

GECCO 2015 Industrial Challenge: Call for Participation

Recovering missing information in heating system operating data

2015 GENETIC AND EVOLUTIONARY COMPUTATION CONFERENCE (GECCO-2015)

July 11-15, Madrid, Spain

Sponsored by ACM SIGEVO

<http://www.sigevo.org/gecco-2015>

24th International Conference on Genetic Algorithms (ICGA)

and the 20th Annual Genetic Programming Conference (GP)

Largest Conference in the Field of Genetic and Evolutionary Computation



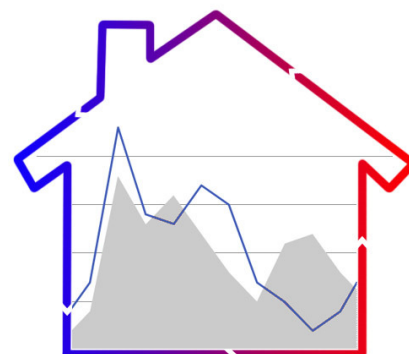
Overview

In times of accelerating climate change and rising energy costs, increasing energy efficiency and reducing expenses becomes a high priority goal for businesses and private households alike. Modern heating systems record detailed operating data and report this data to a central system. Here, the operating data can be correlated and analyzed to detect potential optimization opportunities or anomalies like unusually high energy consumption. Due to various difficulties this data might be incomplete which makes accurate forecasting even harder.

Goal of the GECCO 2015 Industrial Challenge is to develop capable procedures to recover missing information in heating system operating data. Adequate recovery of the missing data enables more accurate forecastings which allow for intelligent control of the heating systems, and therefore contributes to a positive energy balance and reduced expenses.

Highlights of the GECCO 2015 Industrial Challenge include:

- *Interesting Problem Domain:* Recovering missing information in heating system operating data offers a challenging yet manageable test case for modern time series methods.
- *Real-world Data:* Multiple real minutely heating system operating time series are provided for training, testing, and assessing data recovery methods.
- *Direct Link to Industry:* Bartz & Bartz GmbH will evaluate the winning submissions for real-world application and will be in direct contact with the winning participants, who will keep all rights to their developed methods.



About Bartz & Bartz GmbH

Bartz & Bartz GmbH gives advice to companies based on mathematical and statistical methods to enhance products and production processes and to conserve resources. Although the mathematical techniques are almost universally, the Bartz & Bartz GmbH specializes in technical applications. This includes the optimization of injection molding processes in the automotive industry, manufacturing processes for sensor manufacturers and the prediction of failure probabilities of components in heating systems. Founded in 2014, Bartz & Bartz maintains contact with the world's leading research groups in the field of simulation and optimization.

Important Dates and Contacts

- *Challenge Website:*
<http://www.spotseven.de/gecco-challenge/>
- *Challenge Submission Deadline:* June 22, 2015
- *GECCO-2015 Conference:* July 11-15, 2015
- *Organizers:* M. Friese, C. Schlitt, T. Bartz-Beielstein (Cologne University of Applied Sciences)
- *Industry Partner:* Bartz & Bartz GmbH, Gummersbach, Germany, <http://www.bartzundbartz.de/>
- *Contact:* gecco@fho-koeln.de



Fachhochschule Köln
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