

# **EUROPEAN MASTER IN INFORMATICS**

**University of Trento (Italy)**

**RWTH Aachen University (Germany)**

**University of Edinburgh (Scotland, UK)**

**Call for EU\_Student Applications**

**EuMI 2009-2010**

**Deadline April 15, 2009**

**Online Application at:**

<http://old.disi.unitn.it/edu/appform/login.xml>

Sponsored by the European Commission Programme

ERASMUS MUNDUS



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## **1. EUROPEAN MASTER IN INFORMATICS**

The University of Trento (Italy), the RWTH Aachen University (Germany), and the University of Edinburgh (Scotland) offer a two year (120 ECTS credits) Joint Master's Programme, named European Master in Informatics (EuMI). The objective of the Master's Programme is to educate professionals who will understand advanced techniques, tools, and methodologies in the field of Computer Science, and who will be able to put this knowledge to practice in the key application domains of Net-Centric/Media Informatics, Life Science Informatics, and Embedded Systems Informatics.

The Programme will admit a maximum number of 25 EU-students for the academic year 2009/2011.

## **2. MASTER'S PROGRAMME**

### **Description of the Programme**

The objective is to educate professionals who will understand advanced techniques, tools, and methodologies in the field of Computer Science, and who will be able to put this knowledge to practice in key application domains. In particular, EuMI offers three areas of specialization in

- Net-Centric / Media Informatics: This specialization covers all those aspects of informatics related to the design, implementation and analysis of distributed, ubiquitous information and computing systems. This area covers a wide range of topics, ranging from network architectures and communication infrastructures to techniques for the design and analysis of distributed knowledge, media applications, intelligent human computer interfaces and distributed web-service applications.

- Life-Science Informatics: This area of specialization will prepare professionals for research or employment at the intersection of the study of Life Science (biology, neuroscience, cognitive science) and the study of computation and engineering. Students will take basic courses on the fundamentals of biology and/or cognitive science and advanced courses studying the application of computer science techniques to the analysis of structural and behavioural aspects of biological and cognitive systems.

- Embedded Systems Informatics: This specialization introduces the fundamental principles underlying the theory and the practical design and implementation of embedded systems. Moreover, it allows students to put these principles into practice in applications in the area of control systems (e.g., controllers for automotive systems or industrial plants) and to ambient intelligence applications (e.g., domotics or sensors networks). These are application domains that, being emergent, rapidly evolving, and of growing impact on society, require specialized competencies not covered by more traditional degree programmes.

### **Structure of the Programme**

For each area of specialization, a joint curriculum is defined which involves two universities of the Consortium. The student admitted to a selected curriculum will study in two universities, taking courses on advanced topics in theoretical and practical Computer Science, and with a focus on the selected area of specialization. The student will spend half of his/her Master's course in one university (the "first university"), and the other half in the other university (the "second university"). Work towards the thesis will be jointly supervised and evaluated by two professors, one from each university.

### **Duration of Studies**

The EuMI Course has an average duration of two academic years starting in September 2009.

### **Learning outcomes**

EuMI aims to train students in emerging research domains with a high potential impact to shape the future of applied computer science disciplines. It prepares students for employment in such multidisciplinary domains and/or for continuing their studies within PhD programmes.

After completing the EuMI programme the student will possess the competencies necessary for the design and implementation of complex software systems, including their embedding in technical and socio-technical systems. The student will achieve knowledge in both theoretical and applied Computer Science, which will allow him/her to adapt quickly to the changes in this constantly evolving field, and specific competencies necessary to operate in the chosen area of specialization. The student will also attain expertise in putting his/her knowledge into practice by participating in laboratory projects and/or in industrial student placement schemes. Moreover, the student will attain practical project management skills which are necessary for an effective application of the knowledge acquired. During his/her studies, the student will work within research groups of three leading European universities, and will interact with professors, researchers and scholars working in advanced research in computer science and associated enabling technologies. The international dimension of the Master's Course guarantees that students familiarise themselves with different educational methods and a multicultural education through the immersion in two different European universities.

## **Language**

All courses are taught in English. Students will also undertake courses on the culture and language of the European countries of the main and partner universities, whenever English is not the officially spoken language.

## **Graduation thesis**

Work towards the thesis will be jointly supervised and evaluated by two professors, one from each visited university

## **3. MASTER'S DEGREE**

Upon the successful completion of the curriculum and fulfilment of the Master's course requirements, students will be awarded a qualification equivalent to Master's degrees in the two visited universities. The awarded degree corresponds to:

- a Master of Science in Computer Science or Media Informatics from the RWTH Aachen University
- a Master of Science in Informatics from the University of Edinburgh
- a Master of Science (Laurea Specialistica) in Informatics from the University of Trento

## **4. ADMISSION REQUIREMENTS AND SELECTION CRITERIA**

### **Elegibility**

This Call is directed at applicants who are residents of countries within the European Union, the European Economic Area / European Free Trade Association (Iceland, Liechtenstein, Norway).

