



The 12th International Conference on **SIGNAL IMAGE TECHNOLOGY & INTERNET BASED SYSTEMS**

November 28 - December 1, 2016
Naples, Italy











www.sitis-conf.org

SIVT I-WECA SLNA MIRA IWAIP BigCVEn COMI
CITIMA HTBA IeLT KARE NAMDAC QUAMUS
SLNA VICTA HTBA IeLT KARE NAMDAC KARE
SIVT I-WECA SLNA MIRA IWAIP BigCVEn COMI
SIVT I-WECA SLNA MIRA IWAIP BigCVEn COMI
CITIMA HTBA IeLT KARE NAMDAC QUAMUS
SLNA VICTA HTBA IeLT KARE NAMDAC KARE
SIVT I-WECA SLNA MIRA IWAIP BigCVEn COMI
SIVT I-WECA SLNA MIRA IWAIP BigCVEn COMI
CITIMA HTBA IeLT KARE NAMDAC QUAMUS
CITIMA HTBA IeLT KARE NAMDAC QUAMUS

SITIS 2016



	<p><i>Université de Bourgogne Dijon, France</i></p>
	<p><i>Centre National de la Recherche Scientifique France</i></p>
	<p><i>Institute of High Performance Computing and Networking, National Research Council Italy</i></p>
	<p><i>University of Naples "Federico II" Italy</i></p>
	<p><i>Università degli Studi di Milano Italy</i></p>
	<p><i>Laboratoire LE2I UMR CNRS France</i></p>
	<p><i>SIGSMM Special Interest Group on Semantic Multimedia Management</i></p>
	<p><i>French Chapter of the Special Interest Group on Applied Computing</i></p>

SITIS 2016

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SITIS 2016
The 12th International Conference on
Signal Image Technology & Internet Based Systems

November 28 – December 1, 2016
Partenope Conference Centre
Naples, Italy

Foreword

The 12th International Conference on Signal-Image Technology & Internet-based Systems (SITIS'16) includes four main tracks SIVT, I-WeCA, MIRA and SLNA. The track on "Signal Image & Vision Technology" (SIVT) is aimed at recent developments in digital signal processing, evolutions in audiovisual signal processing, analysis, coding and authentication, and retrieval techniques. The track "Intelligent Web Computing and Application" (I-WeCA) focuses on issues ranging from information modeling and retrieval techniques to novel concepts, architectures and methodologies for interconnecting information systems. The track titled "Multimedia Information Retrieval and Application" (MIRA) is focused on emerging modeling, representation and retrieval techniques that take into account the amount, type and diversity of multimedia information accessible in distributed computing environment. Finally, the focus of the "Social Networks, Large Networks and their Applications" (SLNA) track is on emerging and novel concepts, architectures and methodologies for social networks analysis, tools and applications, including issues related to complex graphs, semantics, big data, and security.

In addition to the main tracks, the SITIS conference this year hosts 11 workshops, covering a wide range of related topics. These workshops are on

- Visions on Internet of Cultural Things and Applications (VICTA)
- Artificial Intelligent Approaches for Image Processing (IWAIP)
- Numerical Algorithms and Methods for Data Analysis and Classification (NAMDAC)
- Human Tracking and Behavior Analysis (HTBA)
- Knowledge Acquisition, Reuse and Evaluation (KARE)
- Computational Intelligence Techniques for Industrial and Medical Applications (CITIMA)
- Big Data meets Cloud and Virtualized Environment (BigCvEn)

- Innovative eLearning Technologies (IeLT)
- Quality of Multimedia Services (QUAMUS)
- Color and Multispectral Imaging (COMI)
- Security Assurance in the Cloud (IWSAC)

About 220 original submissions were received from around the world. 115 papers are selected for presentation and publication in the conference proceedings. A peer review process was carried out by each track and workshop. Each paper received 2 or 3 reviews, several received up to 5 reviews. Each paper is evaluated based on relevance to track or workshop topics, scientific correctness and clarity of presentation.

The success of the conference owes to the dedication of many. They have contributed in many different ways to the selection of a fine scientific program and exciting social events. First, we acknowledge the commitment and hard work of the track and workshop chairs who have kept the scientific program in focus and made the discussions interesting and invaluable. We recognize the commitment and contributions of the program committee members and the extra reviewers for evaluating the papers on a very tight time schedule. We could not have done it without them.

Our heartfelt gratitude goes to our academic sponsor institutions for their cooperation, support and assistance: University of Bourgogne, Institute of High Performance Computing and Networking of the National Research Council of Italy, University of Naples “Federico II”, University of Milan, “LE2I (Laboratoire Electronique, Image et Informatique)” research group at the University of Bourgogne. More importantly, we thank the authors for submitting and trusting their work to the conference.

We thank the Conference Honorary Chair, Professor Gaetano Manfredi, Rector of the University of Naples “Federico II”. Our kudos to Giuseppe De Pietro, the Conference General Chair, for his invaluable support and tireless dedication. Last, we thank all the members of the local organizing committee. A special thank you goes to Francesco Schisano, Enza Di Vuolo and the staff at YesMeet agency.

We hope the scientific program of SITIS 2016 lives up to your expectations. We hope you will find time to enjoy the “scientific discussions” and all the beautiful sights and events that the city of Naples can offer. We wish you well.

