Singh, Indian Institute of Technology Bombay
T2-3	Investigating Elliptic Curve Cryptography for Securing Smart Grid Environments [Paper id: 2] Deepak K and Chandrasekaran K., National Institute of Technology Karnataka
T2-4	Secure transmission of Hyperspectral Images [Paper id: 34] Oruganti Sai Srujana, Nikhil Mhala and Alwyn Pais, National Institute of Technology Karnataka
<b>T3: 3:00 pm – 4:40 pm; Session Chair - Prof. Chandrasekaran K, NIT Karnataka</b>	
T3-1	Graph Convolutional Nets for Android Malware Detection with System Call Graphs [Paper id: 70] Teenu John, Tony Thomas (Indian Institute of Information Technology and Management Kerala) and Sabu Emmanuel (Indian Institute of Technology Palakkad)
T3-2	An Approach to Identify Vulnerable Features of Instant Messenger [Paper id: 27] Vineeta Jain (NIT Jaipur), Divya Rishi Sahu (SATI Vidisha) and Deepak Singh Tomar (MANIT Bhopal)
T3-3	XSSD: A Cross-site Scripting Attack Dataset and its Evaluation [Paper id: 7] Upasana Sarmah, Dhruva Kumar Bhattacharyya (Tezpur University) and Jugal Kalita (University of Colorado, Colorado Springs)
T3-4	A Traffic Monitoring and Policy Enforcement Framework for HTTP [Paper id: 31] Navarikuth Muraleedharan, Anna Thomas, S Indu and B S Bindhumadhava, CDAC
<b>T4: 3:00 pm – 4:40 pm; Session Chair – Prof. Ashok Kr. Turuk, NIT Rourkela</b>	
T4-1	Parallel Itoh-Tsujii inversion Algorithm for FPGA Platforms [Paper id: 12] Kalaiarasi M, Venkatasubramani Vr and Rajaram Sivasubramanian, Thiagarajar College of Engineering
T4-2	Inter-Planetary File System Enabled Blockchain Solution For Securing Healthcare Records [Paper id: 71] Raghavendra K M and Kiran Manjappa, National Institute of Technology Karnataka
T4-3	Implementation of Minimally Shared Blockchains using Big Data Applications [Paper id: 16], Kausthav Pratim Kalita, Debojit Boro and Dhruva Kumar Bhattacharyya, Tezpur University
T4-4	An Approach Towards Resisting Side-Channel Attacks for Secured Testing of Advanced Encryption Algorithm (AES) Cryptochip [Paper id: 68] Nandit Kaushik and Kusum Lata, The LNM Institute of Information Technology

## Saturday, 29<sup>th</sup> February 2020

<b>T5: 11:00am –12:40pm; Session Chair - Dr. Alwyn Pais, NIT Surathkal</b>	
T5-1	Provisioning Privacy and Accountability in Participatory Sensing [Paper id: 35] Tejendrakumar Thakur and Ningrinla Marchang, North Eastern Regional Institute of Science and Technology
T5-2	2SPUF: Machine Learning Attack Resistant SRAM PUF [Paper id: 66] Vikash Kumar Rai, Somanath Tripathy and Jimson Mathew, Indian Institute of Technology Patna
T5-3	Enhancing Privacy in a Blockchain-based Public Key Infrastructure [Paper id: 33] Amalan Joseph Antony A and Kunwar Singh, National Institute of Technology Tiruchirappalli
<b>T6: 2:45 pm – 4:25 pm; Session Chair - Dr. Mayank Agarwal, IIT Patna</b>	
T6-1	A LDPC codes based Authentication Scheme [Paper id: 25] Apurva Kittur, Swapnil Kauthale and Alwyn Pais. National Institute of Technology Karnataka
T6-2	Security Testbed for Next Generation Mobile Networks [Paper id: 52] Ashok Kumar, Ranjani Parthasarathi and Vetriselvi V. College of Engineering, Guindy, Anna University
T6-3	DeDOP: Deduplication with cross-server Ownership over encrypted data [Paper id: 14] Hardik Gajera and Manik Lal Das, DA-IICT, Gandhinagar
T6-4	Enhanced Anonymity: Customized for Roaming and Non-Roaming IoT-Devices in 5G Mobile Network [Paper id: 22] Hiten Choudhury, Cotton University

## Sunday, 1<sup>st</sup> March 2020

<b>Doctoral Dissertation Presentation: 9:00am –11:00 am</b>	
<b>Session Chair - Dr. Chandan Karfa, IIT Guwahati</b>	
1	Secure Multi-factor Authentication for Remote Login and Reallife Application, <b>Ruhul Amin</b>
2	Design and Analysis of Techniques for Secure CloudStorage Services, <b>Sanjeet Kumar Nayak</b>
3	Analysis of Intra and Inter App(s) in Android, <b>Shweta Bhandari</b>
4	DDoS Attacks in Cloud Computing, <b>Gaurav Somani</b>
5	Investigating and Devising Privacy Preserving Approaches for Location Based Services, <b>Ruchika Gupta</b>
6	Distributed Denial of Service Attack Detection using Data Mining Techniques, <b>Nazrul Hoque</b>
<b>PhD Forum Poster Demonstration - 11:00 am – 11:45 am)</b>	
1	<b>Basavaraj Patil</b> , SDM College of Engineering and Technology, Dharwad
2	<b>Dilay Parmar</b> , S. V. National Institute of Technology (NIT), Surat
3	<b>Rupali Mahesh Chopade</b> , College of Engineering Pune
4	<b>Ankur Bang</b> , S. V. National Institute of Technology (NIT), Surat
5	<b>Bhuvaneswari Amma N.G.</b> , National Institute of Technology, Tiruchirappalli
6	<b>Ramanuj Chouksey</b> , IIT Guwahati
7	<b>Shivanshu Mehta</b> , S. V. National Institute of Technology (NIT), Surat