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SPECIAL SESSION ON Application of Bio Inspired Computing for Knowledge Discovery and Data Mining

International Conference on Innovative Computing and Communication(ICICC-2018)

Guest Editor:

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INTRODUCTION:

Bio Inspired computing is a consortium of methodologies, (like neural networks, genetic algorithms, rough sets, analysis tools), that works synergistically and provides, in one form or another, flexible information processing capabilities for handling real life problems. Its aim is to exploit the tolerance for imprecision, uncertainty, approximate reasoning and partial truth in order to achieve tractability, robustness, low solution cost, and close resemblance with human like decision-making. The process of knowledge discovery from data bases (KDD), on the other hand, is a real life problem solving paradigm and is defined as the non-trivial process of identifying valid, novel, potentially useful and understandable patterns from large data bases, where the data is frequently ambiguous, incomplete, noisy, redundant and changes with time. Data mining is one of the fundamental steps in the KDD process and is concerned with the algorithmic means by which patterns or structures are enumerated from the data under acceptable computational efficiency. Bio Inspired computing tools, individually or in integrated manner, are turning out to be strong candidates for performing data mining tasks efficiently. At present, the results on these investigations, integrating Bio Inspired computing and data mining, both theory and applications, are being available in different journals and conference proceedings mainly in the fields of computer science, information technology, engineering and mathematics.

Data mining is the science and technology of exploring large and complex bodies of data in order to discover useful patterns. It is extremely important because it enables modeling and knowledge extraction from abundant data availability. Bio Inspired Computing for Knowledge Discovery and Data Mining introduces Bio Inspired computing methods extending the envelope of problems that data mining can solve efficiently, thus presenting practical Bio Inspired-computing approaches in data mining.

The area of interest for this session includes principal constituents of Bio Inspired computing: neural networks, evolutionary algorithms and advance artificial intelligence followed by recent advances areas in Bio Inspired computing for data mining, such as swarm intelligence, supervised methods and agent technology. This special session encourages scientists, researchers and academicians to contribute, share and present their findings and thoughts in the fields of information systems, engineering, computer science, statistics and management (including various applications in the domain of manufacturing, medical, banking, insurance and others real-world case studies) with a profound source for the role of Bio Inspired computing in data mining. Practitioners and researchers are also encouraged in contributing their paper consisting of the description of real world data mining projects performed with Bio Inspired computing. The objective of this special session is to assemble a set of high-quality original contributions that reflect the advances and the state-of-the-art in the area of Data Mining and Knowledge Discovery with Bio Inspired Computing Methodologies.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the the following area:

- · Concepts and techniques of Bio Inspired Computing
- Neural Networks for Data Mining
- Supervised and unsupervised methods in Data Mining
- Evolutionary Methods and Evolutionary Algorithms for Data Mining
- Genetic Algorithms and Genetic Clustering for Data Mining
- Grammar-based Genetic Programming
- Support Vector Machines for Data Mining
- KDD using Bio Inspired Computing Techniques
- Swarm Intelligence Algorithms for Data Mining and Data Clustering
- Data Mining and Agent Technology
- Hybrid Data Mining Techniques for Knowledge Discovery

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session on **Application of Bio Inspired Computing for Knowledge Discovery and Data Mining** *on or before*[1-12-2017]. All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at https://easychair.org/conferences/?conf=icicc2018. All submitted papers will be reviewed on a double-blind, peer review basis.

NOTE: While submitting paper in this special session, please specify **Application of Bio Inspired Computing for Knowledge Discovery and Data Mining** at the top (above paper title) of the first page of your paper.

PUBLICATION:

All the accepted papers (after double blinded peer review) will be published in springer series (Approval pending) and further extended papers will be published in the special issues of SCI/SCOPUS/WoS/DBLP/ACM indexed Journals as per the guidelines of respective journal:

1. Scalable Computing: Practice and Experience (SCPE)

http://www.scpe.org/index.php/scpe

Indexed In: Indexing- ISI Thompson (Emerging Sources Citation Index), Scopus and many more.

2. International Journal of Imaging and Robotics (IJIR)

http://www.ceser.in/ceserp/index.php/iji

Indexed In: SCOPUS (Elsevier Bibliographic Databases), INSPEC, Zentralblatt MATH, Indian Science Abstracts, Ulrich's Periodicals Directory, IndexCopernicus, and International Statistical Institute (ISI, Netherlands).

3. International Journal of Tomography and Simulation (IJTS)

http://www.ceser.in/ceserp/index.php/ijts

Indexed In: SCOPUS (Elsevier Bibliographic Databases); Zentralblatt MATH (Zentralblatt für Mathematik), INSPEC, Statistical Theory and Method Abstracts (STMA-Z), SCImago Journal & Country Rank, IndexCopernicus, International Statistical Institute (ISI, Netherlands), Ulrich's Periodicals Directory, Indian Science Abstracts

4. International Journal of Artificial Intelligence (IJAI)

http://www.ceser.in/ceserp/index.php/ijai

Indexed In: SCOPUS (Elsevier Bibliographic Databases), INSPEC, Zentralblatt MATH, Indian Science Abstracts, Ulrich's Periodicals Directory, IndexCopernicus, and International Statistical Institute (ISI, Netherlands).

5. International Journal of Natural Research Computing (IJNCR)

https://www.igi-global.com/journal/international-journal-natural-computing-research/1148 **Indexed In:** INSPEC, ACM, Cabell, DBLP, and many more.

6. International Journal of Hybrid Intelligence (IJHI)

http://www.inderscience.com/jhome.php?jcode=ijhi

and many more journals will be added to the list soon...

All inquires should be should be directed to the attention of:

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Guest Editor(s)
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