1. Record Nr. UNINA9910144911903321

Titolo	RoboCup-97: Robot Soccer World Cup I [[electronic resource] /] / edited by Hiroaki Kitano
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1998
ISBN	3-540-69789-6
Edizione	[1st ed. 1998.]
Descrizione fisica	1 online resource (XV, 525 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 1395
Disciplina	629.8/92
Soggetti	Artificial intelligence Robotics Automation Software engineering Computer simulation Automatic control Mechatronics Artificial Intelligence Robotics and Automation Software Engineering Simulation and Modeling Control, Robotics, Mechatronics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	RoboCup: A challenge problem for AI and robotics -- Overview of RoboCup-97 -- The RoboCup physical agent challenge: Goals and protocols for phase I -- The RoboCup synthetic agent challenge 97 -- Playing soccer by modifying and combining primitive reactions -- Learning, deciding, predicting: The soccer playing mind -- Using decision tree confidence factors for multiagent control -- A role-based decision-mechanism for teams of reactive and coordinating agents -- Using an explicit model of teamwork in RoboCup -- Decision making by the characteristics and the interaction in multi-agent robotics soccer -- Real-time vision processing for a soccer playing mobile robot -- A

method applied for soccer's behaviors using proper feedback and feedforward control -- A legged robot for RoboCup based on “OPENR” -- JavaSoccer -- RoboCup-3D: The construction of intelligent navigation system -- Generating multimedia presentations for RoboCup soccer games -- Football in recent times: What we can learn from the newspapers -- The value of project-based education in robotics -- The CMUnited-97 small robot team -- Development of self-learning vision-based mobile robots for acquiring soccer robots behaviors -- MICROB: The french experiment in RoboCup -- Description of rogi-team -- Autonomous soccer robots -- Vision-based robot learning towards RoboCup: Osaka University “Trackies“ -- RoboCup97: An omnidirectional perspective -- Omni-directional autonomous robots cooperating for team play -- The spirit of Bolivia: Complex behavior through minimal control -- AT Humboldt — Development, practice and theory -- Refinement of soccer agents' positions using reinforcement learning -- The CMUnited-97 simulator team -- Co-evolving Soccer Softbot team coordination with genetic programming -- Learning cooperative behaviors in RoboCup agents -- Individual tactical play and action decision based on a short-term goal — team descriptions of team Miya and team Niken -- The reactive motion planning in the passive situation -- A reactive architecture for RoboCup competition -- Team: Kasuga-bitos with modulation of playing -- Team sicily -- Team description: Building teams using roles, responsibilities, and strategies -- A multi-layered behavior based system for controlling RoboCup agents -- Using ABC 2 in the RoboCup domain -- Integrating learning with motor schema-based control for a Robot Soccer Team -- Describing soccer game in EAMMO -- Team GAMMA: Agent programming on gaea -- Using reactive deliberation for real-time control of soccer-playing robots -- A Multi-layered planning architecture for soccer agent.

Sommario/riassunto

RoboCup is an international initiative devoted to advancing the state of the art in artificial intelligence and robotics. The ultimate, long range goal is to build a team of robot soccer players that can beat a human World Cup champion team.This is the first book devoted to RoboCup. It opens with an overview section presenting the history of this young initiative, motivation, the overall perspectives and challenges, and a survey of the state of the art in the area. The technical paper section presents the state of the art of the interdisciplinary research and development efforts in details, essentially building on the progress achieved during the RoboCup-97 Workshop. The team description contributions discuss technical and strategic aspects of the work of the participating teams.