*Artificial Intelligence for Engineering Design, Analysis and Manufacturing* (2012), *26*, 103–104.
© Cambridge University Press 2012 0890-0604/12 $25.00
doi:10.1017/S0890060411000400

# CALL FOR PAPERS

## *AI EDAM* Special Issue, August 2013, Vol. 27, No. 3
## Functional Descriptions in Engineering

## Guest Editors: Pieter Vermaas & Claudia Eckert

In design methodology there are a number of approaches for describing products functionally. In all of these approaches the concept of function is advanced as a fundamental one to engineering, and all of these approaches have proved their viability by achieving important results. The current state in engineering concerning functional descriptions is therefore characterized by the coexistence of various approaches among design methodologists to defining function and by an ongoing confusion among practitioners about how to apply functional descriptions. This state seems not to be an intermediate phase that will be quickly replaced by one in which more clarity is achieved; it instead seems to be one that is relatively stable, with historical roots and with various advantages to engineering.

That multiple approaches toward functional description are possible and are successful is itself already notable enough to call for analysis and explanation. Within design methodology it has also led to a sort of agreement to disagree and not to discuss the pros and cons of particular approaches. Moreover, it raises questions of how to manage the coexistence of these approaches toward function in engineering. Finally, it has led to an ongoing confusion about the use of this concept among practitioners.

With this Special Issue we aim to explore this current state of coexisting approaches toward functional descriptions in engineering and to collect a basis for discussing and assessing it within the engineering design community at large. Rather than authors advocating their personal views in isolation, we want to encourage a dialogue between different views on function. Design methodology research prospers with this coexistence. Thus, it may eventually be the way the discipline is, raising more metamethodological questions about how the functional descriptions that are generated by the different approaches should be related, in communication between design teams, for example, about how to archive functional structures of past design and about how functional descriptions should be taught at schools and universities and applied in research and industry.

The Special Issue will begin with three position papers that approach the topic of coexisting functional descriptions from a methodological, historical, and practitioner perspective.

- From a methodological perspective: Pieter Vermaas
- From a historical perspective: Ashok Goel et al.
- From a practitioner's perspective: Claudia Eckert et al.

These papers will be made available in the summer of 2011 at a meeting during the ICED conference in Copenhagen, Denmark. They can also be obtained when contacting the guest editors about interest in contributing to the Special Issue.

We welcome papers in which this current state is assessed and in which visions are developed about the possibilities and impossibilities for functional descriptions in the near future of engineering. The position papers should describe and interpret the current coexistence of different approaches toward functions, and we welcome response papers that develop this description and interpretation or provide for alternatives. Individual approaches toward functions are expected to be discussed in response papers, yet we welcome papers in which some distance is maintained from individual approaches in favor of a focus on the more general challenge to engineering: that is, how it should proceed with using and promoting functional descriptions.

Authors are invited to submit names of suitable reviewers, such that discussions aimed at developing the paper may be integrated in the review phase. In addition, authors are invited to a workshop to be held in the summer of 2012 (venue to be announced later). Draft papers can be presented and discussed at this workshop.

All submissions will be anonymously reviewed by at least three reviewers. The selection for publication will be made on the basis of these reviews.

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

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



https://doi.org/10.1017/S0890060411000400 Published online by Cambridge University Press

**Important Dates**

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| Kickoff meeting at ICED 2011 conference: | 15–19 August 2011 |
| Intent to submit (Title and Abstract): | 1 October 2011 |
| Submission deadline for full papers: | 1 January 2012 |
| Reviews due: | 1 April 2012 |
| Notification and reviews to authors: | 15 April 2012 |
| First revised version submission deadline: | 15 June 2012 |
| Workshops for presenting and discussing papers: | Summer 2012 |
| Notification and reviews to authors: | 1 October 2012 |
| Final revised version submission deadline: | 1 December 2012 |

**Guest Editors**

Pieter Vermaas
Department of Philosophy
Delft University of Technology
Delft 2600 AA, The Netherlands
E-mail: p.e.vermaas@tudelft.nl

Claudia Eckert
The Design Group
Open University
Milton Keynes MK7 6AA, United Kingdom
E-mail: c.m.eckert@open.ac.uk

https://doi.org/10.1017/S0890060411000400 Published online by Cambridge University Press