EUCliD

Promotion guide of European Monitoring and Control organizations

Inno EECI Honeywell

Preface

The present document has been detailed under the efforts of the Euclid project consortium. EUCLID is an ambitious and innovative EU funded initiative aiming to enhance the cooperation in the field of Networked Monitoring and Control Systems (NMCS) between EU and India in key areas of mutual interest in order to create substantial socio-economic benefits in both the regions through research and technological cooperation. A range of diversified activities will be implemented to achieve this objective which includes:

- Organization of a partnership tour to bring India and EU research and industry to have face to face interactions and establish future collaborative partnerships.
- Analyze the Indian and EU research and industrial NMCS domain.
- Analyze EU and Indian priorities in monitoring and control systems domain to identify commonalities and establish collaboration in the commonly identified priority areas
- Create a 'pool' of key NMCS players from India to promote collaboration with their EU counterparts.
- Advice and consult highly motivated NMCS actors from both the regions and support their collaboration under FP7-ICT research activities.

Authors:

- Naveen Crasta and Francoise Lamnabhi, EECI

THE PROJECT IS SUPPORTED BY THE EUROPEAN COMMISSION UNDER THE ICT THEMATIC AREA OF THE 7TH RESEARCH FRAMEWORK PROGRAMME

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The project is supported by the European Commission under the ICT thematic area of the 7th Research Framework Programme

1. SCOPE OF THE GUIDE

In order to improve the research collaboration between EU and India, it is necessary to provide necessary information about people in EU and their activities to Indian researcher under a suitable platform.

The objective of this catalogue is to provide useful information about active researcher's, their research interests, contact details, and their activities to the interested researchers in India.

The catalogue is structured according to the four domains, namely,
1) Transportation,
2) Energy Management,
3)Water management, and
4) System and Control Theory,

It covers some important and active Universities and Research and Development institutions across EU. It should be noted that the lists of organizations included in this guide are neither exhaustive nor exclusive. The catalogue gives a brief detail on the individual's areas of expertise and theongoingprojects. For further information, please visit their respective webpages.

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2. INTRODUCTION

This is a guide of European organizations eager to develop international cooperation in networked monitoring and control systems.

The profile of each organization includes:

- **Title, acronym and logo**
- **Type (R&D organization/ private company/ Department, and Size)**
- **Brief description of the organization (general description of the organization, research activities international cooperation experience, if any)**
- **R&D competencies in monitoring and control systems (Theoretical, Application Domains and Technological concepts)**
- **Relevant publications and projects (Recent national and international projects)**
- **International collaborative experience if any, (optional)**
- **Contact details (Name, Website, email, Phone, Address)**

➲ To find Monitoring and Control research competences of the European organizations present in this guide, please refer to the summary table on the next page.

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SUMMARY TABLE

	Theoretical Concepts												Technological Concepts						Application Domains																				
													Instrumentation and measurement			Embedded systems																									
	Robust control	Nonlinear control	Adaptive control	Predictive control	Observers	Estimation/Identification	Discrete events/Hybrid control	Networked control	Distributed Parameter Systems	Multivariate Statistics	Coordinated control	Principal Component Analysis	Wireless sensors	Pervasive sensors	Sensor fusion	Real time systems	Verification and validation	Monitoring and control networks	Smart buildings	Smart grids	Energy efficiency	Direct Current networks	Renewable energy	Carbon capture an	Continuous manufcating	Batch manufacturing	Discrete manufacturing	Clean water supply	Irrigation	Waste water treatment	Automatic vehicle control	Air traffic management	Road traffic management	Air vehicles	Biomedical devices
TU DELFT	Y		Y			Y	Y											Y		Y	Y		Y							Y			Y	Y	Y
LUNDS UNIV.		Y	Y		Y	Y	Y		Y							Y		Y	Y		Y		Y							Y					Y
UNIV OF GRONINGEN		Y						Y	Y																												
EPFL	Y	Y	Y	Y		Y		Y			Y			Y	Y	Y	Y	Y	Y	Y	Y		Y							Y					Y
KTH						Y	Y	Y			Y		Y	Y	Y			Y			Y	Y	Y								Y		Y		
SUPELEC	Y	Y	Y		Y	Y	Y	Y								Y	Y	Y			Y											Y		Y	
ISR		Y			Y	Y		Y			Y																									
ETH		Y		Y				Y																						Y			Y		Y
IMP COLLEGE	Y	Y	Y																			Y	Y													
TU BERLIN																					Y		Y								Y			Y		
UNIV OF SOUTH.		Y				Y																														
TECH. UNIV. EINDHOVEN		Y		Y	Y	Y	Y									Y	Y	Y																		Y
TU DARMSTADT								Y	Y				Y			Y	Y	Y																		

IMT INSTITUTE FOR ADVANCED STUDIES LUCCA			**Y**				**Y**						**Y**							**Y**	**Y**										**Y**			**Y**	
UNIVERSITY OF PISA		**Y**					**Y**																							**Y**	**Y**			
UNIVERSITÉ CATHOLIQUE DE LOUVAIN		**Y**						**Y**					**Y**	**Y**																					**Y**
UNIVERSITÀ DEGLI STUDI DELL'AQUILA							**Y**						**Y**			**Y**	**Y**	**Y**														**Y**			
UNIVERSITA' DEGLI STUDI DI PAVIA						**Y**							**Y**	**Y**	**Y**																				
LINKÖPING UNIVERSITY		**Y**	**Y**			**Y**																													
RUHR UNIVERSITY BOCHUM	**Y**					**Y**			**Y**									**Y**													**Y**				
UNIERSITY OF CAMBRIDGE				**Y**		**Y**																													
DLR RESEARCH CENTER		**Y**														**Y**															**Y**			**Y**	
SISSA		**Y**																																	
THE UNIVERSITY OF YORK		**Y**																																	
POLISH ACADEMY OF SCIENCES		**Y**																																	
ECOLE DES MINES DE PARIS		**Y**																																	
UNIVERSITÉ DE LIÈGE		**Y**						**Y**	**Y**																										
UNIVERSITY OF STUTTGART		**Y**																																**Y**	
UNIVERSITEIT *GENT*		**Y**		**Y**																														**Y**	
UNIVERSITÀ		**Y**																																	

DI ROMA, LA SAPIENZA																																			
UNIVERSITY OF COIMBRA		Y																																	
INRIA	Y	Y	Y			Y		Y																							Y			Y	
MINES PARISTECH		Y		Y																														Y	
UNIVERSITE PIERRE ET MARIE CURIE		Y																																	
UNIVERSITE OF GRENOBLE		Y		Y	Y		Y																												
GREYC		Y																																	
UNIVERSITY OF NICE-SOPHIA-ANTIPOLIS		Y																																	
UNIVERSIDAD DE VALLADOLID		Y	Y			Y	Y									Y																			
ESCUELA SUPERIOR DE INGENIEROS		Y		Y																			Y												

3. EUROPEAN MONITORING AND CONTROL SYSTEMS ORGANIZATIONS

3.1. TRANSPORTATION

3.1.1. ETH Zurich

ETH Zurich	
Contact Name	**Dr Kay W. Axhausen**
Website	http://www.ivt.ethz.ch/index_EN
E-mail	axhausen@ivt.baug.ethz.ch
Phone	+41 44 633 39 43
Address	Institute for Transport Planning and Systems (IVT)
Research Areas	The current focus of his work are the measurement and modeling of travel and traffic behavior, as well as the development of the associated simulation models and the analysis of the transport and travel decisions of persons and institutions and the development of support tools for these.
R&D Projects	• Thelma, with consortium, für CCEM, 2010-2012 • Simulation of evacuation scenarios, for BABS, 2010 • SustainCity, with consortium, for FP7, 2010-2012 • Urban transformations, for SNF, 2010-2012 • An investigation of strategies leading to a 2000W City using a bottom-up model of urban energy flows, with EPFL, for SNF, 2009-2011. • Coping with Crises in socio-economic systems, with ETH colleagues, for ETH and ETH foundation, 2008-2010 • Spatial accessibilities: Dynamics of commuting and land use in Germany and Switzerland 1970 to 2000, with Universität Dortmund, for SNF/DFG, 2008-2011 • Travel impacts of social networks and networking tools, with TU Berlin, for VW-Stiftung, 2007-2010 • Activity-oriented analysis of induced demand, for SVI, 2007-2010

ETH Zurich	
Contact Name	**Dr. Alexander Erath**
Website	http://www.ivt.ethz.ch/index_EN
E-mail	erath@ivt.baug.ethz.ch
Phone	+65 9107 6574
Address	Institute for Transport Planning and Systems (IVT)
Research Areas	Choice Modeling, Vulnerability of Transport Infrastructure, Modeling of Road Pricing Impacts, Multi-Agent Microsimulations, Aggregate Transport Modeling
R&D Projects	Daily Flows: (M)edium and (L)ong Term, Future Cities Laboratory, Singapore-ETH Centre for Global Environmental Sustainability

ETH Zurich	
Contact Name	**Dr. David Charypar**
Website	http://www.ivt.ethz.ch/index_EN
E-mail	charypar@ivt.baug.ethz.ch
Phone	+41 44 633 35 62

Address	Institute for Transport Planning and Systems (IVT)
Research Areas	• Traffic flow simulation and parallelization • Algorithms and data structures • Artificial intelligence (evolutionary algorithms), stochastic optimization • Modeling and simulating physical systems • Computer graphics • Fluid simulation and -analysis • Robotics and computer vision
R&D Projects	• Development of a software framework for modular spacial simulations • Development of a need-based travel behavior model for simulation of unforeseen events • Development of an event-driven agent-based microsimulation of traffic flow • Employing the covariance matrix adaptation evolution strategy (CMA-ES) to accelerate and improve agent learning • Employing Q-Learning for flexible learning of daily activity plans in an agent-based transport microsimulation • Generation of complete activity plans for a agent-based transport simulation using a genetic algorithm • Optimization of a Formula One rear wing using numerical fluid dynamics and an evolution strategy • Master thesis *Real-time Fluid Simulation*: Development of an interactive fluid simulation using smoothed particle hydrodynamics (SPH)mics (SPH) • Internship with Schindler AG: Development of a Simulator for testing elevator control systems

ETH Zurich	
Contact Name	Dr. Nadine Rieser-Schüssler
Website	http://www.ivt.ethz.ch/index_EN
E-mail	nadine.rieser@ivt.baug.ethz.ch
Phone	+41 44 633 30 85
Address	Institute for Transport Planning and Systems (IVT)
Research Areas	Coordination of the MATSim work at IVT , Observation of transport behaviour using GPS devices, Automatic post-processing of GPS observations, Investigation of the influence of personal attitudes on transport behaviour, Generation of choice sets on high-resolution transport networks, Modeling of transport behavior
R&D Projects	• Route choice in urban public transport systems, COST TU 0603. • Influence of the availability of parking spots on transport behaviour and energy consumption, SVI 2008/001.

ETH Zurich	
Contact Name	Dr. Monica Menendez
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E-mail	monica.menendez@ivt.baug.ethz.ch
Phone	+41 44 633 66 95
Address	Institute for Transport Planning and Systems (IVT)
Research Areas	Traffic flow theory, operations, and control, Traffic modeling and simulation, Transportation network modeling, Sustainable transportation, Logistics
R&D Projects	

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ETH Zurich	
Contact Name	Prof. Ulrich Weidmann
Website	http://www.ivt.ethz.ch/index_EN
E-mail	weidmann@ivt.baug.ethz.ch
Phone	+41 44 633 33 50
Address	Institute for Transport Planning and Systems (IVT)
Research Areas	• **Passenger Transportation Systems**: Deployment of transportation systems according to their characteristics; Design of market and cost optimal supply systems, especially for agglomerations and cities; Interactions between transportation systems and urbanities; combined mobility; Design and evaluation methods for system wide approaches. • **Freight Transportation Systems**: operational and technical alignment of freight rail according to logistics concepts; Production strategies and process optimization at freight railways; Capacity management impact of pricing models; Facility wear and environmental impacts; modal split models in freight transportation; sustainability of logistics chains. • **Production Processes**: Operational processes in heavily loaded public transportation networks; Control cycles for high precision train control; Operational stability of road based public transportation systems; Methods in safety and availability analysis, RAMS-Methods; Fundamentals of passenger embarking and disembarking and pedestrian movements. • Transport and public policy, transport regulation • Organization and financing of public transport, public transport business models • Infrastructure development, infrastructure organization • Technical standards, regulations, innovation management
R&D Projects	

ETH Zurich	
Contact Name	Ulrich Alois Weidmann
Website	http://www.ee.ethz.ch/en/home.html
E-mail	weidmann@ivt.baug.ethz.ch
Phone	
Address	Department of Informaiton Technology and Electrical Engineering (D-ITET)
Research Areas	The focus of the chair is public passenger and freight transport systems (railway, bus, aviation, shipping), in particular (i) development of networks and services, (ii) planning and realization of infrastructures and (iii) network management and maintenance. Complementary subjects are travellerbehaviour, transport politics and sustainability. His research interests are the optimization of system designs, investment strategies for network operators and cost-effective maintenance methods.
R&D Projects	

