

WTS 2019 Paper Presentation Sessions

Tuesday, April 9 Watson Hotel

Interdisciplinary Workshops: Topics in Wireless Communications I: Cybersecurity, Privacy, and Intelligence (CSPI 2019)

2:00 pm - 3:00 pm	<p><i>Machine Learning-based Primary User Emulation Attack Detection In Cognitive Radio Networks using Pattern Described Link-Signature (PDLS)</i> Abdulsahib Albehadili and Atif Ali (University of Toledo, USA); Farha Jahan (The University of Toledo, USA); Ahmad Y Javaid and Jared Oluoch (University of Toledo, USA); Vijay Devabhaktuni (The University of Toledo, USA)</p> <p><i>Design and Development of a Modular K12 Cybersecurity Curriculum</i> Ehsan Sheybani (University of South Florida, USA); Giti Javidi (University of South Florida Sarasota-Manatee, USA); Zacharias Pieri (USFSM, USA)</p> <p><i>Enhancing Cybersecurity Workforce Human Factors in VUCA Environment</i> Ehsan Sheybani (University of South Florida, USA); Giti Javidi (University of South Florida Sarasota-Manatee, USA); Mitch Javidi (National Command and Staff College, USA)</p>
----------------------	--

Interdisciplinary Workshops: Topics in Wireless Communications II: Young Research and Entrepreneurship: Challenges and Innovations

5:00 pm – 5:45 pm	<p><i>Design analysis of a proposed pancreas-implantable antenna and WBAN channel characterization for the MICS and ISM bands</i> Konstantina Zarafeta, Theofilos Chrysikos and Stavros Koulouridis (University of Patras, Greece); Stavros Kotsopoulos (Wireless Telecommunications Laboratory, Greece)</p> <p><i>A New Proposed Fuzzy Medical Care System For Remote Health Monitoring Using Wearable Antennas</i> Dimitrios Tyrovolas and Theofilos Chrysikos (University of Patras, Greece); Stavros Kotsopoulos (Wireless Telecommunications Laboratory, Greece)</p>
-------------------------	---

Wednesday, April 10 Watson Hotel

4:45pm – 5:30pm	<p>Doctoral Students' Session</p>
	<p><i>Performance Analysis for Virtual-Cell Based CoMP 5G Networks Using Deep Recurrent Neural Nets</i> Mohamed Elkourdi, Asim Mazin and Richard D. Gitlin (University of South Florida, USA)</p>

Thursday, April 11 Watson Hotel

	<p>Poster Paper Session</p>
4:00pm – 4:45pm	<p><i>Flow-based Transmission Scheduling Assuming WLAN for Industrial Automation</i> Yoshihisa Kondo (ATR Adaptive Communications Research Lab., Japan); Tatsuya Yoshioka (Advanced Telecommunications Research Institute International, Japan); Akio Hasegawa (ATR Adaptive Communications Research Lab., Japan)</p>

An IOT based low cost environment monitoring system using single board sensor integration and ThingSpeak server for developing countries
M Samiul Ehsan, Shukla Biswas, Anika Nawar, Rumali Siddiqua and Belal Bhuian (BRAC University, Bangladesh)

Friday, April 12
Watson Hotel

8:10 am –
10:10 am

I-A Internet of Things, WSN & Smart Devices I
IEEE Xplore Papers

Uncovering the True Potentials of the Internet of Things
Abdulrahman Yarali (MSU, USA); Manu Srinath (Murray State University, USA)

Localization of Passive UHF RFID Tags Based on a Frequency-Stepped Continuous-Wave Approach
Martin Scherhäufl (Linz Center of Mechatronics GmbH, Austria); Markus Pichler-Scheder (LCM, Austria);
Andreas Stelzer (Johannes Kepler University Linz, Austria)

RFID Implementation in Supply Chain Management Using P2P Network Overlays
Pouyan Ahmadi, Khondkar Islam and Pooja Podduturi (George Mason University, USA); Trevor Maco
(Virginia Tech, USA)

