

International Conference on Advanced Communication Systems and Information Security Program



October 17-19, 2016 Marrakesh, Morocco



جامعة محمد الخامس بالرباط
Mohammed V University in Rabat



كلية العلوم الرباط
Faculté des sciences Rabat



Program of the :

International Conference on Advanced Communication
Systems and Information Security (ACOSIS'16)



October 17-19, 2016 Marrakesh, Morocco

About

ACOSIS 2016 is an Annual International Conference on Advanced Communication Systems and Information Security.

ACOSIS'16 to be held at "[5-star A HOTEL Kenzi Farah](#)" Marrakesh, Morocco during October 17-19, 2016.

The aim of ACOSIS 2016 is to provide an international forum for practitioners and researchers from industry, academia and government from all over the world for a wide ranging discussion of all forms of Advanced Communication Systems and Information Security and its applications.

We welcome your participation and contribution to the 1st International Conference on Advanced Communication Systems and Information Security in Africa - Morocco (ACOSIS 2016).

ACOSIS 2016 is organized by the **ENSIAS** college of Engineering and **Association of Research and Innovation in Science and Technology (ARINST)**

Presentation Guidelines:

- All presentation should be in English
- The time provided for oral presentations is 20 min (15min for the presentation and 5 min for the discussion).
- The speakers should give their slides to the session chair before the beginning of each session.

PROGRAM

Monday 17th October 2016	
08:00-09:00	Registration
09:00-09:30	Opening Ceremony
09:30-10:20	Keynote 1: Amine Bermak
10:20-10:50	Coffee break
10:50-11:40	Keynote 2 : Frederic Guilloud
11:40-12:40	Oral Session 1
	Session ISC-1 (Room 1) Session ACS-1 (Room 2)
12:40-14:00	Lunch
14:00-14:50	Keynote 3: Anas Abou EL Kalam
14:50-16:10	Oral Session 2
	Session ISC-2 (Room 1) Session ACS-2 (Room 2)
16:10-16:30	coffee Break
16:30-18:30	Oral Session 3
	Session ISC-3 (Room 1) Session ACS-3 (Room 2)
Tuesday 18th October 2016	
08:30-09:00	Registration
09:00-09:50	Keynote 4: Mohamed Slim Alouini
09:50-10:30	Poster & Coffee Break
10:30-11:20	Keynote 5: Hannes Mehnert
11:20-12:40	Oral Session 4
	Session ISC-4 (Room 1) Session ACS-4 (Room 2)
12:40-14:15	Lunch
14:30-18:00	Sight Seeing of Marrakech city
20:00-00:00	Gala Dinner & Closing Ceremony
Wednesday 19th October 2016	
	Social event

Monday 17th October 2016

Keynote 1: 09:30h-10:20h

Chair: Mohammed Essaaidi, ENSIAS Director, Mohammed V University of Rabat, Morocco.

Keynote: Amine Bermak, IEEE Fellow, Professor, and ICT Division Coordinator College of Science and Engineering at Hamad Bin Khalifa University, Qatar Foundation, Qatar.

Title: Autonomous self-powered and self-calibrated Microsystems for IoT applications

Keynote 2: 10:50h-11:40h

Chair: Mohammed Erradi, ENSIAS, Mohammed V University of Rabat, Morocco.

Keynote: Frederic Guilloud, Associate Professor, Signal and Communications department Telecom Bretagne, Brest, France.

Title: Continuous Phase Modulation: a "new" waveform for 5G Massive Machine-Type Communications.

