



## Preliminary Program

	Thursday – June 22, 2017 Université Antonine – Hadat, Baabda		Friday – June 23, 2017 Université Antonine – Hadat, Baabda	
09:00 - 09:30 AM	Registration		Registration	
09:30 - 10:15 AM	Opening Ceremony (F. Rajeh Hall)		Keynote Lecture 3 Saïd Tazi (Room G 3.7)	
10:15 - 10:30 AM	Welcome Reception		Coffee Break	
10:30 - 11:00 AM	Keynote Lecture 1 Chris Clifton (F. Rajeh Hall)		Coffee Break	
11:00 - 11:30 AM	Coffee Break		Session 3 ( Room G 3.7)	Tutorial Session 2 (Room G 2.7)
11:30– 11:45 AM	Coffee Break			
11:45 - 12:30 PM	Session 1 ( F. Rajeh Hall )			
12:30 - 01:00 PM	Lunch (Cafeteria Hall)		Lunch (Cafeteria Hall)	
01:00 - 02:00 PM	Lunch (Cafeteria Hall)		Lunch (Cafeteria Hall)	
02:00 - 02:30 PM	Keynote Lecture 2 Lakhdar Sais (Room G 3.7)		Keynote Lecture 4 Lionel Brunie (Room G 3.7)	
02:30 - 03:00 PM	Coffee Break		Coffee Break	
03:00 - 03:15 PM	Coffee Break		Coffee Break	
03:15 - 04:00 PM	Session 2 (Room G 3.7)	Tutorial Session 1 (Room G 2.7)	Session 4 (Room G 3.7)	Tutorial Session 3 (Room G 2.7)
04:00 - 04:30 PM				
04:30 - 05:00 PM				
05:00 - 05:30 PM			Poster Session	
05:30 - 06:00 PM			Poster Session	
06:00 - 06:15 PM			Closing Session (Room G 3.7)	

## Day 1: June 22, 2017

### Opening Ceremony (F. Rajeh Hall) 9:30 AM – 10:15 AM

**Richard Chbeir & Ahmad Mostefaoui**

Program Co-Chairs

**Chady Abou Jaoude**

Dean, Faculty of Engineering, Université Antonine

**Germanos Germanos, o.a.m.**

President, Université Antonine

**Hervé Sabourin**

Directeur Régional Moyen-Orient, Agence Universitaire de la Francophonie

**Jad Tabet**

President, Order of Engineers and Architects of Beirut

### Keynote Lecture 1: Prof. Chris Clifton (F. Rajeh Hall) 10:30 AM - 11:30 AM

**Session Chair:** Bechara AL Bouna

**Title:** Dealing with Discriminatory Data Mining

**Abstract:** There is growing evidence that algorithms running on "Big Data" can lead to outcomes that are biased against underrepresented groups. This is in spite of the fact that such group information (race, gender, religion, etc.) is not used by the algorithms.

This talk will discuss some of the issues, pointing out evidence, and hypothesize causes. We will then look at one solution, based on adapting a Bayesian network classifier to reduce disparate impact on groups that are treated "differently" by the originally learned classifier.

This talk is based on work with Koray Mancuhan that appeared in *Artificial Intelligence and Law* (2014) 22:211-238.

**Biography:** Dr. Clifton is a Professor of Computer Science at Purdue University. He works on data privacy, particularly with respect to analysis of private data. From 2013-2016, Dr. Clifton served as a program director at the National Science Foundation. Prior to joining Purdue in 2001, he was a principal scientist in the Information Technology Division at the MITRE Corporation. Before joining MITRE in 1995, he was an assistant professor of computer science at Northwestern University.

