



# EUCLiD

**PROJECT NEWSLETTER 1.**  
**DECEMBER 2010**

## **[ From the editors**

Welcome to the first issue of the EUCLID project newsletter.  
We hope you will enjoy reading this issue and look forward to receiving  
your comments and feedback.

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## **[ About the EUCLID Project**

The EU-financed FP7 EUCLID support action [www.euclid-india.eu](http://www.euclid-india.eu) addresses the theme "Engineering of Networked Monitoring and Control systems ». Its goal is to strengthen EU-Indian NMCS collaboration in order to create synergies and mutual benefits for both Europe and India, by providing support to collaborative work.

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## **[ Are you Monitoring and Control Systems specialist and interested in international R&D collaboration?**

Public and private research centers, universities, businesses, and more! The EUCLID team serves all types of NMCS organizations to help strengthen EU-Indian R&D collaboration in this field. Take advantage of our offers!

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## **[ Do you know about FP7? Do you know where to start?**

Financed by the European Commission, FP7 is the EU's latest and largest research programme, in order to promote R&D and technology transfer in Europe.

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## **[ 10 tips for participating in FP7**

Regard the Framework Program as a means of expanding your organization's R&D rather than as a source of money.

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## **[ Follow 2011-2012 FP7 ICT priorities to participate in coming calls**

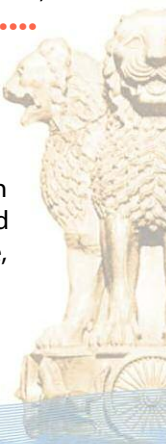
The "7th ICT call" was published in July, 2010 (deadline: 18 January, 2011).

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## **[ Open call: Objective ICT-2011.3.3 New paradigms for embedded systems, Monitoring and control towards complex systems engineering**

The objective is to push forward the limits of embedded systems, monitoring, control and optimization technologies and "System-of-Systems" (SoS) engineering. The aim is to develop novel methodologies and advanced engineering approaches for designing, developing and executing/running complex/large scale, distributed, and cooperating systems.

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# EUCLID

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## **EU-India Expert group**

The EUCLID Expert Group in Monitoring and Control includes European and Indian members coming from industry, academia and relevant associations. Both monitoring and control dimensions are present in the Group, often intertwined.

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## **Meet your future partners at the EUCLID upcoming events...**

EUCLID is organizing a prospecting and partnership trip for European monitoring and control specialists to India to two locations: Bangalore and Mumbai, in April 2011...

EUCLID plans to organize a panel discussion "Energy and Environmental challenges in Emerging regions – Opportunities for Control and Monitoring technologies" in Milan during the 18th World Congress of the International Federation of Automatic Control (IFAC) in August 2011...

EUCLID plans to take part in the European Control Conference and the 50th IEEE Conference on Decision and Control (Orlando, Florida, US) in December 2011 and to organise an event "Foundations and future perspectives to cooperate in control and monitoring with India"...

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## **The EUCLID project past events**

The EUCLID project took part in the most visible European forum ICT 2010, held in Brussels from 27 to 29 September 2010.

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## **2011 EECI (European Embedded Control Institute) Graduate School on Control**

The EUCLID Consortium partner EECI organises a Graduate School on Control from 17 January 2011 to 13 May 2011.

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## **You are young Indian NMCS researcher? You want to have your thesis supervised or co-supervised in Europe?**

The EUCLID project offers a unique opportunity to young Indian researchers, looking for research secondments and training opportunities, to find their way in Europe. The project team suggests helping post-doc and PhD students.

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## **Be part of the EU-Indian NMCS community...**

Are you looking for partners for a research proposal? Do you have experience you would like to share? If so, please send information to our contacts in EU and India.







**Françoise Lamnabhi Lagarrigue,**  
CNRS/European  
Embedded Control  
Institute



**Hiri Jamadagni,**  
Indian Institute of  
Sciences, Bangalore,  
India



**Viswanath Talasila,**  
Honeywell Techno-  
logy Solutions Labs,  
India



**Svetlana Klessova,**  
Inno-TSD, France

## From the editors

Nowadays, India and the European Union face common challenges in many fields of the citizens' life and in particular in the development of the ICT.

Economic and societal problems in India exist in different domains, such as water management, energy saving, bringing equal opportunity to citizens across the subcontinent, and healthcare. All these areas represent applications for ICT and particularly for the very important and developing field of networked monitoring and control system (NMCS) technologies and give ground for hand-in-hand work between Europe and India.