Oral Session 1

Session Title	Information Security and Coding (ISC-1)
Chair	Mohammed Erradi, ENSIAS Mohammed V University of Rabat.
Time	11:40-12:40 (Room 1)
Paper Id:	Titles & Authors:
1570306552	<p>“Novel method for improving performances of Normalized MS decoder using WIMAX code”</p> <p>Abdelilah Kadi, Mostafa Mrabti, Said Najah and Emmanuel Boutillon</p>
1570307825	<p>“An efficient soft decision decoding algorithm using cyclic permutations and compact genetic algorithm”</p> <p>Boulame Hamza, Noria Tahiri, Idriss Chana, Ahmed Azouaoui and Mostafa Belkasmi</p>
1570307877	<p>“Construction and Iterative Threshold Decoding of Low Rate Quasi-Cyclic Majority Logic Decodable Codes.”</p> <p>Karim Rkizat, Mohammed Lahmer, Said Nouh and Mostafa Belkasmi</p>

Session Title	Advanced Communication Systems (ACS-1)
Chair	Mustapha Benjillali, INPT, Rabat, Morocco.
Time	11:40-12:40 (Room 2)
Paper Id:	Titles & Authors:
1570306274	<p>“A Game Theoretic Approach to Multipath Traffic Control in Content-Centric Networking” Mohamed Labbi, Nabil BenSalah, Nabil Kannouf, Youssef Douzi, Benabdellah Mohammed and Abdelmalek Azizi</p>
1570307839	<p>“Correction of sensing imperfections using channel coding in cognitive radio networks while keeping sensing time low” Reda Benkhouya, Idriss Chana and Moulay Youssef Hadi</p>
1570309118	<p>“Epigenetic Algorithm for Performing Intrusion Detection System” Mehdi EZZARII, Hassan El GHAZI, El Ghazi Hamid and Tayeb Sadiki</p>

Keynote 3: 14:00h-14:50h

Chair: Faissal El Bouanani, ENSIAS, Mohammed V University of Rabat, Morocco.

Keynote: Anas Abou El Kalam, Professor OSCARS Lab Director, ENSA Marrakesh, Morocco.

Title: Access control in The Internet of Things: Big challenges and new opportunities.

Oral Session 2

Session Title	Information Security and Coding (ISC-2)
Chair	Hannes Mehnert, Cambridge University, UK
Time	14:50-16:10 (Room 1)
Paper Id:	Titles & Authors:
1570300385	<p>“Design of good linear codes for a decoder based on majority voting procedure” Issam Abderrahman JOUNDAN, Said Nouh and Abdelwahed Namir.</p>
1570307857	<p>“A Secure Cooperative Transmission Model in VANET Using Attribute Based Encryption” Mounia Bouabdellah, Faissal El Bouanani and Hussain Ben-azza</p>
1570307874	<p>“Coding Schemes based on One Step Majority Logic Decodable (OSMLD) Codes over FSO Channels” Souad Labghough, Fouad Ayoub and Mostafa Belkasmi</p>
1570307875	<p>“Non-Binary Majority Logic Decodable codes : a rediscovery and new results” Zakaria M'rabet, Anouar Yatribi, Fouad Ayoub and Mostafa Belkasmi</p>

Session Title	Advanced Communication Systems (ACS-2)
Chair	Mohamed Lahmer, My Ismail University, Meknes, Morocco
Time	14:50-16:10 (Room 2)
Paper Id:	Titles & Authors:
1570295587	“Threshold of the symmetry property of cyclic autocorrelation function detector” Kawtar Zerhouni, Khalid Elbaamrani, Nouredine Idboufker and Fouzia Elbahhar Boukour
1570301460	“Many-to-one matching game towards secure virtual machines migration in cloud computing” Ali Azougaghe, Omar Ait oualhaj, Mustapha Hedabou, Mostafa Belkasmı and Abdellatif
1570307871	“Performance Analysis of Dual-Hop Underwater Communication System subject to $k-\mu$ Shadowed Fading Channel” Elmehdi Illi, Faissal El Bouanani and Fouad Ayoub
1570307834	“Performance Analysis of TAS/MRC based MIMO systems over Weibull Fading Channels” Toufik Chaayra, Faissal El Bouanani and Hussain Ben-azza.

