

# 6th International Symposium on Digital Forensic and Security (ISDFS 2018)

## Symposium Program

22.03.2018 THURSDAY / PERŞEMBE

09:00-10:00	REGISTRATION	
10:00-10:30	<p>OPENING CEREMONY (MAIN HALL)</p> <p>Prof. Dr. Asaf VAROL (President of Executive Committee)</p> <p>Prof. Dr. Peter Alan COOPER (Sam Houston State University, Consortium member)</p> <p>Prof. Dr. Vahit BIÇAK (Baskent University, Consortium member)</p>	
10:30-12:00	<p>KEYNOTE SPEECH (MAIN HALL)</p> <p>Prof. Dr. Peter A. COOPER Sam Houston State University)</p> <p>The End of the Golden Age: Transforming Digital Forensics from a Technology to a Science</p> <p>-----</p> <p>Prof. Dr. Vahit BIÇAK (Baskent University)</p> <p>Turkish Law on Illegally Accessing or Preventing the Functioning of a Data Processing System or Deletion, Alteration or Corrupting of Data</p>	
12:00-13:30	LUNCH	
13:30-15:00	<p>EXPO SESSION</p> <p>Doğuş Bilgi İşlem ve Teknoloji Hizmetleri A.Ş. / SENSORMATIC / MERGEN Yazılım A.Ş.</p>	
15:00-15:30	COFFEE BREAK	
15:30-17:30	Presentations / PARALLEL SESSIONS	
	<p>HALL A / Information Security</p> <p>Session Chair: Prof. Dr. Asaf VAROL</p>	
	PaperID	Title / Authors
15:30-15:45	7	A Novel Hardware Trojan Design Based on One-hot code Di Wang*
15:45-16:00	29	A Comparative Analysis of Common YouTube Comment Spam Filtering Techniques Murat Karabatak, Abdullah Omar*
16:00-16:15	15	Review and Comparison of Captcha Approaches and A New Captcha Model Muhammet Baykara, Furkan Alniak*
16:15-16:30	16	A Novel Approach to Ransomware: Designing a Safe Zone System Muhammet Baykara, Baran Sekin*
16:30-16:45	63	A Study on the Use of Quantum Computers, Risk Assessment and Security Problems Bilgehan Arslan, Mehtap Ülker*, Sedat Akleyek, Seref Sagiroglu
16:45-17:00	2	Face Detection Based on Probability of Amplitude Distribution of Local Binary Patterns Algorithm Wisam Alobaidj*
17:00-17:15	47	A Novel Secure Model: Image Steganography with Logistic Map and Secret Key Mehtap Ülker*, Bilgehan Arslan
	<p>HALL B / Computer Science</p> <p>Session Chair: Assoc. Prof. Dr. Wail MARDINI</p>	
	PaperID	Title / Authors
15:30-15:45	12	An Application of Speech Recognition with Support Vector Machines Osman Eray*, Sezai Tokat, Serdar Iplikci
15:45-16:00	13	Performance Evaluation of RPL Objective Functions for Different Sending Intervals Wail Mardini*, Shadi Aljawarneh, Amnah Al-Abdi, Haneen Taamneh
16:00-16:15	14	Detecting Human Emotions Using Electroencephalography in Dynamic Programming Approach Wail Mardini*, Ghaidaa Al-sheikh Ali, Esraa Magdady, Sajedah Al-Momani
16:15-16:30	33	Software Requirement Analysis: Research Challenges and Technical Approaches Şenay Tuna Demirel*, Resul Das
16:30-16:45	38	A Comparative Approach for Multiclass Text Analysis Semuel Franko, İsmail Burak Parlak*
16:45-17:00	70	Quality Lignite Coal Detection with Discrete Wavelet Transform, Discrete Fourier Transform, and ANN based on k-means Clustering Method Sevcan Aytaç Korkmaz, Furkan Esmeray*
17:00-17:15	71	Neural Network Based Intrusion Detection Systems with Different Training Functions Gozde Karatas*, Ozgur Koray Sahingoz

