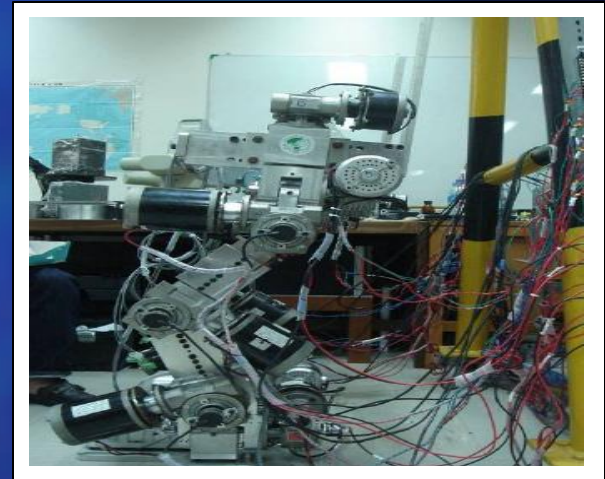




Know your Researcher @ Asian Institute of Technology



Edition March 2011 : Dr Manukid Parnichkun



Dr Manukid Parnichkun
Mechatronics Field of Study
Asian Institute of Technology

Profile:

Manukid Parnichkun received B.Eng. from Mechanical Engineering, Chulalongkorn University in 1991, M.Eng. and Ph.D. from Precision Machinery Engineering, The University of Tokyo in 1993 and 1996 respectively.

He joined Mechatronics field of study at Asian Institute of Technology as an Assistant Professor in 1996. He became Associate Professor at the same institute in 2001. He supervised and graduated 9 doctoral students, and 112 master students. He published over 100 books, journals, and conference proceedings. He has conducted 22 contract research projects.

He was in the founding committee of the Thai Robotics Society (TRS) and later became editor-in-chief of the society journal. He was elected to be the president of the Thai Robotics Society during 2003-2005. He organized and took part in organization of many conferences, robot competitions both local and international.

His research interests are Mechatronics, Robotics, Control, and Measurement.

Areas of Research Interest

- Robotics and Machine Development
 - Mechanism Design, Control Algorithm, Bios and Higher Level Programming
- Control Design
 - PID, Fuzzy, AI, Robust, Adaptive, Neural Network-Based Control Algorithm
- Measurement Design
 - Sensing Mechanism Design, Signal Processing and Manipulating Circuit Design, and/or Low-Level Programming



Flying Robot

Development of an Autonomous Flying Robot Project

Objective: To develop an autonomous flying robot which can fly following a trajectory automatically by using computer onboard. No operator is required.

Sponsor: Thailand Research Fund

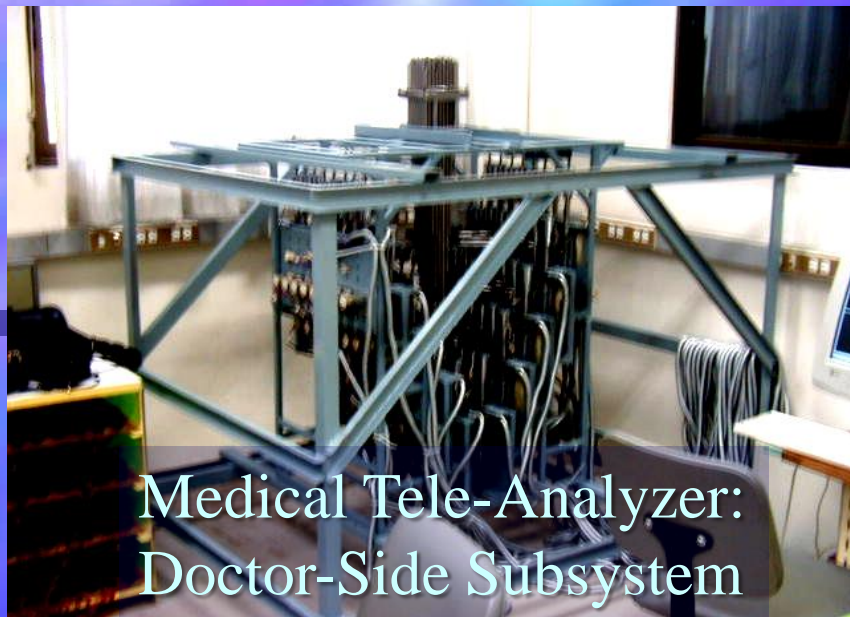
Development of an Autonomous Underwater Robot Project

