



International Workshop

Intelligent Computing Paradigms for Automatic Detection of Brain Tumors

In the Frame of

The 14th International Conference on Brain Informatics (BI'21)
September 17-19, 2021, Padova, Italy
both online and offline modes
Homepage: <https://www.bi2021.org/>

Workshop Chair and Organizer

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Magnetic resonance imaging (MRI) is an imaging technique that plays a vital role in detection and diagnosis of brain tumors in both research and clinical care for providing detailed information about the brain structure and its soft tissues. Recently intelligent computing (IC) paradigms have become efficient intelligent tools for brain tumors detection. It has become one of the major research subjects in medical imaging and diagnostic radiology. In the area of processing the brain images, computer aided-diagnosis systems are basically relied on different IC paradigms in all its stages to implement smart consultation systems that can help the radiologists by providing a second opinion that can assist in detection and diagnosis of brain tumors.

This workshop is devoted to discussion of the current research of the IC paradigms for automatic detection of brain tumor through MRI. The workshop will provide a forum for the exchange of ideas between physicians, research institutions, and knowledge software engineers to address the essential issues in those areas. Papers related to methodologies, intelligent algorithms, techniques, and applications in brain informatics are especially solicited.

Topics of interest include (but are not limited to) the following:

- Computational Intelligence in life sciences
- Machine Learning

- Deep learning
- Knowledge Engineering computing
- Cognitive computing
- Neural computing
- Bio-inspired computing
- Medical Image Techniques
- Medical Expert decision support Systems
- Vagueness computing
- Ontological computing
- Evolutionary Computing
- Telemedicine and IoT based Software
- Web-based and Remote Medicine
- Medical Information Mining
- Cloud computing
- Neurocomputing
- Analogical computing
- Ubiquitous computing

Invited speakers

Romanov V.O., V.M.Glushkov Institute of Cybernetics of the NAS of **Ukraine**

Francesco Sicurello, Founder of the Euro-Mediterranean Society of Bio-Medical informatics science 2000, University of Milan Bicocca, **Italy**

Roumen Kountchev, Technical University of Sofia, **Bulgaria**

Gabriel, Xiao-Guang Yue, Foundation Fellow of international Engineering and Technology Institute, Hong Kong, and Institute of DataScience and Artificial Intelligence, Denver, **USA**

Potential program committee

Dina Ziadlou, Colorado Technical University, Denver, **USA**,

Frank Lievens, International Society for Telemedicine & eHealth, ISfTeH, **Belgium**

Elena Nechita, VasileAlecsandri University, **Romania**

Yukako Yagi, Harvard Medical School, Boston, MA, **USA**

Hariton Costin, "Gr. T. Popa" Univ of Medicine and Pharmacy, **Romania**

Smaranda Belciug, Faculty of Mathematics and Natural Sciences, University of Craiova, **Romania**

Michael Gr. Voskoglou, Graduate Technological Educational Institute of Patras, **Greece**

Antonella Naaji, "Vasile Goldis" Western University of Arad, **Romania**

Hassan Ghazal, Moroccan Society for Telemedicine and eHealth, **Morocco**

Dragana Krstić, Faculty of Electronic Engineering, University of Niš, **Serbia**

Dana Simian, Faculty of Sciences, Lucian Blaga University Sibiu, **Romania**

Natalya Shakhovska, Liviv Polytechnical National Univesity, **Ukraine**

Mohaned Al. Obaidy, Computing Faculty, Gulf College, **Oman**

SarmaCakula, Vidzeme University of Applied Sciences, **Latvia**

Papers & Presentations

A workshop takes a full day) and includes a mix of regular and invited presentations including regular papers, abstracts, invited papers as well as invited presentations.

The paper and abstract submissions to workshops will follow the same format as the BI conference papers and abstracts.

Important Dates:

April 1st, 2021: Papers Submission Deadline

June 1st, 2021: Notification of Paper Acceptance

June 1st, 2021: Abstract Submission Deadline

July 1st, 2021: Notification of Abstract Acceptance

July 15th, 2021: Final Paper Submission & Early Registration Deadline

September 17th, 2021: Workshops, Special Sessions and Tutorials

September 18th-19th, 2021: Main Conference

Submission of papers

The evaluation process will go through a “blind” review with 3 reviewers.

All papers accepted (and all workshop & special sessions' full length papers) will be published by Springer as a volume of the Springer-Nature LNAI Brain Informatics Book Series (<https://link.springer.com/conference/brain>).