

## Fredrik Karlsson



He obtained his M Sc and Ph D from Linköping University, in 2006. He was the head of energy for the mechanical team for the construction of several projects in Sweden, among them is hospital, Linköping, Sweden. The energy target for this hospital is a total energy demand for building services below 50 kWh/m<sup>2</sup>, year, which is tough in a cold climate as Sweden. He is energy-efficiency manager for Nya Karolinska University Hospital in Stockholm, 300 000 m<sup>2</sup>, which is the largest hospital in the Nordic countries.

In that project he is responsible for achieve the energy target, performing energy simulations, climate simulations, energy related LEED-issues and energy efficiency within buildings.

One of the research project he was involved in was regarding consequences for indoor climate in health care environments when doing energy efficiency measures. This was within the scope of his other research interests which is including interaction between the energy systems outside and inside the building as well as the interaction between the user and the systems of the building. He is actively involved at the university in setting courses and programs for teaching graduate and post graduate. He published several papers and reports on the area of Improving energy efficiency together with indoor climate improvements, a comprehensive investigation of a low-energy building in Sweden, and Multi-dimensional approach used for energy and indoor climate evaluation applied to a low-energy building.

His presentation will be on: **Sustainable Health Care Environments – designing energy efficiency and healthy indoor climate**