



Welcome to the

ECHORD Opening Event

Deutsches Museum München
September 4, 2009

European Clearing House
for Open Robotics Development
www.echord.info



Who is ECHORD?

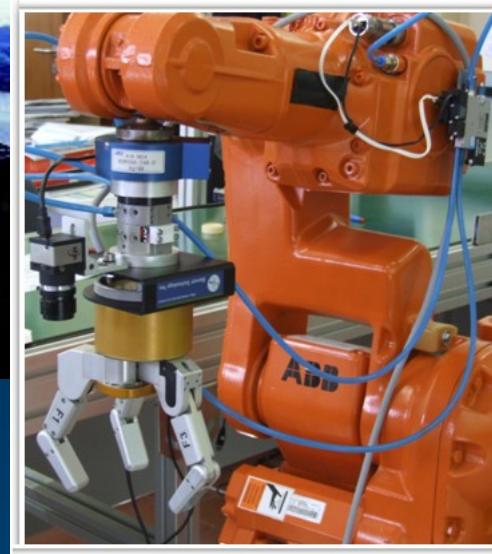


TUM

UNI
NA

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University of Coimbra (UC)

→ 20.000 students

→ More than 700 years of history

Industrial Robotics Laboratory

→ High record in tech transfer from academia to industry

- High-level robot programming
- Robot Work-cell Integration
- Human machine interfaces
- Force Control

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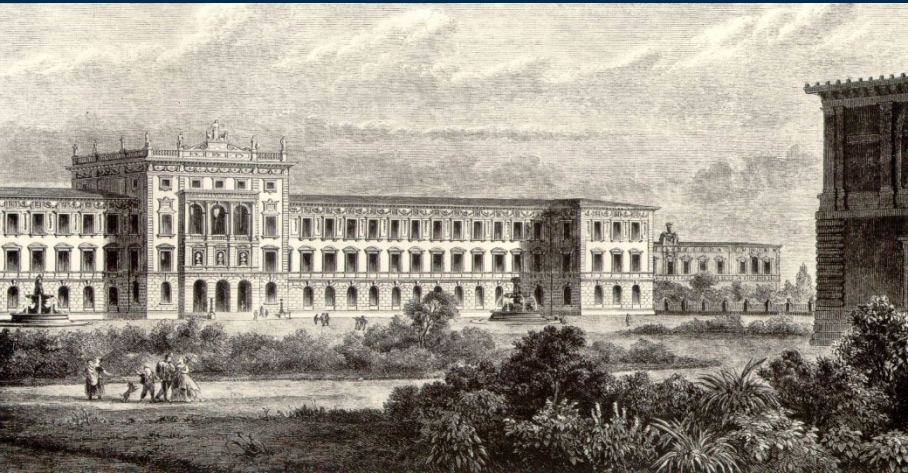


Università degli Studi di Napoli Federico II (UNINA)

One of the largest and the second oldest university in Italy

- 3,100 professors, 87 departments, dozens of research laboratories
- 100,000+ students in 166 degree courses
- Participating as PRISMA Joint Research Unit including UNINA, UNIBAS, UNICAS, UNISA, SUN, UNIROMATRE which works on modeling and control for systems, processes, and networks.





| | | | | | | | | | |
|-----------------------------|--|---|---|--|--|---|---|---|--------|
| Chartered by King Ludwig II | College of Technology | Admittance of female students | Research reactor (FRM I) | Faculty of Medicine | Nobel Prize in Chemistry for E. O. Fischer | Research neutron source (FRM II) | Weihenstephan Center of Life Science | ZIEL (Center of Nutrition and Food Research) | ECHORD |
| 1868 | 1877 | 1905 | 1957 | 1967 | 1973 | 1997 | 2000 | 2003 | 2009 |
| 1 | 1901 | 1930 | 1961 | 1970 | 1988 | 1998 | 2002 | 2006 | |
| Carl von Linde | Granted right to confer doctorate's degree | <ul style="list-style-type: none"> Weihenstephan Campus Nobel Prize in Chemistry for Hans Fischer | Nobel Prize in Physics for Rudolf L. Moessbauer | <ul style="list-style-type: none"> Renamed into Technische Universitaet Muenchen Presidential constitution | Nobel Prize in Chemistry for Robert Huber | <ul style="list-style-type: none"> New TUM constitution TUM-Tech GmbH | <ul style="list-style-type: none"> Faculty of Business Administration Faculty of Sports Science GIST Singapore | <ul style="list-style-type: none"> Appointed one of only three German „Top Universities“ | |

