

# **EUROPEAN MASTER IN INFORMATICS**

**University of Trento (Italy)**

**RWTH Aachen University (Germany)**

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

## **Call for EU Student Applications**

**EuMI 2010-2011**

**Deadline May 16, 2010**

**Online Application at:**

<http://www.eumi-school.org/eumi/application>

**EuMI has been awarded by the European Commission/EACEA  
the Erasmus Mundus Brand Name (EMBN)**

European Commission,  
Directorate-General for Education and Culture, EAC



Executive Agency for Education,  
Culture and Audiovisual, EACEA



## 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 **15 EU-students** for the academic year 2010-2011.

## 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 carried out at the second university and 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 2010.

### 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 carried out at the second university and 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 Magistrale) 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).

Please follow the link to review the list of EU Member States. Please check here the map of EU Member States [http://europa.eu/abc/european\\_countries/index\\_en.htm](http://europa.eu/abc/european_countries/index_en.htm) - EU Member Countries 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, 2010**, 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, 2010**.

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

Fluent written and spoken English, certified (certificate not older than 2008) 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 years 2010/12 **up to 6 scholarships** will be offered to EU students and will cover

- Tuition waiver and
- a financial contribution to the student's costs of € 3.500 per each year

These scholarships are funded directly by the EuMI School.

Additional scholarships and tuition waivers may become available depending on the financial sources available at the time of the selection.

## 7. HOW TO APPLY

The application requires two steps: (1) an **on-line application** (due by **May 16, 2010**) and (2) **short-form hard-copy submission** (due by **May 21, 2010**).

Applicants will be **notified about the admission** decision and whether they will be offered a scholarship by **May 31, 2010**.

The on-line application should be submitted to the central EuMI 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 2008). 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 recognized translator or your University. If the degree will be obtained within August, 2010, 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.
- **Print-out of your finalized online application short-form**, signed in original.

### Postal address

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

**EuMI School** - attention: Ms. Elena Bortolotti  
Università degli Studi di Trento  
c/o DISI – Dipartimento di Ingegneria e Scienza dell'Informazione  
Via Sommarive, 14  
38123 Trento - ITALY  
E-mail: [info@eumi-school.org](mailto:info@eumi-school.org)  
Web-Site: <http://www.eumi-school.org/>  
Fax: +39 0461 28 3166

Unreadable documents or documents without an application ID number will not be considered. On-line applications not submitted by May 16, 2010 or applications whose signed **finalized online application short-form** have not been received by May 21, 2010 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

- **May 16, 2010**                      Deadline for on-line application
- **May 21, 2010**                      Deadline for send / fax **application short-form**
- **May 31, 2010**                      Notification of admission and scholarship
- **September 2010**                      Start of Master courses

## 9. CONTACTS

### **EuMI School**

Università degli Studi di Trento  
c/o DISI – Dipartimento di Ingegneria e Scienza dell'Informazione  
Via Sommarive, 14  
38123 Trento - ITALY  
E-mail: [info@eumi-school.org](mailto:info@eumi-school.org)  
Web-Site: <http://www.eumi-school.org/>  
Fax: +39 0461 28 3166