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# CALL FOR PAPERS

## AI EDAM Special Issue, August 2016, Vol. 30, No. 3
## System Architecture Design

## Guest Editors: Claudia Eckert & Marija Jankovic

In the early design stages of design processes, system architecture defines the interaction among product, process, and company organization as well as the integration across different domains of design such as mechanical, electrical, and software engineering. During system architecture design, companies decide the balance between innovative and incremental development. System architecture decisions have a fundamental impact on overall project and company success, especially in complex systems.

An effective decision on system architecture has to consider the wider context of the product and its design process. Thus, it has to engage issues such as product planning, product platforms, product families and variants, designing for the changing market underlying the need for flexible design. However, in complex systems it is also essential to carefully choose new technologies and innovations, and therefore value engineering related to the reuse target. The notion of commonality and diversity also become important. In the context of complex systems, design is often characterized by a high level of uncertainty arising from changing user environments and operating conditions. System architectures are developed by heterogeneous teams and bridge knowledge across domains. Hence, there is a strong need to develop formalized system architecture models to support design teams.

This Special Issue seeks to bring together the state of the art on system architecture design from a variety of perspectives. We welcome papers addressing theory and methods as well as case study and review papers. Some of the areas of interest include the following:

- System architecture and product architecture generation and selection
- Product planning and platform design
- Design for flexibility, robustness, and managing engineering change
- Trade-off management and multiple domain optimization
- Risk management
- Set based design
- Value engineering
- Function modeling
- Requirement engineering

All submissions will be anonymously reviewed by at least three reviewers. The selection for publication will be made on the basis of these reviews. High quality papers not selected for this Special Issue may be considered for standard publication in *AI EDAM*.

Information about the format and style required for *AI EDAM* papers can be found at http://aiedam.usc.edu/index.php/Authors/ForAuthors

Note that all inquiries and submissions for Special Issues go to the Guest Editors, **not** to the Editor in Chief.

### Important Dates

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|---|---|
| Intent to submit (Abstract & Title): | As soon as possible |
| Submission deadline for full papers: | March 1, 2015 |
| Reviews due: | May 20, 2015 |
| Notification and reviews due to authors: | June 15, 2015 |
| Revised papers due from authors: | August 15, 2015 |
| Notification and second reviews due to authors: | November 1, 2015 |
| Second revised paper due from authors: | December 15, 2015 |
| Final version due: | February 1, 2016 |

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