

Postdocs Quantitative Logistics (4.0 fte) (216363-66)

Organisation

Since its foundation in 1614, the University of Groningen has enjoyed an international reputation as a dynamic and innovative centre of higher education offering high-quality teaching and research. Belonging to the best research universities of Europe and joining forces with prestigious partner universities and networks, the University of Groningen is truly an international place of knowledge.

Faculty of Economics and Business

The Faculty of Economics and Business (FEB) has an inspiring study and working environment for students and employees. International accreditation enables the Faculty to assess performance against the highest international standards. It also creates an exciting environment of continuous improvement. FEB's programmes, academic staff and research do well on various excellence ranking lists.

The Faculty of Economics and Business has four postdoc positions available on the topic "Quantitative Logistics".

Job description

Each postdoc position (1.0 fte) is part of a large research project of the Department of Operations. The Department of Operations is one of Europe's largest research groups in the fields of Operations Research, Management Science and Operations Management. The department offers a high-level research environment along the whole range of Operations, both with respect to content and methodology. Researchers are also expected to collaborate extensively with project partners in companies and service organizations. We search for a postdoc in each of the following projects (see more info below):

- Omni-channel logistics operations
- Warehouse management for e-fulfilment
- Integrated logistics operations for offshore wind farms
- Logistics operations in secondary education.

Qualifications

- PhD in Operations Research, Applied Mathematics, Industrial Engineering or related fields (please note that candidates who will defend their PhD not later than 1 September 2017 are also invited to apply)
- strong academic record as evinced by curriculum vitae and list of publications
- demonstrated competences for quantitative modeling (i.e., Operations Research)
- a background in logistics or supply chain management is appreciated
- candidates should be fluent in English
- affinity with or experience in working in business or service settings is a pre.

Conditions of employment

The University of Groningen offers a starting salary depending on qualifications and work experience between € 2,552 (salary scale 10 Dutch Universities) and € 4,691 gross per month (salary scale 11)

based on a fulltime position. The fulltime (1.0 fte) appointment is temporary for a period of two years. In addition, the university offers a 8% holiday allowance and a 8.3% end of year bonus.

Starting date: as soon as possible, preferably before 1 March 2017.

Applications

Candidates are invited to send a motivation letter and curriculum vitae until 11 January / before 12 January 2017 Dutch local time by means of the application form (click on "Apply" below on the advertisement on the university website). Please refer to the vacancy number in which you are interested in.

Unsolicited marketing is not appreciated.

Information

For information you can contact:

- Prof. Kees Jan Roodbergen, k.j.roodbergen@rug.nl
(please do not use for applications)

[Apply](#)

Detailed Information on each position

Postdoc Omni-channel logistics operations

Vacancy number 216263

The postdoc position is part of the NWO research project "E-global" (<http://www.dinalog.nl/rug-start-onderzoek-naar-innovaties-e-logistics/>) and continues on knowledge obtained in the Dinalog project "cross chain order fulfilment for internet sales" (<http://www.cope-research.nl/projecten/e-commerce-logistiek/>). In this project the postdoc will work together with companies, permanent staff and other postdocs.

Currently more e-commerce shipments are imported than exported in The Netherlands. This fact is at odds with the image of The Netherlands as a strong international player in logistics. The goal of the research project 'E-global' is to research opportunities to strengthen The Netherlands as a hotspot for distributing e-commerce shipments to other countries. To improve the national and international logistics operations we also aim to develop new efficient and effective concepts for omni-channel inventory management, warehouse design and delivery. Besides the economical aspects we also look at sustainability. Upon delivery many kilometers have been driven, which are not always necessary. The project examines the practicality of alternative models such as urban distribution, which in other branches of the logistics are already commonplace.

The postdoc researcher will study integrated logistics operations for offline and online sales channels. Typically, web shops offer an omni-channel experience to customers while at the same time logistics operations are strictly separated per channel. Offering an omni-channel approach in the logistics processes as well seems to offer many opportunities to increase service levels and decrease costs. Additional challenges can be found in changes in assortments, promotions, returns and unpredictable demand. The post-doc will design new models and algorithms to determine product flows, inventory levels and last-mile distribution concepts in omni-channel environments. Specific attention will be paid to the design of strategies to dispatch inventories to sales channels if the demand is higher than the

available inventory, the set-up of the supply chain for products in the long-tail, the added value of new delivery modes of transportation such as bikes and the positioning of inventories in the distribution network given forecasts of returns. Besides the main research activity, the researcher will also create links to other work packages in the project, and provide support to project partners (specifically IMCC and Districon) in their valorization efforts.

