European Commission
ERASMUS MUNDUS

CERTIFICATION

Erasmus Mundus scholarship holder

Qi QI

has completed the 2-year Erasmus Mundus Masters Course

European Master in Distributed Computing, EMDC

during the academic years 2012/2014

Appointed study track:

First and second semester of studies: **Técnico Lisboa, Portugal**
Third semester of studies: **KTH Royal Institute of Technology, Sweden**
Fourth semester of studies: **KTH Royal Institute of Technology, Sweden**

By completion of the master's course Qi QI is awarded the corresponding Degree of Master from Técnico Lisboa, Portugal and KTH Royal Institute of Technology, Sweden. The degree project (30 ECTS) titled *Optimistic Concurrency Control in a Distributed NameNode Architecture for Hadoop Distributed File System* was carried out at Computer Systems Laboratory at Swedish Institute of Computer Science - SICS (Stockholm) in Sweden. Further descriptions are given in the official Degree Certificates (Diploma) and Diploma Supplements issued by the awarding university. This document serves as a confirmation of completion of the programme alongside the official Degree certificates.

On behalf of the EMDC consortium*
Stockholm, 24 September 2014

Johan Montelius
KTH Royal Institute of Technology
Director EMDC

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* Selected and supported by the European Commission, the 2-year Master's course is jointly offered by IST Técnico Lisboa Portugal, KTH Royal Institute of Technology, Sweden and Universitat Politècnica de Catalunya BARCELONATECH, Spain.

TÉCNICO LISBOA

KTH VETENSKAP OCH KONST

UPC UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH

Outline of the EMDC programme

The European Master in Distributed Computing aims at giving the best possible foundation for a career in research and development of scalable and reliable distributed systems. After the program, students should not only understand and be able to use large distributed systems but they should be capable of designing and constructing such systems.

The programme comprises three semesters of course work and one semester for thesis work, 120 ECTS in total. The first year of studies, 60 ECTS, is carried out at one of the two optional entry locations, IST and UPC. The third semester of studies will be carried out at KTH, 30 ECTS. Students will then prepare their master thesis at one of the participant institutions, 30 ECTS.

The first year of studies achieves integration of courses between IST and UPC in solid distributed computing fundamentals background, while allowing a significant degree of specialization in more advance courses, tailored for different student profiles and principal faculty expertise of each institution.

The specific profiles offered at IST and UPC address two different sets of concerns in design, development, evaluation, and evolution of distributed computing systems: overall system reliability at IST (fault-tolerance, interoperability, autonomic systems), performance and scalability at UPC (performance measurement, tuning, large-scale systems).

The third semester of studies at KTH receives all students providing them with common advanced courses that assume and leverage course integration of previous semesters. This motivates students to develop large-scale projects integrating both common and complementary skills acquired earlier, and developing research methodology and scientific writing, essential to pursue further studies and research.

Career prospects

Information technology is becoming ubiquitous and increasingly important for all kinds of organizations, including enterprises, factories, public utilities, state bodies, health care, banking, transportation, airport and harbor control, etc. Information technology and Distributed Computing in particular, is required to successfully undertake and manage large-scale projects on such organizations. Furthermore, Distributed Computing provides the foundations to manage the communications and data processing required by other science fields such as health sciences, biology, physics, chemistry, mechanical and civil engineering.