- Check here to view the EU Member States map: [http://europa.eu/abc/european\\_countries/index\\_en.htm](http://europa.eu/abc/european_countries/index_en.htm)
- EU Member States official list: Austria; Belgium; Bulgaria; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden; United Kingdom.

### **Degree certificates**

The EuMI School can accept only students who already have a first level degree. Students who have not yet completed their first degree, but who predict to graduate before August 31 2009, can apply to EuMI. If selected, their admission will be conditional on the receipt of the degree certificate by EuMI not later than August 31 2009.

### **IELTS/TOEFL/CAE certificates**

Fluent written and spoken English, certified by either an IELTS score of at least 6.0, a TOEFL score of at least 550 (paper-based) / 217 (computer-based) / 81 (internet-based) or CAE score of at least C; students with higher English scores (IELTS 6.5; TOEFL 580 / 237 / 88; CAE B or A) will be preferred. Only applicants who are Nationals and/or first-degree-holders of Republic of Ireland and United Kingdom do not have to submit language certificates.

Students will be selected according to the following criteria:

- Profile: academic records, work experience, other related qualifications
- Level of English knowledge
- Research & Development experience
- Motivation
- Reference letters

## **5. TUITION FEES**

The tuition fees are € 4.000 for each academic year. The tuition fee may be waived in part or in total depending on the financial sources available at the moment of the selection. Students will be provided access to the facilities of the participating universities (library, computers, laboratories, Internet).

## **6. SCHOLARSHIPS**

For the academic year 2009/10 up to 12 scholarships will be offered to EU students. In particular:

- 6 scholarships will cover
  - Tuition waiver and
  - a financial contribution to the student's costs of € 3.500 per each year
- 6 scholarships will cover
  - Tuition waiver (only)

The scholarships will be offered to students who are citizens of countries of the European Union, the

European Economic Area / European Free Trade Association (Iceland, Liechtenstein, Norway). These scholarships are funded directly by the EuMI School. Additional scholarships and tuition waivers may become available depending on the financial resources available at the time of the selection.

## **7. HOW TO APPLY**

The application requires two steps: (1) an on-line application (due by April 15, 2009) and (2) the hardcopy submission of documents (due by April 20, 2009).

Applicants will be notified about the admission decision and whether they will be offered a scholarship by April 30, 2009. The on-line application should be made on the website <http://www.eumi-school.org/eumi/application>. Applicants will be required to fill out the on-line forms and to provide the following documents in electronic form

### **Needed documents**

- A copy/photocopy of the applicant's passport (identity card if you have no passport). Only the pages with picture and personal data.
- A copy/photocopy of the IELTS, TOEFL, or CAE certificate (not older than 2007). In case, the institutional code 2348 01-University of Trento
- A copy/photocopy of all academic degree certificates (i.e. Bachelor or equivalent, Master or equivalent) or other postgraduate degrees/academic qualifications. Note: if the degree is not in English, German, or Italian, an English translation is needed, made by an officially recognised translator or your University. If the degree will be obtained within August, 2009, please indicate it in a letter.
- Copies/photocopies of all transcripts or other academic records that give proof of the higher education studies (i.e. Bachelors, Masters etc. ) including credits and grades achieved in each single subject
- Reference letters (minimum 2) should be requested via S.A.R.A. application procedure. In case your reference letters are in sealed envelopes, please notify the EuMI Secretariat via email ([info@eumi-school.org](mailto:info@eumi-school.org)) and send them together with your hard-copies documents
- Print-out of your finalized online application form, signed in original, together with the copies/photocopies of the documents you have uploaded. Each copy/photocopy must have the application ID number (issued by S.A.R.A.) written on the upper-right hand corner

### **Postal address**

You can send the application with any carrier you think it is appropriate - UPS, DHL, TNT, Postal service, etc.

EuMI School – attention: Mr. Luca Valenzin

University of Trento

c/o Dipartimento di Ingegneria e Scienza dell'Informazione

Via Sommarive, 14

38100 Povo - Trento - Italy

*Unreadable documents or documents without an application ID number will not be considered. On-line applications not submitted by April 15, 2009 or applications whose paper copies of have not been received by April 20, 2009 will neither be considered. The "European Master in Informatics" does not accept responsibility for loss of applications due to address errors or other postal-related problems.*

## **8. IMPORTANT DATES**

- April 15, 2009 Deadline for on-line application
- April 20, 2009 Deadline for surface mail application
- April 30, 2009 Notification of admission and of scholarship
- September 2009 Start of Master courses

## **9. CONTACTS**

EuMi School

c/o DISI – Dipartimento di Ingegneria e Scienza dell'Informazione

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