# PhD position on IoT and data analytics for smart cities

Uppsala University is a comprehensive research-intensive university with a strong international standing. Our mission is to pursue top-quality research and education and to interact constructively with society. Our most important assets are all the individuals whose curiosity and dedication make Uppsala University one of Sweden's most exciting workplaces. Uppsala University has 42,000 students, 7,000 employees and a turnover of SEK 6.7 billion.

The Department of Information Technology has a leading position in research and education. The Department currently has about 280 employees, including 120 teachers and 110 PhD students. More than 4000 students study one or more courses at the department each year. More info: **http://www.it.uu.se**

**Subject Area/Scope:** Cities around the world are currently under quick transition towards a low carbon environment, high quality of living, and resource efficient economy. Data from various sources (e.g. Internet-of-Things) and infrastructures (e.g. energy, traffic, and buildings) are considered to be the most valuable asset of a smart city. However, the heterogeneity of data makes it difficult to interpret, combine, analyze, and consume. Artificial intelligence and big data analytics are valuable techniques to be explored for addressing this challenge.

Successful candidate may contribute to the following potential topics:
- Machine learning algorithms for extracting correlations, discovering patterns, and making prediction from big data in smart cities
- Data analytics and optimisation for smart city applications, such as smart energy systems, transportation, and healthcare.
- Intelligent systems for data collection, data analytics, and decision support for smart cities.

**Qualifications:** The candidate should have a Master of Science in computer science, computer engineering, or equivalent with a solid grasp in machine learning and data analytics. Experience on smart systems, such as Internet-of-Things and

cloud computing, will be a plus. We expect the student to have demonstrated ability to do research, as seen through his/her MS thesis, and fluent verbal and written English. We expect our students to do internationally competitive research and publish at top venues.

The position is for a maximum of five years and includes departmental duties at a level of at most 20% (typically teaching) as well as course studies. The candidate will be expected to teach in English or Swedish. Excellent skills in spoken and written English are an absolute requirement.

**Working in Sweden:** Sweden is a fantastic place for living and working. Swedes are friendly and speak excellent English. The quality of life is high, with a strong emphasis on outdoor activities. The Swedish working climate emphasizes an open atmosphere, with active discussions involving both junior and senior staff. All PhD students and Postdocs are full employees, with standard salaries and five weeks of paid holiday. Spouses of employees are entitled to work permits, and, after being awarded a PhD degree, non-EU-citizens are eligible for permanent work permits.

**Application:** The application should include a description of yourself, your research interests, reasons for applying for this particular PhD position and past experience (max. 3 pages), a CV, copies of relevant university degrees and transcripts, relevant publications, a copy of your MSc thesis (or a summary in case the thesis is ongoing) and other relevant documents. Candidates are encouraged to provide up to 3 letters of recommendation and contact information to reference persons. We would also like to know your earliest possible date for starting.

For further information about the position, please contact Dr. Edith C.-H. Ngai, phone +46 18 – 471 5745, **edith.ngai@it.uu.se**