Outlook

Prof. Dr. habil. Jana Koehler

Artificial Intelligence - Summer 2019

Deep thanks go to
Prof. Bernhard Nebel and
Prof. Franz Baader for
sharing their course material

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Upcoming Courses in Winter 2019/2020

- Special Lecture: Architectural Thinking for Intelligent Systems
- Special Lecture: Affective Computing (Dr. Patrick Gebhard)
- Proseminar: Recent Topics in HCI
- Seminar: Cognitive and Cooperative Robotics
- Seminar: Design and Evaluation of Ubiquitous Technologies in Health & Sports

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Special Lecture: Architectural Thinking for Intelligent Systems

- Challenges in developing intelligent systems
- Systematic analysis of desired functional requirements and system qualities
- Understanding of architectural concerns
- Architectural decision making
- Evaluation of software architecture

➢ Find appropriate and elegant architecture

- Each participating student (or student team) is expected to choose a system, for which an architecture needs to be devised

- Tutorial: Mondays 10:15 – 11:45 Uhr seminar room 106 in E1 1
  - starting 4.11.2019, ending 7.2.2020 (Friday)
- Lecture: Mondays 14.15 - 16.00 Uhr lecture hall 001 in E1 3
  - starting 21.10.2019, ending 3.2.2020, examen prep 7.2.2020

➢ https://cms.sic.saarland/atis_19/

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Special Lecture: Affective Computing (Dr. Patrick Gebhard)

- Understand areas of Affective Computing and related research topics
- Develop a basic knowledge of emotions and related phenomena
- Know functions of emotions and their use in interactive systems
- Understand typical methods and techniques
- Developing an overview on needed hardware and software
- Tutorials cover theoretical and practical issues

- Lecture starts on October 17th (each Thursday), 10:15 - 11:45
- Lecture hall HS003 in E1 3
- Tutorials start on November 4th, time and location t.b.a.

- Exam and Exam preparation t.b.a

- http://affective.dfki.de/?page_id=225

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Proseminar: Recent Topics in HCI

- The aim of this proseminar is to learn and practice scientific presentation techniques and to gain deeper insights into selected research topics in the field of Human Computer Interaction (HCI).

- In German, but presentations can be held in English

- Contact: Frederic Kerber, Frederic.Kerber@dfki.de

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Seminar: Cognitive and Cooperative Robotics

- In this practical seminar, students will learn how to program and use robots of various kinds, e.g. humanoid robots (Rethinkrobotics Baxter and Softbank Pepper), telepresence robots (Double Robot), and even drones (DJI Tello). In teams, students develop small demonstrations that should address cognitive behavior (by implementing AI methods) and/or human-robot collaboration. In both cases additional sensors and interaction hardware will also be available, e.g. Microsoft HoloLens, HTC Vive and even a Brain Computer Interface (BCI).

- In English

- Contact: Tim Schwartz, Tim.Schwartz@dfki.de

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Seminar: Design and Evaluation of Ubiquitous Technologies in Health & Sports

- In this seminar we aim to design interactive health and sports experiences that rely on IoT and wearable technologies. It further aims to broaden the scope of gamification in health and sports.

- In English

- Contact: Dr. Florian Daiber, Florian.Daiber@dfki.de

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“AI-Complete” Applications

that Integrate Almost Everything (and more)

We Learned

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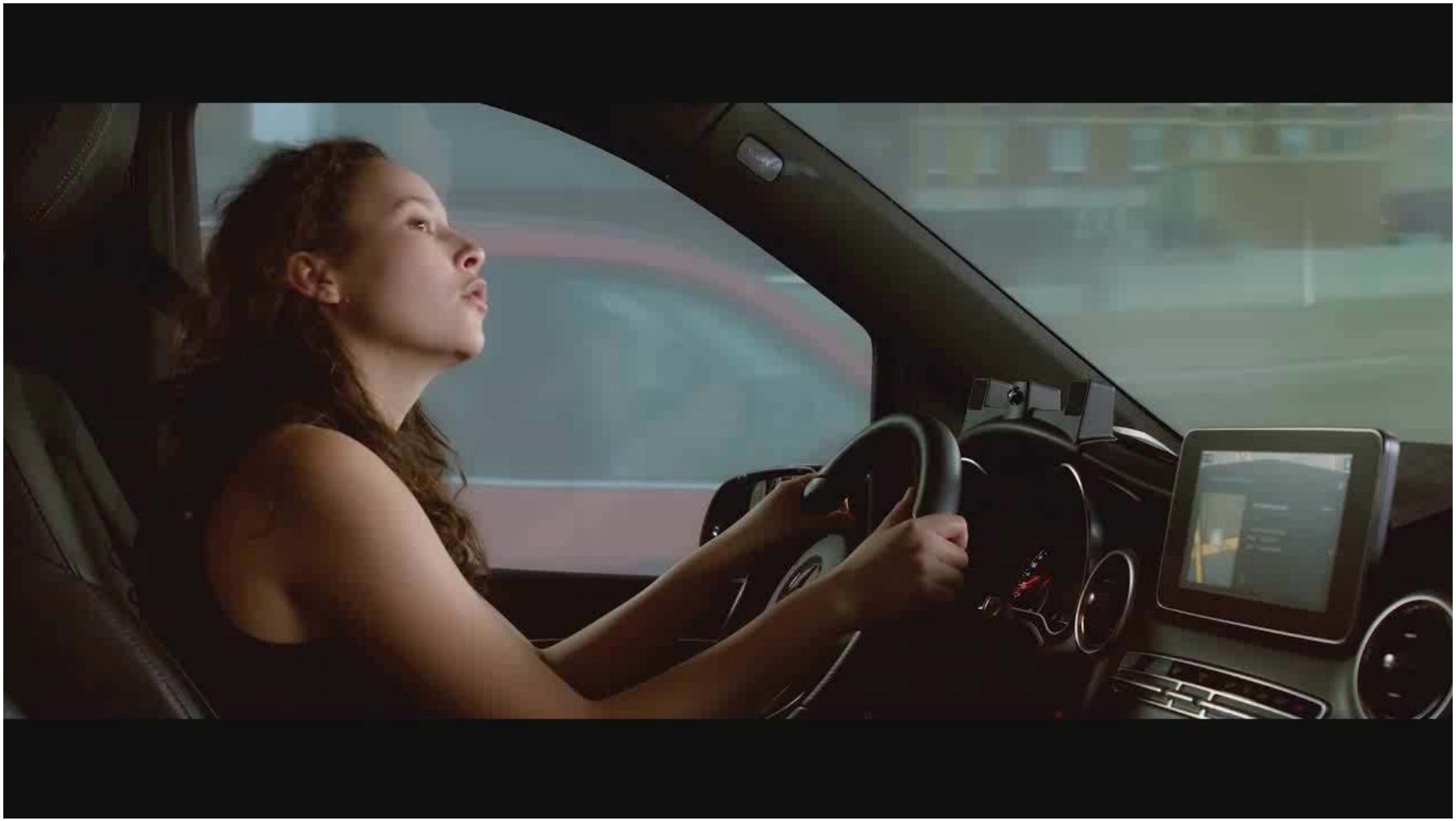
Natural Multimodal User Interaction with Car and Outside Environment.



