**Subject Area: Big Data Analysis and Management in Smart Energy**

This subject area involves a broad range of big data analysis and management related to smart energy, including data collection, processing, and analysis. The research will develop novel solutions for the problems of smart energy management, and works synergistically in the related disciplines including energy, climate, information and communication technologies, and science. The goal is to to increase energy efficiency and reduce the carbon emission of energy systems, and to have a significant impact in both academia and industry.

**Affiliation**

The senior researcher will be affiliated to Climate Change and Sustainable Development research group (CCSD), Systems Analysis Division, DTU Management Engineering invites applications. In CCSD we apply theories and methods from engineering, economics, geography, and climate science to research on climate change adaptation and mitigation challenges in a sustainable development perspective, emphasizing transdisciplinary and systemic approaches and policy relevance. Systems Analysis is an internationally well-established division doing high level research on energy, transport, climate change, urban systems and sustainable development. We develop and apply methods from systems modelling, applied economics, econometrics and statistics, spatio-temporal analysis, and value chain analysis.

# Brief Job Description

The senior researcher will contribute to several ongoing research projects related to big data in smart energy and Inte. In addition, the senior researcher will contribute to the development of new research projects in the Division, including activities related to modeling and analysis of Big Data sets, in particular, the data sets associated with Smart Cities.

Main tasks:

* Smart meter data analysis, e.g., consumption pattern analysis, customer segmentation, disaggregation, and forecasting.
* Development of the tools for data cleansing, anonymization and quality assurance.
* Setting up the environment for managing scalable smart meter data and social-economic data.
* Using big data technologies for smart meter data analysis.
* Development of novel tools/systems to facilitate the decision makings in smart energy.
* Assisting the other projects in data analysis, tools, environments within the division.
* Initiating and/or contributing to new research activities and funding applications.
* Participating in the daily tasks of the Division, including research strategy development, international research networking, and collaborations with other research groups at DTU.

Furthermore, the senior researcher will contribute to teaching and research-based public-sector consultancy.