Design and Evaluation of a Novel MAC Protocol for Multi-Implantable UHF-RFID Transmitters for Brain-Computer Interface Applications
Albena Mihovska (Aarhus University, Denmark); Harshini Harikrishnan (SDSU, USA); Aarjish Sarkar (Mt. Carmel High School, USA); Christopher Paolini (San Diego State University, USA)

Emerging Technology Trends in Vehicle-to-Everything Connectivity
Neelu Sinha (Fairleigh Dickinson University, USA)

An Experimental Study on Energy Consumption of Wireless Multipath TCP Connections
Atef Abdrabou, Monika Prakash, Ahmed AlShehi, Sirag-Eldin Ahmed and Mohamed Darwish (UAE University, United Arab Emirates)

8:10 am –
10:10 am

I-B Physical and MAC Layers I
IEEE Xplore Papers

Alternating Renewal Theory Based MAC-Layer Sensing Period Optimization in CRNs with Hybrid OFF/ON Channel State Length Distributions
Zhiwei Mao (Fairleigh Dickinson University, USA); Xianmin Wang (Cypress Semiconductor Corp., Hazlet, New Jersey)

Energy-efficient Techniques for Combating the Influence of Reactive Jamming Using Non-Orthogonal Multiple Access and Distributed Antenna Systems
Joumana Farah and Jacques Akiki (Lebanese University, Faculty of Engineering, Lebanon); Eric Pierre Simon (University of Lille, France)

Self-Synchronizing Time-Division Multiple-Access Network Protocol
Andres Monterrosas (Johns Hopkins University Applied Physics Laboratory, USA); William Kight (JHU/APL, USA); Emre Gunduzhan (Johns Hopkins University Applied Physics Laboratory, USA); David Coleman (JHU/APL, USA)

Blind Parameters Estimation for Universal Filtered Multicarrier: a Cyclostationarity Approach
Kawtar Zerhouni (University of Cadi Ayyad, Information Technology and Modeling Laboratory, Morocco)

	<p>IFSTTAR, LEOST, France); Fouzia Boukour Elbahhar (IFSTTAR, France); Raja Ellassali (Cadi Ayyad University, Information Technology and Modeling Laboratory, Morocco); Khalid Elbaamrani (University Of Cadi Ayyad, Morocco)</p> <p><i>Capacity and Energy-Efficiency of Delayed Access Scheme for Small Cell Networks</i> Haluk Celebi (Columbia University, USA); Ismail Güvenç (North Carolina State University, USA); Henning Schulzrinne (Columbia University, USA)</p> <p><i>Device-to-Device Communications in Millimeter Wave Band: Impact of Beam Alignment Error</i> Niloofar Bahadori and Nima Namvar (North Carolina A&T State University, USA); Brian T Kelley (University of Texas at San Antonio, USA); Abdollah Homaifar (North Carolina A&T State University, USA)</p>
<p>10:10 am –10:20 am</p>	<p style="text-align: center;">Break</p>
<p>10:20 am – 12:00 pm</p>	<p>II-A Internet of Things, WSN & Smart Devices II IITN & Other Papers</p> <p><i>Kinetic Threats and IoT Cybersecurity Issues Facing the Interconnected Society and its Digital Resilience</i> J Shim (Georgia State University, USA)</p> <p><i>Monitoring Coverage Holes with Mobile Nodes in Wireless Sensor Networks</i> Arunita Jaekel and Dhruvi Patel (University of Windsor, Canada)</p> <p><i>A Multi-Layered Reliability Approach in Vehicular Ad-Hoc Networks</i> Hasita Kaja (University of Missouri, Kansas City, USA); Cory Beard (University of Missouri-Kansas City, USA)</p> <p><i>Reliability-Secrecy Tradeoff for Implantable Medical Devices</i> Alaa Awad Abdellatif, Lutfi Samara and Amr Mohamed (Qatar University, Qatar); Mohsen Guizani (University of Idaho, USA); Abdulla K Al-Ali and Aiman Erbad (Qatar University, Qatar)</p> <p><i>Lower-limb Rehabilitation at Home: A Survey on Exercise Assessment and Initial Study on Exercise State Identification Toward Biofeedback</i> Seanglidet Yean, Bu Sung Lee and Chai Kiat Yeo (Nanyang Technological University, Singapore)</p>
<p>10:20 am – 12:00 pm</p>	<p>II-B Network Layer & NGNs I IEEE Xplore Papers</p> <p><i>Towards Tactile Wireless Multi-Hop Networks The Tactile Coordination Function as EDCA Supplement</i> Frank Engelhardt, Chenke Rong and Mesut Günes (Otto von Guericke University Magdeburg, Germany)</p> <p><i>A Machine Learning Assisted Method of Coverage and Capacity Optimization (CCO) in 4G LTE Self Organizing Networks (SON)</i> Zhenyi Lin (Verzion Wireless, USA); Ye Ouyang (Verizon Wireless, USA); Le Su and Wenyuan Lu (Verzion Wireless, USA); Zhongyuan Li (Verizon Wireless, USA)</p> <p><i>P2P: From Packets to People, Leverage Wireless Artificial Intelligence for Bridging Network Performance Healthiness to Quality of Experience (QoE) in 4G Networks</i> Ye Ouyang (Verizon Wireless, USA); Le Su, Wenyuan Lu and Zhenyi Lin (Verzion Wireless, USA); Maulik Shah (Verizon, USA); Zhongyuan Li (Verizon Wireless, USA)</p> <p><i>A Network Selection Algorithm for supporting Drone Services in 5G Network Architectures</i> Emmanouil Skondras (UNIPI, Greece); Eirini Zoumi (University of Piraeus, Greece); Angelos Michalas (Technological Education Institute of Western Macedonia, Greece); Dimitrios D. Vergados (University of Piraeus, Greece)</p>