3.1.2. TU DELFT

TU DELFT

Contact Name	**Dr. Bart De Schutter**
Website	http://www.dcsc.tudelft.nl/
E-mail	b.deschutter@tudelft.nl
Phone	+31-15-278.51.13
Address	Delft Center for Systems and Control
Research Areas	Control of discrete-event systems and hybrid systems Control of traffic and transportation systems Multi-level and multi-agent control of large-scale systems Control of transportation networks Control of intelligent infrastructure networks (water, electricity, logistics)
R&D Projects	• EU Cost Action "Towards autonomic road transport support systems" • EU Network of Excellence "Highly-complex and networked control systems (HYCON2)", 2010-2014 • "Sustainable mobility with cooperative vehicle-infrastructure systems", funded by BSIK-NGI, 2010-2012 • "Model-based predictive control for intelligent micro-transportation systems", funded by BSIK-NGI, 2010-2012 • EU STREP project "Hierarchical and distributed model predictive control of large-scale systems (HD-MPC)", 2008-2011 • EU Cost Action "Real-time monitoring, surveillance and control of road networks under adverse weather conditions" • "Model-based predictive control for intelligent water management - Towards real-life implementation", funded by BSIK-NGI, 2010-2012 • "Model-based traffic flow control for sustainable mobility", funded by the Shell/TU Delft Sustainable Mobility program, 2006-2010

3.1.3. KTH SWEDEN

KTH SWEDEN	
Contact Name	Gunnar Karlsson
Website	http://www.kth.se/en
E-mail	
Phone	
Address	School of Electrical Engineering
Research Areas	• traffic control and quality of service provisioning, • network and router architecture, and • video communication.
R&D Projects	

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3.2. Water Management

3.2.1. ETH Zurich

ETH Zurich	
Contact Name	**Prof. Dr. Paolo Burlando**
Website	http://www.baug.ethz.ch/index_EN
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Phone	+41 44 633 38 12
Address	Civil, Environmental and Geomatics Engineering
Research Areas	His research interests deal with a wide spectrum of fields in the hydrological fundamentals of water resources analysis and planning. In detail, he contributed in the areas of water resources planning and management, rainfall field analysis, hydrologic extreme forecasting and prediction, and global change and water resources.
R&D Projects	

ETH Zurich	
Contact Name	**Dr. Eberhard Morgenroth**
Website	http://www.baug.ethz.ch/index_EN
E-mail	eberhard.morgenroth@ifu.baug.ethz.ch
Phone	+41 44 633 48 30
Address	Civil, Environmental and Geomatics Engineering
Research Areas	Erich Morgenroth's research is focused on process engineering in urban water management with emphasis on: 1) Biological wastewater treatment using activated sludge, granular biomass, or biofilm-based systems, 2) Biological drinking water treatment, 3) Mixed culture environmental biotechnology for bioenergy production, 4) Mathematical modeling · Sustainable development of urban water management
R&D Projects	

3.2.2. LUNDS UNIVERSITY

LUNDS UNIVERSITY	
Contact Name	**Dr Ulf Jeppsson**
Website	http://www.iea.lth.se/
E-mail	mailto:ulf.jeppsson@iea.lth.se
Phone	+46 46 222 92 87
Address	Industrial Electrical Engineering and Automation (IEA)
Research Areas	Benchmarking of Control Strategies for WWTPs (IWA Task Group) VA-kluster Malardalen Urban Water Management
R&D Projects	

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3.2.3. EPFL Switzerland

EPFL Switzerland	
Contact Name	**DrDavid Andrew Barry**
Website	http://www.epfl.ch/
E-mail	andrew.barry@epfl.ch
Phone	[+41 21 69] 35576,33775
Address	Laboratory for Water Quality and Treatment
Research Areas	Subsurface hydrology, constructed wetlands, ecological engineering, in particular contaminant transport and remediation of soil and groundwater; more generally, models of hydrological and vadose zone processes; application of mathematical methods to hydrological processes; coastal zone sediment transport, aquifer-coastal ocean interactions; hydrodynamics and modeling of lakes.
R&D Projects	

EPFL Switzerland	
Contact Name	**DrUrs Von Gunten**
Website	http://www.epfl.ch/
E-mail	urs.vongunten@epfl.ch
Phone	+41 21 69 30862
Address	Laboratory for Water Quality and Treatment
Research Areas	Drinking water quality and water treatment. Unit processes and process combinations (adsorption processes, membrane processes, oxidation processes). Chemical oxidation and advanced oxidation processes: kinetics and mechanisms of formation of disinfection by-products and degradation of micro pollutants. Assessment of toxicology of transformation products. Biogeochemical processes in riverbank filtration systems. In situ and out-of-ground treatment of groundwaters.
&D Projects	

3.2.4. TU DELFT

TU DELFT	
Contact Name	**Bart De Schutter**
Website	http://home.tudelft.nl/
E-mail	b.deschutter@tudelft.nl
Phone	+31-15-278.51.13
Address	Delft Center for Systems and Control
Research Areas	Control of discrete-event systems and hybrid systems Control of traffic and transportation systems Multi-level and multi-agent control of large-scale systems Control of transportation networks Control of intelligent infrastucture networks (water, electricity, logistics)
R&D Projects	

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3.3. Energy Management

3.3.1. ETH Zurich

ETH Zurich	
Contact Name	Dr. Goran Anderson
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E-mail	andersson(at)eeh.ee.ethz.ch
Phone	+41 44 632 08 16
Address	Department of Informaiton Technology and Electrical Engineering (D-ITET)
Research Areas	Power Systems
R&D Projects	

ETH Zurich	
Contact Name	• **Dr. JuergenBiela**
Website	http://www.ee.ethz.ch/en/home.html
E-mail	jbiela(at)ethz.ch
Phone	+41 44 632 69 22
Address	Department of Information Technology and Electrical Engineering (D-ITET)
Research Areas	His current research interest include multi-domain modeling, design and optimization of power electronic systems, in particular systems for future energy distribution and pulsed power applications, advanced medium voltage power electronic systems based on novel semiconductor technologies, e.g. SiC and integrated passive components for ultra-compact and ultra-efficient high power converter systems.
R&D Projects	

3.3.2. TU DELFT

TU DELFT	
Contact Name	P V Aravind
Website	http://www.pe.tudelft.nl/
E-mail	P.V.Aravind@TUDelft.nl
Phone	+31 15 27 83550
Address	Process and Energy Delft
Research Areas	• Gasifiers with Solid Oxide Fuel Cells • Solid Oxide Fuel Cells Development • High Temperature Gas cleaning
R&D Projects	• CFD modeling of a biomass fuel cell utility system • Gasifiers with Solid Oxide Fuel Cells (SOFC) • Solid Oxide Fuel Cell (SOFC) stack development

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TU DELFT	
Contact Name	**DrPiero Colonna**
Website	http://www.pe.tudelft.nl/
E-mail	+31 15 27 82172
Phone	P.Colonna@TUDelft.nl
Address	Process and Energy Delft
Research Areas	Organic Rankine Cycle power systems, Supercritical CO_2 Brayton cycle turbine, Fluid dynamics of dense gases, Thermodynamic properties of pure fluids and mixtures, Dynamics of energy conversion systems, Optimal integration of advanced energy systems
R&D Projects	Principal investigator of - BZT Fluids for energy conversion applications - CO_2 Catch-up: Plant operation and optimization - Thermal recuperation in vehicles - Fluid dynamic design optimization of high-expansion ratio Organic Rankine Cycle turbines Partner in - Development of Advanced Models for the Design of a New Micro Gas Turbine Concept

TU DELFT	
Contact Name	**DrWiebren de Jong**
Website	http://www.pe.tudelft.nl/
E-mail	Wiebren.deJong@tudelft.nl
Phone	+3115 27 89476
Address	Process and Energy Delft
Research Areas	Behavior of a Multi-Burner Excess Enthalpy Combustion System (MEEC) for Industrial Process Furnaces AND Flexflox project (both STW funded projects involve flameless oxidation of gaseous fuels) Biomass co-firing project (in cooperation with E.ON) Biorefinery process development Green syngas productionAND EU FP7 Infrastructures project “BRISK” (biomass characterization and circulating fluidized bed gasification for syngas production) Supercritical water gasification of wet biomass (NL Agency EOS-LT project in cooperation with Gensos)
R&D Projects	• Behavior of a Multi-Burner Excess Enthalpy Combustion System (MEEC) for Industrial Process Furnacess • Biomass Co-firing Project • Biorefinery Process Development • Characterization of Biomass Waste as Fuels-- Effect of Pre Treatments and Nitrogen Chemistry • CHRISGAS • Greensyngas • Supercritical water gasification of wet biomass

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TU DELFT	
Contact Name	**Dr Rene Pecnik**
Website	http://www.pe.tudelft.nl/
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Phone	+31 15 27 82179
Address	Process and Energy Delft
Research Areas	Pre-combustion De-carbonisation of Fossil Fuels Design of the Compressor for a μ-GT (PhD 2012) Fuel Injection Research for LDI Combustion Development of Gas Turbine Design Capabilities Operational Aspects of Large Utility Gas Turbines Engine Maintenance based on Gas Path Analysis Performance Optimization AHEAD Engine Concept Combustion Systems for AHEAD Engine Concept Application of Fuel Cells in Aircraft Gas Turbine Performance Modeling
R&D Projects	Development of Advanced Models for the Design of a New Micro Gas Turbine Concept

TU DELFT	
Contact Name	**DrWiebren de Jong**
Website	http://home.tudelft.nl/en/research/energy/
E-mail	wiebren.dejong@tudelft.nl
Phone	+31 (0)15 278 9476
Address	Energy Delft
Research Areas	Energy conversion: biomass co-firing and bio refining
R&D Projects	

TU DELFT	
Contact Name	**Dr Jan Dirk Jansen**
Website	http://home.tudelft.nl/en/research/energy/
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Phone	+31 (0)15 278 4342
Address	Energy Delft
Research Areas	Fossil fuels
R&D Projects	

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TU DELFT	
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Address	Energy Delft
Research Areas	Wind energy
R&D Projects	

TU DELFT	
Contact Name	**Dr Gerard van Bussel**
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E-mail	g.j.w.vanbussel@tudelft.nl
Phone	+ (0)15 278 5178
Address	Energy Delft
Research Areas	Wind energy
R&D Projects	

TU DELFT	
Contact Name	**DrKeesWillemse**
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Address	Energy Delft
Research Areas	Wind energy
R&D Projects	

TU DELFT	
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Research Areas	Wind energy
R&D Projects	

TU DELFT	
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Address	Energy Delft
Research Areas	Solar Energy
R&D Projects	

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TU DELFT	
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Address	Energy Delft
Research Areas	Smart grid
R&D Projects	

TU DELFT	
Contact Name	Lou van der Sluis
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Address	Energy Delft
Research Areas	Smart grid
R&D Projects	

TU DELFT	
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Research Areas	Smart grid
R&D Projects	

TU DELFT	
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Address	Energy Delft
Research Areas	Geothermal energy
R&D Projects	

TU DELFT	
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Address	Energy Delft
Research Areas	Hydrogen Energy
R&D Projects	

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TU DELFT	
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Address	Energy Delft
Research Areas	Energy systems
R&D Projects	

TU DELFT	
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Website	http://home.tudelft.nl/en/research/energy/
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Phone	+31 (0) 15 278 2172
Address	Energy Delft
Research Areas	Electricity from heat by Organic Rankine Cycle, fluid dynamics of dense gasses and supercritical fluids, energy systems modelling and design
R&D Projects	

3.3.3. *LUNDS UNIVERSITY*

LUNDS UNIVERSITY	
Contact Name	Mats Alaküla
Website	http://www.iea.lth.se/
E-mail	mats.alakula@iea.lth.se
Phone	+46 46 222 92 84
Address	Industrial Electrical Engineering and Automation (IEA)
Research Areas	Electrical Drive Systems and Power Electronics in electrical vehicles and power systems, Electrical Machine Design
R&D Projects	

LUNDS UNIVERSITY	
Contact Name	Dr. Per Karlsson
Website	http://www.iea.lth.se/
E-mail	mailto:per.karlsson@iea.lth.se
Phone	+46 46 222 98 41
Address	Industrial Electrical Engineering and Automation (IEA)
Research Areas	Power electronics, especially resonant DC link converters, active and passive power electronic components, and converter control.
R&D Projects	

LUNDS UNIVERSITY	
Contact Name	Dr. Maria Wall
Website	http://www.ebd.lth.se/english/
E-mail	förnamn.efternamn@ebd.lth.se
Phone	+46 (0)46 222 96 62

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Address	Energy and Building Design
Research Areas	energy-efficient buildings, passive houses, glazed spaces, solar protection
R&D Projects	