Objective: To develop an autonomous underwater robot which can move following a trajectory automatically by using computer onboard. No operator is required.

Sponsor: RTG Joint Research



Underwater Robot



Medical Tele-Analyzer:
Doctor-Side Subsystem

Development of a Medical Tele-Analyzer for Abdominal Mass Analysis

Objective: To develop a medical tele-analyzer used to diagnose abdominal mass remotely.

Sponsor: National Electronics and Computer Technology Center



Medical Tele-Analyzer:
Patient-Side Subsystem



IC Inspection System



Intelligent Vehicle: Passenger
Car Type

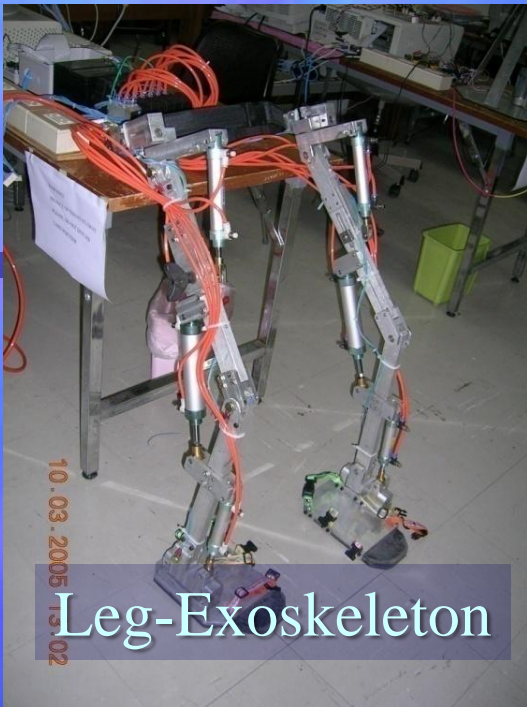


Intelligent Vehicle: Electrical
Cart Type

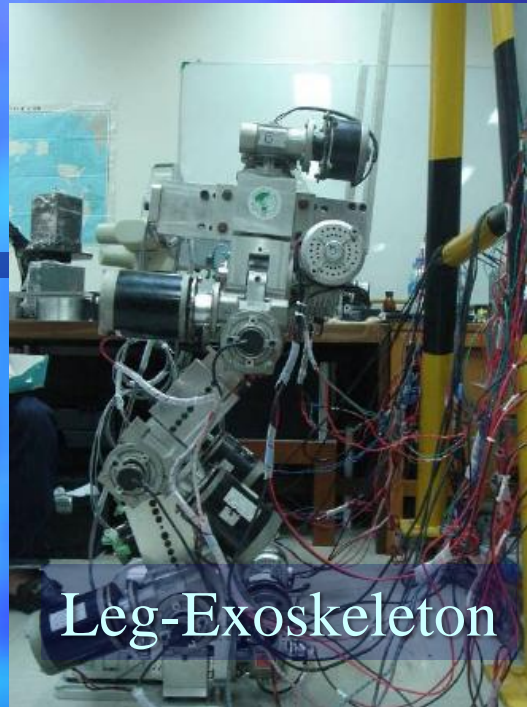
Development of an Intelligent Vehicle Project

Objective: To develop an Intelligent vehicle, the vehicle which can move autonomously from a place to the other place without driver by using information from GPS, digital map, camera, sonar, etc.

