IMDEA , the Madrid Institute for Advanced Studies, is a recent initiative of the Regional Government of Madrid, which comprises a network of institutes for performing research of excellence in a number of areas of high potential economic impact. Within this initiative, the institute IMDEA Software is devoted to address the challenges in the area of technologies for software development. In particular, it aims to firmly contribute to technologies which allow the cost-effective development of software products with sophisticated functionality and high quality, i.e., secure, reliable, and efficient.

Research and networking expertise

Currently, the Institute coordinates the FP6 IP Project MOBIUS, and it participates in the FP7 IP Project HATS. The Institute also coordinates an FP7 (PEOPLE-COFUND) Marie Curie Action for research mobility, called AMAROUT. The duration of this action is 4 years and will cofinance the incorporation of up to 132 researchers into the IMDEA network of institutes for one year (renewable for two or three). The Institute was responsible of the creation the proposal and is now responsible for the development and coordination of AMAROUT for the entire IMDEA network. Finally, the Institute is participating in the organization of POPL 2010 (Madrid, Spain): Manuel Hermenegildo, Director of the Institute, has been elected as the conference General Chair.The IMDEA Software Institute currently employs over 20 researchers, including 3 full research professors, 4 assistant research professors (tenure-track), and 4 postdoctoral students. The current main lines of research are the following: modelling, focused on the development of languages and techniques for system modelling and analysis; security, dedicated to the study of software security based on cryptographic techniques and programming language level techniques; optimization, directed at assisting programmers in the production of applications with suitable performance; and programming, focused on the improvement of programming languages and environments.

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