3.3.4. TECHNISCHE UNIVERSITEIT EINDHOVEN

TECHNISCHE UNIVERSITEIT EINDHOVEN	
Contact Name	Dr H J Bergveld
Website	http://www.tue.nl/en/
E-mail	h.j.bergveld@tue.nl
Phone	
Address	Department of Electrical Engineering
Research Areas	Battery management, Photovoltaic (pv) systems, Power management
R&D Projects	

3.3.5. EPFL Swizerland

EPFL Swizerland	
Contact Name	**Mario PAOLONE**
Website	http://www.epfl.ch/
E-mail	mario.paolone@epfl.ch
Phone	+41 21 693 2662
Address	Electrical Engineering
Research Areas	Smart grids, Microgrids, Distributed monitoring systems, Phasor measurement units, Real-time optimal operation of distribution networks, Fault location, Distributed generation, Storage systems, Power quality, Insulation coordination
R&D Projects	

EPFL Swizerland	
Contact Name	**Alfred RUFER**
Website	http://www.epfl.ch/
E-mail	alfred.rufer@epfl.ch
Phone	+41 21 693 4676
Address	Electrical Engineering
Research Areas	multilevel converters, frequency converters, energy storage, supercapacitors, control strategies, simulation of systems
R&D Projects	

EPFL Swizerland	
Contact Name	**Farhad RACHIDI-HAERI**
Website	http://www.epfl.ch/
E-mail	farhad.rachidi@epfl.ch
Phone	[+41 21 69] 32620,32661
Address	Electrical Engineering
Research Areas	electromagnetic fields, lightning, disturbances, protection, power system transients

R&D Projects	

EPFL Swizerland	
Contact Name	**Rachid CHERKAOUI**
Website	http://www.epfl.ch/
E-mail	rachid.cherkaoui@epfl.ch
Phone	+41 21 693 2058
Address	Electrical Engineering
Research Areas	Power & distribution systems analysis and control -Dynamic phenomena in power systems -Modeling of new technologies: FACTS, BESS, SMES, etc. -Distributed generation and storage -Electricity market deregulation -Numerical simulation and optimization methods - Heuristic approaches **The current reseach are related to**: - Power system operation vs. electricity market operation - Integration of distribution generation and storage technologies in distribution systems - Mitigation of power system vulnerability
R&D Projects	

EPFL Swizerland	
Contact Name	**Jan VAN HERLE**
Website	http://www.epfl.ch/
E-mail	jan.vanherle @epfl.ch
Phone	+41 21 693 35 10
Address	Mechanical Engineering Department
Research Areas	solid oxide fuel cells, biofuels, catalysis, solid state electrochemistry, modeling
R&D Projects	

EPFL Swizerland	
Contact Name	**François MARECHAL**
Website	http://www.epfl.ch/
E-mail	francois.marechal@epfl.ch
Phone	+41 21 693 3516
Address	Automatic Control Laboratory
Research Areas	Process system engineering, process integration, energy efficiency, Energy conversion, Urban systems
R&D Projects	

EPFL Swizerland	
Contact Name	**Yves-Olivier PERRIARD**
Website	http://www.epfl.ch/
E-mail	yves.perriard@epfl.ch
Phone	+41 32 720 5310
Address	Microengineering

Research Areas	Electric drives, Linear transducers, Complex system optimization, Invasive blood pump, Piezo electric motors
R&D Projects	

3.3.6. KTH SWEDEN

KTH SWEDEN	
Contact Name	Hans Peter Nee
Website	http://www.kth.se/en
E-mail	hansi@kth.se
Phone	+46-8-790 7781
Address	School of Electrical Engineering
Research Areas	• power electronic converters for FACTS, HVDC, windpower, variable-speed drives, and soft-switching converters for various applications • control of power electronic converters and systems • power semiconductor components, especially new components such as JFETs and BJTs in SiC, but also new designs of high-voltage IGBTs and diodes • gate- and base drives for emerging semiconductor components • new valve concepts for high-voltage converters
R&D Projects	

KTH SWEDEN	
Contact Name	ChandurSadarangani
Website	http://www.kth.se/en
E-mail	chandur.sadarangani@ee.kth.se
Phone	+46-8-790 7741
Address	School of Electrical Engineering
Research Areas	His area of research is permanent magnet drives, electrical hybrid and traction systems, losses and vibration (noise) in electrical machines, high speed electrical drives, new invertor topologies, digital control of drives and unconventional motor concepts.
R&D Projects	

KTH SWEDEN	
Contact Name	LennartSoder
Website	http://www.kth.se/en
E-mail	lennart.soder@ee.kth.se
Phone	+46-8-790 8906
Address	School of Electrical Engineering
Research Areas	Power system planning, integration of wind power in power systems, power quality, deregulated electricity market HVDC, hydro power. Here you find reports concerning wind power You can also find some reports and articles concerning the Swedish electricity market
R&D Projects	

KTH SWEDEN	
Contact Name	**Roland Eriksson**
Website	http://www.kth.se/en

E-mail	
Phone	
Address	School of Electrical Engineering
Research Areas	His recent research interest includes in a broad sense tools for maintenance optimization of electric power installations with a specific focus on the development of criteria for assessment of insulation ageing and condition based control of high voltage apparatuses.
R&D Projects	

KTH SWEDEN	
Contact Name	Stefan Östlund
Website	http://www.kth.se/en
E-mail	stefan.ostlund@ee.kth.se
Phone	+46-8-790 7745
Address	School of Electrical Engineering
Research Areas	His primary research interests are propulsion and power supplies for electric railway traction applications and hybrid electric vehicles.
R&D Projects	

KTH SWEDEN	
Contact Name	MehrdadGhandhari
Website	http://www.kth.se/en
E-mail	mehrdad.ghandhari@ee.kth.se
Phone	+46-8-790 7758
Address	School of Electrical Engineering
Research Areas	Research interests include power system dynamics, stability and control, FACTS and HVDC systems, and also linear and non-linear control strategies
R&D Projects	

KTH SWEDEN	
Contact Name	Mikael Amelin
Website	http://www.kth.se/en
E-mail	mikael.amelin@ee.kth.se
Phone	+46-8-790 7755
Address	School of Electrical Engineering
Research Areas	His research interests include Monte Carlo techniques, analysis and modeling of electricity market, as well as rural electrification in developing countries.
R&D Projects	

KTH SWEDEN	
Contact Name	Mohammad Reza Hesamzadeh
Website	http://www.kth.se/en
E-mail	mrhesamzadeh@ee.kth.se
Phone	+46-46 8 7907750
Address	School of Electrical Engineering
Research Areas	His special fields of interests include Power Systems Planning and Design, Economics of

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	Wholesale Electricity Markets, and Mathematical Modelling and Computing.
R&D Projects	

KTH SWEDEN	
Contact Name	Luigi Vanfretti
Website	http://www.kth.se/en
E-mail	luigi.vanfretti@ee.kth.se
Phone	+46-8 790 6625
Address	School of Electrical Engineering
Research Areas	His research interests are modeling, dynamics, stability and control of power systems; applications of PMU data for Smart Transmission Grids, and open source software for power system engineering.
R&D Projects	

KTH SWEDEN	
Contact Name	Robert Lagerström
Website	http://www.kth.se/en
E-mail	robertl@ics.kth.se
Phone	+46-8-790 6866
Address	School of Electrical Engineering
Research Areas	Robert's main research interests are IT Management, Enterprise Architecture, Enterprise Architecture Analysis, and Information Systems Modifiability. Most of the theoretical research is done for enterprise information systems in general. However, most practical validation and testing is done within the electric power domain and especially smart grids.
R&D Projects	

KTH SWEDEN	
Contact Name	Lars Nordström
Website	http://www.kth.se/en
E-mail	lars.nordstrom@ee.kth.se
Phone	+46-8-790 6830
Address	School of Electrical Engineering
Research Areas	Lars Nordström's research interests are methods and tools for analysis and design of reliable, interoperable, secure and high-performing ICT systems for operation, control an optimization of power systems.
R&D Projects	

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3.3.7. TU BERLIN

TU BERLIN	
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Website	http://www.tu-berlin.de/
E-mail	uwe.schafer@iee.tu-berlin.de
Phone	+49 30 314-2337 2
Address	*Institute for Energy and Automation Engineering*
Research Areas	His current research interests include electric propulsion systems for surface transport, small electric drives, and small generators.
R&D Projects	

TU BERLIN	
Contact Name	Prof. Dr. SibylleDieckerhoff
Website	http://www.tu-berlin.de/
E-mail	sibylle.dieckerhoff @iee.tu-berlin.de
Phone	+49 (0) 30 314-2551 1
Address	*Institute for Energy and Automation Engineering*
Research Areas	Power Electronics
R&D Projects	

TU BERLIN	
Contact Name	Dr.-Ing. Clemens Gühmann
Website	http://www.tu-berlin.de/
E-mail	clemens.guehmann @ tu-berlin.de
Phone	+49 30 314-2939
Address	*Institute for Energy and Automation Engineering*
Research Areas	Electronic Measurement and Diagnostic Technology
R&D Projects	

TU BERLIN	
Contact Name	Prof. Dr. JörgRaisch
Website	http://www.tu-berlin.de/
E-mail	raisch@control.tu-berlin.de
Phone	+49 (0) 30 314-2294 5
Address	Institute for Energy and Automation Engineering
Research Areas	Systems and Control Theory
R&D Projects	

TU BERLIN	
Contact Name	Prof. Dr.-Ing. Strunz, Kai
Website	http://www.tu-berlin.de/
E-mail	kai.strunz [AT] tu-berlin.de
Phone	+49 30 314 2339 0
Address	*Institute for Energy and Automation Engineering*
Research Areas	Energy networks and for integration of renewable energies
R&D Projects	

3.3.8. IMPERIAL COLLEGE LONDON

IMPERIAL COLLEGE LONDON	
Contact Name	• B. Chaudhuri
Website	http://www3.imperial.ac.uk/
E-mail	b.chaudhuri@imperial.ac.uk
Phone	+44 (0)20 7594 6196
Address	Department of Electrical Engineering
Research Areas	Power system dynamics and stability, Robust control, FACTS and HVDC, Renewable energy
R&D Projects	

3.3.9. EVRY-VAL D'ESSONNE UNIVERSITY

EVRY-VAL D'ESSONNE UNIVERSITY	
Contact Name	**DrGilneyDamm**
Website	http://www.univ-evry.fr/fr/index.html
E-mail	gilney.damm@lss.supelec.fr
Phone	
Address	Evry-Val d'Essonne University
Research Areas	His research interests are on the nonlinear and adaptive control and observers applied to power systems (SmartGrids) and to aerial and aerospace vehicles.
R&D Projects	

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3.4. Systems and Control Theory

3.4.1. TU DELFT

TU DELFT	
Contact Name	**Dr. Robert Babuska**
Website	http://www.dcsc.tudelft.nl/
E-mail	R.Babuska@tudelft.nl
Phone	+31-15-278 5117
Address	Delft Center for Systems and Control
Research Areas	• **Fuzzy modeling and identification** • Model construction based on fuzzy clustering • Multi-objective estimation of local model (consequent) parameters • Input selection for nonlinear models • Gray-box and block oriented fuzzy models • Fault detection and isolation, virtual sensors • **Nonlinear and fuzzy control** • Nonlinear predictive with fuzzy models • Design of gain-scheduled controllers • Adaptive and learning control • Decision support systems • Output-feedback reconfigurable control • **Applications** • Process industry • Aerospace engineering • Biomedical technology
R&D Projects	• Affordable digital fly-by-wire flight control systems for small commercial aircraft • Grey-box modeling and plant-wide integrated control of water purification processes • Artificial intelligence for the control of a hopper dredger • Intelligent adaptive control of bioreactors

TU DELFT	
Contact Name	**Dr. Carsten W Scherer**
Website	http://www.dcsc.tudelft.nl/
E-mail	**c.w.scherer@tudelft.nl**
Phone	**+31 (0)15 27 85899**
Address	Delft Center for Systems and Control
Research Areas	• Linear matrix inequalities in control exploring the applicability of linear matrix inequalities in analysis and synthesis problems in control. • Robust control Analysis and synthesis techniques for linear, linear parametrically varying and nonlinear systems. • Multiobjective control

	Control problems with multiple objectives formulated in the frequency- and time-domain. • Semi-definite programming and convex optimization robust optimization and relaxations of non-convex optimization problems. • Applications Mechatronics and flight-control.
R&D Projects	Mold level control (with **Corus**) Levitated linear motor control (with **Philips Apptech**)

