

ICMCIS 2016 Conference Programme

Date: Sunday, 22/May/2016		
7:00pm	IceBreaker: Welcome and registration (at RMA, Bar) Location: Bar	
Date: Monday, 23/May/2016		
8:00am	Registration Location: Hall	
9:00am	Welcome and Administrative details & Host Welcome Location: Auditorium 1	
9:20am	Keynote #1 – John Mc Lean - Chair, NATO STO IST Panel - Emerging Issues and Technologies for C4I Systems Location: Auditorium 1	
9:50am	Keynote #2 – Michael Sieber - Head of the Information Superiority Unit (EDA) - Defence Information and Communication Technology Research - Rat Race or Occupational Therapy? Upstream/downstream measures to improve ICT research impact for Defence capabilities Location: Auditorium 1	
10:20am	Coffee Location: Hall	
10:50am	Session 01: Cognitive Radio Networks Location: Auditorium 1	Session 02: Concepts and Solutions for Defence Location: Auditorium 2
10:50am	Learning multi-channel Power Allocation against smart jammer in Cognitive Radio Networks Feten Slimeni^{1,2,3}, Bart Scheers², Vincent Le Nir², Zied Chtourou¹, Rabah Attia³ ¹ Military Academy of Tunisia, Nabeul, Tunisia; ² Royal Military Academy (RMA), Brussels, Belgium, Belgium; ³ EPT University of Carthage, Marsa, Tunisia;	A Method of Network Workload Generation for Evaluation of Intrusion Detection Systems in SDN Environment Damian Jankowski, Marek Amanowicz Military University of Technology, Poland;
11:15am	Robust Spectrum Sensing Algorithms Under Noise Uncertainty Xavier Leturc¹, Christophe Le Martret¹, Philippe Ciblat² ¹ Thales Communications and Security, France; ² Institut Mines-Telecom/Telecom ParisTech;	A Realistic Military Scenario and Emulation Environment for Experimenting with Tactical Communications and Heterogeneous Networks Niranian Suri^{1,2}, Anders Hansson³, Jan Nilsson³, Piotr Lubkowski⁴, Kelvin Marcus¹, Mariann Hauge⁵, King Lee¹, Boyd Buchin⁶, Levent Misirlioglu⁷, Markus Peuhkuri⁸ ¹ US Army Research Laboratory, Adelphi, MD USA; ² Florida Institute for Human & Machine Cognition (IHMC), Pensacola, FL USA; ³ Swedish Defence Research Agency (FOI), Linkoping, Sweden; ⁴ Military University of Technology, Warsaw, Poland; ⁵ Norwegian Defence Research Establishment (FFI), Kjeller, Norway; ⁶ Rohde

		and Schwarz, Munich, Germany; ⁷ MiISOFT Software Technologies, Inc., Istanbul, Turkey; ⁸ Aalto University, Espoo, Finland;
11:40am	Dynamic Channel and Transmit-Power Adaptation of WiFi Mesh-Networks in Search and Rescue Operations Muhammad Hafeez Chaudhary, Bart Scheers Royal Military Academy, Belgium;	Joint Protection of a Military Formation Using Heterogeneous Sensors in a Mobile Ad hoc Network: Concept and Field Tests Julian Hoerst, Felix Govaers, Berthold Rehbein, Christoph Barz, Peter Sevenich Fraunhofer FKIE, Germany;
12:15pm	Performance of Distributed Channel Selection for Cognitive MANET in Presence of Intentional Jamming Grzegorz Szmit¹, Jerzy Łopatka² ¹ Ministry of National Defence Republic of Poland, Poland; ² Military University of Technology;	Evolving Military Broadband Wireless Communication Systems: WiMAX, LTE and WLAN Paula Fraga Lamas¹, Luis Castedo Ribas¹, Antonio Morales Méndez², Jose María Camas Albar² ¹ University of A Coruña, Spain; ² Indra Sistemas, S.A.;
12:30pm	Lunch Location: VIP II	
1:30pm	Session 03: Software Defined Networking and IoT Location: Auditorium 1	Session 04: Network Security and Cryptography Location: Auditorium 2
1:30pm	Software-Defined Networking for Low-Latency 5G Core Network Jérémy Pagé, Jean-Michel Dricot Université libre de Bruxelles;	RSS-based Secret Key Generation for Indoor and Outdoor WBANs using On-Body Sensor Nodes Thijs Castel, Patrick Van Torre, Hendrik Rogier Ghent University, Belgium;
1:55pm	Towards a Tactical Software Defined Network Jonathan Spencer¹, Olwen Worthington¹, Robert Hancock², Eleanor Hepworth² ¹ Defence Science and Technology Laboratory, United Kingdom; ² Roke Manor Research Ltd, United Kingdom;	The infinite source of random sequences for classified cryptographic systems Mariusz Borowski Military Communication Institute, Poland;
2:20pm	Software-Defined Wireless Communications and Positioning Device for IoT Development Muhammad Hafeez Chaudhary, Bart Scheers Royal Military Academy, Belgium;	Developing the NATO BYOD Security Policy Alessandro Armando¹, Gabriele Costa², Alessio Merlo², Luca Verderame², Konrad Wrona³ ¹ Bruno Kessler Foundation, Italy; ² University of Genova, Italy; ³ NCI Agency, Netherlands;
2:45pm	On the Internet of Nano Things in Healthcare Network Jacek Jarmakiewicz, Krzysztof Parobczak, Krzysztof Maślanka	Attack-Tolerant Networked Control System in Presence of the Controller Hijack Attack