	<p><i>A Distributed Mitigation Strategy Against DoS Attacks in Edge Computing</i> Giuseppe Potrino, Floriano De Rango and Peppino Fazio (University of Calabria, Italy)</p>
10:20 am – 12:00 pm	<p>II-C Modeling, Simulations, and Analytics I IEEE Xplore Papers</p> <p><i>QoE-driven Anomaly Detection in Self-Organizing Mobile Networks using Machine Learning</i> Chetana V Murudkar and Richard D. Gitlin (University of South Florida, USA)</p> <p><i>Performance of Optically-Preamplified, Direct-Detection, M -ary PPM for Inter-Satellite Links</i> Sanaa Hamid Mohamed (University of Leeds, United Kingdom (Great Britain)); Aly Elrefaie (W&Wsens Devices, USA); Mohamed Hassan and Taha Landolsi (American University of Sharjah, United Arab Emirates)</p> <p><i>A Probabilistic Closed-form Expression for the Amount of Data Secondary Users Can Transmit in Cognitive Radio Networks</i> Maram Helmy, Yousuf Aborahama, Mohamed Hassan and Mahmoud H. Ismail (American University of Sharjah, United Arab Emirates)</p> <p><i>Clustering Algorithms and Validation Indices for mmWave Radio Multipath Propagation</i> Bogdan Antonescu, Miead Tehrani Moayyed and Stefano Basagni (Northeastern University, USA)</p> <p><i>Digital Recording System Identification Based on Blind Deconvolution</i> Michel Kulhandjian (University of Ottawa & Carleton University, Canada); Hovannes K. Kulhandjian (California State University, Fresno, USA); Claude D'Amours (University of Ottawa, Canada); Dimitris A. Pados (Florida Atlantic University, USA)</p>
12:00 pm – 1:10 pm	<p>Lunch Best Paper Awards Ceremony</p>
1:10 pm – 3:10 pm	<p>III-A Internet of Things, WSN & Smart Devices III IJITN & Other Papers</p> <p><i>A Novel Congestion Avoidance Algorithm for Autonomous Vehicles Assessed by Queue Modeling</i> Khashayar Kotobi (The University of Tennessee at Chattanooga, USA); Mina Sartipi (University of TN at Chattanooga, USA)</p> <p><i>Low-Cost RFID Authentication Protocol Based on Elliptic Curve Algorithm</i> Rania Baashirah, Abdelshakour A. Abuzneid, Salah Addine Mellouki, Zeba Siraj and Cheng Zhan (University of Bridgeport, USA)</p> <p><i>A Study of Various Network Security Challenges in the Internet of Things (IoT)</i> Abdulrahman Yarali (MSU, USA); Manu Srinath (Murray state University, USA); Randall Joyce (Murray State University, USA)</p> <p><i>Connecting Internet-of-Things (IoT) Devices to Cellular Networks</i> Zohar Naor (University of Haifa, Israel)</p> <p><i>Incoming Traffic Characterization of WiFi-based Internet of Things Gateways</i> Maitha Al Darei, Atef Abdrabou and Monika Prakash (UAE University, United Arab Emirates)</p> <p><i>Exploring Non-idealities in Real Device Implementations of Bluetooth Mesh</i> Paul Gavrikov (University of Applied Sciences Offenburg, Germany); Matthias Lai (NewTec GmbH; University of Applied Sciences Offenburg, Germany); Thomas M. Wendt (University of Applied Sciences Offenburg, Germany)</p>