TU DELFT	
Contact Name	**DrPaul M.J. Van den Hof**
Website	http://www.dcsc.tudelft.nl/
E-mail	p.m.j.vandenhof@tue.nl
Phone	+31 15 2784509
Address	Delft Center for Systems and Control
Research Areas	System identification of linear and nonlinear systems Identification of closed-loop systems Uncertainty quantification and experiment design Identification and estimation in large scale physical models Identification of control-relevant models and data-driven controller tuning
R&D Projects	Autoprofit - EU-FP7 STREP (coordinator) (2010-2013) Advanced Autonomous Model-Based Operation of Industrial Process Systems. Partners: RWTH Aachen, KTH Stockholm, TU Delft, TU Eindhoven, Sasol, ABB, Boliden ISPT - Crystallization Intelligent Observer and Control for Pharmaceutical Batch Crystallization. Partners: TU Eindhoven, TU Delft, Albemarle, Friesland Food/Campina, DSM ISPT - CORIAC; Process Intensification CoRIAC: Demonstration of a Continuous Reactor with In-line Analytics for fine Chemical production Partners: TNO, Proctor&Gamble, Zeton, Janssen Pharma, Chemtrix, Bronkhorst, ESK, Koning& Hartman, Mettler Toledo ISAPP II Integrated Systems Approach to Petroleum Production Partners: Shell, TNO, ENI Recovery Factory Partners: Shell Condor - SenterNovem Partners: ESI, TU Eindhoven, TU Delft, Univ. Antwerpen, KU Leuven

3.4.2. LUNDS UNIVERSITY

LUNDS UNIVERSITY	
Contact Name	**DrKarl-Erik Årzén**
Website	http://www.control.lth.se/
E-mail	karlerik@control.lth.se
Phone	+46 46 2228780
Address	Automatic Control, Lunds Universitet
Research Areas	• Real-Time Control & Real-Time Systems ○ Integrated control and scheduling ○ Domain-specific programming languages

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	• Embedded Systems and Control
	• Cyber-Physical Systems
	• Codesign tools
	  ○ TrueTime
	• Control of computer Systems
	  ○ Adaptive resource management
	  ○ Control of computing systems
	• Graphical Languages for Control
	  ○ Grafchart

R&D Projects	

LUNDS UNIVERSITY	
Contact Name	**DrAnders Robertsson**
Website	http://www.control.lth.se/
E-mail	Anders.Robertsson@control.lth.se
Phone	+46 46 222 87 90
Address	Automatic Control, Lunds Universitet
Research Areas	His research interests are in nonlinear control systems, robotics, observer-based control, and different control issues in telecommunications and computing systems.
R&D Projects	• LCCC • ROSETTA • ProFlexA • COMET • MONROE • ENGROSSELLIIT

LUNDS UNIVERSITY	
Contact Name	**DrAnders Rantzer**
Website	http://www.control.lth.se/
E-mail	anders.rantzer@control.lth.se
Phone	+46 46 222 87 78
Address	Automatic Control
Research Areas	His research interests are in modeling, analysis and synthesis of control systems, with particular attention to uncertainty, optimization and distributed control.
R&D Projects	

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LUNDS UNIVERSITY	
Contact Name	**DrRolf Johansson**
Website	http://www.control.lth.se/
E-mail	Rolf.Johansson@control.lth.se
Phone	+46 46 222 8791
Address	Automatic Control
Research Areas	• System Modeling and Identification • Nonlinear Systems and Robotics • Multivariable and Adaptive Control • Vestibular and Neurophysiological Research • Research in Cardiology • Biographical details
R&D Projects	DIAdvisor—Personal Glucose Predictive Diabetes Advisor—Integrated project funded under the European Union's Seventh Framework Programme (FP7), IST, (Ref. FP7 IST-216592 DIAdvisor) Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems (HYCON) —Network of Excellence Inducing Stable Oscillations in Nonlinear Systems by Feedback (in cooperation with Prof. A. Shiriaev, Umeå University), Swedish Research Council 2006-2008, Ref. VR 2005-4182; VR 2008-4369 Active Control of Compressor Systems Based on New Methods of Nonlinear Dynamic Feedback Stabilization (in cooperation with Prof. A. Shiriaev, Umeå University), Swedish Research Council VR 2007-2009, Ref. VR 2006-5243; VR 2007-2009, VR 2009-3178 Diesel HCCI in Multi-Cylinder Engines, VINNOVA-PFF Project 2005-2008, Ref. 2005-00180 KCFP Closed-Loop Combustion Control, KCFP (Competence Center Combustion Processes)—Swedish Energy Administration, Ref. 22485-1 ROSETTA—Integrated project funded under the European Union's Seventh Framework Programme (FP7), (Ref. FP7 ICT-230902 ROSETTA) COMET—Project funded under the European Union's Seventh Framework Programme (FP7), NMP& ICT Factories of the Future SSF ProViking ProFlexa—Productive Flexible Automation, Swedish Foundation for Strategic Research, 2009-2011, Ref. PV08-0036 Linnaeus Grant Lund Center for Control of Complex Engineering Systems (LCCC) —Swedish Research Council; Ref. VR 2007-8646 INROSY—Intelligent Networked RObotics SYstems with reconfigurable exogenous system sensing. STINT-KOSEF Institutional Grant for cooperation with Hanyang University (Prof. Il Hong Suh), Seoul, Korea.

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LUNDS UNIVERSITY	
Contact Name	**DrKarl Johan Åström**
Website	http://www.control.lth.se/
E-mail	kja@control.lth.se
Phone	+46 46 222 87 81
Address	Automatic Control, LundsUniversitet
Research Areas	Åström's interest cover broad aspects of automatic control, stochastic control, system identification, adaptive control, computer control and computer-aided control engineering.
R&D Projects	

LUNDS UNIVERSITY	
Contact Name	**DrAnton Cervin**
Website	http://www.control.lth.se/
E-mail	anton.cervin@control.lth.se
Phone	+46 46 222 87 83
Address	Automatic Control, LundsUniversitet
Research Areas	Event-Based Control
R&D Projects	• Event-Based Control (project leader) • Integrated Scheduling and Synthesis of Networked Embedded Event-Based Control Systems (project leader) • LCCC – Lund Center for Control of Complex Engineering Systems (principal investigator and member of the board)

LUNDS UNIVERSITY	
Contact Name	**DrGiacomo Como**
Website	http://www.control.lth.se/
E-mail	giacomo.como@control.lth.se
Phone	+46 46 222 87 92
Address	Automatic Control
Research Areas	large-scale network dynamics; transportation networks; opinion dynamics; distributed control, estimation, and computation over networks; channel coding with feedback; control with communication constraints; group codes, LDPC and turbo codes
R&D Projects	

3.4.3. UNIVERSITY OF GRONINGEN NETHERLANDS

UNIVERSITY OF GRONINGEN NETHERLANDS	
Contact Name	**Dr. Arjan van der Schaft**
Website	http://www.rug.nl/wiskunde/index
E-mail	a.j.van.der.schaft [at] math.rug.nl
Phone	+31 (0)50 3633731
Address	Johann Bernoulli Instituut
Research Areas	Current research interests include nonlinear systems and control theory, systems modeling of multi-domain physical systems, hybrid systems, and their applications. Recurrent theme is the development of concepts and tools for the modeling, analysis and control of open dynamical systems. Present focus is on network modeling and analysis of complex physical systems and their geometric formulation as port-Hamiltonian systems, the compositional modeling,

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	analysis and control of systems with interacting continuous and discrete dynamics, and their applications in complex engineering systems, embedded systems, and systems biology.
R&D Projects	

UNIVERSITY OF GRONINGEN NETHERLANDS	
Contact Name	**Dr. KanatCamlibel**
Website	http://www.rug.nl/wiskunde/index
E-mail	m.k.camlibel [at] rug.nl
Phone	+31 (0)50 3634144
Address	Johann Bernoulli Institute for Mathematics and Computer Science
Research Areas	Main research interests are focused on the analysis and control of non- smooth dynamical systems, in particular piecewise affine and complementarity systems.
R&D Projects	

UNIVERSITY OF GRONINGEN NETHERLANDS	
Contact Name	**Dr. MirjamDur**
Website	http://www.rug.nl/wiskunde/index
E-mail	M.E.Dur@rug.nl
Phone	+31 (0)50 363 3996
Address	Johann Bernoulli Institute for Mathematics and Computer Science
Research Areas	His research interests are focused on all aspects of mathematical optimization (discrete and continuous), as well as applications in other fields like economics, engineering and natural sciences.
R&D Projects	

UNIVERSITY OF GRONINGEN NETHERLANDS	
Contact Name	**Dr. Harry L. Trentelman**
Website	http://www.rug.nl/wiskunde/index
E-mail	h.l.trentelman@math.rug.nl
Phone	+31 (0)50 3633998
Address	Johann Bernoulli Institute for Mathematics and Computer Science
Research Areas	Control as interconnection, Algorithms in systems and control, Modeling and control of distributed systems, Model reduction and approximation for behavioral systems, Systems and control theory for linear systems.
R&D Projects	

3.4.4. EPFL Switzerland

EPFL Switzerland	
Contact Name	**Dr Maher KAYAL**
Website	http://www.epfl.ch/
E-mail	maher.kayal@epfl.ch
Phone	+41 21 693 3981
Address	Electrical Engineering
Research Areas	Mixed-mode circuits design, CAD tools for microelectronics, Sensors frontend, Analog processing, Smart Grid.

R&D Projects	

EPFL Switzerland	
Contact Name	**Dr Hervé BOURLARD**
Website	http://www.epfl.ch/
E-mail	herve.bourlard@epfl.ch
Phone	+41 27 721 7711
Address	Electrical Engineering
Research Areas	Perceptual and cognitive systems, Social / human behavior, Information interfaces and presentation, Biometric Person Recognition, Machine learning
R&D Projects	

EPFL Switzerland	
Contact Name	**Dr Yusuf LEBLEBICI**
Website	http://www.epfl.ch/
E-mail	yusuf.leblebici@epfl.ch
Phone	+41 21 693 6951
Address	Electrical Engineering
Research Areas	Very large-scale integrated circuits and systems, digital and mixed-signal circuits, nanoelectronic device technologies, ultra-low-power circuit design, 3D integration, language-based system description and design, reliability and fault-tolerance of nanoelectronic systems, bio-electronic interfaces
R&D Projects	

EPFL Switzerland	
Contact Name	**Dr Denis GILLET**
Website	http://www.epfl.ch/
E-mail	denis.gillet@epfl.ch
Phone	+41 21 693 5168
Address	Electrical Engineering
Research Areas	Human-Machine Systems (HMS), Human-Computer Interaction (HCI), Dynamical Coordination Systems
R&D Projects	

EPFL Swizerland	
Contact Name	**Dr Farhad RACHIDI-HAERI**
Website	http://www.epfl.ch/
E-mail	farhad.rachidi@epfl.ch
Phone	[+41 21 69] 32620,32661
Address	Electrical Engineering
Research Areas	Electromagnetic fields, lightning, disturbances, protection, power system transients
R&D Projects	

EPFL Switzerland	
Contact Name	**DrJean-Marc VESIN**
Website	http://www.epfl.ch/
E-mail	jean-marc.vesin@epfl.ch

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Phone	+41 21 693 3996
Address	Electrical Engineering
Research Areas	Adaptive filtering, adaptive frequency tracking, robust spectral estimation, nonlinear signal modeling, electrocardiogram, electro-encephalogram, financial time series
R&D Projects	

EPFL Switzerland	
Contact Name	**Dr Luc THEVENAZ**
Website	http://www.epfl.ch/
E-mail	luc.thevenaz@epfl.ch
Phone	+41 21 693 4774
Address	Electrical Engineering
Research Areas	Fibre Optics, Optical & fibre optics sensors, Optical communication, Optical signal processing, Slow & Fast Light
R&D Projects	

EPFL Swizerland	
Contact Name	**Dr Auke IJSPEERT**
Website	http://www.epfl.ch/
E-mail	christina.mattsson@epfl.ch
Phone	Ph.: +41 (0)21 693 96 68
Address	Interfaculty Institute of Bioengineering (IBI)
Research Areas	Articulated and biologically inspired robotics, modular robotics, humanoid robotics, control of locomotion and of coordinated movements in robots, computational neuroscience, neural networks, sensorimotor coordination in animals
R&D Projects	

EPFL Swizerland	
Contact Name	**DrCarlotta GUIDUCCI**
Website	http://www.epfl.ch/
E-mail	carlotta.guiducci@epfl.ch
Phone	+41 21 693 7813
Address	Interfaculty Institute of Bioengineering (IBI)
Research Areas	Biosensors, integrated systems, miniaturized detection of biomolecules, electrical-based interactions with living matter, high-throughput systems
R&D Projects	

EPFL Swizerland	
Contact Name	**DrDragan DAMJANOVIC**
Website	http://www.epfl.ch/
E-mail	dragan.damjanovic@epfl.ch
Phone	+41 21 693 2989
Address	Material science and engineering
Research Areas	Piezoelectric, ferroelectrics, sensors, actuators, medical transducers
R&D Projects	

