“Layered Learning in Cognitive Service Robot Systems”

Abstract:

In a dynamic and changing world, a robust and effective robot system must have adaptive behaviors, incrementally learnable skills and a high-level conceptual understanding of the world it inhabits. I will first introduce the concept of incremental learning approaches, with consideration of applications of intelligent service robot systems, e.g. in medical assistance, rehabilitation, home service, and entertainment, etc. I will then introduce a framework for representing robot experiences, planning and learning. Results are integrated and evaluated in operational mobile platforms with grasping facilities.

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