

**The 15<sup>th</sup> IEEE International Conference on Machine Learning and Applications  
(IEEE ICMLA'16), Anaheim, USA  
18-20 December 2016  
[www.icmla-conference.org/icmla16](http://www.icmla-conference.org/icmla16)**

**Workshop on  
Machine Learning Algorithms, Systems and Applications**

**Aims and scope :**

Many computer applications result in large volumes of data that require a set of techniques and tools to extract useful information for decision support, prediction, exploration and understanding of the phenomena governing the data sources. This workshop aims to bring together professionals, researchers, and practitioners to discuss efficient techniques, methods and tools to manage, exploit and interpret the increasing volumes of data in environments that may change continuously. The goal is to build models that are able to tackle and govern the high variability in stationary or non-stationary or complex hybrid systems. Such systems are relevant to various applications such as: medical diagnostics, robotics, business, industrial control, fault detection, quality control, surface inspection, system identification, transportation, communications, web applications, environmental monitoring, biomedical systems, decision support systems, and security.

This workshop invites submissions featuring new advances in the area of machine learning and data mining. Topics covered by this workshop include but are not limited to:

- Supervised learning (Single- and multi-label classification)
- Unsupervised learning
- Semi-supervised learning
- Active learning
- Deep learning
- Reinforcement learning
- Regression and approximation
- Data mining and knowledge discovery
- Ensemble methods (bagging, boosting, model fusion techniques, etc)
- Feature selection and reduction
- Incremental and online learning
- Concept drift and shift in data streams
- Adaptive data pre-processing
- Real world applications such as:
  - Big Data
  - Cloud computing
  - Modelling and system identification
  - Time-Series prediction and forecasting
  - Quality control systems and condition monitoring
  - Fault detection, isolation, identification and diagnosis
  - Predictive maintenance and prognostics
  - Internet
  - Decision support systems
  - (Bio)Medical applications
  - Robotics, intelligent transport and advanced manufacturing
  - Multi-media applications
  - Social networks

Authors should submit papers through the Machine Learning Algorithms, Systems and Applications Workshop Track of the conference submission website. Papers must correspond to the requirements detailed in the instructions to authors. All conference submissions will be handled electronically. Detailed instructions for submitting the papers are provided on the conference home page at: <http://www.icmla-conference.org/icmla16/>.

Accepted papers must be presented by one of the authors at the conference. Do not hesitate to direct any question that you may have to the workshop organizers.

### **Workshop Chairs:**

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### **Program Committee**

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Joao Gama - Universidade do Porto, Portugal

### **Important Dates:**

Paper Submission Deadline **August 6<sup>th</sup>, 2016**  
Notification of Acceptance **September 7<sup>th</sup>, 2016**

Camera-Read Papers

**October 1<sup>st</sup>, 2016**

**If you have any question about this session, please do not hesitate to ask your question to [awani@uok.edu.in](mailto:awani@uok.edu.in) or [abouchachia@bournemouth.ac.uk](mailto:abouchachia@bournemouth.ac.uk).**