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EPFL Swizerland	
Contact Name	**DrJürgen BRUGGER**
Website	http://www.epfl.ch/
E-mail	juergen.brugger@epfl.ch
Phone	+41 21 693 6573
Address	Interfaculty Institute of Bioengineering (IBI)
Research Areas	MEMS, nanotechnology, inkjet printing
R&D Projects	

EPFL Swizerland	
Contact Name	**DrBILLARD Aude**
Website	http://www.epfl.ch/
E-mail	aude.billard@epfl.ch
Phone	+41 21 693 5464
Address	Mechanical Engineering Department
Research Areas	Machine Learning, Robotics, Mechatronics
R&D Projects	

EPFL Swizerland	
Contact Name	**DrColin JONES**
Website	http://www.epfl.ch/
E-mail	colin.jones@epfl.ch
Phone	+41 21 693 11 71
Address	Mechanical Engineering Department
Research Areas	High-speed model-predictive control, computational geometry, control of buildings, scheduling, atomic force microscopy, fault-tolerant control
R&D Projects	

EPFL Swizerland	
Contact Name	**DrRoland LONGCHAMP**
Website	http://www.epfl.ch/
E-mail	roland.longchamp@epfl.ch
Phone	+41 21 693 3842
Address	Mechanical Engineering Department
Research Areas	Adaptive control, robust control, control systems in mechatronics
R&D Projects	

EPFL Swizerland	
Contact Name	**DrDominique Bonvin**
Website	http://www.epfl.ch/
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Phone	+41 21 693 3843
Address	Mechanical Engineering Department
Research Areas	Real-time optimization, Dynamic optimization, System identification, Process chemo metrics
R&D Projects	

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EPFL Swizerland	
Contact Name	**DrAlireza KARIMI**
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Phone	+41 21 693 38 41
Address	Automatic Control Laboratory
Research Areas	Data-driven controller tuning, System identification, Robust control
R&D Projects	

EPFL Swizerland	
Contact Name	**DrDavid Atienza Alonso**
Website	http://www.epfl.ch/
E-mail	david.atienza@epfl.ch
Phone	[+41 21 69] 31131,31132
Address	Electrical Engineering
Research Areas	Embedded systems design, multi-processor system-on-chip (MPSoC) optimization, thermal modeling, software mapping
R&D Projects	

3.4.5. KTH SWEDEN

KTH SWEDEN	
Contact Name	**DrLennart H**
Website	http://www.kth.se/en
E-mail	lennart.harnefors@ee.kth.se
Phone	
Address	School of Electrical Engineering
Research Areas	
R&D Projects	

KTH SWEDEN	
Contact Name	**DrHakanHjalmasson**
Website	http://www.kth.se/en
E-mail	hjalmars@ee.kth.se
Phone	+46-8-790 84 64
Address	School of Electrical Engineering
Research Areas	System identification: Experiment design, Model accuracy, Orthonormal basis functions, Identification for control, Controller tuning
R&D Projects	

KTH SWEDEN	
Contact Name	**Dr Karl Henrik Johansson**
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Phone	+46 8 7907321

Address	School of Electrical Engineering
Research Areas	Networked and distributed control and estimation; Integrated control and communication; Hybrid and embedded control systems; Non-smooth and relay feedback systems; Applications in automotive, automation and communication systems
R&D Projects	• **Distributed cooperative estimation over complex spatial-temporal networks,** National Natural Science Foundation, China, 2012-2016 • **SironaHalsoanalys: utvecklingav en dynamiskprediktionsmodell,** VINNOVA Forska&Vax, 2012-2013 • **Distributed management of sensor and actor network systems for intelligent space monitoring,** Sweden-Korea Research Cooperation Programme, STINT, 2011-2013 • **iQFleet: intelligent control of vehicles and platoons,** VINNOVA, 2011-2014. • **Wallenberg Scholar,**Knut and Alice Wallenberg Foundation, 2010-2015 • **Large-scale and Adaptive Networked Control,** Swedish Research Council, 2011-2013 • **WiComPI,** Swedish Governmental Agency for Innovation Systems (VINNOVA), 2009-2012 • **Trust Wireless,** Swedish Research Council, 2010-2013 • **VIKING** (Vital Infrastructure, Networks, Information and Control Systems Management)**,** STREP, European Commission, IST program, FP7, 2008-2011 • **FeedNetBack**(Feedback design for wireless networked systems)**,** STREP, European Commission, IST program, FP7, 2008-2011 • **ACCESS** (Autonomic complex communication networks, signals, and systems), Swedish Research Council, 2006-2016 • **Senior Researcher Position** in network interconnected sensing and control,Swedish Research Council, 2006-2011 • **HYCON2** (Highly-complex and networked control systems), Network of Excellence, European Commission, IST program, FP6-FP7, 2004-2013

KTH SWEDEN	
Contact Name	**DrMikael Johansson**
Website	http://www.kth.se/en
E-mail	mikaelj@ee.kth.se
Phone	+46-8-7907436
Address	School of Electrical Engineering
Research Areas	Control and optimization of networks and systems, with focus on wireless systems, data networks and wireless automation.
R&D Projects	http://www.ee.kth.se/~mikaelj/projects.html

KTH SWEDEN	
Contact Name	**DrWouter van der Wijngaart**
Website	http://www.kth.se/en
E-mail	wouter@kth.se
Phone	+46-8-790 66 13
Address	School of Electrical Engineering
Research Areas	Microsystem Technology
R&D Projects	• **Lab-on-Chip diagnostic sensors** ▯ RAPID - Development of Rapid Point-of-Care test Platforms for Infectious Diseases (www.rapp-id.eu) ▯ INTOPSENS a highly integrated optical sensor for point of care label free identification of

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	sepsis bacteria strains and their antibiotic resistance (www.intopsens.eu) POSITIVE A highly integrated and sensitive POrousSIlicon based lab on a chip for multiple quantitaTIVE monitoring of Food allergies at point of care (www.fp7positive.eu) Electronic nose / Rapid pathogen analyser • **Micro- and nanotechnology for energy applications** Gas microvalves Micro fuel cells Low friction fluidic surfaces Nanofluidics

KTH SWEDEN	
Contact Name	**DrBo Wahlberg**
Website	http://www.kth.se/en
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Phone	+46-8-790 72 42
Address	School of Electrical Engineering
Research Areas	Estimation with applications in system identification, sensor based systems, and signal processing.
R&D Projects	

KTH SWEDEN	
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Address	School of Electrical Engineering
Research Areas	His main research interests include control and analysis of electric drives with particular focus on automotive applications.
R&D Projects	

KTH SWEDEN	
Contact Name	**DrCarlo Fischione**
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Phone	+46-8-790 74 24
Address	School of Electrical Engineering
Research Areas	His research interests include optimization, wireless sensor networks, networked control systems, and system level design of wireless networks.
R&D Projects	

KTH SWEDEN	
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Address	School of Electrical Engineering
Research Areas	His main interests are Decision Theory, Game Theory, Optimization, Information Theory, and

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	Computer Science, with applications in the industry.
R&D Projects	

KTH SWEDEN	
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Phone	+46-8-790 8442
Address	School of Electrical Engineering
Research Areas	Research interests include decentralized control of multi-agent systems, robot navigation, networked control, event-triggered control and control of hybrid systems.
R&D Projects	

KTH SWEDEN	
Contact Name	**DrHenrik Sandberg**
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E-mail	hsan@ee.kth.se
Phone	+46-8-790 72 94
Address	School of Electrical Engineering
Research Areas	His main research interests are secure networked control systems, model reduction, and derivation of fundamental limitations for control of physical systems.
R&D Projects	

KTH SWEDEN	
Contact Name	**DrCristian Rojas**
Website	http://www.kth.se/en
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Phone	+46-8-790 74 27
Address	School of Electrical Engineering
Research Areas	His research interest is in system identification.
R&D Projects	

3.4.6. TU BERLIN

TU BERLIN	
Contact Name	**DrDipl.-Ing. Heiko Herzberg**
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Phone	+49 30314-78515
Address	Energy and Automation TechnologyLaboratory of Lighting Technology
Research Areas	Sensors in the UV, IR and visible radiation Digital data analysis decentralized, autonomous and wireless measurement technology Museum lighting Investigation of damage to collection items
R&D Projects	

3.4.7. LSS SUPELEC

LSS SUPELEC	
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Phone	+33 1 69 85 13 83
Address	LSS
Research Areas	Analysis and control of nonlinear systems, robustness and stability, dynamic systems interconnected synchronization.
R&D Projects	

LSS SUPELEC	
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Address	LSS
Research Areas	Her main research interests include performance and robustness issues in nonlinear and hybrid control, identification of nonlinear systems, and the application of these techniques to networked and embedded control systems.
R&D Projects	

LSS SUPELEC	
Contact Name	Antonio LORIA
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Phone	+33 1 6985 17 24
Address	LSS
Research Areas	Adaptive control, Stability theory, observers, output feedback, mechanical systems, Euler-Lagrange, discrete-time systems, Lyapunov, switched systems, hybrid control, synchronization, chaos, chaotic systems, time-varying systems, cascaded systems. **Control applications:** robot control, marine systems (boats, AUVs), electric machines, aerospace.
R&D Projects	

LSS SUPELEC	
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Address	LSS
Research Areas	His research interests are in the fields of nonlinear and adaptive control, with special emphasis on applications.
R&D Projects	

LSS SUPELEC	
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Research Areas	
R&D Projects	

LSS SUPELEC	
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Address	LSS
Research Areas	His research interests include delay systems, robust control, operator theory, and numerical methods in optimization, and their applications to the design of engineering systems.
R&D Projects	

3.4.8. ISR Lisbon

ISR LIsbon	
Contact Name	António Pedro Aguiar
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Phone	+351-218418056
Address	ISR
Research Areas	His research interests include modeling, control, navigation, and guidance of autonomous robotic vehicles, nonlinear control, switched and hybrid systems, tracking, path-following, performance limitations, nonlinear observers, the integration of machine vision with feedback control, networked control, and coordinated/cooperative control of multiple autonomous robotic vehicles.
R&D Projects	• CONAV: Cooperative Navigation and Control of Multiple Autonomous Vehicles • ATLAS: Advances in Terrain-based Localization of Autonomous Submersibles • HIVCONTROL: Control based on dynamic modeling of HIV-1 infection for therapy design • Co3-AUVs: Cooperative Cognitive Control for Autonomous Underwater Vehicles • FREESUBNET: Marie Curie Research Training Networks • DENO: DEvelopment of Nonlinear Observers • NAV-Control: Development and Application of Advanced Nonlinear Control Techniques for the Coordination and Motion Control of a Network of Autonomous Vehicles • GREX: Coordination and Control of Cooperating Heterogeneous Unmanned Systems in Uncertain Environments

ISR LISBON	
Contact Name	António Manuel Santos Pascoal

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Phone	+351-218418081
Address	ISR
Research Areas	Guidance, navigation and control of underwater vehicle
R&D Projects	CO-3AUVs Autonomous Vehicle Design and Control Navigation Systems with Applications to Air, Surface and Underwater Vehicles CONAV Cooperative Navigation and Control of Multiple Autonomous Vehicles

ISR LISBON	
Contact Name	• **Paulo Jorge Coelho Ramalho Oliveira**
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Phone	21 8419511
Address	ISR
Research Areas	Autonomous Robotic Vehicles, Navigation, Positioning and Tracking, Estimation, Industrial Automation
R&D Projects	Laboratory of Robotics and Systems Engineering and Science – LARSyS MORPH-Marine robotic system of self-organizing, logically linked physical nodes Advanced Methods for Tracking and Telemetry Study of Marine Animals - MAST / PM CO-AUVs - Cognitive Cooperative Control for Autonomous Underwater Vehicles TRIDENT - Marine and Dexterous Manipulation Robots for Autonomous Underwater Enabling Multipurpose Intervention Missions

3.4.9. IMPERIAL COLLEGE LONDON

IMPERIAL COLLEGE LONDON	
Contact Name	• **Alessandro Astolfi**
Website	http://www3.imperial.ac.uk/
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Phone	+44 (0)20 7594 6289
Address	Department of Electrical Engineering
Research Areas	Control of ABS systems Model reduction Control of hybrid systems Robust stabilization with hybrid Nonlinearstabilization. Nonlinear observer design and output feedback stabilization Magnetic attitude control of spacecraft Static output feedback stabilization Mixed H2/H-inf control of nonlinear systems Control of power systemS H-inf control of nonlinear systems andrelated topics Noninteracting control of Hamiltonian systems
R&D Projects	

3.4.10. UNIVERSITY OF SOUTHAMPTON

UNIVERSITY OF SOUTHAMPTON	
Contact Name	• Paolo Rapisarda
Website	http://www.soton.ac.uk/
E-mail	pr3@ecs.soton.ac.uk
Phone	+44 (0)23 8059 3367
Address	School of Electronics and Computer Science
Research Areas	Control and System Theory, and in Identification. Specifically, interested in (not in order of importance): ▪ Algorithmic aspects of the identification of linear systems ▪ Model reduction and approximation for linear systems ▪ Simulation of linear dynamical systems ▪ Interpolation and its applications to problems in systems and control theory ▪ Algorithmic aspects of polynomial and of behavioral control ▪ Data-driven control ▪ Theory and application of quadratic differential forms ▪ Computer algebra and its application to the solution of systems and control theory problems
R&D Projects	