Oral Session 3

Session Title	Information Security and Coding (ISC-3)
Chair	Anas Abouelkalam, ENSA Marrakesh, Morocco.
Time	16:30-18:30 (Room 1)
Paper Id:	Titles & Authors:
1570295827	“Improving GGH Cryptosystem Using Generalized Low Density Lattices” Sarah Kamel, Mireille Sarkiss and Ghaya Rekaya-Ben Othman
1570307856	“New decoder for linear block codes” Abderrazak Farchane and Mostafa Belkasmı
1570306642	“Sparse deconvolution of periodic random impulses based on convex relaxation” Khalid Sabri and Abdelouahad CHOKLATI
1570306726	“Advanced Persistent Threat: new analysis driven by life cycle phases and their challenges” Brahim ID Messaoud, Karim Guennoun and Mohamed Wahbi
1570307330	“Non-Binary Cyclic Majority-Logic Decodable codes: a Construction by using Genetic Algorithms” Anouar Yatribi, Zakaria M'rabet, Fouad Ayoub and Mostafa BELKASMI

Session Title	Advanced Communication Systems (ACS-3)
Chair	Idriss Chana, My Ismail University, Morocco
Time	16:30-18:30 (Room 2)
Paper Id:	Titles & Authors:
1570309124	"A Comparative Performance Analysis of Position Estimation Algorithms for GNSS Localization in Urban Areas" Bassma Guermah, Hassan El GHAZI, Yann Ben Maissa, Esmail Ahouzi and Tayeb Sadiki
1570306697	"Energy Efficient And Scalable D2D Architecture Design for Public Safety Network" Kamran Ali, Huan X Nguyen, Purav Shah and Quoc-Tuan Vien
1570300508	"A secure QoS aware VANET" Mouna Garai and Nouredine Boudriga
1570306681	"Design and Analysis of Protecting Strategies against Border Crossing Under Irregular Conditions" Imen Arfaoui, Nouredine Boudriga and Khalifa Trimeche
1570305255	"Topology-Aware Approach for Reducing Power Consumption in LEO Satellite Constellations" Mohammed Hussein, Israa Elayyan and Wasel Ghanem

Tuesday 18th October 2016

Keynote 4: 09:00h-09:50h

Chair: Mustapha Benjillali, INPT, Rabat, Morocco.

Keynote: Mohamed Slim Alouini, Computer, Electrical, and Mathematical Science and Engineering (CEMSE) Division King Abdullah University of Science and Technology (KAUST) Thuwal, Makkah Province, Saudi Arabia.

Title: Paving the Way Towards 5G Wireless Communication Networks.

Poster Session

Session Title	Posters
Chair	Bouchaib Aylaj, Casablanca, Morocco
Time	09:50-10:30 (hall)
Paper Id:	Titles & Authors:
1570295947	<p>"Field study of cybercafé usage & security in Morocco" Abdellah Houmz, Asmaa Tellabi, Mohamed Salim Mezzene, Ghita Mezzour and Mohammed El Koutbi</p>
1570299685	<p>"A Survey on Decentralized Random Access MAC Protocols for Cognitive Radio Networks" Wassim Fassi Fihri, Fatima Salahdine, Hassan El GHAZI and Naima Kaabouch</p>
1570301438	<p>"Information system Security governance: Technology Intelligence perspective" Mounia Zaydi and Bouchaib Nassereddine</p>
1570306710	<p>"Designing Optimal Wireless-based ICT Platform for Smart Grid— CDMA450 Proof-of-Concept" Abdelfatteh Haidine, Sanae El Hassani and Abdelhak Aqqal</p>
1570306733	<p>"LTE-A Pro (4.5G) as Pre-phase for 5G Deployment: Closing the Gap between Technical Requirements and Network Performance" Abdelfatteh Haidine and Sanae El Hassani</p>
1570309121	<p>"ICH-LEACH: An enhanced LEACH protocol for Wireless Sensor Network" Bennani Mohamed Taj and AIT KBIR</p>

Keynote 5: 10:30h-11:20h

Chair: Mustapha Zbakh, ENSIAS, Mohammed V University of Rabat, Morocco.