The Organizing Committee:

*Kokou Yetongnon, Albert Dipanda, Richard Chbeir
Giuseppe De Pietro, Luigi Gallo*

Keynote Talks

Keynote1

Computational Intelligence for Signal and Image Processing in Industrial and Environmental Applications

Vincenzo Piuri, Università degli Studi di Milano, Italy

Abstract

Adaptability and advanced services for industrial manufacturing require an intelligent technological support for understanding the production process characteristics also in complex situations. Quality control is specifically one of the activities in manufacturing which is very critical for ensuring high-quality products and competitiveness on the market. Similarly, environmental monitoring increasingly needs adaptive approaches to deal with variability and evolvability of the environmental phenomena. Earth observation and pollution monitoring are very demanding in this perspective.

Computational intelligence can provide additional flexible techniques for designing and implementing monitoring and control systems, which can be configured from behavioral examples or by mimicking approximate reasoning processes to achieve adaptable systems. This talk will analyze the opportunities offered by computational intelligence technologies to support signal and image processing for adaptable operations and intelligent services both in industrial applications, specifically focusing on manufacturing processes and quality control, and in environmental monitoring, focusing on Earth observation and pollution monitoring.

Biography



Vincenzo Piuri has received his Ph.D. in computer engineering at Politecnico di Milano, Italy (1989). He is Full Professor in computer engineering at the Università degli Studi di Milano, Italy (since 2000). He has been Associate Professor at Politecnico di Milano, Italy and Visiting Professor at the University of Texas at Austin and at George Mason University, USA.

His main research interests are: computational intelligence, signal and image processing, intelligent systems, machine learning, pattern analysis and recognition, theory and industrial applications of neural networks, intelligent measurement systems, industrial applications, biometrics, fault tolerance, digital processing architectures, and cloud computing infrastructures. Original results have been published in more than 350 papers in international journals, proceedings of international conferences, books, and book chapters.

He is Fellow of the IEEE, Distinguished Scientist of ACM, and Senior Member of INNS. He is IEEE Past Vice President for Technical Activities (2016) and has been IEEE Vice President for Technical Activities, IEEE Director, President of the IEEE Computational Intelligence Society, Vice President for Education of the IEEE Biometrics Council, Vice President for Publications of the IEEE Instrumentation and Measurement Society and the IEEE Systems Council, and Vice President for Membership of the IEEE Computational Intelligence Society. He is Editor-in-Chief of the IEEE Systems Journal (2013-17), and has been Associate Editor of the IEEE Transactions on Neural Networks and the IEEE Transactions on Instrumentation and Measurement.

He received the IEEE Instrumentation and Measurement Society Technical Award (2002) for the contributions to the advancement of theory and practice of computational intelligence in measurement systems and industrial applications. He is Honorary Professor at the Obuda University, Budapest, Hungary (since 2014), Guest Professor at Guangdong University of Petrochemical Technology, China (since 2014), and Guest Professor at the Muroran Institute of Technology, Japan (since 2016).

More information are available at <http://www.di.unimi.it/piuri>

Keynote2

Deterministic and Bayesian Sparsity enforcing models in signal and image processing

Ali Mohammad-Djafari, Centrale-Supélec, France

Abstract

In this talk, first examples of sparse signals and images are presented. Then, different deterministic ways of modeling and sparse representation methods and algorithms (MP, OMP, LASSO, IHT, ADMM ...) are summarized. The Bayesian Maximum A Posteriori (MAP) approach and its link with regularization is mentioned. The prior models which enforce sparsity are classified in four main classes:

- Heavy tailed: Double Exponential, Generalized Gaussian, Student-t, Cauchy;
- Mixture models: Finite mixture of Gaussians,
- Infinite Scaled Gaussian mixture model and its relation to Student-t and their equivalent hierarchical models with hidden variables;
- General Gauss-Markov-Potts models.

Using these priors in a Bayesian approach needs appropriate Computational tools which are summarized as: Joint Maximum A Posteriori (JMAP), MCMC and Variational Bayesian Approximation (VBA). Finally, the applications of these prior models in Inverse Problems such as X ray Computed Tomography and Microwave inverse scattering imaging systems are presented.

Biography



Ali Mohammad-Djafari received the B.Sc. degree in electrical engineering from Polytechnic of Teheran, in 1975, the diploma degree (M.Sc.) from Ecole Supérieure d'Electricité (SUPELEC), Gif sur Yvette, France, in 1977, the "Docteur-Ingénieur" (Ph.D.) degree and "Doctorat d'Etat" in Physics, from the University of Paris Sud 11 (UPS), Orsay, France, respectively in 1981 and 1987. He was Assistant Professor at UPS for two years (1981-1983). Since 1984, he has a permanent position at "Centre national de la recherche scientifique (CNRS)" and works at "Laboratoire des signaux et systèmes (L2S)" at Centrale-Supélec. He was a visiting Associate Professor at University of Notre Dame, Indiana, USA during 1997-1998. From 1998 to 2002, he has been at the head of Signal and Image Processing division at this laboratory.

Presently, he is "Directeur de recherche" and his main scientific interests are in developing new probabilistic methods based on Bayesian inference, Information Theory and Maximum Entropy approaches for Inverse Problems in general in all aspects of data processing, and more specifically in imaging and vision systems: image reconstruction, signal and image deconvolution, blind source separation, sources localization, data fusion, multi and hyper spectral image segmentation. The main application domains of his interests are Medical imaging, Computed Tomography (X rays, PET, SPECT, MRI, microwave, ultrasound and eddy current imaging) either for medical imaging or for Non Destructive Testing (NDT) in industry, multivariate and multi-dimensional data, space-time signal and image processing, data mining, clustering, classification and machine learning methods for biological or medical applications.

