

Grupo de Automática y Robótica – GAR

Maestría en Ingeniería

Facultad de Ingeniería

Pontificia Universidad Javeriana – Cali

Santiago de Cali, Abril 11 de 2008

Outline

- 1 Group Members
- 2 Research Areas
- 3 Class Offering
 - Sistemas Empotrados de Tiempo Real
 - Redes de Sensores Inalámbricos
- 4 Further Information

Members

- Andrés Jaramillo Botero, Director (now @ Caltech)
- Jaime Alberto Aguilar Zambrano (now @ Univ. Politécnica de Valencia)
- Alexander Martínez Alvarez (now @ Univ. Politécnica de Madrid)
- Ferney Orlando Amaya Fernández (now @ Univ. Pontificia Bolivariana)
- Antal Alexander Buss Molina (now @ Texas A & M Univ.)
- María Constanza Pabón Burbano
- Eliot Motato Escobar
- Luis Eduardo Tobón Llano
- Eugenio Tamura Morimitsu

- Process Automation
- Robotics
 - Optimised kinematics and dynamics design from precise mathematical models
 - Modelling and simulation of real-time robot tasks
 - High-performance, high-speed operating robots
 - Unconventional morphologies suited to unconventional applications
- Nanoscale Science and Engineering
 - Computational Nanotechnology theory
 - Methods and tools for design, modelling, simulation and control of nanodevices

Outline

- 1 Group Members
- 2 Research Areas
- 3 Class Offering**
 - **Sistemas Empotrados de Tiempo Real**
 - Redes de Sensores Inalámbricos
- 4 Further Information

Real-Time Embedded Systems

Course Goals:

- Review methodologies and criteria to develop real-time embedded systems
- Introduce primitives for real-time embedded systems programming

Real-Time Embedded Systems

Syllabus

- 1 Introduction to real-time computing
- 2 System modelling
- 3 Process modelling
- 4 Real-time scheduling
- 5 Real-time operating systems
- 6 Applications

Outline

- 1 Group Members
- 2 Research Areas
- 3 Class Offering**
 - Sistemas Empotrados de Tiempo Real
 - Redes de Sensores Inalámbricos**
- 4 Further Information

Wireless Sensor Networks

Course Goals:

- Understand the problems involved in using Wireless Sensor Networks
- Introduce techniques to solve them

Wireless Sensor Networks

Syllabus

- 1 Introduction to Wireless Sensor Networks
- 2 Wireless Channel Model
- 3 Tracking and Location
- 4 Hardware and Software Architectures
- 5 Resource Management
- 6 Applications

- Homepage URL: `http://gar.puj.edu.co`