

## European Robotics Forum 2015 – Workshop Digest

**Day 2 (your session's day) March 12th, 08:30 – 10:00** (start and end hours, numbers from 08:00 to 18:15)

**Session Title: Challenges in Perception based on Domain Requirements**

---

**Organiser(s):** Michael SUPPA, Institute of Robotics and Mechatronics, German Aerospace Center (DLR), Germany, [michael.suppa@dlr.de](mailto:michael.suppa@dlr.de)  
Jesús Pablo GONZALEZ, Fundació Privada Ascamm, Spain, [jgonzalez@ascamm.com](mailto:jgonzalez@ascamm.com)  
Darius BURSCHKA, Technical University of Munich, Germany, [burschka@cs.tum.edu](mailto:burschka@cs.tum.edu)

---

**Content:** The current robot systems are mostly capable of sensory verification and update of static configurations of the environment. Domain-specific challenges arise from the transition of robotic systems into unstructured every-day life with direct interaction with people requires an anticipation of actions and autonomous generation of action models to ensure safety in the operation. Robots must be enabled to operate in real-life scenarios to bring value to society. This is achieved by increased awareness and autonomy and better system design for fully autonomous operation of mobile manipulation systems. Future robots will no longer be isolated systems operating in segregated environments, but they will share spaces with humans and other systems and robots. In order to achieve successful (reliable and efficient) operations in these situations, robots will have to provide excellent perception abilities in dynamic unstructured environments and scenarios. This workshop will allow industry and research community present and discuss about current technical challenges in the domains, analyze potential solutions and propose input to the technology roadmap.

---

**Agenda of the workshop:** 08:30 – 08:45 Introduction  
08:45 – 09:00 Perception and Manipulation, Closing the Gap (Prof. Darius Burschka)  
09:00 - 09:15 Perception Challenges in Automation/Industry 4.0/Mobile Robotics (tbc)  
09:15 – 09:30 Perception Challenges in Service Robotics (Dejan Pangercic)  
09:30 – 09:45 Perception Challenges in Healthcare (tbc)

---

---

09.45 – 10:00 Discussion an Conclusions for the Roadmapping  
Process under SPARC/Horizon 2020

---

**Speaker(s):** Prof. Darius BURSCHKA, Technical University of Munich, Germany  
Dejan PANGERCIC, Robert Bosch GmbH, Germany

---

**Further  
information:** n/a

---

**Workshop  
website link:** n/a

---