15th International Conference ICTERI 2019
ICT in Education, Research, and Industrial Applications:
Integration, Harmonization, and Knowledge Transfer
June 12-15, 2019, Kherson – Ukraine

Conference Scope
ICTERI is an annual peer-reviewed international Computer Science conference focusing on research advances and business/academic applications of Information and Communication Technologies, design, development, and deployment of advanced information systems and ICT Infrastructures. The emphasis is put on real world applications of ICT-based solutions. Therefore, all contributions are strongly encouraged to demonstrate how and to what purpose the proposed solutions are used or transferred into use. Examples of such contributions are a proof-of-concept implementation; prototype in an advanced stage; case study involving new tools and/or methodological approaches; experimental studies with real use cases, including knowledge or technology transfer; visionary papers or surveys revealing new needs and trends. Reports on academic-industrial partnerships for ICT innovation and knowledge transfer are as welcome as technological and methodological submissions.

We solicit submission of original work, not previously published, or submitted for publication elsewhere, that address one or more of the following topics. Papers must be submitted to one of the following Thematic Tracks:

- **Track 1: Advances in ICT Research**
  - (Semantic) Integration and Interoperability
  - Managing Big Data and Linked Open Data at Scale
  - Data Analytics and Business Intelligence
  - Knowledge Models, Languages, and Representations
  - Ontologies: Engineering, Extraction, Learning
  - Ontologies: Alignment, and Evolution
  - Ontologies: Evaluation and Reuse
  - Machine Learning: Deep Learning and Reasoning
  - Issues of Reliability and Trust in ICT
  - Biologically and Socially Inspired Approaches to Machine Intelligence
  - Models for the Industry of the Future

- **Track 2: Information Systems: Technology and Applications**
  - Service-Oriented and Large-scale Distributed Computing
  - Cloud Computing
  - Model Driven Architectures / Software Development
  - Business Process Management
  - Knowledge Extraction, Engineering and Management

- **Track 3: Academia/Industry ICT Cooperation**
  - Joint Academic-Industrial Research and Development
  - Infrastructures, Tools and Framework Conditions for Cooperation and Knowledge Transfer
  - Experiences in ICT for Technology-Enhanced Learning and Instruction
  - Best Practices in Cooperative Projects

- **Track 4: ICT in Education**
  - Methodology and Didactics of Teaching and Using ICT
  - ICT in Technology Enhanced Learning and Instruction
  - Advances in and Tools for Technology Enhanced Learning
  - The Role of ICT and Infrastructures in Curriculum Design
  - ICT Competence Design and Development
  - Quality Assurance of ICT Education
  - Professional Retraining and Life-Long Learning using ICT
  - Infrastructures and Framework Conditions for ICT Education
  - Modeling Systems in Education

**Important Dates**
(23:59 Hawaii time)
- Monday, 11.02.2019 – paper abstract submission deadline
- Monday, 25.02.2019 – paper submission deadline
- Monday, 22.04.2019 – acceptance notification
- Monday, 06.05.2019 – camera ready papers submission deadline
- Monday, 06.05.2019 – presentation drafts submission deadline
- Monday, 06.05.2019 – registration deadline
- Wednesday, 12 – Saturday, 15.06.2019 – conference days

**No Conference Fee**
Traditionally, ICTERI does not charge conference fees. Participation is FREE. Infrastructure and service expenses are covered by our sponsors.

**Other Calls and Satellite Events**

**Submission Guidelines**
The language of ICTERI Main Conference is **English**. Submissions in any other language will be rejected without review. Presentations in any other language are also not accepted and withdrawn from the program.

All submissions shall be annotated by the key words/phrases freely chosen by the authors. At least three and at most five key phrases have to be provided.

All submissions must comply with the [Springer CCIS format guidelines](http://www.springer.com/gp/computer-science/series/7502). Formatting instructions and template as well as submission guidelines are provided for your convenience at the ICTERI 2019 web site: [http://icteri.org/ICTERI-2019/](http://icteri.org/ICTERI-2019/).
Submissions must be made in .pdf by via the EasyChair Conference Management System: https://easychair.org/conferences/?conf=icteri2019.