He has supervised more than 20 Ph.D. Thesis, more than 20 Post-doc research activities and more than 50 M.Sc. Student research projects. He has more than 60 full journal papers and more than 300 papers in national and international conferences. He has organized or co-organized more than 10 international workshops and conferences. He has been expert for a great number of French national and international projects. Since 1988 he has many teaching activities in M.Sc. and Ph.D. Level in SUPELEC, University of Paris sud, ENSTA and Ecole centrale de Paris.

Conference events

Monday November 28, 2016

Opening ceremony (14:00 – 14:30)

Welcome reception (18:30)

Tuesday November 29, 2016

Keynote 1 (09:00 – 10:00)

Lunch (12:30 – 14:00)

Banquet (20:30 – 23:00)

Wednesday November 30, 2016

Keynote 2 (09:00 – 10:00)

Lunch (12:30 – 14:00)



Monday November 28, 2016

14:00 – 18:30

14:00 – 14:30 Opening Ceremony

16:00 – 16:30 Coffee break

Room: Aula magna
14:00 – 14:30 Opening Ceremony
18:30 Welcome Reception

Room
Session

Monday November 28, 2016 --- 14:30-16:00

Aula Magna
SIVT-S1

Track on Signal Image and Vision Technology (SIVT)

SIVT-S1: Segmentation

Chair: Neeta Nain, Malavuya National Institute of Technology, India

85 A Semi-Automated Segmentation Framework for MRI Based Brain Tumor Segmentation Using Regularized Nonnegative Matrix Factorization

Nicolas Sauwen, Diana M. Sima, Marjan Acou, Eric Achten, Frederik Maes, Uwe Himmelreich, Sabine Van Huffel

57 Fast Fully Automatic Segmentation of the Severely Abnormal Human Right Ventricle from Cardiovascular Magnetic Resonance Images Using a Multi-Scale 3D Convolutional Neural Network

Archontis Giannakidis, Konstantinos Kamnitsas, Veronica Spadotto, Jennifer Keegan, Gillian Smith, Ben Glocker, Daniel Rueckert, Sabine Ernst, Michael A. Gatzoulis, Dudley J. Pennell, Sonya Babu-Narayan, David N. Firmin

162 Analyzing Surface Defects in Apples Using Gabor Features

Puneet Jolly, Sundaresan Raman

54 An Efficient Classification Method for Knee MR Image Segmentation

Yukiko Yamamoto, Setsuo Tsuruta, Syoji Kobashi, Yoshitaka Sakurai, Rainer Knauf

135 Image Segmentation of Pastel Drawings

Satoshi Maeda, Yuma Hijioka, Tadahiko Kimoto, Chieko Kato

Track on Multimedia Information Retrieval and Application

MIRA-S1: Multimedia processing using machine learning

Chair: Andrea Kutics, International Christian University, Japan

13 Short-Term Recognition of Human Activities Using Convolutional Neural Networks

Michalis Papakostas, Theodoros Giannakopoulos, Fillia Makedon, Vangelis Karkaletsis

31 SentiWordNet for New Language: Automatic Translation Approach

Alaettin Ucan, Behzad Naderalvjojd, Ebru Akcapinar Sezer, Hayri Sever

80 An Enhanced Video Super Resolution System Using Group-Based Optimized Filter-Set with Shallow Convolutional Neural Network

Sangchul Kim, Jongho Nang

138 Selfie Detection by Synergy-Constraint Based Convolutional Neural Network

Yashas Annadani, Vijayakrishna Naganoor, Akshay Kumar Jagadish, Krishnan Chemmangat

Sala A
MIRA-S1

Sala B
SLNA-S1

Track on Social, Large Networks, and Applications

SLNA-S1 Track on Social, Large Networks, and Applications

Chairs: Ana Roxin, University of Bourgogne, France

Alessandro Provetti, MIFT Dept., University of Messina, Italy

32 CRYPTANITE: A New Look to the World of Social Networks Using Deep Learning

Vinayshekar Bannihatti Kumar, Tanisha Rajesh Baadkar, Vinay Joshi

35 Consensus as a Nash Equilibrium of a Dynamic Game

Muhammad Umar B. Niazi, Arif Bülent Özgüler, Aykut Yildiz

55 Tags and Information Recollection

Max Chevalier, Josiane Mothe, Patrice Terrier

106 Onto2MAS: An Ontology-Based Framework for Automatic Multi-Agent System Generation

Corentin Donzelli, Solomon Asres Kidanu, Richard Chbeir, Yudit Cardinale

172 Preventing Disclosure of Personal Data in IoT Networks

Ilaria Torre, Giovanni Adorni, Frosina Kocova, Odnan Sanchez

198 A Modular Rule-Based Visual Interactive Creation of Tree-Shaped Geo-Located Networks

Felix Brodtkorb, Manuel Kopp, Arjan Kuijper, Tatiana Von Landesberger

201 Semantic and Visual Cues for Humanitarian Computing of Natural Disaster Damage Images

Hadi S. Jomaa, Yara Rizk, Mariette Awad

Room
Session

Monday November 28, 2016 --- 16:30-18:30

Aula Magna
SIVT-S2

Track on Signal Image and Vision Technology (SIVT)