Sponsor: National Electronics and Computer Technology Center



Leg-Exoskeleton



Leg-Exoskeleton



Rehabilitation Device



Leg-Exoskeleton

Development of Leg-Exoskeleton for Transportation and Rehabilitation Project

Objective: To develop an exoskeleton for handicapped, paraplegia, hemiplegia people.

Sponsor: National Electronics and Computer Technology Center



Development of Bicycle Robot and Determination of Friction Coefficient Project

Objective: To develop a Gyroscopic bicycle, a bicycle robot which can balance itself automatically by using a gyro to generate angular momentum pointing in the direction to cancel the bicycle imbalance.

Sponsor: National Electronics and Computer Technology Center



Single-Link Inverted Pendulum



Robocup

Brain Computer Interface Project

Collaborator: Faculty of Medicine, Siriraj Hospital

Objective: To stimulate animal brain in order to control the animal to follow commands from an operator. To recognize brain signal to control machine.

Sponsor: Thailand Research Fund



Roborat



Arm-Exoskeleton



Arm-Exoskeleton
for VR

Development of Arm Exoskeleton Project

Objective: To develop an arm-exoskeleton for power amplification and virtual reality.

Sponsor: RTG Joint Research

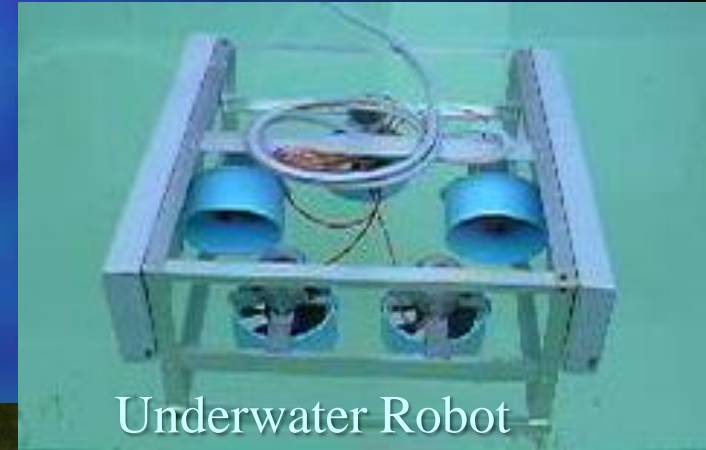
Development of Tsunami Early Warning System Project

Objective: To develop a Tsunami early warning system for Thailand to detect Tsunami on Andaman sea.

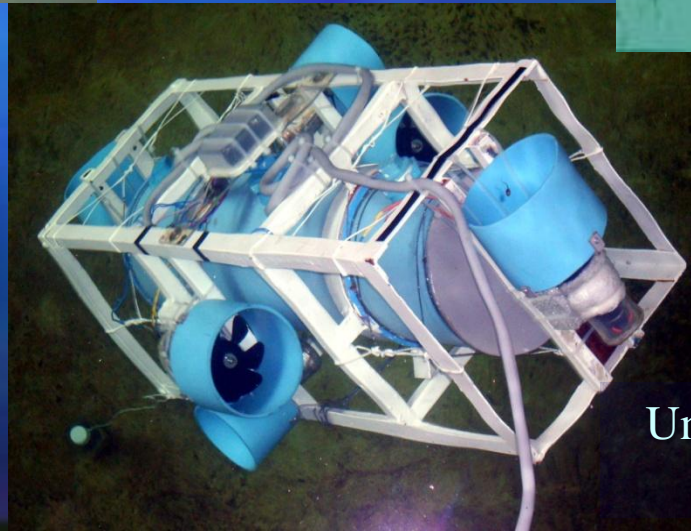
Sponsor: RTG Joint Research



Tsunami Early Warning System



Underwater Robot



Underwater Remotely Operated System

Thank you

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To know more visit:

<http://www.ise.ait.ac.th/mech/manukid/index.htm>

If you would like to highlight your research activities do send in your inputs to

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