HALL C / Data Privacy		
Session Chair: Prof. Dr. Abdulsamet HASILOGLU		
PaperID	Title / Authors	
15:30-15:45	9	<b>An Extend RBAC Model for Privacy Protection in HIS</b> Gang Liu, Zili Wu, Xiaoqian Qi*, Lu Fang, Jiayu Liu, Juan Cui
15:45-16:00	57	<b>A Comparison of Cyber-Security Oriented Testbeds for IoT-Based Smart Grids</b> Muhammet Gündüz*, Resul Das
16:00-16:15	45	<b>Teachers' Knowledge Levels About Virtual Information Security</b> Murat Karabatak, Songül Karabatak*
16:15-16:30	34	<b>The Need for a Global Response Against Cybercrime : Qatar as a Casestudy</b> Aliya Tabassum*
16:30-16:45	61	<b>Study on Cyber Security Assessment for Wireless Network at Nuclear Facilities</b> Hyunjong Lim, Sangwoo Kim*
16:45-17:00	102	<b>Central Audit Logging Mechanism in Personal Data Web Services</b> Abdulsamet Hasiloglu*, Abdulkadir Bali
17:00-17:15	125	<b>Generating Flow Based on Dependencies</b> Nurhayat Varol*
19:00-21:00	GALA DINNER	
23.03.2018 FRIDAY / CUMA		
09:00-10:45	Presentations / PARALLEL SESSIONS	
HALL A / Information Security		
Session Chair: Dr. Duka ADRIAN VESILE		
PaperID	Title / Authors	
09:00-09:15	11	<b>Detection of Proxy Misconfigurations via Log Alarms</b> Samet Ganal*, Mehmet Yalçinkaya, Ecir Uğur Küçükşille
09:15-09:30	19	<b>PROTECT-G: Protection of Communications in Natural Gas Transportation Systems</b> Bela Genge, Pirooska Haller, Hunor Sandor*
09:30-09:45	20	<b>Enabling Authenticated Data Exchanges in Industrial Control Systems</b> Adrian-Vasile Duka*, Bela Genge, Pirooska Haller
09:45-10:00	31	<b>Infrastructure and Framework for Response and Reconfiguration in Industry 4.0</b> Hunor Sandor*, Bela Genge, Zoltan Szanto,
10:00-10:15	39	<b>An Overview of Monitoring Tools for Real-Time Cyber-Attacks</b> Muhammet Baykara, Uğur Gürtürk*, Resul Das
10:15-10:30	75	<b>Towards Secure E-Voting Using Ethereum Blockchain</b> Emre Yavuz*, Gökhan Dalkılıç, Ali Kaan Koç, Umut Can Çabuk
10:30-10:45	124	<b>Analysis of Speaker's Gender Effects in Voice Onset Time of Turkish Stop Consonants</b> Yunus Korkmaz*, Aytug Boyaci
HALL B / Digital Forensics		
Session Chair: Prof. Dr. Şeref SAĞIROĞLU		
PaperID	Title / Authors	
09:00-09:15	119	<b>Phishing Web Sites Features Classification Based on Extreme Learning Machine</b> Yasin Sönmez, Türker Tuncer, Hüseyin Gökal*, Engin Avcı
09:15-09:30	1	<b>Minutiae Based Partial Fingerprint Registration and Matching Method</b> Asaf Varol, Naveed Ahmed*
09:30-09:45	105	<b>Forensic Analysis of Encrypted Instant Messaging Applications on Android</b> Khushboo Rathi, Umit Karabiyik*, Temilola Aderibigbe, Hongmei Chi
09:45-10:00	106	<b>Equipping a Digital Forensic Lab on a Budget</b> Troy Lawrance, Umit Karabiyik*, Narasimha Shashidhar
10:00-10:15	37	<b>Akıllı Şebekelerde Stratejik Siber Güvenlik Bakışı</b> Gürol Canbek, Şeref Sağiroğlu*
10:15-10:30	114	<b>Can Erase Montage Traces Permanently in Audio Files</b> Mehmet Mehdi Karakoç*, Asaf Varol
10:30-10:45	60	<b>A Method of Time Code Retrieval for Special Format Surveillance Video Based on File Header Comparison</b> Qimeng Lu*, Shaopei Shi, Jianhua Xi, Jinhua Zeng, Yan Li, Xiao Mao

