

Towards service robots for veryday environments: recent advances in designing service robots for complex tasks in everyday environments

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20399015&lokasi=lokal>

Abstrak

People have dreamed of machines, which would free them from unpleasant, dull, dirty and dangerous tasks and work for them as servants, for centuries if not millennia. Service robots seem to finally let these dreams come true. But where are all these robots that eventually serve us all day long, day for day? A few service robots have entered the market: domestic and professional cleaning robots, lawnmowers, milking robots, or entertainment robots. Some of these robots look more like toys or gadgets rather than real robots. But where is the rest? This is a question, which is asked not only by customers, but also by service providers, care organizations, politicians, and funding agencies. The answer is not very satisfying. Today's service robots have their problems operating in everyday environments. This is by far more challenging than operating an industrial robot behind a fence. There is a comprehensive list of technical and scientific problems, which still need to be solved. To advance the state of the art in service robotics towards robots, which are capable of operating in an everyday environment, was the major objective of the DESIRE project (Deutsche Service Robotik Initiative – Germany Service Robotics Initiative) funded by the German Ministry of Education and Research (BMBF) under grant no. 01IME01A. This book offers a sample of the results achieved in DESIRE.