

PhD position

Operations Research and Logistics in Digital Cities

Function type	PhD position
Scientific field	Operations Research, Operations Management, Industrial Engineering,
Hours	38.0 hours per week
Salary	€ 2222 - € 2840
Education	University Graduate

Job description

We are looking for a PhD student for the project Operations Research and Logistics in Digital Cities.

The position is linked to a large initiative by VSNU, the Dutch association of universities, on the development towards a Digital Society (<https://www.thedigitalsociety.info/>). The background of this initiative is that digital information technology is becoming ever more deeply and rapidly entrenched in our society. This comes with new challenges and opportunities to cities and its citizens.

Project description

Within the Digital Society, one of the research themes deals with Digital Cities & Communities. Digital technologies can help to create infrastructures that efficiently and flexibly manage urbanization, population growth, mobility, effects of climate change and transition to greater sustainability. Digital technologies deliver massive amounts of data from which a wide variety of stakeholders can optimize their services and collaborations. The resulting 'smart cities' will provide their citizens safety and livability, and interact optimally with surrounding rural communities, requiring the collaboration of governmental, corporate, and civic actors who will have both common and opposing interests. The overall question for this program line is: which forms of multi-stakeholder collaborations and data science can be developed and engaged for the public challenges that smart cities and communities face?

From an operations research and logistics perspective, the development towards digital cities leads to many challenges related to the flows of goods in metropolitan areas, e.g. related to the regular distribution to the retail industry as well as the foodservice industry, the growing pressure of parcel delivery services, or the increasing focus on waste collection in the circular economy. Research could then also focus on how to combine physical and online retail to make shopping more convenient while keeping metropolitan areas lively, how to efficiently design distribution networks in metropolitan areas to reduce congestion and environmental impacts, or how to provide support to the transition to a circular economy by developing methods for design and operation of logistics services for waste streams that can be recycled or reused. During the project specific research questions will be formulated depending a.o. on the interest of the PhD candidate and other stakeholders.

The research focusses on developing and using (Operations Research/mathematical) models and methods that are built on increasingly available data. The outcome of the project facilitate data-driven decision support to relevant stakeholders in metropolitan areas (from citizens, private companies to governmental institutions).

Requirements

For this position, a candidate has an MSc in Operations Research, Industrial Engineering, Data Science, or a similar degree program. The candidate has excellent research skills and proven analytical abilities. Excellent communication skills and proficiency in English (both oral and written) are prerequisites.

Conditions of employment

Employment basis: temporary for specified period.
Starting date as soon as possible/fall 2018.

PhD: The initial duration of the contract is 18 months, followed by the second phase of 30 months based on good performance.
Gross salary per month € 2222 in the first year rising to € 2840 per month in the fourth year, based on a full-time appointment.

Organization

The project is carried out at Wageningen University and Research Centre. The candidate will be based at the Operations Research and Logistics group and collaborate with stakeholders in metropolitan regions.

Operations Research and Logistics group

Operations Research and Logistics is a chair group in the department of Social Sciences that conducts research and provides education on the application and development of Operations Research techniques in the design of effective logistics concepts in agribusiness and food chains and networks. Central in the problem characteristics of our research projects is increasing decision making complexity, dynamics, and uncertainty whilst dealing with the specific characteristics of our domain. Essential is a multidisciplinary research approach that combines advances in the fields of Logistics Management and Operations Research.

For further information about the Operations Research and Logistics group, please visit www.wur.eu/orl.

Contact

Please apply only by using the application button on www.wageningenur.nl/en/Jobs/Vacancies.htm or Academic Transfer. To apply for this position upload your curriculum vitae and motivation letter - that describes your academic/career goals, research interests as well as your expertise and knowledge relevant to the project (especially analytical and communicative abilities, experience and affinity with project subject) - **before July 16, 2018**.

For more information about this project, please contact
Dr. Renzo Akkerman (renzo.akkerman@wur.nl) or
Dr. Rene Haijema (rene.haijema@wur.nl).