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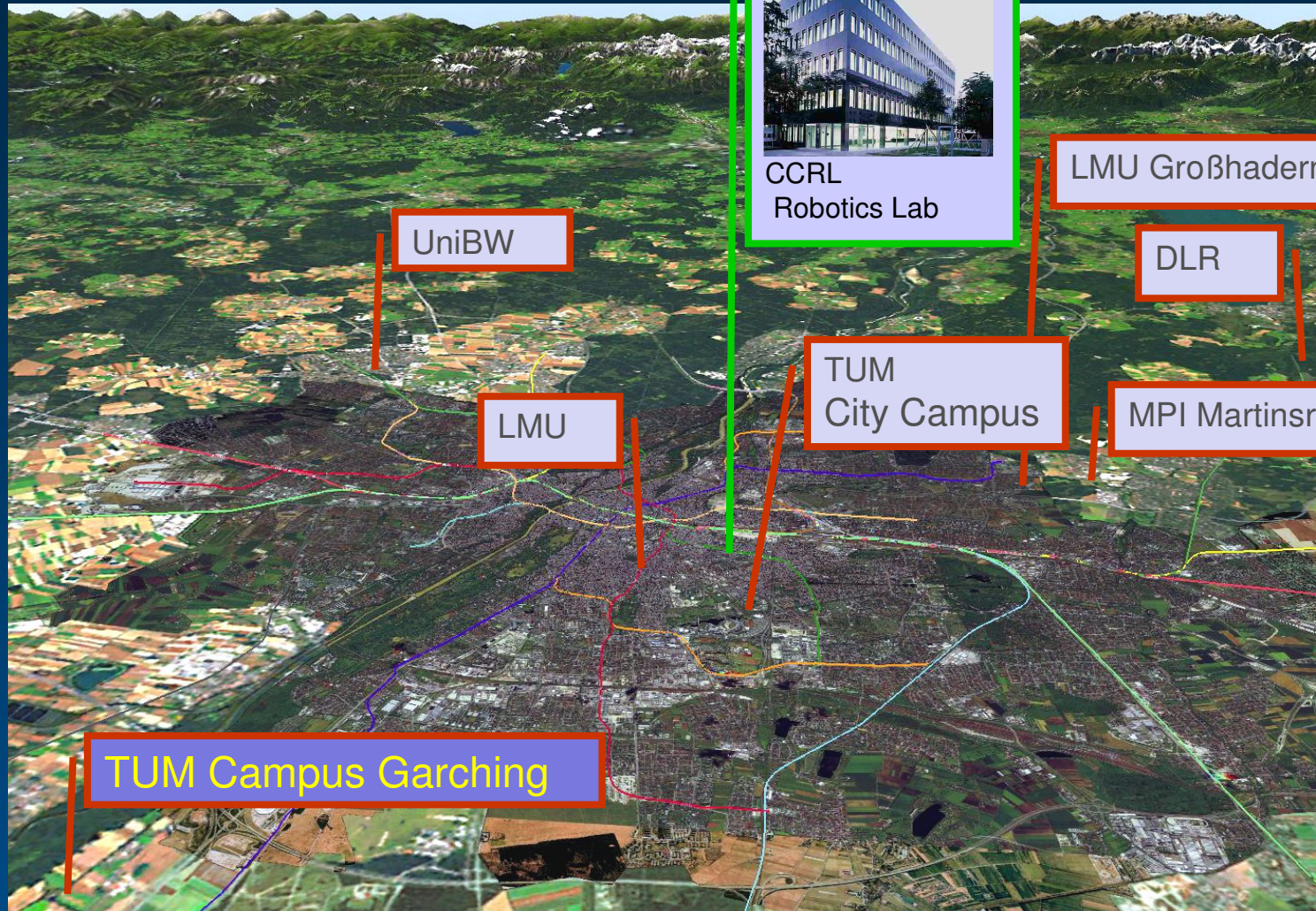
TUM- Dept. Robotics & Embedded Systems