SIVT-S2: Video and Image Processing

Chair: Neeta Nain, Malavuya National Institute of Technology, India

110 Highly Abstracted Video Processing Language Meets Multi-Grain Auto-Parallelization

Kazuki Furuhashi, Kensuke Noda, Kazuma Ono, Tomoaki Tsumura

104 Equal Partition Based Clustering Approach for Event Summarization in Videos

Krishan Kumar, Deepti D. Shrimankar, Navjot Singh

3 A Hierarchical Scale-and-Stretch Approach for Image Retargeting

Stavros Papadopoulos, Anastasios Drosou, Dimitrios Tzavaras

28 Action Recognition for Videos by Long-Term Point Trajectory Analysis with Background Removal

Yu Xiang, Yoshihiro Okada, Kosuke Kaneko

119 Sparse Multi-Model Based Denoising

Rajesh Bhatt, Venkatesh K. Subramanian

Track on Intelligent Web Computing and Applications (I-WeCA)

I-WeCA-S1: Data semantics and web-centric systems

Workshop on BIG data meets Cloud and Virtualized ENvironments

Chair: Ana Roxin, University of Bourgogne, France

21 Selecting Feature-Words in Tag Sense Disambiguation Based on Their Shapley Value

Meshesha Legesse, Gabriele Gianini, Dereje Teferi

164 Labeling Agreement Level and Classification Accuracy

Amal Abdullah Al Mansour

170 A Method to Validate the Insertion of a New Concept in an Ontology

Aly Ngoné Ngom, Papa Fary Diallo, Fatou Kamara-Sangare, Moussa Lo

193 Characterizing Non-Defeated Repairs in Inconsistent Lightweight Ontologies

Salem Benferhat, Zied Bouraoui, Huma Chadhry, Mohd Shafry Bin Mohd Rahim Fc, Karim Tabia, Abdelmoutia Telli

49 Analysis of Desktop Search and Ranking of Their Results Based on Semantics from User Feedback

Mehul Smriti Raje

Sala A
I-WeCA-S1
BigCVEN

132 Efficient Supply Chain Management: Traceability and Transparency

Gianfranco Cerullo, Guido Guizzi, Carmine Massei, Luigi Sgaglione

173 Security Issues in Cloud Computing and Associated Alleviation Approaches

Hamza Hammami, Hanen Brahmi, Imen Brahmi, Sadok Ben Yahia

214 SLA Negotiation and Monitoring from Simulation Data

Kouessi Arafat Romaric Sagbo, Yénukunmè Pélagie Elyse Houngué, Ernesto Damiani

NAMDAC-S1: Workshop on Numerical Algorithms and Methods for Data Analysis and Classification 1

Chair: Livia Marcellino, University of Naples Parthenope, Naples, Italy

95 A Deep Learning Model for Epigenomic Studies

Giosué Lo_Bosco, Riccardo Rizzo, Antonino Fiannaca, Massimo La_Rosa, Alfonso Urso

116 Some Numerical Remarks on a Meshless Approximation Method

Elisa Francomano, Giorgio Micale, Marta Paliaga, Guido Ala

117 A GPU-Accelerated SVD Algorithm, Based on QR Factorization and Givens Rotations, for DWI Denoising

Livia Marcellino, Guglielmo Navarra

141 On the Construction of a Second Order Gaussian Recursive Filter

Ardelio Galletti, Giulio Giunta

156 Numerical Stability Analysis of the Centered Log-Ratio Transformation

Ardelio Galletti, Antonio Maratea

Sala B

NAMDAC-S1

Tuesday November 29, 2016

08:45 – 12:30

09:00 – 10:00 Keynote

10:00 – 10:30 Coffee break

12:30 – 14:00 Lunch Break

Room: Aula Magna

9:00 -10:00 Keynote 1

Machine Learning and Particle Swarm Optimization

Tools for Searching in Big Databases

Vincenzo Piuri, Università degli Studi di Milano, Italy

Chairs: Luigi Gallo and Giuseppe De Pietro

National Research Council, Italy

**Room
Session**

Tuesday November 29, 2016 --- 10:30-12:30

**Aula Magna
SIVT-S3**

Track on Signal Image and Vision Technology (SIVT)