Please submit your paper to the applicable ICTERI 2019 Track as outlined in the Conference Scope above.

Submission Types
Several types of papers are solicited for the main ICTERI conference tracks. Submission types are:

I Full research papers
- Report on accomplished, unpublished research work
- Present a novel method, technique or analysis with appropriate empirical or other evaluation as a proof of validity
Evaluation focuses on originality, technical soundness and the soundness of the real use demonstration. Page limit: 16 LNCS pages.

II Short research papers
- Short reports of preliminary results or work in progress
Evaluation focuses on originality, technical correctness and the value of the planned results in a short to mid-term perspective. Page limit: 12 (short paper) or 6 (extended abstract) LNCS pages.

III Discussion, survey, or problem analysis papers
- Help understand a relevant problem without introducing a novel method, technique, or approach.
Examples: a review placing a problem onto the state-of-the-art landscape and analyzing how far current solutions fall short; an in-depth discussion and analysis of a certain problem, with clear definitions and argumentation in terms of qualitative or quantitative representation of the main characteristics of the problem.
Evaluation focuses on the soundness of the problem analysis and the interest for the scientific community. Page limit: 16 LNCS pages.

IV Industry or education experience reports
- Report on industrial or academic deployments of ICT
- Experiences in the effective and efficient use of ICT in education
Evaluation focuses on significance and practical relevance, technical soundness, and accompanying evaluation or industrial validation. Page limit: 12 LNCS pages.

The papers submitted as one of the above types (I-IV) and
- Evaluated as not sufficiently mature by the Program Committee; and
- Recognized by the reviewers as interesting and promising in their idea or approach
may be recommended to be considered as a Poster.

V Posters
- Concise presentations of early-stage research in the form of an Extended Abstract. These papers outline preliminary ideas, concepts, and initial results shaping out the future work.
Posters will be presented in a separate poster session.
Evaluation focuses on originality, technical correctness, the value of the research ideas, and the potential to become a mature research outcome in a short-to-mid-term perspective. Page limit: 6 LNCS pages.

More details on the requirements to different paper types and the ways these papers are presented at the conference are provided in the Paper Types page at the ICTERI 2019 web site: http://icteri.org/icteri-2019/submission-types/.

Evaluation and Publication
All submissions will be evaluated by the members of the international program committee. Accepted papers will be published in the international proceedings volume on-line (CEUR-WS).
The best papers among the accepted and presented at the conference will be selected and invited by the ICTERI Steering Committee to be revised and extended for the ICTERI post-proceedings volume by Springer Communications in the Computer and Information Science (CCIS) series (pending approval).

Please check the Previous ICTERI Conferences page at the ICTERI 2019 web site (http://icteri.org/icteri-2019/previous-icteri-conferences/) to access the proceedings and post-proceedings volumes published by the previous conferences.


Where applicable, papers may be invited for publication, in substantially extended and refined versions, in the special issues of Ukrainian and International Journals, ICTERI traditionally cooperates with the two Ukrainian journals: «Bulletin of V.N. Karazin Kharkiv National University» (http://mja.univer.kharkov.ua) and «Information Technology in Education» (http://itc.ksu.ks.ua/en/).

Presentation
Accepted papers must be presented at the conference by one of their authors, who commit to register and attend the conference. The Program Chairs reserve the right to withdraw from the proceedings the papers, which have not been presented at the conference.

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Please check the Program Committee page at the ICTERI 2019 web site for the list of the PC members: http://icteri.org/icteri-2019/program-committee/.

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How to Get to Kherson
Kherson is the regional capital city in the South of Ukraine. It is a nice and calm city with many nations living in one comfortable place. It is famous for its traditions of southern-Ukrainian hospitality. Kherson region is also known for its passion and effort in protecting and maintaining natural environment. The city and neighborhood offer abundant attractions for traditional and ecological tourism. Kherson is well connected to international air hubs through its local airport. (http://airport.kherson.ua/?lang=en). More details are available at the Conference Venue page at the ICTERI 2019 web site: http://icteri.org/icteri-2019/conference-venue/.