### Session 1 (F. Rajeh Hall) 11:45 AM – 1:00 PM

**Session Chair:** Ramzi Haraty

**Paper 1:** Multimodal Shortest Path Algorithm for Carsharing Systems with Operation Area Constraint

*Wesam Herbawi and Stefan Landsbek*

**Paper 2:** Sharing nogoods between discsp algorithms

*Ghizlane El Khattabi, Benelallam Imade and Bouyakhf El Houssine*

**Paper 3:** Upgraded SemIndex Prototype for Semantic Indexing and Querying of Textual Data

*Joe Tekli, Richard Chbeir, Christian Kallas, Agma J.M. Traina, Caetano Jr. Traina and Carlos Raymundo*

**Paper 4:** Managing Social Networking Applications: a Game Theoretic Approach

*Sam Sleiman and Mariette Awad*

### Keynote Lecture 2: Prof. Lakhdar Sais (Room G 3.7) 2:00 PM – 3:00 PM

**Session Chair:** Elias Doumith

**Title:** Building Bridges between Data Mining and Artificial Intelligence

**Abstract:** In this talk, we overview our contributions to data mining and more generally to the cross-fertilization between data mining, constraint programming and propositional satisfiability (<http://www.cril.univ-artois.fr/decMining/>). We will focus on three contributions. First, we show how propositional satisfiability (SAT) can be used to model and solve problems in data mining. As an illustration, we present a SAT-based declarative approach for itemset, association rules and sequences mining. Then, we present an original use of data mining techniques to compress Boolean formulas. Finally, we discuss how symmetries widely investigated in Constraint Programming (CP) and Propositional Satisfiability (SAT) can be extended to deal with data mining problems. In this talk, we overview our contributions to data mining and more generally to the cross-fertilization between data mining, constraint programming and propositional satisfiability (<http://www.cril.univ-artois.fr/decMining/>). We will focus on three contributions. First, we show how propositional satisfiability (SAT) can be used to model and solve problems in data mining. As an illustration, we present a SAT-based declarative approach for itemset, association rules and sequences mining. Then, we present an original use of data mining techniques to compress Boolean formulas. Finally, we discuss how symmetries widely investigated in Constraint Programming (CP) and Propositional Satisfiability (SAT) can be extended to deal with data mining problems.

**Biography:** Lakhdar Sais obtained an engineering degree in computer science in 1988 from the National Institute on Computer Science ("Université de Tizi-Ouzou", Algeria), a Ph.D ("Doctorat") in 1993 from the "Université de Provence" (Marseille) and an "Habilitation à Diriger des Recherches" from the "Université d'Artois" in 2000. In 1994, he joined the "IUT de Lens" as a lecturer ("Maitre de conférences") at the beginning of the creation of the CRIL research center ("Centre de Recherche en Informatique de Lens"). Before his current position as a professor at CRIL-CNRS "Université d'Artois", he spent one year as a professor at IRIT «Université Paul Sabatier » (Toulouse, France). He spent two years as a researcher at INRIA Lille and CNRS. He is the founding-member and the leader (from 2002 – 2013) of the inference and decision process group at CRIL - CNRS. He is currently the Delegate director of the CRIL laboratory. His research focuses on search and representation problems in Artificial Intelligence. He is especially interested in propositional satisfiability, quantified boolean formula, constraint programming and

operation research, knowledge representation and reasoning, data mining. For further details on his research activities visit the web site: <http://www.cril.fr/~sais>.

## Session 2 (Room G 3.7) 3:15 PM - 5:00 PM

**Session Chair:** Youssef Bou Issa

**Paper 1:** BicOPT:Biochips Data Clustering algorithm

*Faouzi Mhamdi and Ahmed Zammali.*

**Paper 2:** PIN tool for Intelligent Nutrition Assessment and Meal Planning

*George Salloum, Elie Semaan and Joe Tekli*

**Paper 3:** MUSC prototype for Music Sentiment-based Composition

*Ralph Abboud and Joe Tekli*

**Paper 4:** GIS-Based Network Analysis for the Roads Network of the Greater Cairo Area

*Sayed Ahmed, Romani Farid Ibrahim and Hesham A. Hefny*

## Tutorial Session 1 (Room G 2.7) 3:15 PM - 5:00 PM

**Session Chair:** Tony Makdissy



KEEWARD

### Speakers:

Stéphane Bazan, Head of Knowledge & Learning, Keeward Group

Constantin Nicolaou, System Architect, Keeward Group

Nicolas Charabaty, Lead Backend Engineer

**Title:** Adding sense to data: How to implement a Metadata strategy?

**Abstract:** Metadata management is essential to provide solid grounds for large information frameworks.

This session will explain the different approaches and tools to build a coherent, consistent metadata strategy. Participants will be presented with different scenarios and will have to participate in a real life example of metadata implementation.