Keynote: Hannes Mehnert, Postdoctoral researcher, University of Cambridge, UK.

Title: MirageOS - robust operating system design from the grounds up.

Oral Session 4

Session Title	Information Security and Coding (ISC-4)
Chair	Fouad Ayoub, CRMEF, Kenitra, Morocco
Time	11:20-12:40 (Room 1)
Paper Id:	Titles & Authors:
1570295943	“Authentication Protocol Conforming to EPC Class-1 Gen-2 Standard” Ahmed Maarof, Mohamed Senhadji, Zouheir Labbi and Mostafa Belkasm
1570306707	“Intrusion Detection System using PCA and Fuzzy PCA Techniques” Amal Hadri, Khalid Chougali and Rajae Touahni
1570306327	“New efficient Dual Domain Decoder of linear Block” Ahlam Berkani and Mostafa Belkasm
1570309033	“Multi-user Techniques in Visible Light Communications: A Survey” Hanaa Marshoud, Paschalis C. Sofotasios, Sami Muhaidat and George K. Karagiannidis

Session Title	Advanced Communication Systems (ACS-4)
Chair	Ahmed Azouaoui, Chouaib Doukkali University, Morocco
Time	11:20-12:40 (Room 2)
Paper Id:	Titles & Authors:
1570300992	“A Novel Efficient Ultralightweight Authentication Algorithm for RFID Systems” Zouheir Labbi, Mohamed Senhadji, Mostafa Belkasm and Ahmed Maarof
1570307068	“Performance Analysis of Random Access Mechanisms for Machine Type Communications in LTE Networks” Mariyam Ouaisa, Mariam Benmoussa, Abdallah Rhattoy and Idriss Chana.
1570309096	“Review on Using Game Theory in Resource Allocation for LTE/LTE-Advanced” Sanaa Oulaouf, Abdelfatteh Haidine and Hassan Ouahmane.
1570309111	“A New Performance Results of MIMO System With Orthogonal STBC Over Independent and Identical Weibull Fading Channels” Abdelmajid Bessate and Faissal El Bouanani

Keynote Speaker

❖ *Amine Bermak*

BIO: Prof. Amine Bermak received the Masters and PhD degrees, both in electrical and electronic engineering (microelectronics and Microsystems), from Paul Sabatier University, Toulouse, France in 1994 and 1998, respectively. During his PhD, he was part of the Microsystems and Microstructures Research Group at the French National Research Centre LAAS-CNRS, where he developed a 3D VLSI chip for artificial neural network classification and detection applications in a project funded by Motorola. While finalizing his PhD, he was offered a Post-doc position at the Advanced Computer Architecture group at York University – England, to work on VLSI implementation of CMM neural network for vision applications in a project funded by British Aerospace. Prof. Bermak was nominated for the 2013 Hong Kong UGC best teacher award (for all HK Universities). He is the recipient of the 2011 University Michael G. Gale Medal for distinguished teaching (Highest University-wide Teaching Award). This gold medal is established to recognize excellence in teaching and only one recipient/year (out-of over 550 faculties) is honored for his/her contribution. Prof. Bermak is also a two-time recipient of the “Engineering School Teaching Excellence Award” in HKUST for 2004 and 2009, respectively.



Prof. Bermak has received many distinguished awards, including the 2016 DAC best design context award, the “Best paper award” at IEEE International Symposium on Circuits and systems ISCAS 2010; the 2004 “IEEE Chester Sall Award”; the IEEE Service Award from IEEE Computer Society and the “Best Paper Award” at the 2005 International Workshop on System-On-Chip for Real-Time Applications. He has published over 250 articles in journals, book chapters and conference proceedings and designed over 50 chips. He has supervised 25 PhD and 16 MPhil students. He has served on the editorial board of IEEE Transactions on Very Large Scale Integration (VLSI) Systems and IEEE Transactions on Circuits and Systems II. He is also currently serving on the editorial board of IEEE Transactions on Biomedical Circuits and Systems; IEEE Transactions on Electron Devices and Nature Scientific Reports. He is the guest editor of the November 2010 special issue in IEEE Transactions on Biomedical Circuits and Systems. Prof. Bermak is a Fellow of IEEE and IEEE distinguished Lecturer. He was the co-director of MIT-HKUST Consortium.

