



*ERRIC*



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## Research fellow positions in Intelligent traffic monitoring and control

### Context

The Faculty of Automatic Control and Computers (A & C), part of the most important technical university in Romania - the University Politehnica of Bucharest - is the coordinator of the FP7-REGPOT-2010-1 ERRIC Project, the main objective of which is to empower existing excellence in research by unlocking its significant research potential and enhancing its national and regional leadership position in selected areas of Intelligent Information Technologies (IIT). In this scope the project offers consistent and attractive job opportunities for experienced researchers able to develop their research potential, be integrated in and participate to a visible and active research community, developing collaborative works in the frame of the ERRIC project.

The research positions are offered for two fellowship types:

- long-term expert research fellowship
- visiting research fellowship

The person to be appointed will join the Distributed Systems Software Laboratory (<https://csite.cs.pub.ro/index.php/cercetare/laboratoare-de-cercetare/13-laboratories/3-distributed-systems-and-grid-eg303?lang=ro>) and will interact with other research groups of the Department.

Research activities will be carried out at the premises of the Department of Computer Science of A&C but in close collaboration with other researchers from the EU strategic partners of the ERRIC project, including short research visits to these universities.

### Mission

In the frame of the ERRIC project, the researcher will perform research in the development of models, methods and techniques for increasing reliability, availability, safety and security of large scale distributed intelligent transportation systems.

The main investigated issues will be:

- Conduct research of novel ways to develop intelligent traffic monitoring and control services considering the current challenges in the attempt to improve traffic conditions.
- Develop methods to coherently aggregate traffic information from different sources (such as zonal traffic control centers, roadside sensors, on board units, etc.)
- Intelligently use the collected information to predict the short term traffic shape, and dynamically assist the car drivers by offering user associated services

According to the position characteristics, the objectives of the mission are specified as follows:



a. long term expert

Applicants are invited to propose a project theme according to their scientific interest or may select one from the set of above defined research issues. Successful candidates will pursue the selected theme, transferring techniques to a new context or developing new scientific knowledge. The person to be hired will be integrated in the Distributed Systems Software Laboratory and will perform research and development activities within a research team which comprises 5-8 academic staff and 3-5 Ph.D. students.

b. visiting researcher

The visiting researcher is invited to perform research on a dedicated theme at his choice, in accordance with the general objectives of the selected job position's domain, having the opportunity to contribute directly to advancing the profession and developing its body of knowledge. He can organize a research team with members of UPB staff (PhD students or post-doc researchers).

### Qualification and experience

Applicants should:

- already be in possession of a doctoral degree in Computer Science or a closely related area and in a subject relevant to the post (since at least two years), ideally continued by at least one successful experience in research.
  - have an outstanding research record in their field
  - show excellent capacity for independent research
  - be highly motivated and proactive
  - have excellent team working skills
  - have excellent communication skills (written and verbal) and scientific report writing skills
  - be eager to disseminate research results by preparing journal articles and conference papers.
- Fluency in English is a prerequisite.

### Principal activities

- Manage the deployment of specific IIT solutions
- Provide knowledge and know-how transfer
- Present results to members of the Laboratory, the Department, to ERRIC strategic partners, and external audiences, to disseminate research results.
- Prepare high-quality papers for journals, workshops and international conferences.
- Contribute to the development of an international research environment.
- Share and valorise the approaches, methods and tools developed
- Enhance the efficiency, proficiency, and visibility of R&D results and capacity of innovation at EU level
- Edit the scientific description of the developments and publish in journals and conference proceedings, including the annual ERRIC Workshops

### Conditions

Employee, location: University Politehnica of Bucharest  
Distributed Systems Software Laboratory  
Faculty of Automatic Control and Computers  
313, Spl. Independentei, sector 6, RO-060042, Bucharest, Romania  
(<https://csite.cs.pub.ro/>)



Duration: 12 to 18 months starting not later than 01.09.2012 (positions are available right now but can be delayed until September); early start (beginning from 1.03.2012) is encouraged. During the period of the internship the researcher will be employed by University Politehnica of Bucharest under a full-time fixed-term contract with full social security coverage.

- Salary: up to 40,000 Euro net per year, depending on experience and achievements

Contact:

Valentin Cristea Tel. +40 21 4029 194, Fax: +40 317 09 12,  
E-mail: valentin.cristea@cs.pub.ro

Radu Dobrescu, Tel. +40 21 4029 105, Fax: +40 317 09 12,  
E-mail: rd\_dobrescu@yahoo.com

### **Application submission**

Your application must include a full academic CV (including publication record), a statement outlining the research you envisage during your appointment and two letters of recommendation. Applications should be submitted online at [www.erric.eu/researchjobs](http://www.erric.eu/researchjobs). After the submission, applicants are requested to also send a notification to [info@erric.eu](mailto:info@erric.eu). The letters of recommendation should be sent directly by the persons recommending the applicant to the address [info@erric.eu](mailto:info@erric.eu). Following the closing date, you will be informed by email whether or not you have been selected to be invited to participate in the next stage of the selection process. It may take up to two weeks following the closing date before we will be able to contact you.