The EU has a rich history in control systems development, many things in India and Europe have followed common models (for example the standards for telecom, networking standards, multilingual approach to any problem). Consequently, India benefits from the European experience in all sectors and by the large EU research community.

The current situation creates a favorable environment for strategic collaboration and mutual learning for both EU and India. In addition to serving as a source of challenging problems, India represents a huge economic opportunity for the European Union: the market sizes and opportunities for monitoring and control applications are in the billions of Euros, and European companies need to gain competitive advantage in pursuit of these opportunities. Furthermore, India represents an incredible pool of talented and motivated people, willing to collaborate.

In this context, the European Commission decided to support the **EUCLID project** ([www.euclid-india.eu](http://www.euclid-india.eu)), under the FP7 Theme 3 "Information and Communication Technologies (ICT)" in order to stimulate the cooperation between the European Union and India in the field of Engineering of Networked Monitoring and Control systems.

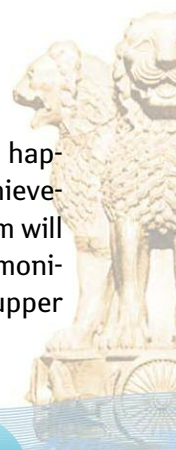
Launched on the June 1st 2010, the ambitious two-year EUCLID project aims at exploring new opportunities and strengthening the EU-Indian cooperation in the networked monitoring and control systems, in order to support Europe's leading position in monitoring and control while ensuring mutual benefits for both Europe and India.

EUCLID will address areas of crucial importance to Indian citizens. Several application domains, such as energy management, transportation, clean water, automation and health care will be covered by the project.

We, the EUCLID team, are pleased to welcome you to the pages of our first newsletter.

### Happy Reading!

And a very Happy New Year to you! Let it be the happiest year for you, let it bring you plenty of achievements, and we hope that the EUCLID project team will help you to bring your EU-India cooperation in monitoring and control systems technologies to the upper level.





## About the EUCLID Project

Interested in EU-India R&D cooperation in monitoring and control of embedded systems?

- Advanced engineering for large-scale, distributed, and cooperative systems
- Energy-efficient and energy-aware autonomous adaptive systems
- Wireless sensor and actuator networks for closed-loop control
- Applications to energy and water management, transportation, industrial automation, health care and other domains

Get involved in the EUCLID project!

### At A Glance: EUCLID

**Strengthening EU-India collaboration in networked monitoring and control systems technologies**



#### Project Coordinator

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Institution: *inno-TSD*

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#### Project Scientific Manager

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**Project website:** [www.euclid-india.eu](http://www.euclid-india.eu)

#### Partners:

**Inno-TSD** (France),

**EECI** – European Embedded Control Institute (France),

**IISc** – Indian Institute of Science, Bangalore (India)

**HTSL** – Honeywell Technology Solutions Lab (India)

**Duration:** 24 months

**Start:** 1 June 2010

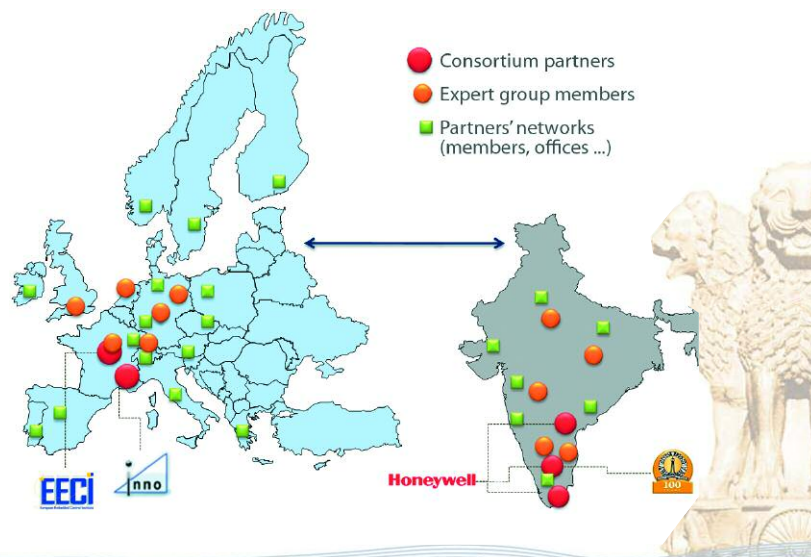
**The EU-funded FP7 EUCLID support action** addresses the theme “Engineering of Networked Monitoring and Control systems”. Its goal is to stimulate EU-Indian NMCS collaboration in order to create synergies and mutual benefits for both Europe and India, by providing support to collaborative work.