SIVT-S3: Biometrics

Chair: Luigi Gallo, National Research Council, Italy

165 Biometric Spoofing Detection by a Domain-Aware Convolutional Neural Network

Diego Gragnaniello, Carlo Sansone, Giovanni Poggi, Luisa Verdoliva

96 Presentation Attack Detection in Face Biometric Systems Using Raw Sensor Data from Smartphones

Pankaj Wasnik, Kiran B. Raja, R. Raghavendra, Christoph Busch

121 Biometric/Cryptographic Keys Binding Based on Function Minimization

Daniel Riccio, Clemente Galdi, Rita Manzo

167 Scale Invariant Descriptor for Content Based Image Retrieval in Biomedical Applications

Nadia Brancati, Diego Gragnaniello, Luisa Verdoliva

14 Eye Shape and Corners Detection in Periocular Images Using Particle Filters

Diana Borza, Radu Danescu

150 Person Identification on the Basis of Footprint Geometry

Riti Kushwaha, Neeta Nain, Sandeep Kumar Gupta

Track on Multimedia Information Retrieval and Application

MIRA-S2: Multimedia retrieval and social networks

Workshop on Quality of Multimedia Services

Chair: Andrea Kutics, International Christian University, Japan

63 Extensible Architecture for Multimodal Information Retrieval in Medical Imaging Archives

Eduardo Pinho, Carlos Costa

128 TV News Retrieval Based on Story Segmentation and Concept Association

Ruxandra Tapu, Bogdan Mocanu, Titus Zaharia

153 Modeling User-Content Interaction in Multimedia Social Networks Using Hypergraphs

Amato Flora, Moscato Vincenzo, Picariello Antonio, Sperli Giancarlo

183 Contourlet versus Gabor Transform for Texture Feature Extraction and Image Retrieval

Asal Rouhafzay, Nadia Baaziz, Momar Diop

97 The Effect of Light Field Reconstruction and Angular Resolution Reduction on the Quality of Experience

Peter A. Kara, Peter T. Kovacs, Suren Vagharshakyan, Maria G. Martini,

Attila Barsi, Tibor Balogh, Aleksandra Chuchvara, Ahmed Chehaibi

98 Times Change, Stalling Stays: Subjective Quality Assessment over Time of Stalling in Autostereoscopic 3D Video Services

Peter A. Kara, Maria G. Martini, Chaminda T.E.R. Hewage, Fatima M. Felisberti

174 A Curvature Based Method for Blind Mesh Visual Quality Assessment Using a General Regression Neural Network

Ilyass Abouelaziz, Mohammed El_Hassouni, Hocine Cherifi

IWAIP-S1: Workshop on Artificial Intelligent Approaches for Image Processing 1

Chair: Rachada Kongkachandra, Thammasat University, Thailand

94 Fast Range Image Registration by an Asynchronous Adaptive Distributed Differential Evolution.

Ivanoe De_Falco, Antonio Della_Cioppa, Umberto Scafuri, Ernesto Tarantino

186 Spectral Entropy in Speech for Classification of Depressed Speakers.

Thaweesak Yingthawornsuk

50 The Forensic Algorithm on Facebook Using Natural Language Processing.

Mahasak Ketcham, Thittaporn Ganokratanaa, Sasiprapa Bansin

89 Random Forest for Salary Prediction System to Improve Students' Motivation.

Pornthep Khongchai, Pokpong Songmuang

72 Recognition of Lottery Digits Using OCR Technology

Sakchai Tangwannawit, Wanida Saetang

100 Automated Test Assembly with Minimum Redundant Questions Based on Bee Algorithm.

Vorapon Luantangsrisk, Pokpong Songmuang, Rachada Kongkachandra

*Sala A
MIRA-S2
QUAMUS*

*Sala B
IWAIP-S1*

14:00 – 18:30

16:00 – 16:30 Coffee Break

Room
Session

Tuesday November 29, 2016 --- 14:00-16:00

Aula Magna
SIVT-S4

Track on Signal Image and Vision Technology (SIVT)

SIVT-S4: Face Recognition

Chair: Albert Dipanda, University of Bourgogne, France

71 Mutual Information Based Multispectral Image Fusion for Improved Face Recognition

R. Raghavendra, Sushma Venkatesh, Kiran B. Raja, Faouzi Alaya Cheikh, Christoph Busch

204 Performance Review of a Multi-Layer Feed-Forward Neural Network and Normalized Cross Correlation for Facial Expression Identification

Latifa Greche, Najia Es-Sbai, Egons Lavendelis

77 A Face Recognition Approach Based on Nearest Neighbor Interpolation and Local Binary Pattern

Josky Aïzan, Eugene C. Ezin, Cina Motamed

180 Face Recognition Using Multiple Histogram Features in Spatial and Frequency Domains

Qiu Chen, Koji Kotani, Feifei Lee

86 A Robust Multi-Model Approach for Face Detection in Crowd

Sonu Lamba, Neeta Nain, Harendra Chahar

Sala B
KARE-S1

KARE-S1: Workshop on Knowledge Acquisition, Reuse and Evaluation1

Chair: Davy Monticolo, Davy Monticolo, University of Lorraine, France

24 Stratify Mobile App Reviews: E-LDA Model Based on Hot "Entity" Discovery

Yuangong Liu, Yanwei Li, Yanhui Guo, Miao Zhang

9 An Agent-Based Semantic Search Engine in Companies

Arda Icmek, Inaya Lahoud, Davy Monticolo

93 An Architectural Model for Extracting FHIR Resources from CDA Documents

Maria Mercorella, Mario Ciampi, Massimo Esposito, Angelo Esposito, Giuseppe De Pietro

134 Towards Using Cognitive Word Associates to Create Functional Remote Associates Test Problems

Ana-Maria Olteteanu

Room
Session

Tuesday November 29, 2016 --- 16:30-18:30

Aula Magna
I-WeCA-S2
IWSAC

Track on Intelligent Web Computing and Applications (I-WeCA)

