

Real time intelligent control of a humanoid

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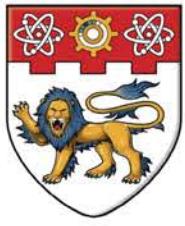
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REAL TIME INTELLIGENT CONTROL OF A HUMANOID

Introduction

Driven by the human desire to create fully autonomous Humanoid Robots (HRs), humanoid robotics has become one of the hottest topics in robotic research in recent years. In applications, HRs are more useful as compared to wheeled robots or multi-legged robots because of their biped structure. In this project, a HR (RN 1) that is convertible to a wheeled robot is developed. Intelligent sensors have been embedded into the system to enable RN1 to “see”, “think” and balance on its own.



Capabilities of the RN1

- ◆ Human-like movements (walking, kicking, tumbling, dancing, push-up, *kung fu* etc)
- ◆ Detect obstacles & human motions
- ◆ Self-balancing
- ◆ Move on wheels

Potential Applications

- ◆ Entertainment
- ◆ Services and health care
- ◆ Rescue robot