HALL C / Computer Science		
Session Chair: Prof. Dr. Milan TUBA		
PaperID	Title / Authors	
09:00-09:15	110	<b>Efficient Drone Placement for Wireless Sensor Networks Coverage by Bare Bones Fireworks Algorithm</b> Eva Tuba, Ira Tuba, Diana Dolicanin-Djekic, Adis Alihodzic, Milan Tuba*
09:15-09:30	77	<b>Effective Software Refactoring Process</b> Mehmet Kaya, Shannon Conley, Zhala Sarkawt*, Asaf Varol
09:30-09:45	78	<b>Knowledge-Based Fast Web Query Engine using NoSQL</b> Blimat Omar*
09:45-10:00	80	<b>A Survey of Elephant Flow Detection in SDN</b> Binfeng Wang*, Jinshu Su
10:00-10:15	91	<b>Location Determination by Processing Signal Strength of Wi-Fi Routers in the Indoor Environment with Linear Discriminant Classifier</b> Osman Altay*, Mustafa Ulas
10:15-10:30	92	<b>Prediction of the Autism Spectrum Disorder Diagnosis with Linear Discriminant Analysis Classifier and K-Nearest Neighbor</b> Osman Altay*, Mustafa Ulas
10:30-10:45	82	<b>Music Based Metaheuristic Methods for Constrained Optimization</b> Elif Varol Altay*, Bilal Alataş
10:45-11:00	COFFEE BREAK	
11:00-12:00	KEYNOTE SPEECH (MAIN HALL) Prof. Dr. Şeref SAĞIROĞLU Gazi University) CYBER SECURITY ISSUES IN TURKEY	
12:00-13:30	LUNCH	
13:30-14:00	KEYNOTE SPEECH (MAIN HALL) Assoc. Prof. Dr. İzzet Gökhan ÖZBİLGİN - HAVELSAN Security Roadmap in HAVELSAN	
14:00-15:30	Presentations / PARALLEL SESSIONS	
HALL A / Information Security		
Session Chair: Assist. Prof. Dr. Fehmi JAAFAR		
PaperID	Title / Authors	
14:00-14:15	52	<b>A Proposed Approach for Preventing Cross-Site Scripting (XSS)</b> Twana Taha*, Murat Karabatak
14:15-14:30	42	<b>Performance Comparison of Classifiers on Reduced Phishing Website Dataset</b> Murat Karabatak, Twana Mustafa*
14:30-14:45	54	<b>Deep Web &amp; Dark Web'de Bilgi Analizi ve Siber Suçlar</b> Bilgehan Arslan, Oğuzhan Akyıldız*
14:45-15:00	117	<b>Android Application Behavioral Analysis Through Intent Monitoring</b> Toqeer Ali*, Waqar Afridi, Turki Alghamdi, Tamleek Ali, Mohammad Nauman
15:00-15:15	17	<b>Android Gaming Malware Detection Using System Call Behaviour Analysis</b> Yasir Malik, Fehmi Jaafar*, Mayank Jaiswal
15:15-15:30	88	<b>A New Information Hiding Method for Audio Signals</b> Engin Avcı*, Derya Avcı, Türker Tuncer
HALL B / Cryptography		
Session Chair: Assoc. Prof. Dr. Sedat AKLEYLEK		
PaperID	Title / Authors	
14:00-14:15	46	<b>New Quantum Secure Key Exchange Protocols Based on MaTRU</b> Sedat Akleylek*, Nurşah Kaya
14:15-14:30	56	<b>On Features Suitable for Power Analysis -Filtering the Contributing Features for Symmetric Key Recovery</b> Naila Mukhtar*, Yinan Kong
14:30-14:45	3	<b>An Application Specific Instruction Set Processor (ASIP) for the Niederreiter Cryptosystem</b> Jingwei Hu*, Wangchen Dai, Yao Liu, Ray Cheung
14:45-15:00	111	<b>The Use of Fourier Series For Image Encryption</b> Muharrem Gençoğlu*
15:00-15:15	109	<b>Facial Expression Recognition with an Optimized Radial Basis Kernel</b> Abubakar Ashir*
15:15-15:30	30	<b>Applications for Detecting XSS Attacks on Different Web Platforms</b> Muhammet Baykara, Sebahattin Güçlü*

