



# École Nationale Supérieure de Techniques Avancées ParisTech

## Associate Professor Position in Dependable Systems

### Position context

ENSTA ParisTech (<http://www.ensta.fr>) is a French Engineering Grande Ecole, member of ParisTech, which mainly selects students after preparatory classes via the Common Mines-Ponts contest (<http://concours-minesponts.telecom-paristech.fr>). The position takes place in the Department of Electronics and Computer Science (<http://uei.ensta.fr>), which has numerous national and international partnerships with academics and industries. The position includes a variable teaching activity and Academic and Contract research activities.

### Teaching activities

The Associate Professor will participate to the organization of ENSTA ParisTech programs. Moreover, he will teach in Computer Science, in system modeling and analysis and more generally in closed domains. He may also participate to school actions related to his teaching activities.

### Research activities

The research activity lead by the associate professor will be in the domain of dependable systems and more precisely in formal methods and in static program analysis which are techniques aiming at guaranteeing the behavior of safety critical systems such as control systems in nuclear plants or automatic transports. This domain, which is one of the research themes of the Department of Electronics and Computer Science, also involves developments in design of embedded systems (components and multiprocessors for embedded architectures), developments in design of embedded software, and developments in design of virtualization platforms or hybrid systems as well as developments in new static analysis methods in order to guarantee system dependability.

The previously mentioned research activity will take place in a collaboration context in particular with industries.

The recruited Associate Professor will be a member of the team "Safety and Dependability of Hardware and Software Systems", conducting, into this team, a research consistent with the previously mentioned activities. He will have to produce publications of high quality and he will have to strengthen national and international collaborations as well as to take an active role in the management of PhD students.

### Requested expertise

The applicant, with an excellent scientific and pedagogic level, must have PhD in Computer Science. His PhD thesis or his research area following his PhD thesis should be strongly correlated with system dependability and system safety domain. More precisely, it is expected that the candidate have an experience with:

- Static analysis methods such as model checking, abstract interpretation, type inference or automatic proof system;
- Dynamic analysis techniques such as software or hardware testing, property observers;
- Language theory and semantics of programming languages;
- Hardware or software system modeling;
- System architecture or distributed and parallel systems.

### Professional status

ENSTA ParisTech, as part of a contract under the 84-16 Law, will hire the Associate Professor. ENSTA ParisTech will be located at Paris until 2012, then at Palaiseau following the relocation of ENSTA ParisTech on the campus of Ecole Polytechnique. Compensation will be based on the profile and the experience.

### Application process

The applicant must submit a detailed resume, following the format given at [http://uei.ensta.fr/assets/divers/form\\_candid.rtf](http://uei.ensta.fr/assets/divers/form_candid.rtf), to Bruno Monsuez head of the Department of Electronics and Computer Science (Email: [bruno.monsuez@ensta.fr](mailto:bruno.monsuez@ensta.fr)).

The submission date is fixed to the **May 1<sup>st</sup> 2011**.

A hearing will be held at ENSTA ParisTech in the month of May.

Scientific and educational information can be obtained from Bruno Monsuez, head of the team Safety and Dependability of Hardware and Software Systems (Email: [bruno.monsuez@ensta.fr](mailto:bruno.monsuez@ensta.fr), Phone: 01 45 52 54 13).

Administrative and statutory information can be obtained from Marie-Odile Corsetti, head of Human Resources of ENSTA ParisTech (Email: [marie-odile.corsetti@ensta.fr](mailto:marie-odile.corsetti@ensta.fr), Phone: 01 45 52 44 21).