

## Linköping University expands research in railway planning

The research group for public transport and railways at Linköping University is expanding its research in railway planning and searches for new staff members.

The research group is part of the Division for Communication and Transport Systems affiliated in the city center of Norrköping. The division has over 70 researchers, lecturers and graduate students, studying communication networks in its broadest sense. Many projects aim at developing models and methods, which describe the traffic system and can be used as decision support tools by infrastructure managers, operators, vehicle drivers and others.

Current projects in railway include, for example, construction of robust railway timetables, defining and balancing multi-objectives for timetable qualities, socio-economic distribution of railway capacity, and scheduling of time for maintenance work.

Our research is carried out together with stakeholders and funders from industry and society. We are coordinating the national research program Capacity in the Railway Traffic System (KAJT) and some of our collaborators are RISE SICS, Swedish National Road and Transport Research Institute (VTI) and Swedish Transport Administration. We are also honored to organize the 8th International Conference on Railway Operations Modelling and Analysis (RailNorrköping) which will be held in June 2019.

We are now looking for people who want to join our group, and work with one or more of the following topics:

- Operational train planning and shunting, aiming at increased rail cargo speeds and capacity.
- Strategic planning of critical infrastructure components (switches) which have a major impact both on maintenance and traffic.

We wish you have a strong background from mathematics, modelling, optimization, programming and/or simulation. You have studied either applied mathematics, computer science, operations research, software engineering or equivalent. If you also have experiences from railways or transportation planning it is beneficial but not necessary. You should in any case have a keen interest for analytical work, planning and scheduling, algorithmic development, be fluent in some computer language(s), English and (soon) scientific writing.

We are searching for a person with a master's degree for a PhD-position or a person with a PhD-degree for a post-doc position. We hope to fill the positions by early 2018.

Please get in touch if you are interested in joining our group and contributing to better transportation planning decisions in the future.

For further information about the research group, see  
<https://liu.se/en/research/public-transport-and-railway>

Our research projects are described at  
<http://kts.itn.liu.se/trafiksystem/forskning?l=en>

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