



## 30 credits – Modeling throughput for industrial scale High Performance Computing

### Ingress:

Thesis project at Scania is an excellent way of making contacts for your future working life. Many of our current employees started their career with a thesis project.

### Background:

Measuring efficiency within High Performance Computing (HPC) work-flow is used to make decisions on investment, technology and optimizations of large computer installations. Many dimensions are well known, such as available CPU:s, networks, licenses and servers. Having good theoretical models on measuring efficiency in our computer center is important, visualizing of the data increases the understanding of our systems as whole.

### Target:

The student develops together with the supervisor a model of calculating efficiency in a computer center with given a set of constraints.

The model is tested and evaluated by implementing visualizations of the computed value(s). Optionally, the student develops suggestions on how to perform parameter optimization on the developed model.

### Assignment:

Develop a theoretical model of calculating efficiency and implements it by creating visualizations of the computed model.

### Education:

Discipline: Mathematics and/or Computer Science

Students: 1-2

Start date: January 2016

Estimated time needed: 20w

### Contact persons and supervisors:

Fredrik Hurtig, Group Manager, Scania IT, ITBZ, phone: 08 553 8569 09

Erik Lönroth, Technical Responsible, Scania IT, ITBZ, phone : 08 553 527 21

**Application:** Enclose CV, personal letter and school-leaving certificate.

### Publication date from - until

2015-10-02 – 2015-10-31

### Apply for this job:

<http://jobsearch.scania.com/segerjoblist/presentation.aspx?presGrpld=7432&langl d=1&ie=False>

