

SYSTEMS

ED 309

SUPPORT INSTITUTION: Institut National des Sciences Appliquées de Toulouse

CO-AUTHORIZED INSTITUTION(S): Institut Supérieur de l'Aéronautique et de l'Espace ISAE, Université Paul Sabatier Toulouse 3- UPS, Institut National Polytechnique de Toulouse - INPT, Université des Sciences Sociales de Toulouse 1, Université de Toulouse-le-Mirail Toulouse 2

Associated Institution(s): École Nationale d'Ingénieurs de Tarbes- ENIT, École des Mines d'Albi-Carmaux - ENSTIMAC, École Nationale de l'Aviation Civile - ENAC

SCIENTIFIC INTEREST

Increasingly complex systems are being conceived and exploited, covering a wide range of applications from stand-alone systems (such as the control of a machine) to global systems (such as the conception of products or services). The notion of integration is fundamental in the conception and implementation of a system, be it the integration of different technologies or the integration of several levels of abstraction.

The Systems Doctoral Program focuses on the conception, control and command of integrated systems by associating three complementary domains:

- **The specialisation « Automatic Control »** deals with the modeling, observation and control of physical systems. Automatic Control is essentially characterized by the notion of a closed-loop control system: information supported by output signals measured from the system is fed back to the control system which generates control signals. The designed control system is supposed to improve or optimize the performance of the closed-loop system.
- **The specialisation « Industrial System Engineering »** focuses on systems producing goods and services that must be coordinated and controlled in order to reach objectives. At a certain level of abstraction, the goal is to conceive organizational structures and the associated decision-making procedures.
- **The specialisation Computer Science** covers all aspects of the conception and implementation of computer systems. Today, the management of systems relies increasingly on distributed computer systems based on communication networks. These systems must be reactive: they must guarantee a quality of service that respects both time and reliability constraint.

- **The specialisation Embedded Systems** addresses the concepts of embedded computing systems, embedded decision (shared, or not, with an operator), autonomy and mobility as they relate to one or several systems or vehicles.

RESEARCH UNITS

<http://www.campusfrance.org/ecoledoc>

>search by region>institutions

>doctoral departments>research units

ADMISSION REQUIREMENTS

- **Degree or level required**
Master degree including research experience
- **Languages proficiency**
No specific requirement . However, studying the language is mandatory during the thesis research period.
- **Admission procedure**
Must have a well-defined research project within a research team.
Financial support is necessary
An appropriate committee will examine application
- **Admission information**
Secrétariat EDSYS - Tel : +33 5.61.33.62.94 - Mail : edsys@laas.fr
<http://www.laas.fr/EDSYS/contents/recrutement/recrutement.html>

WEBSITE IN ENGLISH

<http://www.laas.fr/EDSYS>

Number of students in the doctoral program	220
Number or % of foreign students	124
Network of French institutions	Research and Higher Education Pole (PRES) - "Université de Toulouse" www.univ-toulouse.fr
International thesis co-directed	20 = Algeria 4 ; Brazil 2 ; Canada 1 ; Italy 1 ; Japan 1 ; Morocco 2 ; Portugal 1 ; Sweden 1 ; Tunisia 7
Network of international institutions	Franco-Italian Doctoral college
Financial support	RESEARCH GRANTS (3 YEARS)

- 7 of whom, 4 foreign students

Sources of funding

- Government: ASSEDIC 1, Other ministries 7, Wages 11, Entreprises , CIFRE 13
- Autres : Research contracts 17, Research organisations 7, Financial help to foreign students 67
- Without financial support 1

Welcome services

Services

- Centre de mobilité Toulouse Midi-Pyrénées - <http://www.univ-toulouse.fr/cendredemobilite>
Mail : mobilitycentre@univ-toulouse.fr - Tel: +33 5.61.14.93.43
- Services: Additional help: bureaucratic assistance, practical life, housing, language courses, cultural activities, career and job information.