

# MAS ISW Assignment 2

Simon Deussen

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## **Task 1: Extract keywords from "Readings in Robot Architecture"**

- Conceptual architecture
  - control architecture
  - telerobot
  - reference model architecture
  - Supervision
  - fault detection
  - fault recovery
  - situation-driven
  - behavior-based
- Functional architecture
  - hierarchical
  - layered
  - realtime
  - hybrid system
- Software architecture
  - toolkit
  - framework
  - asynchron
  - dsl
  - reactive
  - middleware
- Hardware architecture

- robot navigational system
- detection
- diagnosis
- environments
  - dynamic
  - indoor
- mobile robots
- paper type
  - background
  - survey
- driving

## **Task 2: Identify the six most important...**

**... in robotics:**

**conferences** IROS, ACC, INFOCOM, RSS, Robosoft, ICRA

**journals**

- Advances in Robotics and Automation
- Journal of Behavioral Robotics
- Journal of Automation, Mobile Robotics and Intelligent Systems
- International Journal of Imaging and Robotics
- Transactions on Systems and Control
- STUDIES IN INFORMATICS AND CONTROL

**articles / book**

- John Craig, Introduction to Robotics: Mechanics and Control
- Bruno Siciliano and Oussama Khatib, Handbook of Robotics
- Bruno Siciliano, Robotics Modelling, Planning and Control
- Sebastian Thrun, Probabilistic Robotics
- William Brogan, Modern Control Theory
- Kevin M. Lynch and Frank C. Park, Modern Robotics Mechanics, Planning, and Control

**... in ai/ml:**

**conferences** AAAI, ICML, SIGKDD, NeurIPS, ACL, ICLR

**journals**

- Journal of Information and Organizational Sciences
- Mining Science
- International Journal of Artificial Intelligence
- Transactions on Machine Learning and Artificial Intelligence
- Information Fusion
- International Journal of Intelligent Systems

**articles / book**

- Trevor Hastie, The Elements of Statistical Learning:
- Stuart J. Russell and Peter Norvig, Artificial Intelligence: A Modern Approach

- Aurelien Geron, Hands-on Machine Learning with Scikit-Learn and Tensorflow
- Christopher M. Bishop, Pattern Recognition and Machine Learning
- Kevin Murphy, Machine Learning: A Probabilistic Perspective
- Goodfellow, Deep Learning

**... in pattern recognition / cv:**

**conferences** CVPR, ICCV, ECCV, ACMMM, ICIP, ICPR

**journals**

- Journal on Image and Video Processing
- INTERNATIONAL JOURNAL OF ADVANCES IN SIGNAL AND IMAGE SCIENCES
- Advances in Image and Video Processing
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Geoscience and Remote Sensing Magazine
- Medical Image Analysis

**articles / book**

- Richard Szeliski, Computer Vision: Algorithms and Applications
- Simon Prince, Computer Vision: Models, Learning, and Inference
- Klette, Concise Computer Vision
- David Forsyth and Jean Ponce, Computer Vision: A Modern Approach
- ResNet, Deep Residual Learning for Image Recognition
- AlexNet, ImageNet Classification with Deep Convolutional Neural Networks

### **Task 3: Find survey/tutorial articles on the following subjects:**

#### **motion planning**

**URL** Link.

**Search term** survey paper motion planning

#### **localization**

**URL** Link.

**Search term** survey paper localization

#### **object recognition**

**URL** Link.

**Search term** object recognition survey paper

#### **(machine) learning**

**URL** Link.

**Search term** survey paper machine learning

#### **fuzzy control**

**URL** Link.

**Search term** survey paper fuzzy control