## 2018 5th International Conference on Networking, Systems and Security (NSysS 2018)

Dhaka, Bangladesh 18 – 20 December 2018



**IEEE Catalog Number: ISBN:** 

CFP18A38-POD 978-1-7281-1326-5

## Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP18A38-POD

 ISBN (Print-On-Demand):
 978-1-7281-1326-5

 ISBN (Online):
 978-1-7281-1325-8

## **Additional Copies of This Publication Are Available From:**

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



## **Table of Contents**

Contents	Page No.
Full Papers	1-138
Networking CFPN(1) in the CFPN(2) in	1-54
An OFDMA-based New MAC Mechanism for IEEE 802.11ax	3
Gazi Zahirul Islam, Mohammod Abul Kashem	
A New Approach for Selecting Aggregated Multicast Trees to Reduce Forwarding States	10
Masud Rana, M. Kaykobad, A. B. M. Alim Al Islam	
Extended Neighborhood Knowledge based Dominant Pruning (ExDP)	19
Tasmiah Tamzid Anannya, Ashikur Rahman	
A Graph Theoretic Approach for Maximizing Target Coverage using Minimum Directional Sensors in Randomly Deployed Wireless Sensor Networks	28
Laboni Sarker, Sakshar Chakravarty, Ashikur Rahman	
Design and Analysis of a Fault-Tolerant Topology Control Algorithm for Wireless Multi-hop Networks	37
Sirat Samyoun, Ashikur Rahman, Raqeebir Rab	
Exploiting a Synergy between Greedy Approach and NSGA for Scheduling in Computing Clusters	46
A s m Rizvi, Tarik Reza Toha, Siddhartha Shankar Das, Sriram Chellappan, A. B. M. Alim Al Islam	
Mobile Computing	55-74
Adaptive Notifications Generation for Smartphone Users Based on their Physical Activities	57
Md. Mobasshir Arshed Naved, Md. Yusuf Sarwar Uddin	
Smartphone-based Calorie Estimation From Food Image Using Distance Information	66
Nafis Sadeq, Fazle Rabbi Rahat, Ashikur Rahman, Sheikh I. Ahamed, Md Kamrul Hasan	
Security	75-110
A Technique to Enrich the Secrecy Level of High Capacity Data Hiding Steganography Technique in JPEG Compressed Image	77
Nur Imtiazul Hague, Kazi Md. Rokibul Alam, Tasfia Mashiat, Yasuhiko Morimoto	

BlockChain for IoT Security and Management: Current Prospects, Challenges and Future Directions	84
Shanto Roy, Md. Ashaduzzaman, Mehedi Hassan, Arnab Rahman Chowdhury	
A Sweet Recipe for Consolidated Vulnerabilities: Attacking a Live Website by Harnessing a Killer Combination of Vulnerabilities for Greater Harm	93
Mazharul Islam, MD. Nazmuddoha Ansary, Novia Nurain, Salauddin Parvez Shams, A. B. M. Alim Al Islam	
A Tale of a Deep Learning Approach to Image Forgery Detection	102
Md. Taksir Hasan Majumder, A. B. M. Alim Al Islam	
Systems	111-138
Performance Analysis of Video Streaming at the Edge and Core Cloud	113
Samiul Ali Sarker, Masudur Rahman, Nasif Muslim, Salekul Islam	
An Approach Towards Multilingual Translation By Semantic-Based Verb Identification And Root Word Analysis	120
Md. Saidul Hoque Anik, Md. Adnanul Islam, A. B. M. Alim Al Islam	
Super-savior: An Independent Open Platform Wearable for Generating Emergency Alarms  Zaheen Mustakin, Saad Manzur, Tanzila Choudhury, Farzana Rahman, Sriram Chellappan, A. B. M.  Alim Al Islam	129
Short Papers	139-164
Secured Cloud Computing Outsourcing: A Case Study of Constrained Linear Least Square Problem Torikul Islam, Jannatul Ferdush, M.M.A. Hashem	141
A Lightweight Multi-tier S-MQTT Framework to Secure Communication between low-end IoT Nodes	146
Abdur Rahman, Shanto Roy, M Shamim Kaiser, Md. Shahidul Islam	
Conjugate Congestion Control Based Transport Layer Protocol for Molecular Communication in Body Area Nanonetworks (BANs)	152
Mayisha Alam, Novia Nurain, Suraiya Tairin, Mahmuda Naznin, A. B. M. Alim Al Islam	
A Smart Accident Detection and Control System in Vehicular Networks	158
Md. Saeef Abdul Hadi, Abhijit Saha, Faysal Ahmad, Mohammad Shahriyar Hasan, Mehebub Hasan Milon	