In order to achieve its objectives, the project will:

- Map Indian organisations involved in monitoring and control methods and tools research, assess the EU-India collaboration potential and propose recommendations with a roadmap and an action plan.
- Organize awareness-raising, networking & brokerage and training events in India and in Europe and a delegation tour of European specialists to Indian organisations.
- Provide ‘hands-on’ support to strengthen Indian participation in the European research and training, and to reinforce the cooperation.

One of the most important objectives of the EUCLID project is to intensify Indian involvement in European monitoring and control research. If you are a European or Indian organization interested in such international R&D collaboration, express your interests now and take advantage of the EUCLID team's expertise for your successful international collaborative research in networked monitoring and control system technologies!

All the assistance provided under the EUCLID project is free of charge.





# Are you an organization working in Networked Monitoring and Control Systems (NMCS) and interested in international R&D collaboration? Do you want to engage in mutual learning to increase your innovation capacity?

**Public and private research centers, universities, businesses, and more!** The EUCLID team serves all types of NMCS organizations to help strengthen EU-Indian R&D collaboration in this field.

## TAKE ADVANTAGE OF OUR OFFERS!

### Expert advice and professional consultancy

The EUCLID team will provide hands-on support, for example:

- Helping you find the right NMCS international partners in Europe and in India
- Supporting you in the consortium building process
- Identifying research internship/training opportunities for Indian NMCS researchers in Europe

### Networking and awareness raisings

The EUCLID team will also raise awareness of EU-Indian collaboration opportunities in the field of NMCS and facilitate networking. This will lead to an increased number of potential collaborations between Europe and India. Examples of the events are:

- Information, Awareness raising and networking events in India and in Europe
- Delegation tour of European industry representatives to India...

### Acute insight into the collaboration opportunities EU-India in NMCS

- An analysis on EU-Indian NMCS Industry needs

- Analysis of the R&D priorities in NMCS of Europe and India
- Catalogue of Indian NMCS organizations with international cooperation potential

These documents will provide you with a transparent overview of networked monitoring and control systems state-of-the-art, from which you can benefit greatly. They will give you a clear insight into the main actors, challenges and research priorities.

The documents will be available on the EUCLID website ([www.euclid-india.eu](http://www.euclid-india.eu)) in a convenient form to download and exploit, starting from the end of 2010.

## NEW OPPORTUNITIES ARE RIGHT HERE!

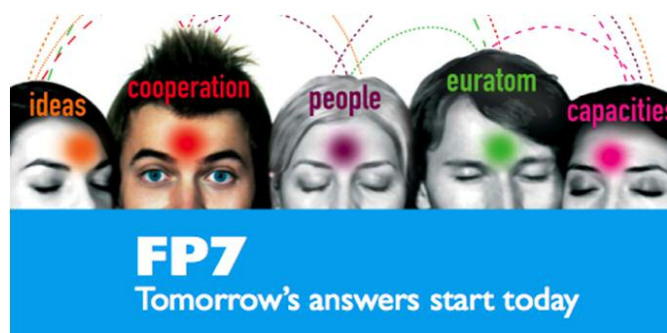
- Would you or your organization be interested in joining in/building a consortium to participate in the FP7 with a NMCS project?
- Are you looking for an efficient way to network and cooperate with NMCS organizations in India and Europe?
- Do you want to host an Indian researcher in Europe?

If you say yes to one of these questions, do not hesitate to contact us or complete the specially designed support form directly, accessible under one of the links below:

- [Support form for European organizations](#)
- [Support form for Indian organizations](#)



# Do you know about 7th Framework Programme, FP7?



## Information and Communication Technologies (ICT) in FP7

The ICT theme is one of the FP7 key thematic areas representing 6–8% of the European GDP. With a budget of €9,050 million, the ICT Theme is the largest in the "Cooperation" specific programme. As for the "Capacities" specific programme, the ICT element's e-Infrastructures strand has a budget of ~€600m.

