# IEEE Costa Rica

Instional Work

IWOBI 2018 Costa Rica Conference on Bioinspired Intelligence July 18 - 20, 2018 LOCATION: San Carlos (Costa Rica)

Paper Submission

Deadline: March 19, 2018 Notification of Acceptance: April 16, 2018 Final paper Submission and Early Registration: May 30, 2018 Registration Limit: June 4, 2018 More information: iwobi.ulpgc.es/2018/ Email: iwobi2018@tec.ac.cr

### TOPICS

The contents of the conference will be organized in three sessions: a regular session and two special track sessions.

## **REGULAR SESSION**

**Topics of interest** include, but are not limited to:

- Optimization and metaheuristic
- Biomathematics and Biostatistics
- Numerical Methods and Differential equations modeling
- Pattern Recognition and Classification
- Machine learning and Computational Intelligence Techniques
- Robotics
- Signal Processing and Analysis
- Computer vision
- Intelligent Networks
- Bioinformatics
- Computational anatomy
- Natural sounds and Speech Recognition
- Models of biological learning
- Brain-machine interfaces
- Speech and handwriting recognition

SPECIAL TRACK ON HIGH PERFORMANCE COMPUTING FOR NATURAL AND HEALTH SCIENCES

## **Topics of interest** include, but are not limited to:

- Parallel Algorithms
- Parallel Programming Techniques
- Large Scale Distributed
  Systems
- High Performance
  Applications and Tools
- Multicore Architectures and Accelerators
- Grid and Cloud Computing, and Federations
- HPC Infrastructure and Datacenters
- Scientific and Industrial Computing
- Big data, Data Management and Visualization

#### SPECIAL TRACK ON BIOINFORMATICS AND SYSTEMS BIOLOGY

**Topics of interest** include, but are not limited to:

- Dynamic models of metabolic, signaling and gene expression networks, Flux Balance Analysis
- Improvements in genome assembly
- Biological network reconstruction and analysis
- Biomarker discovery and Disease classification
- Next-generation sequencing, copy number and gene expression analysis, Proteomics, Pharmacogenomics, epigenomics & other omics, Functional genomics
- Molecular evolution and phylogeny
- Protein folding and Protein docking
- Translational bioinformatics and Immunoinformatics
- Microbiomes applied to the field of conservation biology, disease and health.

Pattern Recognition &

Intelligent Systems Laboratory

Centro de Investigación en Enfermedades Tropicale

Laboratorio de Quimiosensibilidad

Tumoral LOT

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- Metagenomics of unusual environments
- Applications of transcriptomics to study genome evolution and adaptation

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