

Call for Papers
**4th International Workshop on Nonlinear
Dynamics and Synchronization - INDS'15**
July 30-31, 2015
University of Klagenfurt (Klagenfurt, Austria)
<http://inds15.aau.at>

The Workshop on Nonlinear Dynamics and Synchronization (INDS'15) is a two-day international workshop bringing together international researchers, developers and practitioners from different horizons to discuss the latest advances in nonlinear dynamics and synchronization. INDS serves as a forum to present current and future works as well as to exchange innovative/new research ideas pertaining to various aspects in this field of nonlinear dynamic systems and synchronization. INDS does generally feature contributed as well as invited papers, invited sessions and also include poster and demo sessions.

Topics:

Theoretical and Practical issues in

Nonlinear Dynamics and Synchronization

- Analytical and numerical approaches
- Coupled oscillatory systems
- Systems modeling
- Systems identification
- Systems Control
- Bifurcations
- Stability analysis
- Chaos control
- Cryptography and security
- etc.

Cellular Neural Networks and Neuro-Computing

- Fundamentals and selected applications
- Quantum computing
- Neuron dynamics and optimization
- Application to image and signal processing
- Application to solving nonlinear ODEs and PDEs
- Hardware implementation
- etc.

Computational Intelligence

- Self-organization
- Self-healing
- Pattern recognition & classification
- Cybernetics
- Robotics
- Fuzzy logic
- Evolutionary computing
- Hardware implementation
- etc.

Applications (Examples)

- Technology
- Industrial systems
- Transportation
- Communications systems
- Control systems
- Economical & Social systems
- Biological systems
- Image processing
- Supply chains and logistics systems
- Robotics
- Biological systems
- etc.

Submission of papers (Email: inds15@aau.at):

Researchers are invited to submit an **extended abstract** (approx. 2 to 4 pages) **before 30.03.2015**. After review and acceptance of the extended abstracts authors will be invited to submit a 6-10 pages camera ready full paper version. Camera-ready papers will be included in the workshop proceedings, which will be published by "Shaker Verlag" (Germany) and distributed to the participants at the workshop. Furthermore, all accepted papers will be published with the IEEE Conference publications Program in the **IEEE Xplore Digital Library**.

Special- Session proposals: Proposals for special sessions containing 4-6 papers are very welcome.

Post-Conference publications:

The best contributions based upon quality, novelty and relevance, will be invited to submit an extended paper (10-14 pages). After undergoing a thorough review process selected papers will be published in a **JOURNAL SPECIAL ISSUE** in a SCI ranked journal: **Mathematical Problems in Engineering**. Furthermore, either extended versions of accepted papers or fully new contributions (approx. 20 to 25 pages each) are invited for publication, after review, in a **BOOK to be published by SPRINGER**; a tentative title of the Book is: "**RECENT ADVANCES IN NONLINEAR DYNAMICS AND SYNCHRONISATION WITH SELECTED APPLICATIONS**".

General Chair: Kyandoghene Kyamakya (Austria)

Program Co-Chairs: Guarong Chen (Hong Kong), Wolfgang A. Halang (Germany), Wolfgang Mathis (Germany), Ruedi Stoop (Switzerland), Ludger Klinkenbusch (Germany), Herwig Unger (Germany), Jürgen Kurths (Germany), Hubert Zangl (Austria)

Organization Chairs: Zhong Li (Germany), Jean Chamberlain Chedjou (Austria)

Local Organizing Committee: P. Grausberg (Austria), M. Gutmann (Austria), A. Korenjak (Austria),

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<u>Christophe Bobda</u> University of Potsdam, Germany	<u>Giulio Casati</u> University of Insubria, Italy

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<p><u>Johan Suykens</u> Katholieke Universiteit Leuven, Belgium</p>	

Important - Dates (Schedule)

- **30.03.2015** - Deadline for the 2-4 pages extended abstracts submissions
- **07.04.2015** - Deadline for acceptance of special session proposals
- **15.04.2015** - Notification of acceptance (including type of presentation: oral or poster)
- **30.04.2015** - Deadline for submission of camera ready paper versions
- **25.05.2015** - Early Registration (deadline for early-bird fee)
- **30.05.2015** - Deadline for submission of Poster Teaser page
- **30-31 July 2015** - Conference dates

Previous INDS Conferences:

2008 Klagenfurt, Austria: <http://inds08.uni-klu.ac.at>

2009 Klagenfurt, Austria: <http://inds09.uni-klu.ac.at>

2011 Klagenfurt, Austria: <http://inds11.uni-klu.ac.at>

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