

## PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 37th cycle

## **Research Area n. 3 - Systems and Control**

## THEMATIC Research Field: ANALYSIS AND DEVELOPMENT OF ALGORITHMS FOR HIGH-PERFORMANCE ELECTRIC OR HYBRID VEHICLES

| Monthly net income of PhDscholarship (max 36 months)   |  |  |
|--|--|--|
| € 1400.0   |  |  |
| In case of a change of the welfare rates during the three-year period, the amount could be modified. |  |  |

| Context of the research activity   |  |  |
|--|--|--|
| Motivation and objectives of the research<br>in this field                             | The research will focus on the development of<br>systems&control technologies (actuators, sensor,<br>algorithms, SW implementation), in the specific fields of<br>high-performance electric and hybrid vehicles. This is an<br>emerging and rapidly developing field. The objective is to<br>develop new methods and technology solutions. |  |
| Methods and techniques that will be<br>developed and used to carry out the<br>research | The methods and techniques which will be used are:<br>- Signal-processing and data-analysis<br>- System-identification and virtual sensing<br>- Advanced control algorithms  |  |
| Educational objectives   | Develop new results and know-how in the field of design of advanced control systems for vehicles   |  |
| Job opportunities  | R&D engineer in vehicle-manufacturers companies (OEM)<br>R&D engineer in Tier-1 suppliers companies in the<br>vehicular industry<br>Project manager in advanced mechatronics industry  |  |
| Composition of the research group  | 2 Full Professors<br>2 Associated Professors<br>3 Assistant Professors<br>20 PhD Students  |  |
| Name of the research directors   | Sergio M. Savaresi   |  |

## POLITECNICO DI MILANO



Contacts

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| Additional support - Financial aid per PhD student per year (gross amount) |  |  |
|--|--|--|
| Housing - Foreign Students   |  |  |
| Housing - Out-of-town residents<br>(more than 80Km out of Milano)          |  |  |

| Scholarship Increase for a period abroad |          |  |
|--|----------|--|
| Amount monthly                           | 564.01 € |  |
| By number of months                      | 6        |  |

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

EDUCATIONAL ACTIVITIES (purchase of study books and material, including computers, funding for participation in courses, summer schools, workshops and conferences): financial aid per PhD student per year 2nd year: euros per student (1534)

3rd year: euros per student (1534)

TEACHING ASSISTANSHIP: (availability of funding in recognition of supporting teaching activities by the PhD student)

There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

COMPUTER AVAILABILITY:

1st year: individual use 2nd year: individual use 3rd year: individual use

DESK AVAILABILITY: 1st year: individual use 2nd year: individual use 3rd year: individual use