### What is FP7?

Financed by the European Commission, FP7 is the EU's latest and largest research programme, in order to promote R&D and technology transfer in Europe. FP7 is divided into four specific programmes:

- **Cooperation** (€32.4bn): building European leadership in ten key Themes through funding research carried out by organizations working together across European national borders;
- **Capacities** (€4.1bn): building world-class infrastructure for European researchers;
- **Ideas** (€7.5bn): an autonomous European Research Council to reinforce European science;
- **People** (€4.7bn): strengthening the human potential of European research.

The research on ICT is currently structured around eight "Challenges":

- Challenge 1: Pervasive and Trusted Network and Service Infrastructures
- Challenge 2: Cognitive systems and robotics
- **Challenge 3: Alternative paths to components and systems**
- Challenge 4: Technologies for digital content and languages
- Challenge 5: ICT for health, ageing well, inclusion and governance
- Challenge 6: ICT for a lower carbon economy
- Challenge 7: ICT for manufacturing & factories of the future
- Challenge 8: ICT for learning and access to cultural resources

## 10 tips for participating in FP7

1. Regard the Framework Program as a means of expanding your organization's R&D rather than as a source of money.
2. Consider whether there is coherence between the strategy and goals of your organisation and the objectives of the work the European Commission wants to fund.
3. Be prepared to accept failures.
4. Start the proposal preparation and consortium development before calls open.
5. Build the project consortium from existing networks and relationships. This helps to create trust.
6. Ensure that the consortium has a first-rate coordinator, with a strong scientific reputation, proven organization and project management skills.
7. Carefully read the work program for the call you are interested in.
8. Address all the evaluation criteria and tailor your proposal to what evaluators will be looking for.
9. Aim to deliver value for money with a realistic requested budget.
10. Seek advice from your national contact point or from the EUCLID project







## Follow 2011–2012 FP7 ICT priorities to participate in coming calls

The main objectives of the ICT Work Programme is to foster frontier research of future and emerging technologies that will give Europe the agility to react to new ideas and opportunities; enhance the participation in FP7 ICT support international collaboration; and maximize the impact of existing European research projects.

Every year, the FP7-ICT Calls for Proposals are published on the specific web page. [You can find them here](#) as soon as they are open. For more details, see the new **ICT Work Programme 2011–2012** ([ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/ict-wp-2011-12\\_en.pdf](ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/ict-wp-2011-12_en.pdf)).

You will also find this information on the EUCLID web site.

The ICT Work Programme 2010-2011 under the EU's Seventh Framework Programme defines the priorities for the calls for proposals to be launched. It is divided into seven 'Challenges' of strategic interest to European society, plus research into 'Future and emerging technologies' (FET) and support for horizontal actions, such as international cooperation.

There will be three opportunities for NMCS researchers both in EU and India:

- "7th ICT call" –published in July, 2010 (deadline: 18 January, 2011)
- "8th ICT call" – will be published in July 2011 (deadline: December 2011)
- Public Private Partnerships (PPP) – will be published in July 2011 (deadline: December 2011).

### Open Call: Objective ICT-2011.3.3. New paradigms for embedded systems, Monitoring and control towards complex systems engineering

The objective is to push forward the limits of embedded systems, monitoring, control and optimization technologies and "System-of-Systems" (SoS) engineering. The aim is to develop novel methodologies and advanced engineering approaches for designing, developing and executing/running complex/large scale, distributed, and cooperating systems. These systems need to satisfy high performance, reliability, survivability and power-awareness requirements and cope with internal and/or external uncertainties/disturbances. Linking and connecting together large yet autonomous adaptive systems, call for new paradigms of systems design, towards "System of Systems" engineering, e.g. complementing the "correct by construction" by a "correct by evolution" design approach. Multi-disciplinary cooperation and multi-aspect concurrent design (where appropriate) from the computing, control, communications, energy consumption and information theory & engineering

points of view is highly encouraged, including, where relevant, support or enhancements of new educational curricula and training.

#### Target outcomes

To facilitate the design and development of advanced Embedded Systems composed of any number of independent, mainly heterogeneous and interacting intelligent embedded components and sub-systems, emphasis is on:

- a) Novel dependable and scalable architectures and tools mainly for energy efficient and energy-aware, heterogeneous embedded systems;
- b) Secure composition concepts, methods and novel validation / verification / testing techniques and tools, including meta-modelling.

