Dear colleagues,

We cordially invite you to submit an article to the special session on "Towards interpretable machine learning applications in biomedicine and health" of the IEEE BHI’2014.

CALL FOR PAPERS

Special session on Towards interpretable machine learning applications in biomedicine and health

IEEE-EMBS International Conference on Biomedical and Health Informatics 2014 (IEEE BHI’2014).

Valencia, Spain 1-4 June 2014
Web site: http://bhi.embs.org/2014/

Important Dates
Deadline for paper submission: 15th January 2014
Notification of acceptance: 14th February 2014.

Session goal

The practical use of machine learning and computational intelligence algorithms in biomedicine and health is sometimes hampered by the limited interpretability of the analytical models, without which it is difficult to validate against domain expertise and to explain the extracted knowledge to the user. Model interpretability, which is a problem that extends to all machine learning fields (classification, prediction, clustering, etc.), is paramount in those application domains.

This special session expects to make contributions on interpretable Machine Learning models: both basic methodology for the interpretation of efficient non-linear models and practical applications in biomedicine and health are welcome.

Topics of Interest
Topics of interest include, but are not restricted to:

- Interpretation of non-linear models, including SVMs and other kernel methods.
- Deep learning.
- Inductive learning, including rule generation from data and interpretation of random forests and tree bagging.
- Graphical models and structure finding.
- Manifolds for nonlinear dimensionality reduction.
- Data visualization.
- Practical applications in biomedicine and health to extract knowledge from Machine Learning models.
Session format and submission
The session will take place during the IEEE BHI 2014 Conference. Only papers in English will be accepted. All the papers will go through the normal conference reviewing process. Final papers are limited to 4 pages and must follow the conference instructions as described in the conference website (http://bhi.embs.org/2014/authors/). The session will consist of a limited number of paper presentations. A separate submission procedure has been established for this special session. To submit a paper to this session, a special code is required for paper upload.

To submit a paper for this special session
- Click Submit a contribution to BHI 2014 at https://embs.papercept.net/conferences/scripts/start.pl
- Click Submit of the "Special Session Paper" row
- Enter Code 7g259 and complete the rest of the form with the information of your contribution

Looking forward to seeing you in Valencia!

José D. Martín, Universitat de València (Spain)
Alfredo Vellido, Universitat Politècnica de Catalunya (Spain)
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