

# WORKSHOP „ROBOTICS, AUTOMATION AND BIOMECHANICS“

MONDAY, 3rd April 2017

09:00 - 15:00	Arrival and registration
15:00 - 17:00	Round table with SpbSTU, KIT, DWIH and Helmholtz (short presentation of all partners and participants)
17:00 - 19:00	Break
19:00 - 21:00	Social event

TUESDAY, 4<sup>th</sup> April 2017

09:00 - 09:30	Registration
09:30 - 09:45	Welcome speech St. Petersburg Polytechnic University
09:45 - 10:00	Welcome speech DWIH
10:00 - 10:15	Welcome speech Helmholtz
10:15 - 10:45	Coffee break
10:45 - 11:15	Research at St. Petersburg Polytechnic University
11:15 - 11:45	Prof. Dr.-Ing. Björn Hein "Research at IAR-IPR" (KIT)
11:45 - 12:15	Prof. Dr.-Ing. Torsten Kröger "An Outlook: Future Robotics Research Topics and Projects at IAR-IPR" (KIT)
12:15 - 13:30	Lunch
13:30 - 14:00	Research and Education Center "Biomechanics and Medical Engineering" (SpbSTU)
14:00 - 14:30	Dr.rer.nat. Jörg Raczowsky "Robotics in Medicine" (KIT)
14:30 - 15:00	Presentation (SpbSTU/ITMO)
15:00 - 15:30	Coffee break
15:30 - 16:00	Prof. Dr.-Ing. Torsten Kröger "The New Springer Handbook of Robotics: Theory, Robots, and Multimedia" (KIT)
16:00 - 16:30	Open discussion "Cooperation Areas and Projects"
16:30 - 17:00	Wrap-up and summary

**WEDNESDAY, 5<sup>th</sup> April 2017**

09:00 - 09:30	Jessica Hutzl "Parametric analysis of a redundant robot with pivot-point restriction" (KIT)
09:30 - 10:00	Presentation 1 (SpbSTU)
10:00 - 10:30	Hendrikje Pauer "FBG-based shape sensing and differential geometry" (KIT)
10:30 - 11:00	Coffee break
11:00 - 11:30	Luzie Schreiter "Probabilistic situation detection in OR")
11:30 - 12:00	Presentation 2 (SpbSTU)
12:00 - 12:30	Ilshat Mamaev "Design and control of a lower limb exoskeleton" (KIT)
12:30 - 13:30	Lunch
13:30 - 14:00	David Puljiz "Visual servoing and object detection" (KIT)
14:00 - 14:30	Presentation 3 (SpbSTU)
14:30 - 15:00	Denis Stogl "Tracking, Reconstruction and Grasping of Rotationally Symmetric Unknown Objects from a Conveyor Belt" (KIT)
15:00 - 15:30	Coffee break
15:30 - 16:00	Sergej Neumann "Efficient Multi-AUV Cooperation for underwater missions" Yingbing Hua "Semantic integration of engineering data"
16:00 - 16:30	Presentation 4 (SpbSTU)
16:30 - 17:00	David Oertel "Deep-sea AUV: acoustic localization and online motion planning" (KIT)

**THURSDAY, 6<sup>th</sup> April 2017**

09:00 - 09:30	Yingbing Hua "Semantic integration of engineering data"
09:30 - 10:00	Presentation 5 (SpbSTU)
10:00 - 10:30	Zunchao Zheng "AI-based Path Planning for Mobile Manipulator" (KIT)
10:30 - 11:00	Coffee break
11:00 - 11:30	Presentation 6 (SpbSTU)
11:30 - 12:00	Presentation 7 (SpbSTU)
12:00 - 12:30	Presentation 8 (SpbSTU)
12:30 - 17:00	Lunch and guided tour SpbSTU/ITMO

**FRIDAY, 7<sup>th</sup> April 2017**

09:00 - 09:30	Registration
09:30 - 10:30	Round table "Cooperation Areas and Projects" (KIT, SpbSTU)
10:30 - 11:00	Coffee break
11:00 - 12:00	Closing Address (KIT and SpbSTU) and departure