	Military University of Technology, Poland;	Amer Atta Yaseen, Mireille Bayart Université Lille 1, France;
3:10pm	Coffee Location: Hall	
3:40pm	Session 05: Wireless Technology I Location: Auditorium 1	Session 06: Applications and Systems for Information Exchange Location: Auditorium 2
3:40pm	<p>Emitter Signal Sorting Based on Fractal Dimensions of Pulse Envelope's Front Edge Qixiang Fu^{1,2}, Cheng Li², Feiyang Cai³, Wei Wang², Shunping Xiao^{1,2} ¹State Key Laboratory of Complex Electromagnetic Environmental Effects on Electronics and Information System, National University of Defense Technology, Changsha, Hunan, 410073, People's Republic of China; ²College of Electronic Science and Engineering, National University of Defense Technology, Changsha, Hunan, 410073, People's Republic of China; ³Electrical Engineering and Automation, Harbin Institute of Technology, Harbin, 150001, People's Republic of China;</p>	<p>The Italian Army C2 Evolution From the current SIACCON2 Land Command & Control system to the LC2EVO using "agile" software development methodology Angelo Messina^{1,2}, Franco Fiore³ ¹Italian MOD Army, Italy; ²DSSEA; ³NCIA;</p>
4:05pm	<p>On Box-Operations for L-Values and their Applicability to Soft-Decision Algorithms Marc Adrat¹, Matthias Tschauner¹, Nardine Bebawi¹, Markus Antweiler¹, Benedikt Eschbach², Peter Vary² ¹Fraunhofer FKIE, Germany; ²RWTH Aachen University IND, Germany;</p>	<p>Adapting Standard Tactical Applications for a Military Disruption-Tolerant Network Marek Malowidzki, Tomasz Dalecki, Przemysław Bereziński, Michał Mazur, Paweł Skarżyński Military Communication Institute, Poland;</p>
4:30pm	<p>Analysis of Cooperative Relaying in an Urban Scenario Gunnar Eriksson, Sara Linder Swedish Defence Research Agency (FOI), Sweden;</p>	<p>An Adaptable Multimodal Crew Assistance System for NATO Generic Vehicle Architecture Manas Pradhan^{1,2}, Daniel Ota¹ ¹Fraunhofer Institute for Communication, Information Processing and Ergonomics FKIE, Germany; ²RWTH Aachen University, Germany;</p>
4:55pm	<p>A novel OFDM sensing method based on CAF-max for hybrid detectors architecture Krzysztof Kosmowski, Marek Suchański, Józef Pawelec, Mateusz Kustra Military Communication Institute (MCI), Poland;</p>	<p>A rational multiparty information exchange model using extensive games Fco. Alberto Campos¹, Viet Pham² ¹Comillas Pontifical University (Technical School of Engineering), Spain; ²Information Security Group, Royal Holloway, University of London, England;</p>
5:20pm	End of the day	
6:15pm	Guided tour in Bxl (walk from Metro Parc to CPA)	
7:30pm	Conference dinner at CPA	