Keeward Group is a technology company focussed on the long tail in the media, art and culture industries. Through its platform, Keeward creates value at the intersection of innovation and diversity, leveraging the

entire value chain: from digital and physical distribution to content creation, machine learning and big data. Over the last 10 years, Keeward Group has brought together a family of companies who share this same focus. We do this through our in-depth expertise across a range of specializations (project management, design, development, marketing, content creation, knowledge sharing, to name a few) and by identifying creative clusters in cities around the world where we nurture young businesses, as well as creative talents, who will bring value to our platform.

*Maximum number of attendees: 30*

## Day 2: June 23, 2017

### Keynote Lecture 3: Prof. Saïd Tazi (Room G 3.7) 9:30 AM – 10:30 AM

**Session Chair:** Ahmed Mostefaoui

**Title:** Semantic Interoperability for Smart IoT

**Abstract:** With the advent of the Internet of Things (IoT), we are facing a proliferation of connected devices distributed over physical locations. The area is a domain that requires not only development of infrastructure but also deployment of new services capable of supporting multiple, scalable (cloud-based) and interoperable (multi-domain) applications. In the race of designing IoT as part of the Future Internet architecture, academia and Information and Communication Technology (ICT) industry communities have realized that a common IoT problem to be tackled is the interoperability of the information and services. In this talk a review of the recent trends and challenges on interoperability, and a discussion on how semantic technologies and information models can support data interoperability in the design of the Future Internet, taking the IoT and Cloud Computing as reference examples of application domains.

This talk will also describe on-going research led by the author at LAAS related to the challenge of semantic interoperability for IoT.

**Biography:** Dr Saïd Tazi is Senior Researcher at LAAS-CNRS and Associate Professor at University of Toulouse Capitole. He obtained his PhD doctorate from Paul Sabatier University in 1985. He conducted research on Human Computer Interaction and Artificial Intelligence at LIHS laboratory from 1985 to 2003. He participated to the foundation of the ACM SIG-CHI Local Chapter of Toulouse and chaired it from 1998 to 2000. He joined the LAAS-CNRS laboratory in 2003.

The main topics of his current research activities include:

- Autonomic Computing adapted to IoT and Cloud computing.
- Semantic and context driven adaptation.
- Semantic interoperability of connected objects.
- Negotiation of services and resources in the cloud.

He has been invited to several Universities e.g. Santa Catarina University, Florianópolis, Brazil in 2005; University of Western Ontario, London, Canada, in September 2012 and Northeastern University, Boston MA in 2016.

He served as Chair of IEEE-ICHSL in 2008. He was co-chair of MADYNE Track within the IEEE WITICE Conference from 2012 to 2016. He is co-Chair of the track Advances in Web Technologies, Semantics and Future Internet (FI), in the framework of IEEE AICCSA, 2017 and he is co-chair of the ISCIA (Intelligent Systems for Cloud and Smart IoT Applications) Track in the framework of IEEE Ficloud conference, 2017.

He published more than 100 articles in referenced Journals, International Conferences or book chapters. He served as member of many International and national Program Committees and served as guest editor or as a member of the editorial boards of several journals.

He proposed, led and initiated several French, European and International research projects. He is the scientific responsible of the IDEX project Attractivity Chair 2014-2019 about “Adaptation, Negotiation and Checkpointing for Cloud Computing”.

