

2017 Seventh International Conference on Emerging Security Technologies (EST 2017)

**Canterbury, United Kingdom
6-8 September 2017**



**IEEE Catalog Number: CFP1751K-POD
ISBN: 978-1-5386-4019-7**

**Copyright © 2017 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:	CFP1751K-POD
ISBN (Print-On-Demand):	978-1-5386-4019-7
ISBN (Online):	978-1-5386-4018-0
ISSN:	2373-0374

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

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Paper Title	Page
Ensuring Privacy and Authentication for V2V Resource Sharing	1
Leila Benarous, Benamar Kadri	
Vulnerability of Secured IoT Memory Against Localized Back Side Laser Fault Injection	7
David Zooker-Zabib, Maoz Vizontovski, Alexander Fish, Osnat Keren, Yoav Weizman	
An Applied Pattern-Driven Corpus to Predictive Analytics in Mitigating SQL Injection Attack	12
Solomon Uwagbole, William Buchanan, Lu Fan	
Measuring and Optimising Performance of an Offline Text Writer Identification System in Terms of Dimensionality Reduction Techniques	19
Amal Durou, Ibrahim Aref, Mosa Elbendak, Sumaya Al-Maadeed, Ahmed Bouridane	
A Dataset for Forgery Detection and Spotting in Document Images	26
Nicolas Sidere, Francisco Cruz, Mickael Coustaty, Petra Gomez, Jean-Marc Ogier	
An Investigation into the Impact of Rooting Android Device on User Data Integrity	32
Pantaleon Lutta, Hassan Mohamed	
Tell Me Again About the Face: Using Repeated Interviewing Techniques to Improve Feature-Based Facial Composite Technologies	38
Emma Portch, Charlie Frowd, Charity Brown	
Masters of Disguise: Super-recognisers' Superior Memory of Concealed Faces	44
Josh P Davis, Donata Tamonyte	
Have the Security Flaws Surrounding Bitcoin Effected the Currency's Value?	50
John Fraser, Ahmed Bouridane	
Security Hardening using Device Guard Whitelisting and AppLocker Blacklisting	56
Rohan Durve, Ahmed Bouridane	
Facial Action Units for Presentation Attack Detection	62
Shi Pan, Farzin Deravi	

Novel Close-Range Landmine Detection Algorithms for C-scan Ground Penetrating Radar Signals	68
Hongyuan Jing, Tanya Vladimirova	
A Secure Steganography Algorithm Using Compressive Sensing Based on HVS Feature	74
Samaneh Shafiee, Boshra Rajaei	
Breath, Relax and Remember: An Investigation Into How Focused Breathing Can Improve Identification of EvoFIT Facial Composites	79
Alexander Martin, Peter Hancock, Charlie Frowd	
Empirical Study of the Impact of e-government Services on Cybersecurity Development	85
Onumo Aristotle, Cullen Andrea, Irfan Awan	
Forensic Analysis of Popular UAV Systems	91
Thomas Edward Allen Barton, M A Hannan Bin Azhar	
Interviewing and Visualisation Techniques: Attempting to Further Improve EvoFIT Facial Composites	97
Emma Portch, Karen Logan, Charlie Frowd	
Multi-factor Authentication using Accelerometers for the Internet-of-Things	103
Julian Murphy, Gareth Howells, Klaus D McDonald-Maier	
HTTP/2 Cannon: Experimental Analysis on HTTP/1 and HTTP/2 Request Flood DDoS Attacks	108
David Beckett, Sakir Sezer	
Readability as a Basis for Information Security Policy Assessment	114
Yazeed Alkhurayyif, George Weir	
A New Mobile Botnet Classification based on Permission and API	122
Muhammad Yusof, Madihah Mohd Saudi, Farida Ridzuan	
HTTP/2 Tsunami: Investigating HTTP/2 Proxy Amplification DDoS Attacks	128
David Beckett, Sakir Sezer	
A Holistic Approach to Interpreting Human States in Smart Environments Providing High Quality of Life	133
Adrian Stoica, Gareth Howells, Yumi Iwashita, Christopher Assad, Michael Ryoo	
Machine Learning Based Intrusion Detection System for Software Defined Networks	138
Atiku Abubakar, Bernardi Pranggono	

Distributed Intrusion Detection Using Mobile Agents in Wireless Body Area Networks	144
Adedayo Odesile, Geethapriya Thamilarasu	
Towards an Efficient Intellectual Property Protection in Dynamically Reconfigurable FPGAs	150
Adewale Adetomi, Godwin Enemali, Tughrul Arslan	
Evaluation of 3D Obstacle Avoidance Algorithm for Smart Powered Wheelchairs	157
Sotirios Chatzidimitriadis, Paul Oprea, Michael Gillham, Konstantinos Sirlantzis	
A Multimodal Biometric System for Personal Identification Based on Deep Learning Approaches	163
Alaa Al-Waisy, Rami Qahwaji, Stanley Ipson, Shumoos Al-Fahdawi	
Automated Skin Region Quality Assessment for Texture Based Biometrics	169
Hamed Alsufyani, Sanaul Hoque, Farzin Deravi	
Analysis of ICMetrics Features/Technology for Wearable Devices IOT Sensors	175
Supriya Yadav, Gareth Howells	
An Enhanced AODV Protocol for External Communication in SelfDriving Vehicles	179
Khattab Ali, Klaus McDonald-Maier	
The Impact of Misleading Information on the Identifiability of Feature-Based Facial Composites	185
Melanie Pitchford, Danielle Green, Charlie Frowd	
Biometric Authentication Platform-based Multisensor Fusion	191
Redouane Khemmar, Fabien Bonardi, Jean-Yves Ertaud, Xavier Savatier	
Design of R3TOS Based Reliable Low Power Network on Chip	196
N Poornima, Seetharaman Gopalakrishnan, Tughrul Arslan, T. N. Prabakar, M. Santhi	
LS-ARP: A Lightweight and Secure ARP1	204
Vassilis Prevelakis, Wael Adi	
Random Stream Cipher as a PUF-like Identity in FPGA Environment	209
Ayoub Mars, Wael Adi, Saleh Mulhem, Emad Hamadaqa	
Chaining Trusted Links by Deploying Secured Physical Identities	215
Saleh Mulhem, Wael Adi, Ayoub Mars, Vassilis Prevelakis	
Clone-Resistant Vehicular RKE by Deploying SUC	221
Emad Hamadaqa, Ayoub Mars, Wael Adi, Saleh Mulhem	