Date: Tuesday, 24/May/2016

8:00am	Registration Location: Hall	
8:30am	Session 07: Wireless Technology II Location: Auditorium 1	Session 08: Workshop on Tactical Domain SOA I Location: Auditorium 2
8:30am	Short Range HF Radio Channel Measurements: Search for One Path Channels Harri Saarnisaari¹, Veikko Hovinen¹, Hannu Tuomivaara², Juha Yli-Kaakinen³ ¹ University of Oulu, Finland; ² Kyynel Ltd; ³ Tampe University of Technology, Finland;	Keynote - Challenges of applying SOA in tactical networks Peter-Paul Meiler Netherlands Organisation for Applied Scientific Research (TNO), The Hague, Netherlands;
8:55am	Multicarrier Modulation for HF Communications Juha Yli-Kaakinen¹, Markku Renfors¹, Hannu Tuomivaara² ¹ Tampere University of Technology, Finland; ² Kyynel Ltd, Finland;	
9:20am	Compensation of Imperfect Channel Reciprocity through MMSE Prediction for Physical-Layer Confidentiality Enhancement Hao Li¹, Xianbin Wang¹, Helen Tang² ¹ The University of Western Ontario, Canada; ² Defence Research and Development Canada;	Sensor Networking and Integration Ketil Lund, Eirik Skjelbreid Grimstvedt, Morten Aronsen, Erlend Larsen, Robert MacDonald Norwegian Defence Research Establishment (FFI), Norway;
9:45am	Receiver Design for Non-Linear Satellite Channels: Equalizer Training and Symbol Detection on the Compressed Constellation Marc Bauduin, Serge Massar, François Horlin Université Libre de Bruxelles, Belgium;	Analyzing the Applicability of Internet of Things to the Battlefield Environment Niranjan Suri^{1,2}, Mauro Tortonesi³, James Michaelis¹, Peter Budulas¹, Giacomo Benincasa², Stephen Russell¹, Cesare Stefanelli³, Robert Winkler¹ ¹ US Army Research Laboratory, Adelphi, MD USA; ² Florida Institute for Human and Machine Cognition (IHMC), Pensacola, FL USA; ³ University of Ferrara, Ferrara, Italy;
10:10am	Coffee Location: Hall	
10:40am	Session 09: Ad Hoc Networks Location: Auditorium 1	Session 10: Workshop on Tactical Domain SOA II Location: Auditorium 2
10:40am	RESA-OLSR: RESources-Aware OLSR-based routing mechanism for mobile ad-hoc networks Janusz Romanik, Adam Krasniewski, Edward Golan Military Communication Institute, Poland;	TACTICS TSI Architecture Thorsten Andreas Lampe¹, Christoph Prasse¹, Anne Diefenbach², Tobias Ginzler², Joanna Śliwa³, Sam McLaughlin⁴ ¹ Thales Deutschland; ² Fraunhofer FKIE; ³ Military Communications Institute; ⁴ Thales Communications & Security;