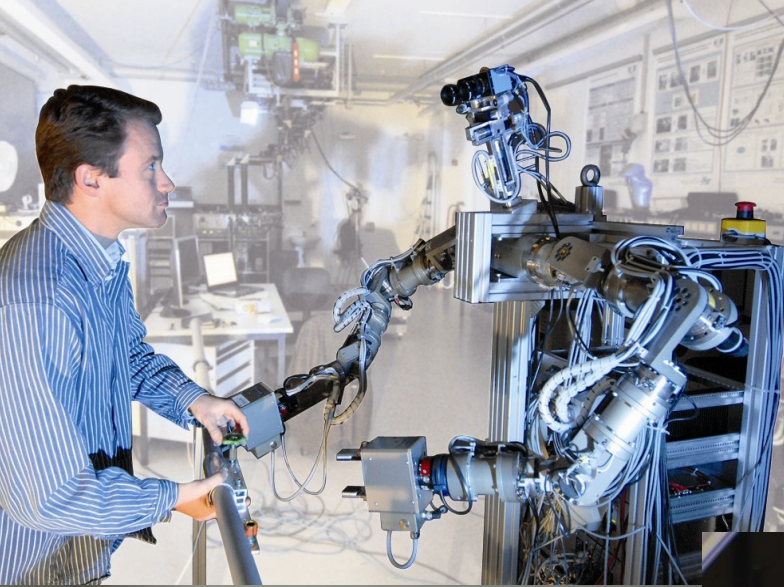
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Robotics in Munich area



CoTeSys: Demonstration Scenarios



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What is ECHORD ?

- Project funded by the European Commission within FP7



- A chance for European Robotics in times of economic crisis to find new markets and application fields
- An opportunity to participate in research on emerging technology

ECHORD's motivation

Shape European robotics future profile ...

- European robotics industry is strong, but still fragmented and dispersed
- Competition between Japan and Europe will increase
- Cutting-edge technology will determine success
- Superb research and technological knowledge available in Europe
 - Industry
 - Scientific world

... by focussing on two-way synergy between academia and industry

Project outline

- Duration: 2009-01-01 to 2012-06-30 (42 months)
- Total budget: approx. 24 M Euro, 19 M Euro funding
- Initial partners: TUM (coordinator), Univ. Naples, Univ. Coimbra
- New funding concept:
 - Actual research done by ~50 small-scale “experiments” 12-18 months
 - Open calls for experiment proposals in 3 rounds
 - Management and evaluation of experiment proposals by partners, not EC
 - Extraction and consolidation of results by means of a “structured dialogue”

Experiments: Overview

- Target-oriented research and technology transfer
- Defined *scenario* and *research focus*
- Experiments proposed by industry, academia, or both
- Short proposals
- Quick evaluation and negotiation
- Equipment can be bought from a list with special prices

Structured dialogue - Overview

- Structured dialogue involves robotic industry and research institutes on equal footing
 - Iterative process of successive information gathering and consensus finding between the stakeholders using all available sources of information
 - Building upon various roadmaps and strategy papers
- Result: annual white-paper, called ECHORD digest

Summary: ECHORD's Expected Impact

- Encourage cooperation between industry and academia
- Creating a firm basis for emerging technologies
- New application fields, such as service robotics

Thank you!

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