A propos du centre ou de la direction fonctionnelle

The Inria Lille – Nord Europe Research Centre was founded in 2008 and employs a staff of 360, including 300 scientists working in sixteen research teams. Recognised for its outstanding contribution to the socio-economic development of the Hauts-De-France region, the Inria Lille – Nord Europe Research Centre undertakes research in the field of computer science in collaboration with a range of academic, institutional and industrial partners.

The strategy of the Centre is to develop an internationally renowned centre of excellence with a significant impact on the City of Lille and its surrounding area. It works to achieve this by pursuing a range of ambitious research projects in such fields of computer science as the intelligence of data and adaptive software systems. Building on the synergies between research and industry, Inria is a major contributor to skills and technology transfer in the field of computer science.

Contexte et atouts du poste

The FUN research group investigates solutions to enhance programmability, adaptability and reachability of FUN (Future Ubiquitous Networks) composed of RFID, wireless sensor and robot networks. The objects that compose FUN are characterized by limited resources, high mobility and high security level in spite of untrusted environment. They communicate in a wireless way. To be operational and efficient, such networks have to follow some self-organizing rules. Indeed, components of FUN have to be able to self-deploy, self-structure in spite of their hardware constraints while adapting the environment in which they evolve.

https://team.inria.fr/fun/fr/

A post-doctoral position is available within the Inria FUN team in collaboration with a French start up company. The position is for one year, and is intended for an experienced PhD student. The successful candidate will be based in the Inria Lille Nord Europe premises, France.

This position is in collaboration with a French start up company susceptible to directly exploiting the outcomes of the study.

Mission confiée

Our project will focus on the study of the sizing of edge resources requirement and of the dynamic related deployment in a wireless sensor network application. We target an application with mobile devices in continuous self-organization that may need to offload and receive heterogeneous data traffic from the Internet. The goal of this mission is to evaluate the dynamic of the traffic generated by the communicating devices of this application and from it estimate the edge resources capacities and position required in the objective of minimizing the stress on the network and alleviate the data traffic and energy expenditure by still complying latency and other QoS requirements.

This position is in collaboration with a French start up company susceptible to directly exploiting the outcomes of the study.

Principales activités

- Study the wireless sensor network self-organization dynamic to estimate an accurate traffic model.
- Study a smart dynamic edge resource deployment
- Implement the designed solution

Compétences

We are looking for a candidate who owns a PhD in computer science with a relevant publication track who is creative in proposing solutions and capable of critical analysis of results. We demand the student:

1) to have a good track of publications (consistent with research experience);
2) to have a strong background in wireless networks;
3) to be familiar with solutions related to edge-computing;
4) to be fluent in spoken and written English with strong communication and presentation skills;
5) Experience with simulation tools, scripting and programming (e.g., python, C/C++, Java) are considered a plus.

Avantages

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (i.e., children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities

Informations générales

- Thème/Domaine : Réseaux et télécommunications
- Ville : Villeneuve d’Ascq
- Centre Inria : CRI Lille - Nord Europe
- Date de prise de fonction souhaitée : 2020-03-01
- Durée de contrat : 1 an
- Date limite pour postuler : 2019-09-27

Contacts

- Equipe Inria : FUN
- Recruteur : Mitton Nathalie / Nathalie.Mitton@inria.fr

A propos d'Inria

Inria, the national institute for research dedicated to the sciences of the numerical, promotes excellence scientific and cultural and social activities in the field of computer science.

Consignes pour postuler

CV, list of publications, one or more letters of recommendation and a short research statement.

Sécurité défense : Ce poste est susceptible d'être affecté dans une zone à régime restrictif (ZRR), telle que définie dans le décret n°2011-1425 relatif à la protection du potentiel scientifique et technique de la nation (PPST). L'autorisation d'accès à une zone est délivrée par le chef d'établissement, après avis ministériel favorable, tel que défini dans l'arrêté du 03 juillet 2012, relatif à la PPST Un avis ministériel défavorable pour un poste affecté dans une ZRR aurait pour conséquence l'annulation du recrutement.

Politique de recrutement : Dans le cadre de sa politique diversité, tous les postes Inria sont accessibles aux personnes en situation de handicap.
Rémunération
Gross monthly salary (before taxes): 2,653 €