

## CBS 2017

### Special Session on Cloud-Based Solutions

at the 9<sup>th</sup> Asian Conference on Intelligent Information and Database Systems (ACIIDS 2017)

Kanazawa, Japan, April 3-5, 2017

Conference website: <http://www.aciids.pwr.edu.pl/>

#### Special Session Organizers

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#### Objectives and topics

The CBS 2017 Special Session offers an opportunity to gather research scientific works related to Cloud Based Solutions in context of intelligent information approach consisted of ubiquitous networking, high-availability paradigm, parallel and distributed cloud computation, quality of cloud services, intelligent cloud based systems, as well as educational, biomedical and other industrial application of cloud computing.

Recently, we are witnessing a dynamic cloud computing evolution nearly in all areas of human activities exploiting information technologies. Implementation of solutions based on the idea of cloud services produces new challenges in such areas as management, security, technical solutions, infrastructure modeling, mobile devices support, and many others.

From a technological perspective, cloud computing covers a broad palette of hardware and/or software technologies. Here we can include namely virtualization of operating systems (KVM, XEN, ESXi, HYPER-V), specialized network protocols and solutions (High-speed transitions, software defined elements, network infrastructure virtualization, tunneling, protocols for data communication), computing nodes administration, computing tasks distribution, and many others.

Implementation of cloud computing into a firm environment is not only a complicated technical solution, on which basis the particular solutions are established, but also a process, that is inevitably closely connected with strategic, tactic, as well as operative needs of the firm.

The migration of services into the cloud touches basically a broad spectrum of business processes and systems frequently exploiting information infrastructure as their existence platform. From a business perspective, to have better insight into business operations it is important to apply data analysis techniques on their information to drive decisions and actions. This will allow setting the right strategy to achieve increased sales, identify issues and to become a dynamic business that can meet today's challenges of fast delivery. Processing large amounts of data in the data warehouse requires enormous processing power and space. These resources are crucial for businesses to run its daily operations. In this case, cloud computing can be used successfully to provide scalability for peak periods when needed and only pay for what is used.

An independent yet important issue seems to be cloud solutions efficiency measuring that can be generalized into two main parts: measuring of technical efficiency (namely the parameters for transaction processing speed, response in network and infrastructure, virtualized memory capacity, repositories or data communication speed), and measuring of economical assets (investments efficiency analysis, economical comparison of various cloud solution variants, risk evaluation and assessment, process optimization, etc.).

Security of cloud solution or optimized infrastructure, resp., is a key challenge and frequently also the limiting factor for a number of specific organizations, e.g., army, governmental organizations, or for organizations working with sensitive data in general. Cloud computing in its substance is exploiting internet technologies; however it needs not to be inevitably interconnected with internet. This area is now a big issue for all cloud-based solutions and many organizations are transferring their data out from their control without providing a deeper analysis of security threats. From all that is described above we may conclude that cloud-

based solution design is a complex process requiring a system approach. This targeted session will address number of topics related to the above described aspects of cloud computing and its applications.

The goal of this special session is to bring together researchers from different fields of expertise, lead to a better understanding between them, and to promote interaction in this new and interdisciplinary area. All in all, we want to create an opportunity for the participants to exchange about a wide range of topics related to the application and practical utilization of cloud computing services in various areas. Topics of interest include:

- Automated development of cloud computing platform and services,
- Cloud computing efficiency and possible overheads,
- Cloud computing in Bioinformatics,
- Cloud computing Infrastructure and application monitoring,
- Data and application migration to cloud services,
- Data integrity/backup/recovery solutions,
- Datacenter networking,
- Differences between IaaS and PaaS cloud architectures,
- Distributed and parallel systems,
- Distributed computing and databases in cloud computing environment,
- Economical assets of cloud computing solutions,
- Educational and e-learning aspects of cloud computing integration,
- Managerial aspects of cloud computing,
- Measurement of cloud computing applications and infrastructure,
- Methodical approach to architecture development,
- Mobile applications and solutions in cloud computing,
- Model-driven Cloud deployment, Software Defined Networks,
- Networking and network services,
- Reliability, availability, and scalability,
- Scaling applications in cloud,
- Security aspects of cloud computing,
- Software appliances cloud environment,
- Solving inter-cloud applications management issues,
- Specialized application of cloud computing services,
- System and network management and troubleshooting,
- System life-cycle management in cloud environments,
- Usage studies and workload characterization,
- User interaction and cognitive aspects of cloud computing.

## Important dates

Submission of papers: **31 October 2016 (Hard deadline!!!)**

Notification of acceptance: **1 December 2016**

Camera-ready papers: **15 December 2016**

Registration & payment: **15 December 2016**

Conference date: **3-5 April 2017**

## Program Committee (to be invited)

Prof. Dr. Ana Almeida, Porto Superior Institute of Engineering, Portugal  
Prof. Dr. Peter Brida, University of Žilina, Slovakia  
Dr. Ivan Dolnak, University of Žilina, Slovakia  
Dr. Elsa Gomes, Porto Superior Institute of Engineering, Portugal  
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Prof. Dr. Eng. Ali Selamat, Universiti Teknologi Malaysia (UTM), UTM Johor Bahru, Malaysia  
Dr. Vladimír Sobeslav, University of Hradec Kralove, Czech Republic

## Submission

All contributions should be original and not published elsewhere or intended to be published during the review period. Authors are invited to submit their papers electronically in pdf format, through EasyChair. All the special sessions are centralized as

tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: **CBS 2017: Special Session on Cloud-Based Solutions**.

<https://easychair.org/conferences/?conf=aciids2017>

Authors are invited to submit original previously unpublished research papers written in English, of up to 10 pages, strictly following the LNCS/LNAI format guidelines. Authors can download the Latex (recommended) or Word templates available at [Springer's web site](#). Submissions not following the format guidelines will be rejected without review. To ensure high quality, all papers will be thoroughly reviewed by the CBS 2017 Program Committee. All accepted papers must be presented by one of the authors who must register for the conference and pay the fee. The conference proceedings will be published by Springer in the prestigious series LNCS/LNAI (indexed by ISI CPCI-S, included in ISI Web of Science, EI, ACM Digital Library, DBLP, Google Scholar, Scopus, etc.).