Karlsruher Institut für Technologie

High Performance Humanoid Technologies

Humanoid Robotics Research @ KIT

Tamim Asfour

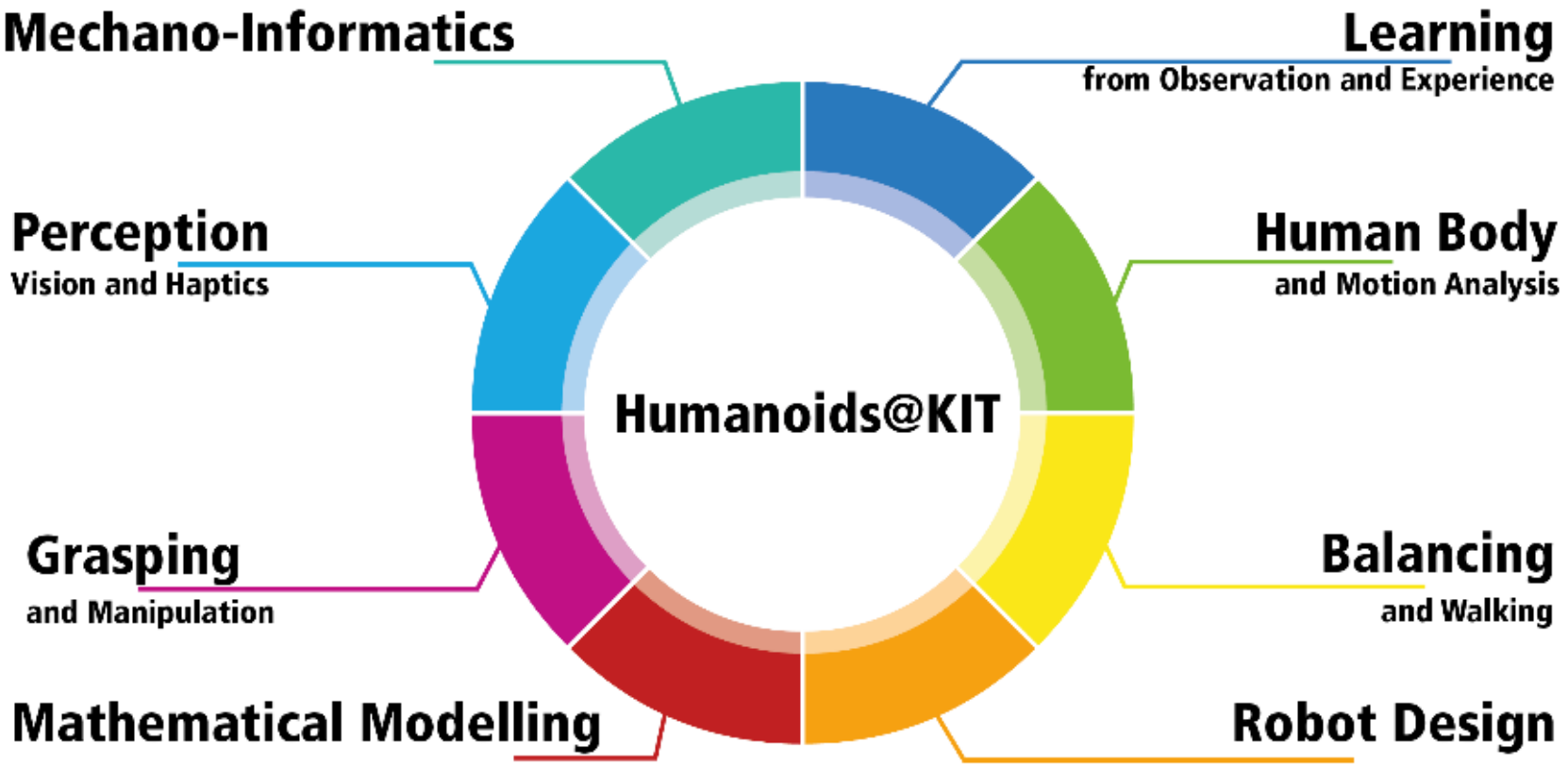
High Performance Humanoid Technologies (H²T)