I-WeCA-S2: IOT, services and cloud computing

Chair: Richard Chbeir, University of Pau, France

51 Querying Data Services in an Uncertain Environment: A Possibilistic-Based Approach

Asma Omri, Karim Benouaret, Mohamed Nazih Omri, Djamel Benslimane

199 Grid's Acquaintance-Based Multiagent Model of Distributed Meta-Scheduling

Vivient Corneille Kamla, Jean Etienne Ndamlabin Mboula, Jérémie

Serge Wouansi Towo, Clémentin Tayou Djamegni

155 Simulation-Based Vehicular Traffic Lights Optimization

Dancho Panovski, Titus Zaharia

53 Goal Aware Context Respectful Counseling Agent

*Tetsuo Shinozaki, Yukiko Yamamoto, Setsuo Tsuruta, Yoshitaka Sakurai,
Ernesto Damiani, Rainer Knauf*

**CITIMA-S1: Workshop on Computational Intelligence Techniques
for Industrial and Medical Applications**

Chair: Valerio Bellandi, Università degli Studi di Milano, Italy

**41 Research on Syndrome Classification Prediction Model of
Tibetan Medicine Diagnosis and Treatment Based on Data Mining**

*Wang Shiyang, Zhang Lei, Wang Lu, Cairang Nanjia, Zhu Xiaolan, Li
Hong, Wang Xiaoying*

**111 A PPG Signal De-Noising Method Based on the DTCWT and the
Morphological Filtering**

*Tong Bai, Dan Li, Huiqian Wang, Yu Pang, Guoquan Li, Jinzhao Lin,
Qianneng Zhou, Gwanggil Jeon*

**159 A First Look at an Automated Pipeline for NGS-Based Breast-
Cancer Diagnosis: The CARDIGAN Approach**

*Giuseppe Aceto, Antonio Montieri, Valerio Persico, Antonio Pescapé,
Valeria D'Argenio, Francesco Salvatore, Lucio Pastore*

203 Channel Refined Directional Color Filter Array Interpolation

Yiwei Wang, Xinyi Peng, Sichen Zhou, Xiangdong Chen

205 ECG Reduction for Wearable Sensor

*Ragheed Allami, Andrew Stranieri, Venki Balasubramanian, Herbert F.
Jelinek*

**NAMDAC-S2: Workshop on Numerical Algorithms and Methods
for Data Analysis and Classification 2**

Chair: Ardelio Galletti, University of Naples Parthenope, Naples, Italy

**169 WaComM: A Parallel Water Quality Community Model for
Pollutant Transport and Dispersion Operational Predictions**

*Raffaele Montella, Diana Di_Luccio, Pasquale Troiano, Angelo Riccio,
Alison Brizius, Ian Foster*

**188 An Incremental Two-Dimensional Principal Component
Analysis for Image Compression and Recognition**

Haiifa Nakouri, Mohamed Limam

212 Group Formation with Incomplete Profiles

Zied Ben Othmane, Allet Hadj Ali

215 Numerical Remarks on the Estimation of the Option Price

*Salvatore Cuomo, Rosanna Campagna, Vittorio Di_Somma, Gerardo
Severino*

Sala A

CITIMA-S1

Sala B

NAMDAC-S2

Wednesday November 30, 2016

8:45 – 12:30

09:00 – 10:00 Keynote

10:00 – 10:30 Coffee break

12:30 – 14:00 Lunch Break

Room: Aula Magna

9:00 -10:00 Keynote 2

***Deterministic and Bayesian Sparsity enforcing models in signal and
image processing***

Ali Mohammad-Djafari, Centrale-Supélec, France

Chair: Albert Dipanda

University of Bourgogne, France

Aula Magna
SIVT-S5

Track on Signal Image and Vision Technology (SIVT)

SIVT-S5: Methods and Applications

Chair: Cyrille Migniot, University of Bourgogne, France

213 An Intelligent System to Classify Epileptic and Non-Epileptic EEG Signals

Emad-Ul-Haq Qazi, Muhammad Hussain, Hatim Aboalsamh, Wadood Abdul, Saeed Bamatraf, Ihsan Ullah

66 Longitudinal Neuroimaging Analysis Using Non-Negative Matrix Factorization

Claudio Stamile, François Cotton, Dominique Sappey-Mariniér, Sabine Van Huffel

115 Texture of Activities: Exploiting Local Binary Patterns for Accelerometer Data Analysis

Tunç Asuroglu, Koray Açici, Çagatay Berke Erdaş, Hasan Oğul

52 Enhanced IoT-Aware Online Shopping System

Y. Yamamoto, T. Kawabe, S. Tsuruta, Ernesto Damiani, Atsuo Yoshitaka, Yoshiyuki Mizuno, Yoshitaka Sakurai, Rainer Knauf

103 A Computer-Aided System for Differential Count from Peripheral Blood Cell Images

Andrea Loddo, Lorenzo Putzu, Cecilia Di Ruberto, Gianni Fenu

Sala A
KARE-S2

KARE-S2: Workshop on Knowledge Acquisition, Reuse and Evaluation 2

Chair: Davy Monticolo, Davy Monticolo, University of Lorraine, France

37 Ontology Based System to Guide Internship Assignment

Process. Abir M'Baya, Jannik Laval, Nejib Moalla, Yacine Ouzrout, Abdelaziz Bouras

