



## Department of Computer Science and Engineering



### DISI@Unibo

The Department of Computer Science and Engineering - DISI - has been established in October 2012, through the aggregation of the existing Department of Computer Science and one component of the Department of Electronics, Computer Engineering and Systems. DISI is the reference point for computer science and engineering in education, research and technology transfer at the University of Bologna. DISI is one of the top computer science departments in Italy, offering an exciting work and learning environment to its students, teaching staff, research fellows and personnel.

The DISI principal goal is to contribute to the advancement of society through education, research, and technology transfer. This goal is achieved by offering a broad spectrum of expertise ranging from theoretical computer science to software, hardware, and application design and development.

DISI strives for excellence in scientific and technological contributions to informatics.

### DISI@Unibo

The Department of Computer Science and Engineering of the University of Bologna, currently consists approximately of 50 full and associate Professors, 34 assistant professors, more than 60 PhD students and research fellows, and 18 technical and administrative staff.



The Department of Computer Science and Engineering has its headquarters in Bologna and Cesena (FC), where teaching takes place and administrative staff are located.

Bologna offers the Head office of the Department and the headquarters of the degree programs in Computer Science, Information Science for Management, Computer Science and Internet Science, Computer Engineering. In Cesena are located the Head office of the Local Organization Unit (UOS) and the headquarters of the degree and master programs in Engineering and Computer Science.

Further information can be found at:  
<http://www.cse.unibo.it/en/department>

### Contacts



DISI Dipartimento di Informatica – Scienza e Ingegneria  
Università di Bologna  
Mura Anteo Zamboni, 7  
40126 Bologna – Italy  
Tel: +39 051 2094881  
Fax: +39 051 2094510  
E-mail: [segreteria@cs.unibo.it](mailto:segreteria@cs.unibo.it)  
<http://www.cse.unibo.it/en>



## Studying@DISI

DISI offers curricula built on thirty years of teaching experience accumulated at the former Faculty of Sciences and Faculty of Engineering. The aim is to produce creative computer scientists and engineers with a rich collection of both academic and technical skills. Students with a bachelor degree are ready to enter the job market as productive computer scientists or to continue their education with the graduate level. Their foundations in computer science and engineering are sufficiently solid to enable them to proceed in a life-long learning programme in their chosen fields.

Studying at DISI means to be capable of leading and also to be led towards a deep understanding of the pillars of modern information society, including: Internet, the Web, social networks, electronic commerce, intelligent systems, search engines, cloud computing. It also means to be able to create your own opportunities for improving quality of life by developing future computer applications, and to gain access to a global labor market, where your skills can be exploited anywhere in the world. The demand for skilled computer scientists and engineers is ever increasing at both national and international level. DISI has strong ties with many industries and offers its students career counselling, opportunities for internships and study abroad at some of the most prestigious institutions through many international cooperation programmes.

DISI offers a wide variety of degree options to suit different educational goals:

- 4 First level degrees/ Bachelor - 180 ECTS, 3 years
  - Computer Engineering
  - Computer Science
  - Computer Science and Engineering (Cesena)
  - Information Science for Management
- 3 Second level degrees/ Master - 120 ECTS, 2 years
  - Computer Engineering
  - Computer Science
  - Computer Science and Engineering (Cesena)

Further information can be found at:

<http://www.cse.unibo.it/en/degree-programs>

## PhD@DISI

The graduate program represents the most advanced academic degree, which is awarded after three years of education and training in advanced research. The Dottorato di Ricerca in Computer Science and Engineering is a three-year research program leading to the "Dottore di Ricerca" degree, which is equivalent to a British or American Doctor of Philosophy (PhD) degree. The program consists of two semesters of course work followed by 2 years of research leading to a dissertation describing original results. Each semester consists of three 20-hour courses with a final exam or project. Dissertation work can be carried out in all research areas covered by the department. The program admits 15 PhD students per year with about 7 fellowships. Further information can be found at:

<http://www.cse.unibo.it/en/phd-program>

## Research@DISI

DISI researchers are known internationally in various areas of computer science and engineering and are active in a large number of regional, national and international projects, as well as in industrial research and technology transfer through dedicated centres, academic spin-off industries and individual collaborations. Research results are published in the best international journals and presented at top conferences worldwide. The department joins the long tradition in leading basic and foundational research as well as technology-driven and experimental research of both computer scientists and computer engineers.

Further information at:

<http://www.cse.unibo.it/en/research>



**Artificial Intelligence, Autonomic and Complex Systems:** research at DISI is very active in the Artificial intelligence, autonomic and complex systems areas. It spans from topics such as knowledge representation and automatic reasoning in agent and multi-agent systems to modeling and simulation of complex systems and networks.

**Information Systems and Semantic Web:** research on Information Systems deals with the efficient and effective storage and retrieval of large amounts of data of a possibly heterogeneous and unstructured nature. Research in this area carried out in the department includes the design of data warehouses, mining of knowledge from large data collections, efficient and effective management of multimedia and uncertain data and in the semantic web, self-organization of distributed information systems, and management of temporal aspects in databases.

**Systems:** research on systems in the department covers a wide range of topics related to systems engineering and management, which are characterized by the integration of computer science and engineering solution with other varieties of both technical and non-technical components and processes.

**Computational Biology, Bio-Informatics and Biometrics:** computational models and computer science techniques are exploited to address challenging problems in biology; meanwhile, new effective computational frameworks are designed by trying to mimic the extraordinary aptitude of biological organisms in solving perceptive-cognitive problems and in learning/self-organizing.

**Networks, Middleware, Distributed and Mobile Systems:** several research groups in the department are active in the large area of middleware and software support for advanced distributed and mobile systems. The availability of ubiquitous and anytime connectivity is pushing towards novel services and applications, which pose a variety of challenging technical issues.

**Software Engineering, Programming Languages and Formal Methods:** research on programming languages and formal methods exploits mathematical techniques for designing, realizing and verifying complex software systems. It covers a wide range of activities, including theoretical studies on basic properties of computability and interaction, the design of new programming languages, the development of engineering techniques for the production of large industrial software.