

# Weiwei Huang

Citizenship : Chinese • Date of birth : 17 September 1983

Address: Compassvale Link BLK269B #03-107, 542269 SINGAPORE

## Contact

Tel : 0065-8126-8039

e-mail :

huangweiwei1983@gmail.com

## Key Skills

- Hands on experience in adult size humanoid robotic design, sensing, and system integration
- Specialized in bipedal walking control
- Experienced in dynamic modeling and simulation
- Knowledge of RT-Linux based real time control
- Strong software implementation skills in C/C++ and Matlab
- A good team worker as well as capacity to work independently

## Education

2005 to 2010

**PhD in Mechanical Engineering**

SCHOOL NAME, National University of Singapore, Singapore

Area of Research Focus: Humanoid Robot Control

2000 to 2004

**Bachelor of Engineering in Automation**

SCHOOL NAME, University of Science and Technology of China, China

## Work Experience

**Institute for Infocomm Research (I2R), Singapore**

**Research Scientist I, Team Leader**

**August, 2010 to Present**

**Area of Focus: Bio-inspired cognitive navigation**

## Related Experience

**ASLAN project: development of an adult size humanoid robot (Project Leader)**

- ❖ Design the mechanical structure of humanoid robot in SolidWorks
- ❖ Design the electrical system for the motion control including processor, sensors, and actuators.
- ❖ Develop the real time control environment
- ❖ Champion of Robocup 2010 in adult size humanoid soccer
- ❖ Champion of Robocup 2010 in adult size humanoid technical challenge

**LOCAS project: development of walking algorithm under various scenarios in simulation**

- ❖ Develop a LIPM and preview control based algorithm for slope and staircase walking
- ❖ Help to develop the jumping control algorithm
- ❖ Help to develop the wall climbing and crawling algorithm

**Project of push recovery for humanoid robot**

- ❖ Develop a bio-inspired coordination method between limbs for push recovery
- ❖ Help to develop a phase modification based push recovery algorithm.

## Activities and Interests

**Activities** Committee Member, Secretary of Singapore Innovation and Enterprise Association  
Committee Member of NUS Toastmaster Club.

**Interests** Traveling, Playing badminton

## Languages

**Chinese** (native)

**English** (fluent, TOFEL 620 (taken in 2005))

## References

**Tiao Bo (Colleague in I2R)**  
Email: btian@i2r.a-star.edu.sg

**Chew Chee-Meng (Supervisor in NUS)**  
Email: mpeccm@nus.edu.sg



*NUS BIP III in the Dribble and Kick semi-final event... and coming up trumps in the “life-size” category of the Humanoid League.*

ASLAN in RoboCup 2010