- c) Robust distributed estimation/prediction, cooperative networked control, synchronization, and optimization methods in industrial environments.
- d) Energy-aware, self-organizing, monitoring and control systems including fault-adaptive methods for adjusting to/recovering from failures.
- e) Basic underpinning technologies such as large scale modelling and simulation to understand the operation and behavior of the constituent systems of SoS and of their interdependencies and to allow them to work together for a common goal and/or a global end-to-end optimization of behavior.
- f) Coordination and support actions for elaborating strategic research and engineering roadmaps by bringing together the relevant stakeholders and elaborating representative case studies.
- g) Analysis of international research agendas and preparation of concrete joint R&D initiatives for international collaboration.

### Expected Impacts

- Improved industrial competitiveness through strengthened capabilities in advanced embedded systems, in monitoring, control and optimization of large-scale complex systems, in areas like energy, transport, and production, and in engineering of SoS.
- New business eco-systems providing innovative products and services based on SoS. – Reinforced European scientific excellence and technological leadership in the design and operation of large-scale complex systems.
- Wider educational and training activities in systems and control engineering in Europe at all levels.
- International cooperation with targeted geographical areas creating mutual benefits which will further European interests on focused technical topics.

**Call FP7-ICT-2011-7 (now open, deadline 18 January 2011).**





## EU-India Expert group

Effective collaboration is greatly facilitated by the close interaction of individuals involved in R&D activities. In spite of the global communications revolution, project collaboration remains first and foremost a "contact sport", involving close, sustained interaction of individual scientists and engineers from different organisations.

The EUCLID Expert Group in Monitoring and Control includes European and Indian members coming from

industry, academia and relevant associations. Both monitoring and control dimensions are present in the Group, often intertwined. Each expert is closely linked to at least one of the four pre-selected industrial sectors but also working in other application domains. The objective of the group is to provide the EUCLID team with a strategic vision on the EU-Indian collaboration in monitoring and control, connecting EUCLID to the key monitoring and control players in Europe and India, and contribution to the EUCLID events.



# Meet your future partners at the EUCLID upcoming events...



## Join the Delegation Tour to India: Prospecting and partnership trip!

The EUCLID project is organizing a prospecting and partnership trip to India to two locations: Bangalore and Mumbai, from **18 to 22 April 2011**, targeting specifically industrial organisations, innovative SMEs, research centers and Academics, members of clusters in the NMCS field interested in collaborating with their counterparts from India in order to establish partnerships. Indian organizations will take part in the event. A «Busines to Business» format will be privileged for the meetings. Customized support will be provided to the participants to organise the meetings. The selected experts will have most of their costs covered.

Please indicate your interest in participating to this event to Ms. Gergana Hristozova [g.hristozova@inno-group.com](mailto:g.hristozova@inno-group.com)

The application form is published on the Euclid web site main page [www.euclid-india.eu](http://www.euclid-india.eu). Deadline for submission January 20, 2011.

Expression of interest from Indian organisations to meet EU participants of the delegation tour in Bangalore and Mumbai shall be forwarded to Dr. Viswanath Talasila [Viswanath.Talasila@Honeywell.com](mailto:Viswanath.Talasila@Honeywell.com)

## Come to IFAC Milan July 2011 along with the EUCLID team!

The EUCLID project team plans to organize a panel discussion "Energy and Environmental challenges in Emerging regions – Opportunities for Control and Monitoring technologies" in Milan during the 18th World Congress of the International Federation of Automatic Control (IFAC) <http://www.ifac2011.org/>, which will be held in Milano, Italy, from August 28 to September 2, 2011.

The objective of the panel discussion will be to review the current understanding of the energy/environment

linkage and it will discuss how monitoring and control technologies can help.

If you are planning to participate to the IFAC event, do not miss this opportunity to meet the EUCLID team and attend the panel discussion!

You can express your interest in participating by sending a short message to Gergana Hristozova ([g.hristozova@inno-group.com](mailto:g.hristozova@inno-group.com)). The EUCLID project team will then keep you informed about further details.

## EUCLID at CDC-ECC-2011, Orlando, US: let us know if you plan to attend CDC-ECC-2011!

The EUCLID team plans to take part in the 50th IEEE Conference on Decision and Control and European Control Conference (Orlando, Florida, US) on December 11–15, 2011 <http://control.disp.uniroma2.it/cdcecc2011/> and to organise an event "Foundations and future perspectives to cooperate in control and monitoring with India". A number of prominent specialists from

India, European Union and US are supporting the idea of this event. If you plan to take part in CDC-ECC-2011, and might be interested to take part in the EUCLID event, please send a short email with your contact details to [s.klessova@inno-group.com](mailto:s.klessova@inno-group.com). We will keep you updated. Do not hesitate to share with us other relevant ideas.