140 Ontology to Represent the Knowledge Domain of a Creative Workshop.

A. Gabriel, D. Monticolo, M. Camargo, M. Bourgault

99 Towards a Framework for Closed-Domain Question Answering in Italian.

Emanuele Damiano, Raffaele Spinelli, Massimo Esposito, Giuseppe De Pietro

Sala B
IWAIP-S2

IWAIP-S2: Workshop on Artificial Intelligent Approaches for Image Processing 2

Chair: Pokpong Songmuang, Thammasat University Pathumthani, Thailand

137 The Study Analysis Knee Angle of Color Set Detection Using Image Processing Technique

Patiyuth Pramkeaw

151 Image Problem Classification for Dashboard Cameras

Narit Hnoohom, Thanchanok Thanapattarakul

59 Algorithm Design in Leaf Surface Separation by Degree in HSV Color Model and Estimation of Leaf Area by Linear Regression

Narumol Chumuang, Sattarpoom Thaiparnit, Mahasak Ketcham

190 The System Vehicle of Application Detector for Categorize Type

Siriruang Patchuay, Worawut Yimyam

147 Integration of Watermarking and QR Code for Authentication of Data Center

Patiyuth Pramkeaw, Thittaporn Ganokratanaa, Siriruang Patchuay

144 Driver Drowsiness Detection Using Eye-Closeness Detection

Oraan Khunpisuth, Taweetchai Chotchinasri, Varakorn Koschakosai, Narit Hnoohom

14:00 – 18:30

16:00 – 16:30 Coffee Break

Room
Session

Wednesday November 30, 2016 --- 14:00-16:00

Aula Magna
SIVT-S6

Track on Signal Image and Vision Technology (SIVT)

SIVT-S6: Learning

Chair: Gwanggil Jeon, Incheon National University, South Korea

79 Classification of Indoor Actions through Deep Neural Networks

Filippo Vella, Agnese Augello, Umberto Maniscalco, Vincenzo Bentivenga, Salvatore Gaglio

163 Implementation of a Coin Recognition System for Mobile Devices with Deep Learning

Nicola Capece, Ugo Erra, Antonio Vito Ciliberto

62 Applying Deep Learning in Augmented Reality Tracking

Omer Akgul, H. Ibrahim Penekli, Yakup Genc

73 Optic Disc Detection Using Fine Tuned Convolutional Neural Networks

Francesco Calimeri, Aldo Marzullo, Claudio Stamile, Giorgio Terracina

154 Automatic Digital Modulation Recognition Based on Novel Features and Support Vector Machine

Salman Hassanpour, Amir Mansour Pezeshk, Fereidoon Behnia

131 Emotion Identification from Spontaneous Communication

Fekade Getahun, Mikiyas Kebede

Sala A
VICTA-S1

VICTA-S1: Workshop on Visions on Internet of Cultural Things and Applications 1

Chair: Francesco Piccialli, University of Naples "Federico II", Italy

23 A Participatory Digital Platform for Cultural Heritage within Smart City Environments

Zois Koukopoulos, Dimitrios Koukopoulos

38 Emergent Ambient Culture in Smart Cities: Exploring the Internet of Cultural Things (IoCT) and Applications in 21st Century Urban Spaces

H. Patricia McKenna

83 An Interactive 3D Holographic Pyramid for Museum Exhibition

Fabrizia Bovier, Giuseppe Caggianese, Giuseppe De_Pietro, Luigi Gallo, Pietro Neroni

84 The Effect of the Internet of Things (IoT) on Education Business Model

Maryam Bagheri, Siavosh H. Movahed

92 An Analysis to Overcome Shortcomings to Improve the Accessibility for the Blind: A Case Study on Facebook's Homepage

Petra Gröber, Julia Köster

Sala B
HTBA-S1
HTBA-S2

HTBA-S1: Workshop on Human Tracking and Behaviour Analysis 1

Chair: Cyrille Migniot, University of Bourgogne, France

44 Conversational Group Detection Based on Social Context Using Graph Clustering Algorithm

Shoichi Inaba, Yoshimitsu Aoki

61 Tracking People in Dense Crowds Using Supervoxels

Shota Takayama, Teppei Suzuki, Yoshimitsu Aoki, Sho Isobe, Makoto Masuda

81 Action Recognition Online with Hierarchical Self-Organizing Maps

Zahra Gharaee, Peter Gärdenfors, Magnus Johnsson

91 An Approach for the Evaluation of Sleeping Behaviors Disorders in Patients with Cognitive Diseases: A Case Study

Antonio Coronato, Giovanni Paragliola

HTBA-S2: Workshop on Human Tracking and Behaviour Analysis 2

Chair: Cyrille Migniot, University of Bourgogne, France

109 Motion Analysis for Cooking Motion Recognition

Yuma Hijioka, Makoto Murakami, Tadahiko Kimoto

168 Automatic Analysis of Activities in Sports Arenas Using Thermal Cameras

Rikke Gade, Anders Jørgensen, Martin Møller Jensen, Thiemo Alldieck, Mohamed Abou-Zleikha, Mads Græsbøll Christensen, Thomas B. Moeslund, Mathias Krogh Poulsen, Ryan Godsk Larsen, Jesper Franch

191 3D Visual-Based Human Motion Descriptors: A Review

Margarita Khokhlova, Cyrille Migniot, Albert Dipanda

**Room
Session**

Wednesday November 30, 2016 --- 16:30-18:30

**Aula Magna
I-WeCA-S3
IeLT**

Track on Intelligent Web Computing and Applications (I-WeCA)

