

Improved methods for predicting energy consumption

Cologne, August 9, 2012 - For the international competition "GECCO 2012 Industrial Challenge" computer scientists developed various methods to significantly improve the prediction of future power consumption based on smart meter data. The competition was organized by the Cologne University of Applied Sciences and the software provider GreenPocket.

As part of the "Genetic and Evolutionary Computation Conference (GECCO)" the Industrial Challenge took place from 7 to 11 July 2012 in Philadelphia (USA). The goal of this year's event was to develop accurate forecasting methods for electrical energy consumption profiles.

Participants from all over the world were provided with real energy data of three months. The task was to predict the consumption for the following month as accurately as possible. Stephan Hutterer, a researcher at the University of Applied Sciences of Upper Austria, developed the winning algorithm. Altogether Professor Thomas Bartz-Beielstein (Cologne University of Applied Sciences) was very satisfied with the outcome of the event: "We have seen absolutely convincing approaches that improve the reliability of forecasts significantly and provide an added value for the further development of smart metering."

To create an authentic basis for the competition, the Cologne University of Applied Sciences collaborated with GreenPocket, a leading provider of smart meter and smart home software. The company provided the smart meter consumption data and its own forecast calculations. "The precise forecast of electricity consumption is very important for the quality of our products. Therefore, we are pleased when top-class scientists deal with this topic", says Dr. Thomas Goette, CEO of Green Pocket.

About GreenPocket

GreenPocket provides pioneering software for smart metering and smart home. Combining the best of the internet with the new world of smart energy, we enable utilities to significantly increase the energy efficiency of private households, businesses and municipalities. Founded in 2009, GreenPocket has quickly become a European player in the Smart Energy market. Next to several major European utilities, we have already signed up over 30 renowned German utilities, such as Vattenfall Germany and the municipality utilities in Munich, Frankfurt, Berlin, Bremen and Bonn.

About Cologne University of Applied Sciences

Cologne University of Applied Sciences is Germany's biggest University of Applied Sciences with about 19,800 students and 420 professors. Ten faculties offer over 70 courses in engineering and social sciences as well as in the humanities, ranging from architecture via mechanical engineering and social work to business law and languages.

The wide range of subjects yields excellent opportunities for interdisciplinary projects and cooperations. Its top-quality teaching and research spectrum puts Cologne University of Applied Sciences much in demand. The university cultivates close relations with universities both at home and abroad.

Cologne University of Applied Sciences, Campus Gummersbach

The biggest faculty of the Cologne University of Applied Sciences, located in Gummersbach, has more than 3,200 students and provides, with its 14 bachelor and master courses, a broad selection in the field of computer sciences and engineering. The Campus Gummersbach, as a research associate, has excellent relations to regional industry partners. In the area of optimization, as also in many other areas (i.e. automation), well-known partners from industry are at hand.

The new building of the faculty in Gummersbach has been opened in 2007 and is equipped with state-of-the-art training and research facilities.