

Title of the Special Session : Bio-Neuro Informatics

The objective of the Special Session : Bio-/Neuro-Informatics looking for research papers for the conference that explains together the basics and the state-of-the-art of two major science disciplines in their interaction and mutual relationship, namely: information sciences, bioinformatics and neuroinformatics. Bioinformatics is the area of science which is concerned with the information processes in biology and the development and applications of methods, tools and systems for storing and processing of biological information thus facilitating new knowledge discovery. Neuroinformatics is the area of science which is concerned with the information processes in biology and the development and applications of methods, tools and systems for storing and processing of biological information thus facilitating new knowledge discovery. The text contains 62 chapters organized in 12 parts, 6 of them covering topics from information science and bioinformatics, and 6 cover topics from information science and neuroinformatics.

Topics of the Session

TRACK 1:

Bioinformatics and

Data Mining of Biological Data (BiDMBD)

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- * Biomedical Computing
- * Biomedical Intelligence
- * Biomedical Signal and Image Analysis
- * Biomedical Text Mining and Ontologies
- * Bio-Visualization
- * Clinical Data Analysis
- * Clinical Decision Support and Informatics
- * Electronic Health Record
- * Healthcare Information Systems
- * Health Data Acquisition, Analysis and Mining
- * Healthcare Knowledge Representation & Reasoning
- * Medical Informatics
- * Medical Robotics

TRACK 2:

Biomedical Informatics

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- * Workflow Management / Bioinformatics Analysis Pipelines
- * Biological Algorithms
- * Biological Databases
- * Biological Sensors
- * Computational Modeling and Data Integration
- * Functional Genomics, Proteomics
- * Gene Expression Array Analysis
- * Clinical Decision Support and Informatics
- * Genome-Phenome Analysis
- * Machine Learning
- * Metabolic Pathway Analysis
- * Modeling of Molecular, Cellular, and Organ Pathways
- * Nano-Bio-Computing
- * Nano-Medicine
- * Neuro-Engineering
- * Pattern Recognition and Soft Computing Techniques
- * Research and Applications in Bioinformatics
- * Systems Biology
- * Tissue Engineering
- * Translational Bioinformatics
- * Challenging Biological Use Cases
- * Hands-On discussion
- * Biomarker Discovery
- * Cell Engineering
- * Drug Discovery
- * Mass Spectrometry
- * DNA Sequencing
- * Visualization
- * Data transfer

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