<p>1:10 pm – 3:10 pm</p>	<p>III-B Physical and MAC Layers II IJITN & Other Papers</p> <p><i>Adaptive Complex Filtering for Narrowband Jamming Mitigation in Resource-Constrained Wireless Network</i> Georgi Iliev (Technical University of Sofia, Bulgaria); Alben Mihovska (Aarhus University, Denmark); Dimitriya Mihaylova and Zlatka Valkova-Jarvis (Technical University of Sofia, Bulgaria)</p> <p><i>Performance of Uplink Non-Orthogonal Multiple Access (NOMA) in the Presence of Channel Estimation Errors</i> Faeik Al Rabee and Richard D. Gitlin (University of South Florida, USA)</p> <p><i>Second-Order Statistics of MRC Reception with a Transparent Amplify-and-Forward Relay</i> Jia-Chin Lin (National Central University, Taiwan)</p> <p><i>Optimum Receiver Based on Principal Component Analysis for Spatially Correlated Nakagami-m Fading Channels</i> Jia-Chin Lin (National Central University, Taiwan)</p> <p><i>A Trust Framework for Centralized TDMA Scheduling Mechanism in Vehicular Ad hoc Networks</i> Mohamed Hadded (VEDECOM, France); Toumi Khalifa (IRT SYSTEMX, France); Anis Laouiti (TELECOM SudParis, France); Paul Muhlethaler (INRIA, France)</p> <p><i>Implementation and Performance Analysis of PPS and PCO-based Time Synchronization using USRP</i> Hyun Jae Park (Siliconsapiens Corporation, Korea); Cheol-Woong Lee, Taeyoung Shin and Byeong-hee Roh (Ajou University, Korea); SooBum Park and Jungwook Choi (LIG Nex1 co., Ltd., Korea)</p>
<p>1:10 pm – 3:10 pm</p>	<p>III-C Cybersecurity, Privacy, Assurance & Business Policy IJITN & Other Papers</p> <p><i>Real Options Analysis of Next-Generation Frequency Spectrum License</i> Donghyun An and Deok-joo Lee (Seoul National University, Korea); Taegu Kim (Hanbat National University, Korea); Jonghoon Park (Kyung Hee University, Korea)</p> <p><i>The Convergence of Blockchain, Internet of Things (IoT) and Building Information Modeling (BIM): The Case of the Smart Museum</i> Konstantina Siountri (University of Piraeus, Greece); Emmanouil Skondras (UNIPi, Greece); Theodoros Mavroeidakos and Dimitrios D. Vergados (University of Piraeus, Greece)</p> <p><i>IACAP: Internet-exposed Assets Cybersecurity Analysis Platform</i> Yan Sun (Queen Mary University of London, United Kingdom (Great Britain)); Mingsheng Yin (Queen Mary University of London, USA); Saioa Arrizabalaga and Santiago Figueroa (Ceit & Universidad de Navarra, Tecnun, Spain); Javier Añorga (Ceit-IK4 & Universidad de Navarra, Tecnun, Spain)</p> <p><i>Business Models Evolution in the Wireless Industry: A Case Study of Xiaomi in China</i> Min Zhang and Katia Passerini (St. John's University, USA); Michael Bartolacci (Penn State University - Berks, USA)</p> <p><i>Performance and Security Analysis of Hash Functions</i> Sultan Almuhammadi and Omar Bawazeer (King Fahd University of Petroleum & Minerals, Saudi Arabia)</p> <p><i>New NLFSR Functions of Degree 3 with Optimal Periods</i> Ibraheem Al-Hejri (King Fahd University of Petroleum and Minerals, Saudi Arabia); Sultan Almuhammadi (King Fahd University of Petroleum & Minerals, Saudi Arabia)</p>
<p>3:10 pm – 3:30 pm</p>	<p style="text-align: center;">Break</p>
<p>3:30 pm – 5:30 pm</p>	<p>IV-A Network Layer & NGNs II IJITN & Other Papers</p>

