DeLTA – 1st International Conference on Deep Learning Theory and Applications

SCOPE
Deep Learning and Big Data Analytics are two major topics of data science, nowadays. Big Data has become important in practice, as many organizations have been collecting massive amounts of data that can contain useful information for business analysis and decisions, impacting existing and future technology. A key benefit of Deep Learning is the ability to process these data and extract high-level complex abstractions as data representations, making it a valuable tool for Big Data Analytics where raw data is largely unlabeled.

Machine-learning and artificial intelligence are pervasive in most real-world applications scenarios such as computer vision, information retrieval and summarization from structured and unstructured multimodal data sources, natural language understanding and translation, and many other application domains. Deep learning approaches, leveraging on big data, are outperforming state-of-the-art more "classical" supervised and unsupervised approaches, directly learning relevant features and data representations without requiring explicit domain knowledge or human feature engineering. These approaches are currently highly important in IoT applications.

CONFERENCE AREAS
Each of these topic areas is expanded below but the sub-topics list is not exhaustive. Papers may address one or more of the listed sub-topics, although authors should not feel limited by them. Unlisted but related sub-topics are also acceptable, provided they fit in one of the following main topic areas:

1. MODELS AND ALGORITHMS
2. MACHINE LEARNING
3. BIG DATA ANALYTICS
4. COMPUTER VISION APPLICATIONS
5. NATURAL LANGUAGE UNDERSTANDING

AREA 1: MODELS AND ALGORITHMS
Recurrent Neural Network (RNN)
Sparse Coding
Neuro-Fuzzy Algorithms
Evolutionary Methods
Convolutional Neural Networks (CNN)
Deep Hierarchical Networks (DHN)
Dimensionality Reduction
Unsupervised Feature Learning
Deep Boltzmann Machines
Generative Adversarial Networks (GAN)
Autoencoders
Deep Belief Networks

AREA 2: MACHINE LEARNING
Active Learning
Meta-Learning and Deep Networks
Deep Metric Learning Methods
MAP Inference in Deep Networks
Deep Reinforcement Learning

Learning Deep Generative Models
Deep Kernel Learning
Graph Representation Learning
Gaussian Processes for Machine Learning
Clustering, Classification and Regression
Classification Explainability

AREA 3: BIG DATA ANALYTICS
Extracting Complex Patterns
IoT and Smart Devices
Security Threat Detection
Semantic Indexing
Data Tagging
Fast Information Retrieval
Scalability of Models
Data Integration and Fusion
High-Dimensional Data
Streaming Data
Genomics and Bioinformatics

AREA 4: COMPUTER VISION APPLICATIONS
Image Classification
Object Detection
Face Recognition
Facial Expression Analysis
Action Recognition
Human Pose Estimation
Image Retrieval
Semantic Segmentation
Deep Image Denoising

AREA 5: NATURAL LANGUAGE UNDERSTANDING
Sentiment Analysis
Mobile Text Messaging Applications
Question Answering Applications
Speech Interfaces
Language Translation
Document Summarization
Content Filtering on Social Networks
Recommender Systems
KEYNOTE SPEAKERS
Petia Radeva, Universitat de Barcelona, Spain
Vincent Lepetit, École des Ponts ParisTech, France

PAPER SUBMISSION
Authors should submit a paper in English, carefully checked for correct grammar and spelling, addressing one or several of the conference areas or topics. Each paper should clearly indicate the nature of its technical/scientific contribution, and the problems, domains or environments to which it is applicable. To facilitate the double-blind paper evaluation method, authors are kindly requested to produce and provide the paper WITHOUT any reference to any of the authors, including the authors' personal details, the acknowledgments section of the paper and any other reference that may disclose the authors' identity.

Only original papers should be submitted. Authors are advised to read INSTICC's ethical norms regarding plagiarism and self-plagiarism thoroughly before submitting and must make sure that their submissions do not substantially overlap work which has been published elsewhere or simultaneously submitted to a journal or another conference with proceedings. Papers that contain any form of plagiarism will be rejected without reviews.

Authors can submit their work in the form of a Regular Paper, representing completed and validated research, or as a Position Paper, portraying a short report of work in progress or an arguable opinion about an issue discussing ideas, facts, situations, methods, procedures or results of scientific research focused on one of the conference topic areas. All papers must be submitted through the online submission platform PRIMORIS and should follow the instructions and templates that can be found under Guidelines and Templates. After the paper submission has been successfully completed, authors will receive an automatic confirmation e-mail.

PUBLICATIONS
All accepted papers will be published in the conference proceedings, under an ISBN reference, on paper and on digital support.
SCITEPRESS is a member of CrossRef (http://www.crossref.org/) and every paper on our digital library is given a DOI (Digital Object Identifier).
The proceedings will be submitted for indexation by Thomson Reuters Conference Proceedings Citation Index (CPCI/ISI), DBLP, EI (Elsevier Engineering Village Index), Scopus, Semantic Scholar, Google Scholar and Microsoft Academic.

SECRETARIAT
DeLTA Secretariat
Address: Avenida de S. Francisco Xavier, Lote 7 Cv. C
2900-616 Setúbal - Portugal
Tel.: +351 265 520 185
Fax: +351 265 520 186
e-mail: delta.secretariat@insticc.org
Web: http://www.delta.scitevents.org

VENUE
Available soon.

