Welcome to be part of the digitalization of Siemens!

Who Are We?

Siemens is a global powerhouse focusing on the areas of electrification, automation and digitalization. One of the world’s largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of systems for power generation and transmission as well as medical diagnosis. In infrastructure and industry solutions the company plays a pioneering role. As of September 30, 2016, we had around 351,000 employees in more than 200 countries.

Siemens Industrial Turbomachinery AB (SIT AB) in Sweden is part of the Siemens Energy Sector. The Energy Sector is the world’s leading supplier of products, services and solutions for the generation, transmission and distribution of power and for the extraction, conversion and transport of oil and gas. SIT AB delivers gas turbines, steam turbines, turn-key power plants, service and components for heat and power production. All under one roof – from research and development, manufacturing, marketing, sales and installation of turbines and complete power plants to service and refurbishing. There are today about 2 700 employees in Finspång.

Project Field Experience in SIT AB, a large amount of field experience data is continuously generated in form of various reports from maintenance events, component repair and operation history. These reports include detailed information about the turbine operation history as well as its condition and reported damages on individual components. This field experience data, although noisy, invariably portray environmental factors, measurement errors, and loading conditions, or in short, reality. By establishment of a process to collect and maintain this information in a database format, exploration and knowledge discovery using this data became a subject of high interest.

Reference number: 280177
All applications must go through the Siemens Website
Continues evaluation and recruiting of applicants!

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Task of operation optimization to maximize the profit has been a challenge for complex productions such as electricity. There are many different aspects that should be considered during the future operation planning. The questions to be answered are how many hours each engine should be operated, what should be the loading level for each engine, how to synchronize the maintenance activities for different equipment to have only one outage, what are the impacts of for example fuel price and the operation environment.

The Project; Power plant operation optimization App

The objective for this thesis is to build an easy visual tool that can be used to do the scenario analysis. The user must be able to configure the site, use sliders and other visual objects to set the parameters such as operation hours per year per engine, and immediately see the impacts of the scenario into the next 5 years operation & maintenance plan and total production capacity.

Who Are You?

The project is suitable for one student with good programming skills and an interest in information visualization and data analytics. Students will work closely with domain experts.