

# Application Form / Workshop Description



## **Session Title:**

*Safe Human Robot Interaction with Industrial and Service Robots*

## **Organiser(s):**

*Theo Jacobs, Fraunhofer Institute for Manufacturing Engineering and Automation IPA,  
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## **Motivation and objective:**

*Safety is a key factor for enabling new service robot and industrial robot applications which aim at a direct interaction or collaboration of human and robot without fences. For both industrial and service robots great progress has recently been made in ISO standardisation to provide essential safety requirements for a safe interaction. At the same time, research has been done regarding sensor and control concepts as well as determining limits for a safe interaction.*

*In this workshop recent development in standardisation and latest research regarding human robot interaction will be presented and discussed.*

## **Approach:**

*The workshop will consist of a series of targeted presentations of 20-25 minutes on the latest developments in ISO standardization as well as research results regarding safe human robot interaction. Each presentation will be followed by a question and answer session and discussion of the results.*

## **Agenda of the workshop:**

- *Introduction by the moderator*
- *Presentations by 3-5 selected participants followed by question and answer session after each presentation*

## **Speakers (Preliminary):**

- *Susanne Oberer-Treitz, research scientist, Fraunhofer IPA*
- *Sami Haddadin, Head „Human-Robot Interaction“-Group, German Aerospace Center DLR*
- *Technical Expert (to be determined) of ISO committee TC184/SC2 engaged in development of safety standards for industrial and service robots*
- *Additional speaker(s) (to be determined)*

## **How can participants contribute to, and prepare for, the workshop?**

*The workshop can be attended without preparation. During the workshop participants are invited to ask questions and to actively participate in the discussion.*

## **Planned follow-up:**

*All presentations will be made available online together with a brief summary of the discussion.*