



# DEIB

## COMPUTER SCIENCE AND ENGINEERING RESEARCH AREA

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The scientific area of Computer Science and Engineering at DEIB offers undergraduate and graduate courses in Computer Science and Engineering for all Schools of Engineering, Design and Architecture, and manages the Bachelor and Master programmes in Computer Science and Engineering ("Ingegneria Informatica") of the Politecnico di Milano. A wide range of research topics is pursued, distributed over five strong research lines: Advanced Software Architectures and Methodologies; Artificial Intelligence and Robotics; Data, Web, and Society; Information Systems; and System Architectures.

System and software reconfigurability, self-adaptivity, autonomy and pervasiveness, Internet-of-Things, service computing, information and knowledge management and discovery, multimedia applications, sustainable ICT, human-machine interaction, autonomous robotic, artificial intelligence, machine learning and advanced and sustainable computing architectures, cloud computing, complex systems design and verification techniques, advanced and sustainable approaches to software production, health informatics are some of the basic themes addressed by the area and constitute the ground for the development of future ICT (Information and Communication Technology) systems. Moreover, our vision pursues the strategic aim to conceive, favor, and support a new penetration wave of computer science and en-

gineering in society, also carrying out research oriented towards concrete applications that allow the interdisciplinary development of innovative services and products. Indeed, ICT systems are increasingly integrated with other engineering systems such as energy management systems, intelligent transportation systems, smart and sustainable cities and buildings (Smart Mobility and Smart Cities), home and health care (Health and Well-being), intelligent sensors (Sensing the world), industrial production support systems (Industry 4.0), all aiming at increasing levels of connectivity, adaptability, coordination, security, and flexibility in the quality of service. These goals can be achieved only through a strong interaction with the other ICT disciplines, including telecommunications, electronics, systems and controls, with the various application areas, imposing a high level of integration with the other areas of the Department and with the other Departments inside Politecnico di Milano and the outside world.



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