11:05am	<p>Comparing the Capacity of Cooperative Broadcast to Spatial Reuse TDMA in Ad Hoc Networks <u>Arwid Komulainen</u>, Jimmi Grönkvist, Jan Nilsson Swedish Defense Research Agency, Sweden;</p>	<p>A model for usability testing in challenging environments <u>Riku Luostarinen</u>, Risto Järvinen, Juho Määttä, Jukka Manner Aalto University, Finland;</p>
11:30am	<p>Delay Analysis of STDMA in Grid Wireless Sensor Networks Ichrak Amdouni¹, <u>Cedric Adjih</u>¹, pascale minet¹, thierry plesse² ¹Inria, France; ²DGA, Bruz, France;</p>	<p>Reliable FMV Services in Disadvantaged Tactical Radio Networks James Nightingale¹, Qi Wang¹, Jose M Alcaez Calero¹, Ian Owens², Frank Trethan Johnsen³, Trude Hafsøe Bloebuam³, Marco Manso⁴ ¹University of the West of Scotland, United Kingdom; ²Cranfield Defence and Security, United Kingdom; ³FFI, Norway; ⁴Rinicom, United Kingdom;</p>
11:55am	<p>Extending OLSRv2 for Tactical Applications Christoph Barz, Christoph Fuchs, Jonathan Kirchoff, Julia Niewiejska, Henning Rogge Fraunhofer FKIE, Germany;</p>	<p>Recommendations for realizing SOAP publish/subscribe in tactical networks Trude H. Bloebaum¹, Frank T. Johnsen¹, Marianne R. Brannsten¹, Jose Alcaraz-Calero², Qi Wang², James Nightingale² ¹Norwegian Defence Research Establishment (FFI), Norway; ²University of the West of Scotland Glasgow, Scotland, UK;</p>
12:20pm	<p>Lunch Location: Hall</p>	
1:20pm	<p>Demo session (1 Hr) Location: VIP II</p>	
2:20pm	<p>Session 11: Jamming and EM Location: Auditorium 1</p>	<p>Session 12: Data Protection Location: Auditorium 2</p>
2:20pm	<p>Electromagnetic Influence of a Ballistic Protection Structure around an Armoured Infantry Vehicle on its Jamming Performance Thierry GILLES, <u>Tran MY DUNG</u> Royal Military Academy, Belgium;</p>	<p>Labelling for Integrity and Availability John Melrose¹, Konrad Wrona², Thomas Gunther³, Raymond Haakseth⁴, Nils Nordbotten⁴, Lars Westerdahl⁵ ¹DSTL; ²NATO Communications and Information Agency, The Netherlands; ³Infodas; ⁴FFI; ⁵FOI;</p>
2:45pm	<p>Sweep Jamming Hit Rate Analysis for Frequency Agile Communications <u>Harri Saarnisaari</u> University of Oulu, Finland;</p>	<p>On the Creation of a Single Mission-Wide Information Domain in Military Operations Michael Rudack, <u>Cristina Palacios Camarero</u>, Hermann Wietgreffe NATO Communications and Information Agency, Netherlands, The;</p>

3:10pm	Radiated radio-frequency hazards with electric detonators: influence of wiring configuration, dipole vs V-antenna. Marc René PIETTE, Christo TSIGROS, Thierry GILLES Royal Military Academy, Belgium;	Assisted content-based labelling and classification of documents Konrad Wrona¹, Sander Oudkerk¹, Alessandro Armando², Silvio Ranise², Ricardo Traverso², Lisa Ferrari³, Richard McEvoy⁴ ¹ NATO Communications and Information Agency, The Netherlands; ² Fondazione Bruno Kessler; ³ Expert System; ⁴ Hewlett Packard Enterprise;
3:35pm	Coffee Location: Hall	
4:05pm	Session 13: SAR and Measurements Location: Auditorium 1	Session 14: Data Analysis Location: Auditorium 2
4:05pm	Influence of the Frequency Stability on the Emitter Position in SDF Method Jan M. Kelner, Cezary Ziólkowski, Piotr Marszałek Military University of Technology, Faculty of Electronics, Institute of Telecommunications, Poland;	A Review of Modelling Toolbox for BigData Hadi Hashem, Daniel Ranc Télécom SudParis, France;
4:30pm	Micro-Doppler Period Estimation from Ballistic Targets with Precession Xiao-yi Pan, Qi-xiang Fu, Zhao-yu Gu, Yong-cai Liu, Wei Wang State Key Laboratory of Complex Electromagnetic Environment Effects on Electronics and Information System, National University of Defense Technology, Changsha 410073, China;	Complex Event Processing for Content-Based Text, Image and Video Retrieval Bob Madahar¹, Elizabeth Bowman² ¹ Defence Science and Technology Laboratory, United Kingdom; ² US Army Research Laboratory, United States;
4:55pm	Rotational Motion Estimation of High-Resolution ISAR Imaging for Manuvering Targets Gang Xu, Lei Yang, Song Zhou, Guoan Bi Nanyang Technological University, Singapore;	Assessing NATO Policy Alignment Through Text Analysis Philip Thomas Eles, Bruce Pennell, Marc Richter NATO Communications and Information Agency, Netherlands, The;
5:20pm	Wrap up / Best paper award Location: Auditorium 1	
5:30pm	End of conference Location: Hall	