### Session 3 (Room G 3.7) 11:00 AM – 1:00 PM

**Session Chair:** Georges Badr

**Paper 1:** Fully Enhanced Homomorphic Encryption Algorithm of PORE Approach for Real World Applications

*Khalil Hariss, Hassan Noura and Abed Ellatif Samhat*

**Paper 2:** Security Threats and Attacks on Tor

*Maria Khan and Ramzi Haraty*

**Paper 3:** A study to Integrate VANET and GIS for Civil Defense Services in Urban areas

*Hanaa Basheer, Zaid Makki, Kifah Tout and Carole Bassil*

**Paper 4:** MUSE prototype for Music Sentiment Expression

*Ralph Abboud and Joe Tekli*

### Tutorial Session 2 (Room G 2.7) 11:00 AM – 1:00 PM

**Session Chair:** Rémi Sarkis



**Speakers:**

Cynthia Hamouche, Head of Software development

Ahmad Kobeissy, Software Engineer

Eliane Chkayra, Software Engineer

**Title:** From theory to practice with Oracle ADF

Acteos is a French ISV (Independent software Vendor) in the field of supply chain management. Founded in 1986 and listed at the Paris Stock Exchange Euronext, Acteos is located in France (Headquarters in Roubaix), Germany (Gilching) and Lebanon (Beirut). Acteos offers logistics flow optimization solutions built on interactivity and real time. Designer, publisher and software integrator in Supply Chain Management, Acteos synchronizes and optimizes the flow and processes throughout the supply chain: storage, transportation, resources, tracking, forecasting and supply. More than 400 customers around the

world have already trusted ACTEOS concepts, solutions and technologies to reach their SCM goals and increase competitiveness.

*Maximum number of attendees: 60*

#### **Keynote Lecture 4: Prof. Lionel Brunie (Room G 3.7) 2:00 AM – 3:00 PM**

**Session Chair:** Richard Chbeir

#### **Session 4 (Room G 3.7) 3:15 PM - 5:00 PM**

**Session Chair:** Joe Tekli

**Presentation 1:** Data acquisition, treatment and fusion using wireless body sensor networks within smart homes/cities

*Carol Habib*

**Presentation 2:** Similarity Based Image Selection with Frame Rate Adaptation and Local Event Detection in Wireless Video Sensor Networks

*Christian Salim*

**Presentation 3:** Safe Disassociation of Set-Valued Datasets

*Nancy Awad*

**Presentation 4:** Differential Private Image Classification

*Elie Chicha*

**Presentation 5:** Fall Detection Algorithm using Single Axis Acceleration and Angular Velocity

*Daniel Badran*

#### **Tutorial Session 3 (Room G 2.7) 3:15 PM - 5:00 PM**

**Session Chair:** Toni Makdissy



#### **Speakers:**

Tony Feghaly, Managing Partner

Ralph Boustany, Information Security Consultant

**Title:** Using Block Chain to secure SDN

**Abstract:** As SDN (Software Defined Networks) abstracted classic network devices, its centralized dynamic approach brought the same versatility as VMs back in the days, but this came with a price.

The traditional decentralized network, even with redundant configurations and limited manageability, made it harder for attackers to target its segregated assets. However with SDN, the attack vectors are lethal, since all controls are embedded within a highly privileged application that commands its subordinate devices. With the blockchain hype rising, its decentralized or even distributed nature can provide the needed security and asset integrity: Profiting from the centralized network agility, while protecting it with the distributed blockchain robustness.

Potech Consulting provides world class and professional IT services. Our consultants are not only well recognized experts in the IT field but also capable to understand the business needs thus aligning the Business Strategy with the IT strategy. Today's IT projects bring about more than just functional challenges. Issues such as security, scalability, redundancy, information architecture and speed of performance are just a few of the criteria that must be evaluated in the early stages of planning an information technology project. Our experienced team of IT consultants can handle projects large and small, from needs assessment through to implementation. In order to serve its customers efficiently Potech Consulting offers the following services: Cyber Security services, Business Resiliency services, Outsourcing Training, Information Security Audits, and Information Technology Audits.

*Maximum number of attendees: 30*

#### **Poster Session (Cafeteria Hall) 5:00 PM – 6:00 PM**

**Session Chair:** Kabalan Chaccour

#### **Closing Session (Room G.3.7) 6:00 PM – 6:15 PM**