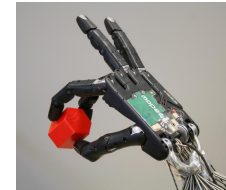


# IROS 2012

## Handling ROS tutorial

*Vilamoura, October 7th 2012*

<http://mrl.isr.uc.pt/events/iros2012tutorial/>



### WELCOME to Room Gemini I



**IROS**  
**2012**  
October 7-12

Intelligent Robots and Systems  
IEEE/RSJ International Conference

Vila Moura, Algarve [Portugal]



Robotics for Quality of Life and Sustainable Development

# IROS 2012

## Handling ROS tutorial

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### ORGANIZERS:

- JORGE DIAS, University of Coimbra
- JORGE LOBO, University of Coimbra
- PEDRO TRINDADE, ISR - University of Coimbra
- VERONIQUE PERDEREAU, Université Pierre et Marie Curie



Also visit <http://mrl.isr.uc.pt/events/iros2012tutorial/>  
for more details and updates for this tutorial.

ROS.org



Willow  
Garage



KING'S  
College  
LONDON

Shadow



UPMC  
PARIS UNIVERSIT S

# Objectives



- This tutorial provides a hands-on introduction to **ROS** - Robotic Operating System - and its use **for robot in-hand manipulation**.
- As an outcome of this tutorial, attendees will have a **basic knowledge** on how to use ROS for manipulation, experience **practical cases** related with perception and action for robotic in-hand object **manipulation**, and also have a good insight on how ROS can be used as a **software development** tool in the context a of a robotics research team.

# Speakers & Organization of Talks



- **Matei Ciocarlie**, *Willow Garage*
- **Sachin Chitta**, *Willow Garage*
- **Silvia Rodríguez-Jiménez**, *University Carlos III of Madrid*
- **João Bimbo**, *King's College London*
- **Toni Oliver**, *Shadow Robot Company*
- **Pedro Trindade**, *ISR - University of Coimbra*
- **Mario Prats**, *University Jaume I*
- **Guillaume Walck**, *Université Pierre et Marie Curie*

09:05 - 09:30	Talk #2	Matei Ciocarlie / Sachin Chitta <i>ROS Overview</i>
09:30 - 10:30	Talk #3	Matei Ciocarlie / Sachin Chitta   <i>Manipulation &amp; Grasping - Part I</i>
Coffee break		
11:00 - 12:00	Talk #3	Matei Ciocarlie / Sachin Chitta   <i>Manipulation &amp; Grasping - Part II</i>

# Speakers & Organization of Talks



12:00 - 12:30	Hands-on #1	Silvia Rodríguez-Jiménez <i>Visual Perception System within HANDLE EU project using ROS</i>
Lunch		
14:00 - 14:30	Hands-on #2	João Bimbo <i>Managing coordinate frames with ROS</i>
14:30 - 15:00	Hands-on #3	Toni Oliver <i>Control of the Shadow Dexterous Hand using ROS</i>
15:00 - 15:30	Hands-on #4	Pedro Trindade <i>Hand configuration perception with distributed sensors using ROS</i>
15:30 - 16:15	Hands-on #5	Mario Prats <i>Grasp and Motion Planning with Underwater Intervention Vehicles running ROS: the experience of TRIDENT EU project</i>
Coffee break		
16:45 - 17:30	Hands-on #6	Guillaume Walck <i>Adapting the manipulation stack to in-hand manipulation</i>

# Speakers & Organization of Talks



<http://mrl.isr.uc.pt/events/iros2012tutorial/>

## :: Preparations

Since this is a hands-on tutorial, attendees should follow these guidelines before the start of the sections:

- ▼ H1: Visual Perception System within HANDLE EU project using ROS

Please follow the instructions in [H1-Preparation.pdf](#)

- ▼ H5: Grasp and Motion Planning with Underwater Intervention Vehicles running ROS: the experience of TRIDENT EU project

Please use this Packages rosininstall file:

[https://uji-ros-pkg.googlecode.com/svn/iros2012\\_tutorial.rosinstall](https://uji-ros-pkg.googlecode.com/svn/iros2012_tutorial.rosinstall)

# Speakers & Organization of Talks



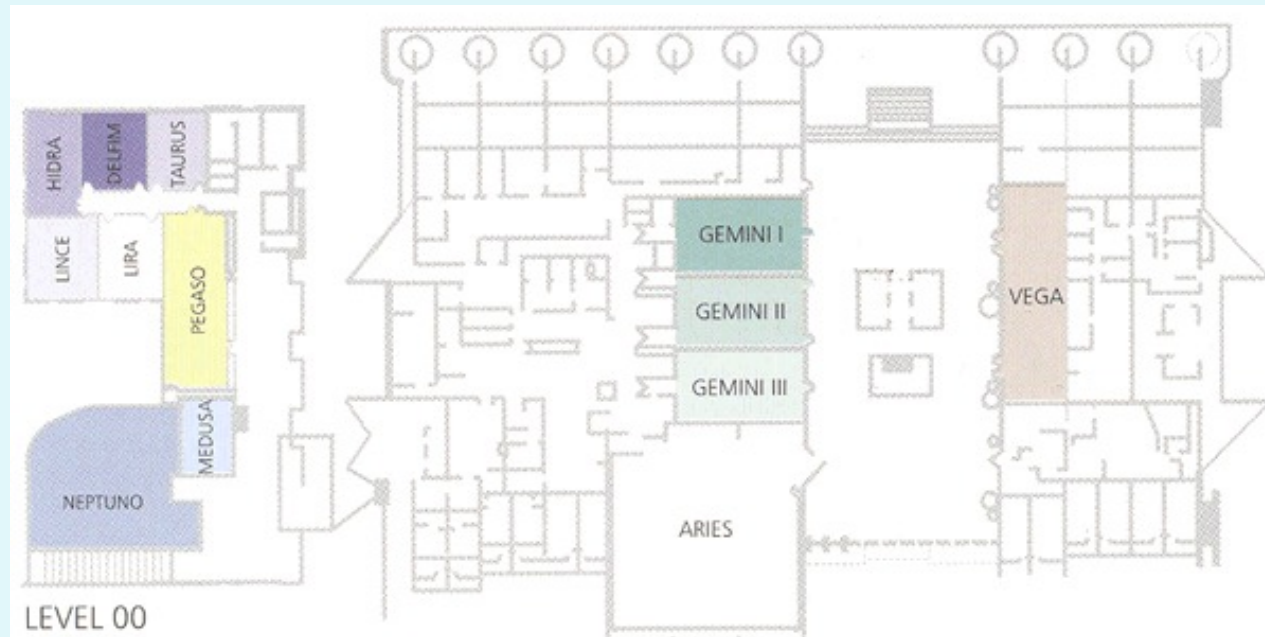
<http://mrl.isr.uc.pt/events/iros2012tutorial/>

## :: Downloads

Please find below the necessary files for all the sections in this tutorial:

- ▼ H1: Visual Perception System within HANDLE EU project using ROS
  - [iros\\_st2\\_database.zip](#)
  - [iros\\_st2\\_database\\_msgs.zip](#)

# Speakers & Organization of Talks



17:30 - 17:45

Closing

Jorge Dias / Jorge Lobo / Pedro Trindade / Véronique Perdereau  
*Concluding remarks and Tutorial Closing*

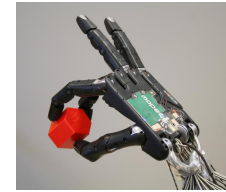


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**Let's Start !**

09:05 - 09:30

Talk #2

Matei Ciocarlie / Sachin Chitta  
*ROS Overview*