# The EUCLID project past events

## EUCLID at ICT 2010



The EUCLID project took part in the most visible European forum ICT 2010 ([http://ec.europa.eu/information\\_society/events/ict/2010](http://ec.europa.eu/information_society/events/ict/2010)), held in Brussels from 27 to 29 September 2010. The ICT 2010 was a European biennial event, which aimed to share visions of

current and future research trends and explore key policy options. It was also a gathering point for researchers, business people, investors and high level policy makers in digital innovation. The forum allowed participants to display the latest research trends in ICT on a surface of more than 5000 m<sup>2</sup>.

In this context, the EUCLID project was represented and kindly hosted at the EuroIndia Spirit (<http://www.euroindia-ict.org>) project's exhibition stand: Eu-India: Euro-India ICT Cooperation Gateway.

The project coordinator, Svetlana Klessova, gave an interview for the EU-Indian cooperation and the EUCLID project. ([http://www.euroindia-ict.org/Pages/SelectedDocument.aspx?id\\_documento=c0fed3d8-a158-4b66-b02e-8f696061043f](http://www.euroindia-ict.org/Pages/SelectedDocument.aspx?id_documento=c0fed3d8-a158-4b66-b02e-8f696061043f)). She highlighted the importance of the EU-Indian cooperation and stressed topics relevant to the NMCS collaborative research.



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## “Stimulating Cooperation between Europe and India in the Networked Monitoring and Control Systems Technologies” event in Bangalore 25 October 2010

The EUCLID project partners IICS and HTSL organized a one-day event in Bangalore on 25 October 2010, titled “Stimulating Cooperation between Europe and India in the Networked Monitoring and Control Systems Technologies. The event allowed Indian participants to understand the EUCLID project concept and objectives. During the event, Prof. Jamadagni, IISc presented the FP7 ICT Call 7 and drew the attention of the audience to the Challenge 3 Alternative Paths to Components and Systems and in particular to Objective ICT-2011.3.3. New paradigms for embedded systems, monitoring and control towards complex systems engineering. The event was







well attended, by over 30 participants, from the industry and the academia. Subsequent to this seminar some industry participants have approached the EUCLID team for further information on upcoming FP7 calls. Some email queries are also received. The EUCLID team is hoping to help several Indian teams to get involved in the upcoming FP7 calls.

The meeting of the Indian stakeholders and specialists allowed also the discussion of the NMCS issues for EU-Indian collaboration. Three presentations were given by invited NMCS experts:

**Prof Gudi**, IITB on process control

**Mr TV Prabhakar**, IISc on monitoring for agriculture

**Prof HS Jamadagni** on sensors and monitoring

The second part of the Conference was attended over the video/audio conference tool by the scientific project coordinator Françoise Lamnabhi-Lagarrigue (EECI/CNRS), project coordinator, Svetlana Klessova and Franck Le Gall (inno TSD). The main topic of this part was the possible academia and industry partners from Europe, their brief profiles, Indian competences they look for and the previous experience and perspectives for EU-India monitoring and control cooperation. In addition, Franck le Gall presented some of the main channels for partners search, available for EU and Indian players, willing to collaborate.

## 2011 EECI (European Embedded Control Institute) Graduate School on Control

**The EUCLID Consortium partner EECI organizes a Graduate School on Control from 17/01/2011 to 13/05/2011.** Financial (travel and stay) supports of 500 EUR / module will be given in situ to selected students from all over the world. It is therefore a great opportunity to follow the courses from renowned experts. The deadline to apply to this financial support is **December 21st 2010**.

The School is made of 15 independent modules. The approach is based on intensive teaching: each module lasts one week (21 hours). The lectures are

taught in English. The 2011 program is provided below.

You can find more information on the following web address: <http://www.eeci-institute.eu/GSC2011>

**The training is eligible** for 2nd Masters Degree credits and Scientific Thesis modules (3 ECTS).

More details on the opportunities to participate will be further published on the EECI and EUCLID web-sites.



