CALL FOR CONTRIBUTION

5th International Workshop on
FUNCTIONAL MODELLING
for Design and Operation of Engineering Systems

Hosted by Technical University of Denmark
& Okayama University, Japan

Online Workshop via Zoom, October 26th-28th, 2020
Every day at 8 a.m. – 11 a.m. CET / 4 p.m. – 7 p.m. JST

THEME

The design and operation of complex engineering systems need highly advanced technologies to meet the requirements in systems engineering, process and control design, risk assessment and human-machine interaction. These technological fields have a common challenge: to represent the purposes and intentions of the system under investigation and to use them in design and operation. A promising approach for tackling difficulties in handling complex engineering systems is to model goals and functions of a system from the viewpoint of means and ends and to use the model in combination with structural and behavioural information of a system.

The aim of the workshop is to facilitate high quality interactions among researchers that are interested in the theory of functional modelling (FM) and its applications. Participants can exchange and discuss their research results, establishing a common ground and identifying future research topics. To anchor the value of functional thinking for industrial applications, the workshop can include demonstrations or presentations from industrial partners.

TOPICS

- Foundations, methodology and tools of FM
- Causal reasoning based on FM
- FM applications for safety systems and risk management
- FM applications in operation support of engineering systems
- FM applications in engineering design for process plants, human-machine systems, etc.
- Resilient control systems and control system design

CONTRIBUTION

The workshop organizers now invite contributions from all researchers and industrial partners. Please submit an abstract of the content you would like to present at the workshop at the website: https://www.mfm.elektro.dtu.dk/iwfm/iwfm-2020. An abstract template is attached with this call.