http://www.humanoids.kit.edu

http://h2t.anthropomatik.kit.edu

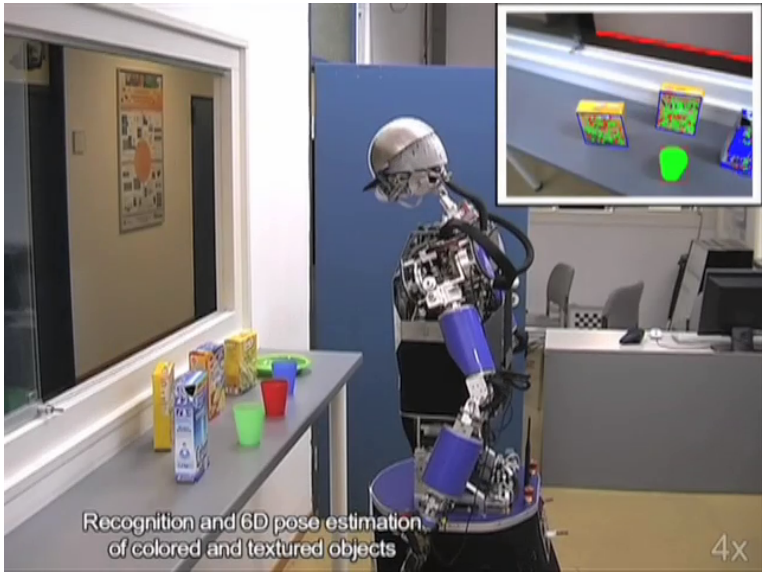
Institute for Anthropomatics and Robotics (IAR), High Performance Humanoid Technologies (H²T)

H²T Research Topics

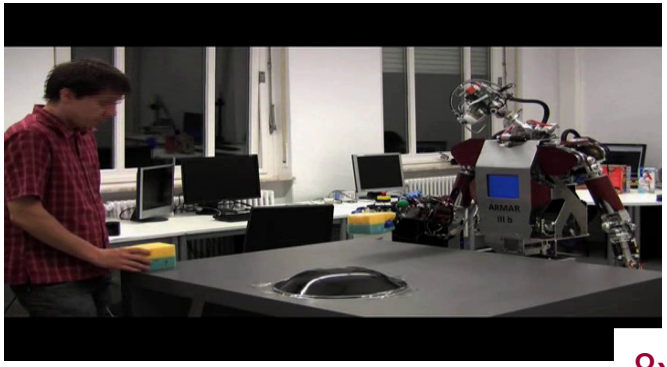


Research Topics @ H²T

- **Grasping and manipulation**
  - Integration of vision and haptics to deal with unknown objects
  - Active perception for object segmentation
  - Mobile manipulation
  - Vision-based localisation



- **Learning for human observation and experience**
  - Marker-based (and markerless) observation of human actions
  - Learning motion primitives from human demonstration
  - Motion alphabets for grasping, walking and whole-body locomotion and manipulation tasks



Praxis der Forschung in SS 2017 am H²T

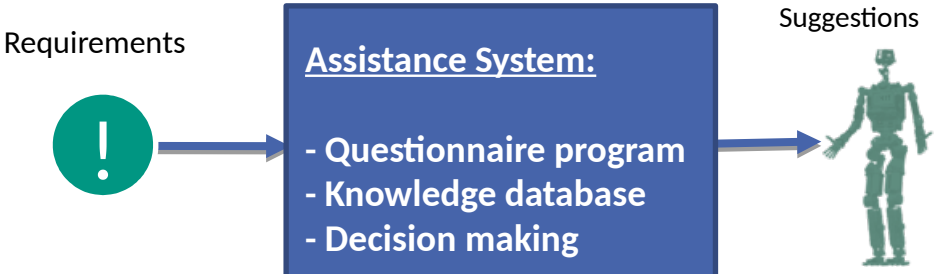
Active Perception: Physically Plausible Scene Understanding

- Use physical plausibility to improve scene understanding for humanoid robots

- Required:
  Programming skills in C++

Assistance System for the Design of Humanoid Robots

- Design and implement a system, which supports the design of humanoid robots



- Required:
  Programming skills in C++/C or Java

H²T „special“ requirements for PdF

- 1-2 weeks time of probation (Probezeit)
- Candidates must spend at least one day per week in the H²T labs

Contact

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