<b>M1</b> 17/01/2011 – 21/01/2011	<i>Flatness and Nonlinear Estimation Techniques</i>	Michel Fliess
<b>M2</b> 24/01/2011 – 28/01/2011	<i>Controlled Synchronisation of Dynamical Systems</i>	Antonio Loria / Elena Panteley
<b>M3</b> 31/01/2011 – 04/02/2011	<i>The Behavioral Approach to Modeling and Control</i>	Harry L. Trentelman / Paolo Rapisarda
<b>M4</b> 07/02/2011 – 11/02/2011	<i>LMI, Optimization and Polynomial Methods</i>	Didier Henrion
<b>M5</b> 14/02/2011 – 18/02/2011	<i>Optimization on Matrix Manifolds</i>	Rodolphe Sepulchre / Pierre Antoine Absil
<b>M6</b> 21/02/2011 – 25/02/2011	<i>Cooperative Navigation and Control of Multiple Robotic Vehicles</i>	Antonio M. Pascoal / Antonio P. Aguiar
<b>M7</b> 28/02/2011 – 04/03/2011	<i>Normal Forms for Nonlinear Control Systems</i>	Witold Respondek
<b>M8</b> 07/03/2011 – 11/03/2011	<i>High-Gain Observers in Nonlinear Feedback Control</i>	Hassan Khalil
<b>M9</b> 14/03/2011 – 18/03/2011	<i>An Introduction to Networked Control Systems</i>	Karl Henrik Johansson / Vijay Gupta
<b>M10</b> 21/03/2011 – 25/03/2011	<i>Specification, Design and Verification of Distributed Embedded Systems</i>	Richard Murray / Ufuk Topcu
<b>M11</b> 28/03/2011 – 01/04/2011	<i>Modeling and analysis of biological networks</i>	Mustafa Khammash
<b>M12</b> 04/04/2011 – 08/04/2011	<i>Control of Highly Nonlinear Systems</i>	Claude Samson / Pascal Morin
<b>M13</b> 26/04/2011 – 29/04/2011	<i>Model Predictive Control</i>	Eduardo F. Camacho
<b>M14</b> 02/05/2011 – 06/05/2011	<i>Robust Hybrid Control Systems</i>	Ricardo G. Sanfelice
<b>M15</b> 09/05/2011 – 13/05/2011	<i>Optimally, Stabilization, and Feedback in Nonlinear Control</i>	Francis Clarke

## You are young Indian NMCS researcher? You want to have your thesis supervised or co-supervised in Europe?

**The EUCLID project can help you identify internship opportunities in Europe**

The EUCLID project offers a unique opportunity to young Indian researchers, looking for research internships and training opportunities, to find their way in Europe. The project team suggests helping post-doc and PhD students, in order to strengthen the EU-India collaboration starting with the young representatives of the NMCS community. The services offered by EUCLID project are totally free of charge.

In order to facilitate your search for offers in European organizations, the EUCLID team will mobi-

lize its network and this might be your chance! In the next three issues of the EUCLID newsletter, the project team will explore and publish the opportunities for internships open for Indian NMCS students in Europe.

If you are one of those young and motivated Indian researchers, willing to prepare your thesis or to do your internship in European NMCS organizations, please do not hesitate to contact us. We will do our best to help you to find this opportunity.

### Some Offers:

The ENAC School of Architecture, Civil and Environmental Engineering offers Post Doc and PhD positions in the Urban Transport Systems Laboratory at:

- Macroscopic modeling of traffic in cities
- Travel times in arterials
- Hierarchical control of multi-modal urban systems
- Location of emergency response services.

For more details about the offer, please contact

[nikolas.geroliminis@epfl.ch](mailto:nikolas.geroliminis@epfl.ch)

and copy to [o.kieffer@inno-group.com](mailto:o.kieffer@inno-group.com)

DEEDS Group, Darmstadt, Germany offers PhD positions in the following areas:

- Software/Operating System Robustness
- Security/Threat Profiling of Operating System
- Distributed/Networked Protocols
- Mobile Computing
- Software Testing

The applications are also open for other interesting related areas.

For more details, please consult the offer on the following website: <http://www.deeds.informatik.tu-darmstadt.de/jobs/phd.html>

## Be part of the EU-Indian monitoring and control community...

Are you looking for partners for a research proposal? Do you have experience you would like to share? Do you have a NMCS related seminar, conference or publication you would like to promote? If so, please send information to any of the following contacts:

### Europe:

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