3.4.11. TECHNISCHE UNIVERSITEIT EINDHOVEN

TECHNISCHE UNIVERSITEIT EINDHOVEN	
Contact Name	Dr P P J van den Bosch
Website	http://www.tue.nl/en/
E-mail	p.p.j.v.d.bosch@tue.nl
Phone	+31 40-247 3760
Address	Department of Electrical Engineering
Research Areas	Nanotechnology, Science and technology, Measurement and control engineering, Life sciences and medicine, Bioinformatics, biomathematics, biomechanics
R&D Projects	

TECHNISCHE UNIVERSITEIT EINDHOVEN	
Contact Name	Dr W M J M Coene
Website	http://www.tue.nl/en/
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Address	Department of Electrical Engineering
Research Areas	Nanotechnology, Science and technology, Microelectronics, Measurement and control engineering
R&D Projects	

TECHNISCHE UNIVERSITEIT EINDHOVEN	
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Research Areas	Nanotechnology, Science and technology, Microelectronics, Measurement and control engineering
R&D Projects	

TECHNISCHE UNIVERSITEIT EINDHOVEN	
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Address	Department of Electrical Engineering
Research Areas	Science and technology, Measurement and control engineering
R&D Projects	

TECHNISCHE UNIVERSITEIT EINDHOVEN	
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Research Areas	Science and technology, Measurement and control engineering
R&D Projects	

TECHNISCHE UNIVERSITEIT EINDHOVEN	
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Phone	+31 40-247 3307
Address	Department of Electrical Engineering
Research Areas	Science and technology, Measurement and control engineering
R&D Projects	

3.4.12. TU DARMSTADT

TU DARMSTADT	
Contact Name	DrNeerajSuri
Website	http://www.informatik.tu-darmstadt.de/
E-mail	suri@cs.tu-darmstadt.de
Phone	+49 6151 16 3513
Address	Dependable Embedded Systems & Software
Research Areas	Target area is distributed/networked (embedded) systems and software, i.e., the elements behind robust/dependable/secure/safe/trusted "ambient or ubiquitous computing". Explore both theoretical and experimental issues in "Dependable Embedded Systems and Software" (thus our name DEEDS). As an example, on the conceptual front we develop theories for effective location and composition of dependability/security relevant detectors. On the real-world front, this translates to error and security vulnerability profiling of software/OS's leading to effective placement and composition of "wrappers" to mitigate the effect of errors/vulnerabilities. Similarly, we investigate failure tolerant distributed protocols and issues of composability of dependable services. A recent area investigates the application of formal abstractions to verify distributed protocols. On the experimental side we explore "testing" of distributed SW and OS's. At the OS level we develop techniques to test OS drivers - both as state space models and as applied fault-injection techniques. One activity is the development of verification/validation approaches (including toolsets for code-level verification and also based on formal theorem proving approaches). In other experimental work, we are developing a generalized WSN level mobile computing and distributed systems test bed - essentially a distributed HW/SW test bed to test out various distributed protocols, architectural/FT strategies (mobile architectures, transactions), communication issues (synchronization, analysis of communication protocols, use of COTS in dependable system design) and OS issues (distributed/networked/embedded OS design, power aware dependability etc.). One emerging application domain for our theoretical/experimental research is the Critical Infrastructure Protection (CIP). The continuous informatization/computerization of critical infrastructures lead to higher interconnectivity and opened new doors for cyber attacks. We develop novel concepts/middleware to protect legacy and future

	critical infrastructures.
R&D Projects	**DFG:** (a) GK Mixed Mode Environments: See DEEDS GK activity foils **LOEWE:** (b) CASED: Center for Advanced Security **EC FP7:** ABC4TRUST (Attribute Based Credentials for Trust): Nov 2010 - Nov 2014 BiC (Cloud/Internet: Trust, Security & Dependability): Jan 2011 - Jan 2014 INDEXSYS www.indexys.eu COMIFIN: www.comifin.eu INSPIRE: www.inspire-strep.eu INCO-TRUST: www.inco-trust.eu THINK-TRUST: www.think-trust.eu GENESYS: www.genesys-platform.eu

3.4.13. IMT Institute for Advanced Studies Lucca

IMT Institute for Advanced Studies Lucca	
Contact Name	Alberto Bemporad
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E-mail	Alberto.bempoard@imtlucca.it
Phone	+39 0583 4326600
Address	**IMT Institute for Advanced Studies Lucca**
Research Areas	Model predictive control, hybrid systems, optimization, automotive and aerospace control, financial engineering, energy markets and smart grids, polyhedral computation, wireless sensor networks, robotics.
R&D Projects	**European Commission** WIDE - Decentralized and Wireless Control of Large-Scale Systems, European Commission, FP7-ICT (2008-2011) HYCON2 - Highly Complex and Networked Control Systems, European Commission, FP7-ICT Network of Excellence (2010-2013) E-PRICE - Price-based Control of Electrical Power Systems, European Commission, FP7-ICT (2010-2013 MOBY-DIC - Model-based synthesis of digital electronic circuits for embedded control, European Commission, FP7-ICT (2009-2012) HYCON - Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems, European Commission, FP6-IST Network of Excellence (2004-2008) CC - Control and computation, FP5-IST, (2001-2003) VHS - Verification of Hybrid Systems, European Commission, FP4-IST (co-responsible for the ETH unit) (1998-2000) Marie Curie Control Training Site, European Commission, FP5, (2002-2005,). **European Space and Defence Agencies** NICE - Nonlinear innovative control designs and evaluation, European Defence Agency (2010-2012,) ROBMPC - Robust model predictive control of space constrained systems, European Space Agency (2010-2012) ORCSAT - On-line Reconfiguration Control System and Avionics Technologies, European Space Agency (2009-2011) **National and local funding** National Research Council project within the FIRB project Public debt management for the

	application of advanced mathematical models, MPC, and stochastic optimization (2007) Optimization-based decision-making algorithms for heterogeneous networked cooperative systems, University of Siena (2005-2006) MACSI - Advanced control methodologies for hybrid dynamical systems, National funding (PRIN project) (2005-2006) Models for optimization, control and coordination of distributed manufacturing systems, National funding (PRIN project)(2003-2004) Optimization methods for hybrid systems, University of Siena (2003) **Industrial funding** Model predictive control for pricing and dynamic hedging of financial options, MPS Capital Services (2009) Wireless electronic systems for monitoring environmental parameters in kennels and other animal shelters, "Amici di Lara & 33" Association (2009,) Research project Robust MPC for satellite attitude control, Thales Alenia Space (France) (2008).

3.4.14. University of Pisa

University of Pisa	
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Phone	+39 050 2217060
Address	Faculty of Engineering - University of Pisa
Research Areas	His main research interests are in • Dynamics, kinematics and control of complex mechanical systems, including robots, autonomous vehicles, and automotive systems; • Haptics and Dexterous manipulation; • Theory and control of nonlinear systems, in particular hybrid (logic/dynamic, symbol/signal) systems.
R&D Projects	

3.4.15. Université catholique de Louvain

Université catholique de Louvain	
Contact Name	**Vincent D. Blondel**
Website	http://www.uclouvain.be/inma
E-mail	vincent.blondel@uclouvain.be
Phone	+32 10 47 23 81
Address	Department of Mathematical Engineering
Research Areas	Analysis of mobile phone networks, Louvain method for community detection, complex networks, dynamical systems, joint spectral radius and applications, algorithmic complexity in systems and control, stability and stabilization, open problems in systems and control.
R&D Projects	

3.4.16. Università degli Studi dell'Aquila

Università degli Studi dell'Aquila	
Contact Name	MARIA DOMENICA DI BENEETTO
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Phone	+393209231095
Address	Control Theory
Research Areas	Her research interests are centered about analysis and control of hybrid and embedded systems.
R&D Projects	

3.4.17. Universita' degli Studi di Pavia

Universita' degli Studi di Pavia	
Contact Name	Giancarlo ferraritrecate
Website	http://www.unipv.eu/on-line/en/Home.html
E-mail	• **giancarlo.ferrari (at) unipv.it**
Phone	• **+39.0382.98579**
Address	Dipartimento di Informatica e Sistemistica
Research Areas	**Distributed State Estimation:** Sensor networks are collections of small, low power consuming and possibly cheap sensing devices, with communication and computation capabilities. When used for monitoring large-scale systems it is often impractical to collect and process all measurements in a centralized unit. An alternative is provided by distributed state-estimation schemes where each sensor process measurements only locally and take advantage of communication with neighbouring units for gaining additional information about unobserved dynamics. This has several advantages, including scalability, and decomposition of a big state-estimation problem into small ones that can be solved in parallel. The main challenge is how to distribute computations without spoiling convergence of the estimates to the true state. I am especially interested in distributed moving horizon estimation algorithms, due to their capability of taking into account physical constraints on state and noise variables. **Identification of Gene regulatory networks (GRNs):** The problem of reverse engineering GRNs from experimental data has been an active research field in systems biology over the last years. This growing interest is motivated by the availability of experimental techniques, such as gene reporter systems, that allow one to measure gene expression at a sampling rate sufficiently high for capturing the dynamics of regulatory interactions with good accuracy. The goal is to identify dynamical models of GRNs that are biologically meaningful and capture the nonlinear character of gene expression, e.g. the on/off behaviour of genes. The main challenge is to devise algorithms capable to simultaneously identify regulatory interactions among genes and parameter values. Moreover it is preferable to produce all different models that fit the data with the goal of providing biologists with multiple hypothesis about the network functioning. Theresearch focuses on identification methods based on hybrid models and nonlinear models with sigmoidal activation functions.
R&D Projects	

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3.4.18. SUPELEC

SUPELEC	
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Phone	33(0)2 99 84 45 04
Address	Supelec
Research Areas	Modelling and control of hybrid systems Command control and energy efficiency
R&D Projects	
Eindhoven University of Technology	
Contact Name	**MAURICE HEEMELS**
Website	http://www.tue.nl/en/
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Phone	+31 40 247 3361
Address	Mechanical Engineering

Research Areas	• Networked control systems
	• Event-driven control
	• Piecewise affine, LPV, switched and hybrid systems
	  ○ Surveys
	  ○ Stability, Stabilizability& Controllability
	  ○ Equivalence and well-posedness
	  ○ Observer and controller design
	  ○ Model predictive control (MPC)
	  ○ Identification
	  ○ Reset control
	• Complementarity and setvalued systems: friction, impacts, relays and switched circuits
	• Model predictive control (MPC) and constrained control systems

R&D Projects	• the VICI project "Wireless control systems: A new frontier in automation" granted by NWO (Dutch Organization for Scientific Research) and STW (Dutch Science Foundation) for the project. This project commenced September 2011. • the STW (Dutch Science Foundation) project HyPerMotion ("Hybrid Control for Performance Improvement of Linear Motion Systems"). • the EU project MOBY-DIC on "Model-based synthesis of digital electronic circuits for embedded control." This project commenced September 2009. the EU-project WIDE on "Decentralized and Wireless Control of Large-Scale Systems" (WIDE - 224168 - FP7-ICT-2007-2). This project commenced in September, 2008EU network of Excellence HYCON2: Highly-complex and networked control systems (2010-2015). • the ESI-TU/e project on Event-driven Control. This project commenced late 2007. • EU network of Excellence HYCON. Hybrid control: taming heterogeneity and complexity in networked embedded systems (2004-2008). • EU project SICONOS (IST2001-37172). Modelling, Simulation and Control of Nonsmooth Dynamical Systems (2002-2006). • STW (Dutch Science Foundation) DMR.5675 "Model predictive control for

	hybrid systems" (2002-2006). • STW (Dutch Science Foundation) "Analysis and synthesis of embedded systems with discrete and continuous control" (2000-2004). • CASIMIR grant from the Dutch Ministry of Economical Affairs for stay at the R&D lab of the printer manufacturer Oce, Venlo, The Netherlands (2004). • Boderc (Beyond the Ordinary: Design of Embedded Real-time Control systems). Sponsored by Dutch Ministery of Economical Affairs. Project carried out under supervision of Embedded Systems Institute (www.esi.nl) (2002-2007).

