

Workshop on Nanosensors: Self-Organization and Swarm Robotics
Third International Conference on Nano-Networks (Nano-Net 2008)
Radisson Hotel Boston (Boston, Massachusetts)
September 14, 2008

8:00 – 9:00: BREAKFAST AND REGISTRATION

9:00 – 10:30: Session 1: Overview

Title: Harnessing the Swarm – From Ants to Robots (Welcome)

Speaker: Sanjay Goel

Affiliation: University at Albany, SUNY (UAlbany)

Title: Self-Organization and Nanoscale Networking (Theme)

Speaker: Stephen F. Bush

Affiliation: GE Global Research

Title: Nano Robotics: From Science Fiction to Reality (Keynote)

Speaker: Constantinos Mavroidis

Affiliation: Department of Mechanical and Industrial Engineering, Northeastern University, Boston MA

10:30 – 11:00 BREAK

11:00 – 12:15: Session 2: Swarm Robotics I

Title: Swarm Robotics for Construction Tasks

Speaker: Aristides A. G. Requicha

Affiliation: Laboratory for Molecular Robotics, University of Southern California, Los Angeles, CA

Title: Towards Inspection of Industrial Machinery with Miniature Robotic Swarms

Speaker: Nikolaus Correll

Affiliation: Distributed Robotics Laboratory, Massachusetts Institute of Technology, Boston, MA

12:15 – 1:30 LUNCH (ROUND TABLE)

1:30 – 2:45: Session 3: Swarm Robotics II

Topic: Miniature Mobile Robots Down to Micron Scale

Authors: Metin Sitti

Affiliation: Department of Mechanical Engineering, Carnegie Mellon University, Pittsburgh, PA

Paper: Role of Wireless Communications in Networking and Motion Control of Micro Robot Swarm

Authors: Shinsuke Hara, Tatsuya Ishimoto, Masaya Kitano and Tetsuo Tsuchioka

Affiliation: Graduate School of Engineering, Osaka City University, Osaka Japan

2:45 – 3:15 BREAK

3:15 – 5:15 Session 4: Sensor Self-Organization

Paper: Self-Organizing smart dust sensors for planetary exploration

Authors: John R Barker and Fernando Rodriguez-Salazar

Affiliation: Nanoelectronics Research Centre, Dept. of Electronics and Electrical Engineering, University of Glasgow, Glasgow, Scotland, United Kingdom

Topic: Protoswarm: a Programming Language for Programming Swarm Robotics

Authors: Jonathan Bachrach

Affiliation: Makani Power, Alameda, California 94501

Topic: Optically Active Nanomaterials for use as Chemical Sensors

Author: Michael Carpenter

Affiliation: University at Albany, SUNY (UAlbany)

6:00 – 7:30 DINNER
