

# Spatial and temporal large-scale multimodal sensor fusion

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## Summary

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*Taltech Department of Computer Systems, Research Group of Environmental Sensing and Intelligence offers a 4-year PhD position in the area of Internet of Intelligent Things.*

Research field:	Information and communication technology
Supervisors:	Prof. Dr. Jako Kilter Jeffrey Andrew Tuhtan
Availability:	This position has been occupied.
Offered by:	School of Information Technologies Department of Computer Systems
Application deadline:	Applications are accepted between June 01, 2020 00:00 and July 03, 2020 23:59 (Europe/Zurich)

## Description

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Successful candidates in the areas of Internet of Intelligent Things will conduct applied research and teaching with a focus on developing new multiscale (km to m in space, days to seconds in time) sensor data processing and fusion algorithms. One source of the multi-modal sensor data will be the existing 900 node Tallinn Smart City deployment, which is one of the largest Smart City deployments of its kind. The unique state-of-the-art network can be used to monitor critical infrastructure objects, such as power substations.

This research goal is to develop new data-driven method for power substation condition monitoring and load forecasting using the Tallinn Smart City environmental sensing network and measurements from substations. The research will be carried out in cooperation with the Estonian electricity operator Elering. The research findings will create new data processing and fusion methods executed either at the Cloud, Fog or Edge level. The methods should decrease load forecast uncertainty, and allow for robust prediction during changes of environmental conditions (heat waves, blizzards, etc.). This position requires a candidate with a strong educational and professional background in signal processing and multivariate time series forecasting.



To get more information or to apply online, visit <https://taltech.glowbase.com/positions/71> or scan the the code on the left with your smartphone.