3.4.19. Linköping University

Linköping University	
Contact Name	LennartLjung
Website	http://www.liu.se/?l=en
E-mail	ljung@isy.liu.se
Phone	+46 13 133158
Address	Dep. of Electrical Engineering
Research Areas	LennartLjung is interested in various aspects of model building, system identification and adaptation.
R&D Projects	

3.4.20. RUHR UNIVERSITY BOCHUM

RUHR UNIVERSITY BOCHUM	
Contact Name	Jan Lunze
Website	http://www.ruhr-uni-bochum.de/
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Phone	+49(0)234/32-24071
Address	Dept. of Electrical Engg. And Information Technology
Research Areas	Analysis and design of hybrid dynamic systems Process diagnosis and fault-tolerant control Modelling and monitoring systems of quantized Robust and decentralized control Methods of artificial intelligence for automation technology Including applications in process engineering and automotive engineering
R&D Projects	

3.4.21. ETH Zurich

ETH Zurich	
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E-mail	lygeros@control.ee.ethz.ch
Phone	+41 44 632 8970
Address	Automatic Control Laboratory
Research Areas	• Nondeterministic and Stochastic Hybrid Systems

	• Reachability Project • Stochastic MPC • Air traffic control • Systems biology • Networked Control Systems
R&D Projects	

ETH Zurich	
Contact Name	• **Manfred Morari**
Website	http://control.ee.ethz.ch/
E-mail	morari@control.ee.ethz.ch
Phone	+41 44 632 7626
Address	Automatic Control Laboratory
Research Areas	• Modelling and Constrained Control of Hybrid Systems • Control of Power Electronics Systems • Building Control • Chemical Process Control • Anaesthesia Control
R&D Projects	

3.4.22. UNIVERSITY OF CAMBRIDGE

UNIVERSITY OF CAMBRIDGE	
Contact Name	Jan Maciejowski
Website	http://www.cam.ac.uk/
E-mail	jmm@eng.cam.ac.uk
Phone	
Address	Department of Electrical Engineering
Research Areas	Fault-tolerant control Control of autonomous systems Model predictive control System identification
R&D Projects	

3.4.23. Eindhoven University of Technology

Eindhoven University of Technology	
Contact Name	HenkNijmeijer
Website	http://www.tue.nl/
E-mail	h.nijmeijer@tue.nl
Phone	+31 40 247 3203
Address	Mechanical Engineering
Research Areas	**Polymer Technology:** The research is aimed at bridging the gap between science and technology in the area of polymer processing and design, through the use of experimental and computational tools in the modeling of the full thermo-mechanical history of material (elements) during their formation, processing and final design, to

	quantitatively predict properties of processed objects **Mechanics of Materials:** The research activities concentrate on the fundamental understanding of various macroscopic problems in materials processing and forming, which emerge from the physics and the mechanics of the underlying material microstructure. The main challenge within this programme is the accurate prediction of mechanical properties of materials with complex microstructures, with a direct focus on industrial needs. The thorough understanding and modeling of `unit' processes that can be identified in the complex evolving microstructure is thereby a key issue. **Soft Tissue Biomechanics & Engineering:** Living tissues show an intriguing, active response to mechanical loading. Not only is the intrinsic mechanical response complicated, the ability of living tissues to adapt to mechanical loading by changing their structure and composition is fascinating. For example, tissue proliferation and differentiation is significantly affected by mechanical loading. A quantitative understanding of these phenomena, through experimentation and numerical modeling, is of crucial importance for many biomedical applications. **Cardiovascular Biomechanics:** We focus on model-based biomechanical analysis of the cardiovascular system, as relevant for pathophysiology, diagnosis, intervention and treatment of cardiovascular diseases. The research that mostly originates from questions arising from clinical practice is fundamental in its nature and based on models based on classical disciplines (physics, mathematics, and mechanics). We develop and use advanced experimental and computational techniques in order to validate and analyze models of the complex cardiovascular system. **Orthopaedic Biomechanics:** Musculoskeletal tissues are produced, maintained and adapted by cells as a response to their biophysical environment in health and disease. Of the latter, degenerative diseases have become more prevalent with an increasing socioeconomic impact in our ever aging population. With increased longevity and a higher level of activity, current treatment methods with purely synthetic devices may be limited. In this section, the disciplines of engineering and biology are combined to expand our understanding of the biomechanical function of musculoskeletal tissues as well as their adaptive developmental and physiological nature. The current goals are to investigate the mechanisms of degenerative diseases and to develop regenerative treatment strategies as applied to three musculoskeletal tissues, i.e. bone, articular cartilage, and the intervertebral disc.
R&D Projects	

3.4.24. DLR Research Center

DLR Research Center	
Contact Name	**Martin Otter**
Website	http://www.dlr.de/rm/en/
E-mail	Martin.Otter(at)dlr.de
Phone	+49 (8153) 28-2473
Address	**Department of Control Design Engineering**
Research Areas	• Industrial robot control. • Real-time simulation and real-time optimization. • Object-oriented modeling of multi-engineering systems, especially with Modelica. • Modeling and simulation of multi-body systems and drive trains.

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	• More electric aircraft systems.
R&D Projects	• Modeling course at Technical University Munich (Objektorientierte Modellierung mechatronischer Systeme, since 1997). • Optimal Motion Planning of Industrial Robots • Real-time simulation of the satellite and space manipulator dynamics for the ESS-Robot laboratory experiment (1999-2000). • EU project RealSim (Real-time Simulation for Design of Multi-Physics Systems, 2000-2002). • Chairman of the Modelica Association which develops and maintains the object-oriented modeling language Modelica (since 2000). • Contributions to the free Modelica standard library, such as MultiBody (3-dim. mechanics), Rotational (1-dim. rot. mechanics), StateGraph (hierarchical state machines), Blocks (input/output blocks), Media (large media library), Fluid (basic components for thermo-fluid pipe flow). • Commercial DLR PowerTrain library to model power trains of vehicles (since 2003). • Robocoaster motion simulator (2005) • BMBF-Projekt PAPAS (Plug-And-Play Antriebs- und Steuerungskonzeptefür die Produktion von Morgen, 2003-2006). • LUFO III project KATO (cabin systems, 2003-2007) • EU project POA (Power optimized aircraft, 2002-2005) • EU project VIVACE (Value improvement through a virtual aeronautical collaborative enterprise, 2004-2007) • EU network of excellence HYCON (Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems, 2004-2008) • EUROSYSLIB - Modelica libraries for embedded systems modeling and simulation (large ITEA project, 2007-2009, technical coordinator of the project and DLR project leader) • MODELISAR - From System Modeling to S/W running on the Vehicle (largest ITEA project, 2008-2010, DLR project leader)

3.4.25. Universitàdegli Studi dell´Aquila

Universitàdegli Studi dell´Aquila	
Contact Name	FortunatoSantucci
Website	http://www.diei.univaq.it/
E-mail	antucci@NO-SPAM.ing.univaq.it
Phone	
Address	Department of Electrical and Information Engineering
Research Areas	Mobility management, traffic modeling and multiple access techniques for wireless communications networks
R&D Projects	

3.4.26. SISSA

SISSA	
Contact Name	**Dr Andrei Agrachev**
Website	http://www.sissa.it/main/

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E-mail	agrachev@sissa.it
Phone	+39-040-3787329
Address	**International School for Advanced Studies**
Research Areas	Geometric control theory, optimal control
R&D Projects	

3.4.27. The UNIVERSITY OF YORK

Contact Name	**DrNigel Cutland**
Website	http://www.york.ac.uk/
E-mail	nc507@york.ac.uk
Phone	+44 1904 32 4158
Address	Department of Mathematics University of York
Research Areas	Nonstandard analysis (especially Loeb spaces) and applications (especially in probability and stochastic analysis).
R&D Projects	

3.4.28. POLISH ACADEMY OF SCIENCES

POLISH ACADEMY OF SCIENCES	
Contact Name	• **DrBronisławJakubczyk**
Website	http://www.english.pan.pl/
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Phone	
Address	Institute of Mathematics
Research Areas	His main research interest concerns geometric methods in differential equations and control theory. He is working on local problems concerning the geometry of distributions, Pfaff equations and Pfaff systems. Many of these problems can be reduced to classification problems of nonlinear control systems. The techniques involved use results from singularity theory (singularities of functions and of vector fields) and from local symplectic and Poisson geometry. He is also interested in singularity theory of differential forms. His earlier work concerns feedback linearization and feedback equivalence of control systems, realization theory, and Lie-algebraic techniques for discrete-time systems.
R&D Projects	

3.4.29. Ecole des Mines de Paris

Ecole des Mines de Paris	
Contact Name	DrPHILIPPE MARTIN
Website	http://cas.ensmp.fr/
E-mail	
Phone	(33) 1 40 51 93 29
Address	Centre Automatique et Systèmes

Research Areas	Nonlinear control, partial differential equations and flatness aerospace, electrical machines, mechanical systems
R&D Projects	

3.4.30. UNIVERSITÉ DE LIÈGE

UNIVERSITÉ DE LIÈGE	
Contact Name	**DrRodolpheSepulchre**
Website	http://www.ulg.ac.be/cms/c_5000/home
E-mail	r.sepulchre@ulg.ac.be
Phone	+32 4 366 29 87
Address	Department of Electrical Engineering and Computer Science
Research Areas	His research involves nonlinear control and optimization problems. Specific current interests include: • Optimization algorithms on matrix manifolds • Synchronization and neurodynamics. Networks of oscillators, rhythmic systems, modeling of dopaminergic neurons. • Control and coordination on nonlinear spaces. • Control applications: control of induction motors, distributed control of the Extreme Large Telescope (ESO)
R&D Projects	

3.4.31. UNIVERSITY OF STUTTGART

UNIVERSITY OF STUTTGART	
Contact Name	• **DrFrank Allgöwer**
Website	http://www.uni-stuttgart.de/home/
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Phone	+49 711 685 67733
Address	Institute for Systems Theory and Automatic Control
Research Areas	His main interests in research are in the area of systems and control with emphasis on the development of new methods for the analysis and control of nonlinear systems. Of equal importance to the theoretical developments are practical applications and the experimental evaluation of benefits and limitations of the developed methods. Applications range from control of atomic force microscopes and biomedical applications to the control of roller coasters and systems biology.
R&D Projects	

3.4.32. UNIVERSITÉ PAUL VERLAINE, METZ

UNIVERSITÉ PAUL VERLAINE, METZ	
Contact Name	**DrGauthier Sallet**
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Phone	03 87 54 72 79

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Address	Laboratoire de Mathématiques et Applications de Metz
Research Areas	
R&D Projects	

3.4.33. UNIVERSITÉ CATHOLIQUE DE LOUVAIN

UNIVERSITÉ CATHOLIQUE DE LOUVAIN	
Contact Name	**DrGeorges Bastin**
Website	http://www.uclouvain.be/
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Phone	+32 10 47 80 38
Address	Department of Mathematical Engineering
Research Areas	Nonlinear Control Modeling and Control of Compartmental and Mass-Balance Systems Modelling and Control of Dynamical Network Systems Boundary Control of Hyperbolic (PDE) Systems of Conservation and Balance Laws Application of System Theory in Biology, Robotics, Communication Networks and Environmental Problems
R&D Projects	Biotechnology Action Programme (European Commission); Project BAP-0032-B , Advanced Monitoring and Computer Control of Biotechnological Processes, 1986-1989. Action de Recherche Concertée (Service de Programmation de la Politique Scientifique - Communauté Française de Belgique) : Control of NonlinearMultivariableSystems. (Co-direction with Prof. M. Gevers), 1988-1990. Interuniversity Attraction Pole (Belgian Federal Scientific Policy) :Modelling, Simulation and Control of Complex Systems, (Co-direction with Prof. M. Crochet et M. Gevers), 1990-1995. BRITE/EURAM Programme (European Commission)) : Development of novel intelligent monitoring techniques and optimal adaptive control of fed-batch penicillin fermentations,1992-1995. AIR Programme (European Commission)) : Design and scale-up of a bioprocess for the production of natural vanillin from agricultural by-products, 1996 - 1999. Regional Government : Design, optimisation, control and validation of a new glycoprotein production process in perfused bioreactors with high cellular densities (Co-direction with Prof. Y-J. Schneider and Prof. S. Agathos), 1999 - 2002. Belgian Federal Scientific Policy (SSTC): Sustainable effects of traffic management systems (Co-direction with Prof. G. Campion), 2001-2003. Solvay Research Funds (University of Louvain) : Optimal scheduling and on line control of hybrid batch-continuous production processes (Co-direction with Prof. Y. Pochet and Prof. D. Dochain), 2003-2005. Modelling and Identification of HydrologicalSystems (Ministère des Travaux Publics, Service d' Etudes Hydrologiques), 1986-1988. Modelling and Traffic Control on Metro Lines (Société des Transports Inter-communaux de Bruxelles), 1985-1987. On-line Monitoring of Biotechnological Processes (SOLVAY, Neder-over-Heembeek), 1987-1988. Design of Industrial Adaptive Regulators (Absy, Bruxelles), with the support of IRSIA, 1986-1989. Control of Yeast Fermentation Processes for Pharmaceutical Industry (Smith-Kline-Rit,

	Rixensart), 1988-1989. Modelling and Control of Industrial Grinding Processes, with the support of RégionWallonne, 1990-1994 and 1999-2001. Modelling of Animal Cell Culture Systems (Smith-Kline-Beecham-Biologicals, Rixensart), 1991-1994. Development of flood forecastingmodels (Ministère de l'équipement et des transports de la Région Wallonne, Service d'Etudes Hydrologiques), 1994-2012. Modelling and control of an epichlorhydrin production process (SOLVAY, Neder-over-Heembeek), 1996-1999. Modelling and control of cooling tables in hot rolling mills (USINOR, Cockerill-Sambre), 2000-2002. Automatic prediction of ice conditions on road traffic networks (MACQ-Electronics), 2003-2005. Flow and level control in navigable rivers (Siemens and Service Public de Wallonie), 2009-2012.