I-WeCA-S3: Information security and privacy

Workshop on Innovative eLearning Technologies

Chair: Ana Roxin, University of Bourgogne, France

197 MICIE: A Model for Identifying and Collecting Intrusion Evidences

Abdulghani Ali Ahmed, Yee Wai Kit

158 On the Use of Belief Functions to Improve High Performance Intrusion Detection System

Alem Abdelkader, Dahmani Youcef, Allel Hadjali

175 A Recommender System as a Support and Training Tool

Ilaria Torre, Simone Torsani

**Sala A
VICTA-S2**

VICTA-S2: Workshop on Visions on Internet of Cultural Things and Applications 2

Chair: Francesco Piccialli, University of Naples "Federico II", Italy

107 A Context-Aware Smart Parking System

Salvatore Biondi, Salvatore Monteleone, Giuseppe La_Torre, Vincenzo Catania

108 Artworks Sequences Recommendations for Groups in Museums

Silvia Rossi, Francesco Barile, Clemente Galdi, Luca Russo

118 New Technologies and Tools for Immersive and Engaging Visitor Experiences in Museums: The Evolution of the Visit-Actor in Next-Generation Storytelling, through Augmented and Virtual Reality, and Immersive 3D Projections

Davide Pantile, Roberto Frasca, Antonio Mazzeo, Matteo Ventrella, Giovanni Verreschi

122 An Ontology-Based Augmented Reality Application Exploring Contextual Data of Cultural Heritage Sites

Hayun Kim, Tamás Matuszka, Jea-In Kim, Jungwha Kim, Woontack Woo

Thursday, December 1, 2016

8:45 – 12:30

10:00 – 10:30 Coffee break

Room
Session

Thursday December 1-, 2016 --- 10:30-12:30

Aula Magna
SIVT-S7
COMI

Track on Signal Image and Vision Technology (SIVT)

SIVT-S7: Color and Multispectral Imaging

Chair: Albert Dipanda, University of Bourgogne, France

202 Affective Relationship between Color and Text in Arabic Comic Books

Hadi S. Jomaa, Mohamad Kamereddine, Ammar Nayal, Yara Rizk, Mariette Awad

1 A New Method for Color Quantization

Giuliana Ramella, Gabriella Sanniti Di Baja

189 A Comparative Study of Descriptors and Detectors in Multispectral Face Recognition

Mamadou Diarra, Gouton Pierre, Adou Kablan Jérôme

2 From Color Quantization to Image Segmentation

Giuliana Ramella, Gabriella Sanniti Di Baja

102 Multispectral Demosaicing Using Intensity in Edge-Sensing and Iterative Difference-Based Methods

Sofiane Mihoubi, Olivier Losson, Benjamin Mathon, Ludovic Macaire

Sala A
VICTA-S3

VICTA-S3: Workshop on Visions on Internet of Cultural Things and Applications 3

Chair: Luigi Gallo, National Research Council, Italy

127 PACT-ART: Enrichment, Data Mining, and Complex Event Processing in the Internet of Cultural Things

Raef Mousheimish, Yehia Taher, Karine Zeitouni, Michel Dubus

178 All-in-One Mobile Outdoor Augmented Reality Framework for Cultural Heritage Sites

Noh-Young Park, Eunseok Kim, Jongwon Lee, Woontack Woo

196 Design of Electronic Ticket System for Smart Tourism

Anouar Dalli, Seddik Bri

206 The Internet of Cultural Things: Towards a Smart Cultural Heritage

Angelo Chianese, Francesco Piccialli, Jay E. Jung

Wishing you well

2016 IEEE SITIS CONFERENCE SCHEDULE

	Monday 28/11/2016			Tuesday 29/11/2016			Wednesday 30/11/2016			Thursday 1/12/2016			
	Registration (12:00 - 18:00)			Registration (08:30 - 18:00)			Registration (08:30 - 18:00)			Registration (08:30 - 18:00)			
	Aula Magna	Sala A	Sala B	Aula Magna	Sala A	Sala B	Aula Magna	Sala A	Sala B	Aula Magna	Sala A		
09:00 - 09:30				Keynote 1 Prof. Vincenzo Piuri			Keynote 2 Prof. Ali Mohammad-Djafari						
09:30 - 10:00													
10:00 - 10:30				Coffee Break			Coffee Break					Coffee Break	
10:30 - 11:00				SIVT-S3	MIRA-S2	IWAIP-S1	SIVT-S5	KARE-S2	IWAIP-S2			SIVT-S7 COMI	VICTA-S3
11:00 - 11:30					QUAMUS								
11:30 - 12:00													
12:00 - 12:30													
12:30 - 13:00				Lunch Break			Lunch Break						
13:00 - 13:30													
13:30 - 14:00													
14:00 - 14:30	Opening Ceremony			SIVT-S4		KARE-S1	SIVT-S6	VICTA-S1 HTBA-S1 HTBA-S2					
14:30 - 15:00	SIVT-S1	MIRA-S1	SLNA-S1										
15:00 - 15:30													
15:30 - 16:00													
16:00 - 16:30	Coffee Break			Coffee Break			Coffee Break						
16:30 - 17:00	SIVT-S2	I-WeCA-S1	NAMDAC-S1	I-WeCA-S2	CITIMA-S1	NAMDAC-S2	I-WeCA-S3 leLT-S1	VICTA-S2					
17:00 - 17:30		BigCVEn											
17:30 - 18:00													
18:00 - 18:30													
Social Event	18:30 Welcome Reception			20:30 - 23:00 Conference Banquet									