Postdoc Warehouse management for e-fulfilment

Vacancy number 216264

The postdoc position is part of the NWO research project "E-global" (<http://www.dinalog.nl/rug-start-onderzoek-naar-innovaties-e-logistics/>) and continues on knowledge obtained in the Dinalog project "cross chain order fulfilment for internet sales" (<http://www.cope-research.nl/projecten/e-commerce-logistiek/>). In this project the postdoc will work together with companies, permanent staff and other postdocs.

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The postdoc researcher will study warehouse operations for e-commerce. High levels of flexibility, avoiding congestion in peak periods and integration of return flows in the warehouse operations are important challenges to address. Specific topics in the project will focus on the order-picking process and the synchronization of decision making in warehouses and distribution. The postdoc will study what e-commerce factors play an important role in the efficiency and effectiveness of warehouse operations that need to be included in newly designed organizational methods and planning and control tools. Next to that, last-mile distribution concepts such as pick-up and delivery points and bundling of flows will be studied. New models and algorithms will be designed that include those factors. Practical validation of the tools designed will be performed in close cooperation with the project partners. Besides the main research activity, the researcher will also create links to other work packages in the project, and will provide support to project partners (specifically Centric and Districon) in their valorization efforts.

Postdoc Integrated logistics operations for offshore wind farms

Vacancy number 216265

The postdoc position is part of the research project 'Sustainable service logistics for offshore wind farms' (<http://www.cope-research.nl/projecten/offshore-wind/>). In this project the postdoc will work together with companies, permanent staff and a number of PhD researchers.

The research project is funded by the NWO programme Sustainable Logistics. The goal of the research project 'Sustainable service logistics for offshore wind farms' is developing new innovative methods for the sustainable design and operation of service logistics for offshore wind farms. This project is composed of several work packages that cover network design, advanced maintenance strategies, coordination of transportation, as well as collaboration and governance aspects. In each work package, new methods will be developed that can serve as enablers for an improved service logistics process, thereby combining theoretical challenges in Operations Research with practical and societal relevance.

The postdoc researcher will be developing analytical and simulation models for integrated supply chain decision making in planning and control of logistics operations in offshore wind farms. To be able to

achieve the best possible logistics performance for servicing wind farms, resources such as parts, tools and technicians must be available at the right places, available in the right amounts and optimally deployed, and their logistic movements should be coordinated. Furthermore, all stakeholders should support the different decisions. The postdoc researcher will build models to analyse the relationships between the various logistics aspects as well as the robustness of the designed network for service operations. Besides the main research activity, the researcher will also create links to other work packages, and will provide support to project partners in their valorization efforts.

Postdoc Logistics operations in secondary education

Vacancy number 216266

The postdoc position is part of the research project 'Lean in secondary education'. In this project the postdoc will work together with permanent staff, graduate students, schools, service organizations and companies. We will build in this project on earlier studies of junior researchers and graduate students that show that knowledge from the field of logistics and operations management can be used in designing new concepts for addressing planning and control of educational processes.

The aim of the research project "Lean in secondary education" is to design tailored logistics and lean concepts and tools in an education context to enable customization in the learning process in a cost-efficient and pupil-effective way. Schools are now at a tipping point to embrace the educational system innovation of personalized learning. In a personalized learning system each pupil gets at the right time the right type of education for each subject in order to avoid wasted time in the learning process. In such a system, all coordination of activities and decision making with regard to individual learning needs of pupils will be made in the school in an interaction between teacher and pupil. A paradigm shift is required in the organization of the logistics operations of the core educational processes (i.e., learning, teaching and assessment) to achieve a high quality situation where any pupil at any time based on their own learning speed, level and ambition can acquire the right part of a specific course in a cost-efficient way. It is the expectation that through flexible scheduling, group composition, teacher deployment and working methods personalized learning can be facilitated. In industry, concepts such as lean and responsive production have been developed in order to accommodate customer-specific engineering, production and control. However, these concepts cannot directly be translated to an educational context.

The postdoc will work on the design of new analytical and simulation models to support real-time decision making for coordination of activities while including behavior of pupils and teachers and ensuring flexibility. An important aspect of the designed models is to provide the right amount of support for all pupils, a leveled workload for teachers and transparency in the organization of activities. A large group of schools and other external partners provides the opportunity for interfacing research and valorisation activities.