3.4.34. UNIVERSITÀ DI ROMA, LA SAPIENZA

Università di Roma, La Sapienza	
Contact Name	• **Dr Alberto Isidori**
Website	http://www.uniroma1.it/
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Phone	+39-6-44585353
Address	Dipartimento di Informatica e Sistemistica
Research Areas	His research interests are primarily focused on mathematical control theory and control engineering.
R&D Projects	

3.4.35. University of Coimbra

University of Coimbra	
Contact Name	**DrFátima Silva Leite**
Website	http://www.uc.pt/en
E-mail	fleite@mat.uc.pt
Phone	+351 239 791195
Address	Department of Mathematics
Research Areas	Principal research interests lie in Mathematical Systems Theory with particular emphasis in Geometric Nonlinear Control and Applications. Other interests include Riemannian geometry, smoothing and interpolation splines on non-Euclidean spaces, Lie groups and Lie algebras.
R&D Projects	

3.4.36. UNIVERSITEIT GENT

UNIVERSITEIT GENT	
Contact Name	• **DrDirk Aeyels**
Website	http://www.ugent.be/
E-mail	Dirk.Aeyels@UGent.be
Phone	+32 9 264 5656
Address	Systems Research Group
Research Areas	Dynamical Systems, Dynamical Systems and Control, Mathematical Modeling, Stability and Stabilization, Observability, Optimization of Orbit Trajectories in Space Program Problems, Synchronization of Oscillators, Mathematical Reconstruction of DNA Sequences, Large Networks
R&D Projects	

3.4.37. INRIA

INRIA	
Contact Name	**DrPierre AlexandreBliman**
Website	http://www.inria.fr/centre/paris-rocquencourt
E-mail	pierre-alexandre.bliman@inria.fr
Phone	+33 1 39 63 55 68
Address	INRIA
Research Areas	• Modeling and control of systems with hysteresis, and particularly dry friction. • Qualitative behavior of some nonlinear control systems, and especially problems of existence of forced and unforced periodic solutions. • Stability and performance of delay systems. • Robustness to parametric uncertainties, • Stability of multi-agent systems.
R&D Projects	

INRIA	
Contact Name	Carlos Canudas-de-Wit
Website	http://www.inria.fr/centre/paris-rocquencourt
E-mail	pierre-alexandre.bliman@inria.fr
Phone	+33685737016
Address	INRIA
Research Areas	His research topics includes: vehicle control, adaptive control, identification, control of walking robots, systems with friction, AC and CD drives, and networked controlled systems.
R&D Projects	He has established several industrial collaboration projects with major French companies (FRAMATOME, EDF, CEA, IFREMER, RENAULT, SCHNEIDER, ILL)

INRIA	
Contact Name	**DrClaude SAMSON**
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Phone	+33 (0)4 92 38 77 36
Address	Sophia Antipolis
Research Areas	Nonlinear control systems
R&D Projects	

INRIA	
Contact Name	**Pascal MORIN**
Website	http://www.inria.fr/Unites/SOPHIA-fra.html
E-mail	Pascal.Morin@sophia.inria.fr
Phone	+33 (0)4 92 38 77 74
Address	Sophia Antipolis
Research Areas	His research activities concern the feedback control of nonlinear systems, with a particular interest in the sub-class of critical systems and the applications in mechanics.
R&D Projects	

INRIA	
Contact Name	**DrJean-Baptiste Pomet**
Website	http://www.inria.fr/Unites/SOPHIA-fra.html
E-mail	+33 4 92 38 77 79
Phone	Jean-Baptiste.Pomet@inria.fr
Address	Sophia Antipolis
Research Areas	• Nonlinear Stabilization and optimal control. • Equivalence and classification of control systems. • Applications to Aerospace engineering.
R&D Projects	

3.4.38. MINES PARISTECH

MINES PARISTECH	
Contact Name	**DrLaurent Praly**
Website	http://www.mines-paristech.fr/Accueil/
E-mail	Laurent.Praly@mines-paristech.fr
Phone	+33 (0)1 64 69 48 63
Address	Centre Automatique et Systèmes
Research Areas	His main interest is in feedback stabilization of controlled dynamical systems under various aspects -- linear and nonlinear, dynamic, output, under constraints, with parametric or dynamic uncertainty --. On these topics he is contributing both on the theoretical aspect with many academic publications and the practical aspect with applications in power systems, mechanical systems, aerodynamical and space vehicles.
R&D Projects	

MINES ParisTech	
Contact Name	• **DrD'ANDREA-NOVEL Brigitte**
Website	http://www.mines-paristech.fr/Accueil/
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Phone	01.40.51.90.94
Address	Centre de Robotique

Research Areas	commande non linéaire, robotique, Automatique
R&D Projects	

MINES ParisTech	
Contact Name	**DrPierre Rouchon**
Website	http://www.mines-paristech.fr/Accueil/
E-mail	pierre.rouchon@mines-paristech.fr
Phone	(33) (0)1 44 27 71 97
Address	Laboratoire Jacques-Louis Lions
Research Areas	Modeling and dynamical systems ODE and PDE; nonlinear control; nonlinear observers and symmetries; differentially flat systems; process control; mechanical systems; electrical drives; internal combustion engines; quantum systems.
R&D Projects	

MINES ParisTech	
Contact Name	**DrJean Levine**
Website	http://www.mines-paristech.fr/Accueil/
E-mail	jean.levine@mines-paristech.fr
Phone	01 64 69 48 58
Address	Laboratoire Jacques-Louis Lions
Research Areas	Nonlinear control theory
R&D Projects	

3.4.39. Université Pierre et Marie Curie

Université Pierre et Marie Curie	
Contact Name	**DrJean-Michel Coron**
Website	http://www.upmc.fr/
E-mail	coron@ann.jussieu.fr
Phone	(33) (0)1 44 27 71 97
Address	Laboratories' Jacques-Louis Lions
Research Areas	Nonlinear control theory
R&D Projects	

3.4.40. University of Grenoble

University of Grenoble	
Contact Name	**DrMazenAlamir**
Website	http://www.grenoble-univ.fr/
E-mail	
Phone	+33 4 76826326
Address	Control Systems Department
Research Areas	Predictive control, nonlinear observers, Hybrid systems, Model free diagnosis.
R&D Projects	

3.4.41. GREYC

GREYC	
Contact Name	**DrTarek Ahmed-Ali**
Website	https://www.greyc.fr/
E-mail	Tarek.Ahmed-Ali@ensicaen.fr
Phone	+33 (0)2 31 45 27 14
Address	Automatic Control Dept.
Research Areas	Analysis, control andobservationsystems withcommunicationsconstraintsthat includesampling, network, and the quantifier(Quantizer), and transmission delay.
R&D Projects	

3.4.42. Université Claude Bernard Lyon 1

Université Claude Bernard Lyon 1	
Contact Name	**DrFrancis Clarke**
Website	http://math.univ-lyon1.fr/
E-mail	clarke@math.univ-lyon1.fr
Phone	(33) 04 72 44 81 13
Address	Institute Camille Jordan - UMR
Research Areas	Nonsmooth and functional analysis Control theory Calculus of variations Differential equations Optimization Mathematical modeling
R&D Projects	

3.4.43. University of Nice-Sophia-Antipolis

University of Nice-Sophia-Antipolis	
Contact Name	**DrTarek Hamel**
Website	http://unice.fr/
E-mail	thamel@i3s.unice.fr
Phone	+33 (0) 4 92 94 27 55
Address	I3S UNSA-CNRS laboratory
Research Areas	His research interests include control theory and robotics with particular focus on nonlinear control, vision-based control and complementary filtering.
R&D Projects	

3.4.44. University of Brescia

University of Brescia	
Contact Name	M.C. Campi
Website	http://www.brescia.edu/

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E-mail	marco.campi@ing.unibs.it
Phone	+39.030.3715458
Address	Dept. of Electronics for Automation
Research Areas	Robust convex optimization Virtual Reference Feedback Tuning Guaranteed regions for identified models (LSCR)
R&D Projects	

3.4.45. Politecnico di Milano

Politecnico di Milano	
Contact Name	• **DrSimone Garatti**
Website	http://www.polimi.it/
E-mail	sgaratti@elet.polimi.it
Phone	+39 - 02 - 2399 - 3650
Address	Politecnico di Milano
Research Areas	Randomized algorithms for convex optimization and interval prediction System identification and model quality assessment Iterative robust controller design schemes Data analysis through data-mining methods
R&D Projects	

3.4.46. UNIVERSITÄT WÜRZBURG

Universität Würzburg	
Contact Name	• **DrUwe Helmke**
Website	http://www.uni-wuerzburg.de/
E-mail	helmke@mathematik.uni-wuerzburg.de
Phone	+49 (0)931 31-85003
Address	
Research Areas	Dynamical Systems and Control Theory

3.4.47. INSA ROUEN

INSA ROUEN	
Contact Name	**DrWitold RESPONDEK**
Website	http://lmi.insa-rouen.fr/~wresp/
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Phone	(+33) (0)2 35 52 84 32
Address	Department Génie Mathématiques
Research Areas	Nonlinear control theory

R&D Projects	

3.4.48. Catholic University of Louvain

Catholic University of Louvain	
Contact Name	**DrPaul Van Dooren**
Website	http://www.uclouvain.be/index.html
E-mail	paul.vandooren at uclouvain.be
Phone	+32 (10) 47.80.40
Address	ICTEAM: Department of Mathematical Engineering
Research Areas	Numerical Analysis, Scientific Computing, Systems and Control Theory
R&D Projects	

3.4.49. UNIVERSIDAD DE VALLADOLID

UNIVERSIDAD DE VALLADOLID	
Contact Name	Dr. CESAR PRADA
Website	http://www.isa.cie.uva.es
E-mail	ptsfs@autom.uva.es
Phone	+34 98 3423164
Address	Automatic Control
Research Areas	• Advanced Control, in particular Model Predictive Control and Hybrid systems. • Modeling and Simulation, including identification, simulation languages and process simulators. • Process optimisation from the point of view of plant wide control with economical implications and dynamic optimization methods. • Decision making under uncertainty • Supervisory systems, real-time control and industrial applications. • Computer Aided Control Systems Design and educational systems.
R&D Projects	"Advanced Controls for Criogenics" CERN, Geneva, Switzerland Predictive Control of the 1.8K temperature control loop in the LHC accelerator. "Control and optimization of distribution networks" CICYT, DPI2009- 12805, 2010-12, Petronor Methods for control of large scale networks and optimal decision making under uncertainty. Network of Excellence (NoE) HYCON2 "Highly-complex and networked control systems" EU Framework Programme, FP7, IST, 2010-14 Control of complex, large-scale, and networked dynamical systems. "Energy optimization of sugar factories" CTA, ((Azucarera Ebro, ACOR) Optimization of a sugar factory operation based on economical criteria. "Optimal Operation of Process Plants" (OOPP) Repsol/ Petronor, Optimal managenent of the hydrogen network in a petrol refinery. H2OCEAN "Development of a wind-wave power open-sea platformequiped for hydrogen generation with support for multiple uses of energy" FP7 EU FramworkProgramme, , 2011-14 Develop a multi-purpose platform for hydrogen

	generation in open-sea from renewable energies (wave and wind), providing also a facility for multiple uses of electrical energy in open-sea. "Development of simulation tools for analysis, and optimization in a dynamic simulation environment" EmpresariosAgrupados Int., New tools and functionalities for the simulation environment EcosimPro CAFE "Computer-aided food processes for control engineering" FP7, KBBE, EU Framework Programme, 2008-2012,, UnidadAsociada CSIC- IIM New paradigms for smart control of food processes. Optimization of beer filtration. "Optimización de consumos en planta OPSM" REPSOL Quimica, Tarragona, 2010-11 Simulation and control of two coupled distillation columns

3.4.50. ESCUELA SUPERIOR DE INGENIEROS

ESCUELA SUPERIOR DE INGENIEROS	
Contact Name	Dr. EDUARDO F. CAMACHO
Website	
E-mail	Eduardo@esi.us.es
Phone	+34 95 4487347
Address	DEPARTAMENTO INGENIERÍA DE SISTEMAS Y AUTOMÁTICA
Research Areas	**Model Predictive Control in the Process Industry** **Advanced Control of Solar Plants** **Control of Dead-time Processes**
R&D Projects	