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Human-Robot Collaboration in Industry 4.0

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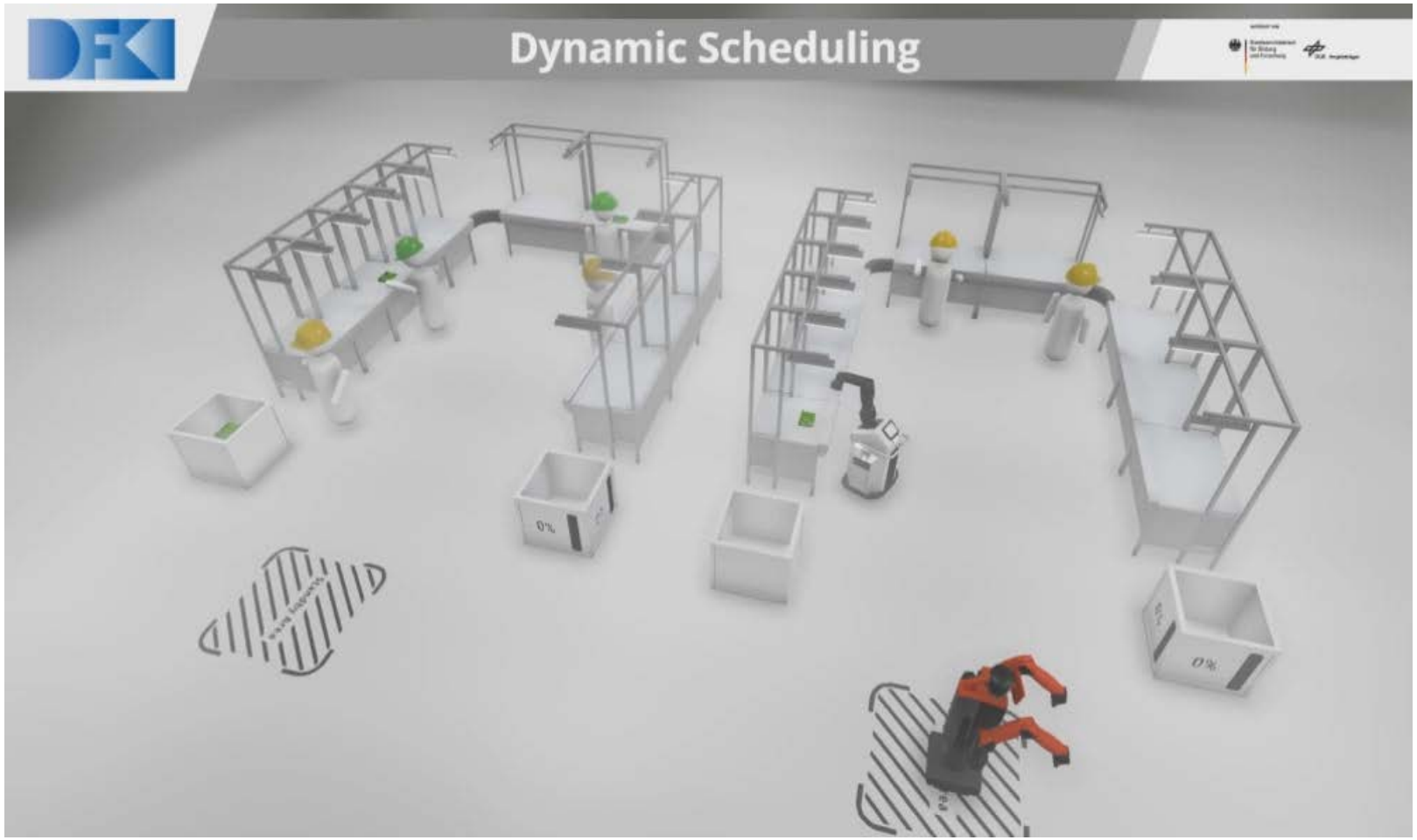
AI-based Real-time Planning of Hybrid Human-Robot Teams



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Smart Worker Assistance by DFKI and Hitachi

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SWOOZY: Real-time Information Extraction on Live TV

Detected entities become interaction objects

Artificial intelligence:
Intelligent OCR, Speech Understanding, Image and Face Recognition

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Robocup Soccer

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