CONFERENCE CHAIR
Kurosh Madani, University of Paris-EST Créteil (UPEC), France

PROGRAM CHAIR
Ana Fred, Instituto de Telecomunicações and University of Lisbon, Portugal

PROGRAM COMMITTEE MEMBERS
Luis Anido-Rifon, University of Vigo, Spain
Alessandro Artusi, RISE Ltd, Cyprus
George Awad, National Institute Standards Technology, United States
Nebojsa Bacanin, Singidunum University, Serbia
Ulas Bagci, University Central Florida, United States
Michel Barlaud, University of Nice-Sophia Antipolis, France
Rodrigo Barros, Pontificia Universidade Católica do Rio Grande Sul, Brazil
Tomas Brazdil, Masaryk University Brno, Czech Republic
Hasan Bulut, Ege University, Turkey

Massimo Buscema, Semeion, Research Centre of Sciences of Communication, Rome, Italy, Italy
George Caridakis, National Technical University Athens, Greece
Matias Carrasco Kind, University Illinois Urbana Champaign, United States
Stefano Cavuoti, University of Naples Federico II, Italy
V Srinivasa Chakravarthy, Indian Institute Technology Madras, India
Stephan Chalup, The University Newcastle, Australia
Angelo Ciaramella, Università degli Studi di Napoli Parthenope, Italy
Krzysztof Cios, Virginia Commonwealth University, United States
Claudio Cusano, University of Pavia, Italy
Yang Dai, University Illinois Chicago, United States
Marcilio de Souto, LIFO/University of Orléans, France
Konstantinos Diamantaras, TEI of Thessaloniki, Greece
Tiziana D'orazio, Italian National Research Council (CNR), Italy
Bernadette Dorizzi, Institut Mines-Telecom, Telecom SudParis, France
Qi Dou, Imperial College Science Technology Medicine, United Kingdom
Ke-Lin Du, Concordia University Montréal, Canada
George Fazekas, Queen Mary London, United Kingdom
Corneliu Florea, , Laboratory of Image Processing and Analysis, Applied Electronics and
Information Engineering, Romania
Xin Gao, Makkah Provinceking Abdullah University Science Technology, Saudi Arabia
Efstratios Gavves, University Amsterdam, Netherlands
Pablo Gil, Computer Science Research Institute, University of Alicante, Spain
Gilles Guillot, iPRI, France
Bilge Gunsel, Istanbul Technical University, Turkey
Jie Han, University Alberta, Canada
César Hervás Martínez, University of Cordoba, Spain
Laurent Heutte, Université de Rouen, France
Pengyu Hong, Brandeis University, United States
Abdul Jalil, International Islamic University Islamabad, Pakistan
Tae-Seong Kim, Kyung Hee University, Korea, Republic of
Byung-Gyu Kim, Sookmyung Women's University, Korea, Republic of
Kuldeep Kumar, Bond University, Australia
Krista Lagus, University of Helsinki, Finland
Chih-Chin Lai, National University Kaohsiung, Taiwan, Republic of China
Chang-Hsing Lee, Chung Hua University, Taiwan, Republic of China
Marco Leo, National Research Council of Italy, Italy
Fuhai Li, Washington University Saint Louis, United States
Yung-Hui Li, National Central University, Taiwan, Republic of China
Ge Li, Peking University, China
Huaqing Li, Southwest University, China
Simon Liao, University Winnipeg, Canada
Yang Liu, Harbin Institute of Technology, Shenzhen, China
Guangming Lu, Shenzhen Graduate School, Harbin Institute of Technology, China
Jianguo Lu,, University of Windsor, Canada
Feng Luo, Clemson University, United States
Fernando Lyardet, Urban Software Institute GmbH, Germany
Joel Martin, National Research Council Canada, Canada
Pabitra Mitra, IIT Kharagpur India, India
Perry Moerland, Amsterdam UMC, University Amsterdam, Netherlands
Stavroula Mougiakakou, , Switzerland
Le-Minh Nguyen, Japan Advanced Institute of Science and Technology, Japan
Francesca Odone, Università di Genova, Italy

S.N. Omkar, Indian Institute of Science Bangalore, India, India
Juan Pantrigo, Universidad Rey Juan Carlos, Spain
George Papakostas, International Hellenic University, Greece
Philippe Pasquier, Simon Fraser University, Canada
Stefania Perri, University Calabria, Italy
Mihail Popescu, University of Missouri, United States
Zbynek Raida, Brno University of Technology, Czech Republic
Andrew Reader, Kings College London, United Kingdom
Carlo Sansone, University of Naples Federico II, Italy
Rafal Scherer, Czestochowa University Technology, Poland
Marcel Schulz, Goethe University Frankfurt, Germany
Jaydip Sen, NSHM Knowledge Campus, Kolkata, India
Li Shen, Icahn School of Medicine at Mount Sinai, United States
Abhishek Kumar Singh, International Institute Information Technology Hyderabad, India
Sunghwan Sohn, Mayo Clinic, United States
Concetto Spampinato, University Catania, Italy
Abdulhamit Subasi, Effat University, Saudi Arabia
Minghe Sun, University Texas San Antonio, United States
Ryszard Tadeusiewicz, Agh University Science Technology, Poland
Marco Turchi, Fondazione Bruno Kessler, Italy
Aalt van Dijk, Wageningen University Research Centre, Netherlands
Shiqi Wang, City University of Hong Kong, Hong Kong
Liangjiang Wang, Clemson University, United States
Jun Wang, Community College City University, Hong Kong
Liqiang Wang, University Central Florida, United States
Guo-Wei Wei, Michigan State University, United States
Wai Lok Woo, Northumbria University, United Kingdom
Seokwon Yeom, Daegu University, Korea, Republic of
Hujun Yin, University of Manchester, United Kingdom
Yizhou Yu, The University of Hong Kong, Hong Kong
Yu Zhang, Stanford University, United States
Kai Zhang, Temple University, United States
Kun Zhang, Xavier University Louisiana, United States

(list not yet complete)