15:30-15:45	93	Alternative Substitutional Box Structures for DES Fatih Özkaynak, Mukhlis Ibrahim Muhammad*
<b>HALL C / Digital Forensics</b>		
<b>Session Chair: Assoc. Prof. Dr. Cihan VAROL</b>		
	PaperID	Title / Authors
14:00-14:15	27	Digital Forensics of 3D Printers Cihan Varol*, Victor Garcia
14:15-14:30	28	Terrorist Attacks In Turkey Murat Karabatak, Dilkhaz Yaseen Mohammed*
14:30-14:45	59	Electronic Mail Forensic Algorithm for Crime Investigation and Dispute Settlement Dawson Msongaleli*, Kerem Küçük
14:45-15:00	64	A Tool to Compute Approximation Matching between Windows Processes Ricardo Rodríguez, Miguel Martín Perez*, Iñaki Abadía
15:00-15:15	74	Determining of Discriminative Blog Size for Authorship Attribution on the Turkish Texts Pelin Canbay*, Hayri Sever, Ebru Akçapınar Sezer
15:15-15:30	5	Cybercrimes Against Children in Turkey Emre Cihan Ateş*, Gazi Erkan Bostancı, Mehmet Serdar Güzel
15:30-15:45	104	Analysis of VMware Virtual Machine in Forensics and Anti-Forensics Paradigm Hammad Riaz*
15:45-16:00	COFFEE BREAK	
16:00-18:00	Peer-reviewed Presentations / PARALLEL SESSIONS	
<b>HALL A / Information Security</b>		
<b>Session Chair: Prof. Dr. Peter A. Cooper</b>		
	PaperID	Title / Authors
16:00-16:15	41	An Anomaly Detection Approach for Enterprise File Integration Özgü Can, İbrahim Üzüm*
16:15-16:30	62	New Results on Permission Based Static Analysis for Android Malware Durmuş Şahin*, Oğuz Emre Kural, Sedat Akleylek, Erdal Kılıç
16:30-16:45	65	Web Application Attack Detection and Forensics: A Survey Mohammed Babiker*, Enis Karaarslan, Yasar Hoscan
16:45-17:00	66	An Overview of Cyber-Attack Vectors on SCADA Systems Erdal Irmak, İsmail Erkek*
17:00-17:15	76	Blockchain Based Secure Communication Application Proposal: Cryptouch Zübeyir Durğay*, Recep Saritekin, Eren Karabacak, Enis Karaarslan
17:15-17:30	86	A Survey on Security Threats and Authentication Approaches in Wireless Sensor Networks Aykut Karakaya*, Sedat Akleylek
17:30-17:45	120	Classification of Firewall Log Files with Multiclass Support Vector Machine Fatih Ertam, Mustafa Kaya*
<b>HALL B / Information Security</b>		
<b>Session Chair: Assoc. Prof. Dr. Murat KARABATAK</b>		
	PaperID	Title / Authors
16:00-16:15	48	Analysis of the Effects of Different Fuzzy Membership Functions for Wind Power Plant Installation Parameters Fatih Topaloglu*
16:15-16:30	50	Comparison of Mamdani Type and Sugeno Type Fuzzy Inference Systems in Wind Power Plant Installations Fatih Topaloglu*
16:30-16:45	36	Developing LSB Method Using Mask in Colored Images Murat Karabatak, Yıldırım Yiğit*
16:45-17:00	44	Lise Öğrencilerinin Siber Zorbalığa İlişkin Algılarının Belirlenmesi ve Siber Zorbalığa Karşı Alınması Gereken Önlemler Songül Karabatak*, Aysel Kızılkaya, Murat Karabatak
17:00-17:15	107	Review of Illegal Betting as Financial Crime in Web Forensics Yeşim Ülgen Sönmez*, Asaf Varol
17:15-17:30	89	A Review of Cloned Mobile Malware Applications for Android Devices Muhammet Baykara, Eren Çolak*
17:30-17:45	113	Detection of Phishing Attacks Muhammet Baykara, Ziya Gürel*
<b>HALL C / Computer Science</b>		
<b>Session Chair: Assist. Prof. Dr. Sherif ELSHAFEI</b>		
	PaperID	Title / Authors
16:00-16:15	35	Evaluation of Convolutional Neural Network Features for Malware Detection Şahin Işık*, Kemal Özkan, Yusuf Kartal

16:15-16:30	73	<b>Ceph Based Storage Server Application</b> Nuh Azginođlu*
16:30-16:45	121	<b>Performance Comparison of Some Classifiers on Chronic Kidney Disease Data</b> Engin Avcı, Songül Karakuş*, Özlem Özmen, Derya Avcı
16:45-17:00	85	<b>Audio Based Violent Scene Classification Using Ensemble Learning</b> Sercan Sarman*, Mustafa Sert
17:00-17:15	94	<b>Using Semantic Variations in Clustering Insiders Behavior</b> Sherif Elshafei*, Ahmed Abdelnaby
17:15-17:30	126	<b>Sentiment Analysis Using Konstanz Information Miner in Social Networks</b> Cem Baydoğan*, Bilal Alataş
17:30-17:45	32	<b>TRCyberLab: An Infrastructure for Future Internet and Security Studies</b> İlker Ozcelik*, Sedat Akleylek, Ibrahim Ozcelik
18:00-18:30	<b>CLOSING CEREMONY (MAIN HALL)</b>	
19:00-21:00	<b>DINNER</b>	
<b>24.03.2018 SATURDAY / CUMARTESİ</b>		
09:30-17:00	<b>SOCIAL EVENTS (Some trips will be organized by the hotel, but participants should pay the fee themselves)</b>	