❖ *Frederic Guilloud*

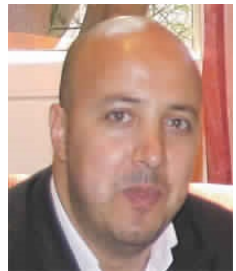
BIO: Frederic Guilloud received the Engineering degree in Electronics from the Ecole Nationale Supérieure de l'Electronique et de ses Applications (ENSEA), France, in 1998, and is a former student of the Ecole Normale Supérieure de Cachan (ENS Cachan). He received the Ph.D. degree in 2004 from Telecom ParisTech in Signal and Communications, entitled "Generic Architecture for LDPC Codes Decoding".



Frederic Guilloud is "Professeur Agrégé" in electronics and power electronics since 1999, and Associate Professor at Telecom Bretagne in the Signal and Communications department since 2004. His research and teaching activities are focused on error correcting codes and digital communications including constant amplitude phase modulations, with a special emphasis on short frame communications.

❖ *Anas Abou El Kalam*

BIO: Dr. Anas Abou El Kalam is a university professor and president of the Moroccan Association of Digital Trust. He co-authored more than 150 papers and is certified ISO 27001 Lead Auditor, CEH (Certified Ethical Hacking) and CISSP (Certified Information Systems Security Professional). He was Assistant director of the OSCARS laboratory and in charge of the "Networks, Systems and Security" master as well as a former head of the "Network and Telecommunication department" at the UCA-ENSA. He also was an associate professor at the "Institut National Polytechnique" (INP) of Toulouse – France where he obtained his HDR (Habilitation à Diriger les Recherches) in "security of critical networks and systems" as well as his PhD in "security policies and models". He had several responsibilities as the Head of the "Computer Science Department" and the head of the "Networks and Systems security" Department at ENSIB (high school of engineers) – France. He was invited professor at several universities in USA, Tunisia, Bucharest Technical Military academy, etc. as well as a temporary professor at the Department of Defense training center in Bourges. His interest fields are Internet of Things security, Cloud security, critical systems security, access control models, and evaluation of security mechanisms.



❖ *Mohamed Slim Alouini*

BIO: Mohamed-Slim Alouini (S'94, M'98, SM'03, and F'09) was born in Tunis, Tunisia. He received the Ph.D. degree in Electrical Engineering from the California Institute of Technology (Caltech), Pasadena, CA, USA, in 1998. He served as a faculty member in the University of Minnesota, Minneapolis, MN, USA, then in the Texas A&M University at Qatar, Education City, Doha, Qatar before joining King Abdullah University of Science and Technology (KAUST), Thuwal, Makkah Province, Saudi Arabia as a Professor of Electrical Engineering in 2009.



Prof. Alouini is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), a member of the Thomson ISI Web of Knowledge list of Highly Cited Researchers, an IEEE Distinguished Lecturer of the IEEE Communications Society, and a co-recipient of best paper awards in ten IEEE conferences (including ICC, GLOBECOM, VTC, PIMRC and DySPAN). His current research interests include the modeling, design, and performance analysis of wireless communication systems.

❖ *Hannes Mehnert*

BIO: Hannes Mehnert is a postdoctoral researcher at University of Cambridge working with the semantics, systems, and security group. He finished his PhD at the IT University of Copenhagen about formally verifying software.



He researches in several engineering areas: from programming languages (such as compiler optimization visualization, type systems) over full functional correctness proofs of object-oriented code, development environments for dependently typed languages, to network protocols (TCP/IP) and security protocols (TLS, OTR). He feels safe in a garbage collected environment, and appreciates purely functional goodness.

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