	<p><i>Performance Evaluation of MANET Algorithms in an Emergency Response Environment</i> Pouyan Ahmadi and Khondkar Islam (George Mason University, USA); Trevor Maco (Virginia Tech, USA); Subhankar Ghosh (George Mason University, USA)</p> <p><i>A Review of Low Altitude Platform (LAP) Wireless Network Deployment for Emergency Communications Practitioners</i> Michael Bartolacci (Penn State University - Berks, USA); Larry LeBlanc (Vanderbilt University, USA); Thomas Grossman (University of San Francisco, USA)</p> <p><i>Analysis of MAC Protocol for D2D in 5G Networks</i> Abdullilah Alotaibi and Salman A AlQahtani (King Saud University, Saudi Arabia)</p> <p><i>AirSense: An Air Contaminant Detection System</i> Rania Baashirah, Neha Pasnoori, Xinai Cao, Seowon Jung and Abdelshakour A. Abuzneid (University of Bridgeport, USA)</p> <p><i>FANET for Precision Agriculture Domains: Recruiting Strategy based on ACO</i> Floriano De Rango, Mauro Tropea, Giuseppe Potrino and Amilcare Santamaria (University of Calabria, Italy)</p> <p><i>An Intelligent Management Functionality for Improving the Interaction with Autonomous Vehicles</i> Ilias Panagiotopoulos (Harokopio University of Athens, Greece); George Dimitrakopoulos (Harokopion University of Athens, Greece)</p>
<p>3:30 pm – 5:30 pm</p>	<p>IV-B Modeling, Simulations, and Analytics II IJITN & Other Papers</p> <p><i>Real-Time Indoor Geolocation Tracking for Assisted Healthcare Facilities</i> Albena Mihovska (Aarhus University, Denmark); Christopher Paolini, Mahasweta Sarkar and Kinjal Gala (San Diego State University, USA); Paul Bryden (University of Strathclyde, United Kingdom (Great Britain)); Matthew Wang (UCLA, USA)</p> <p><i>Conceptual Modeling of an IP Phone Communication System: A Case Study</i> Sabah S. Al-Fedaghi and Ghadeer Aldamkhi (Kuwait University, Kuwait)</p> <p><i>RF-Based Machine Learning Solution for Indoor Person Detection</i> Pedro de Santana (Samsung SIDIA, Brazil); Vicente A. de Sousa Jr. (Federal University of Rio Grande do Norte & Group for Researching and Fast Prototyping Solutions for Communication (GPPCOM), Brazil); Thiago Scher (Samsung SIDIA, Brazil); Alvaro Augusto M. de Medeiros (Federal University of Juiz de Fora, Brazil); Juliano Bazzo (Samsung SIDIA, Brazil)</p> <p><i>On the Enabling of Efficient Coexistence of LTE with WiFi: A Machine Learning-Based Approach</i> Mohamed Hassan, Mahmoud H. Ismail and Mohamed El-Tarhuni (American University of Sharjah, United Arab Emirates)</p> <p><i>GPS Location Spoofing using Software Defined Radio</i> Chai Kiat Yeo (Nanyang Technological University, Singapore)</p> <p><i>The key Impacts of Softwarization in the m\Modern Era of 5G and the Internet of Things</i> Opeoluwa T Eluwole (BDO LLP, United Kingdom (Great Britain)); Mike Ojo (University of Pisa, Italy)</p>