

# Data-driven decision-making process can be easier in the building services sector

August 23 2022

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Credit: Tim Samuel from Pexels

The rapid change in technology use and required skills for professionals in the field of building services makes continuous learning an essential requirement. Professionals are busy with ongoing project work, which

makes it difficult to arrange time for personal development. Online learning is preferred by organizations as disruptions to job responsibilities are minimal. Nonetheless, motivation to learn on the job and share their knowledge is still not prominent in the building services sector. For his PDEng research, Mohammad Samir Ahmed identified the key aspects needed to motivate professionals to learn in a digital environment and developed digital tools to achieve this.

In his research, Samir Ahmed showed that being part of a community and appreciation for knowledge-sharing activities motivates professionals to remain active in a digital collaborative learning community platform. In addition, an easy-to-use tool that visualizes the most relevant information can bring the benefits of data analytics to the regular tasks of professionals.

## **The tools**

To develop an internal learning community, Samir Ahmed designed a combination of [digital tools](#) and introduced these to professionals in building services. Interactions of professionals on those platforms and learning activities on an e-learning portal were then analyzed. Based on the findings, a new visualization tool for remote service providers to buildings was then developed.

The feedback on the tool demonstrated the benefits of the tool towards initiating the exchange of insight and knowledge between different stakeholders. Moreover, the tool can bring the benefits of data analytics without the requirement of coding by professionals who have no prior experience in programming or data pre-processing.

## **Preserving and sharing knowledge**

Along with formal learning networks like online training and physical workshops, informal learning occurs through communication over the phone, email, or physical interaction. The designed tools will bring most of those valuable and relevant communications within the [digital platform](#) which can be utilized by other [professionals](#) of the organization.

In addition, the easy-to-use tools will contribute to changing the culture of communities to adopt lifelong learning on the job. As a result, they can practice data-driven decision-making processes to bring energy-efficient operation strategies to buildings.

**More information:** Knowledge Transfer of Data Analytics & Machine Learning Applications applied to a dashboard for Remote Building Services. [research.tue.nl/nl/publication ... ine-learning-applica](https://research.tue.nl/nl/publication/.../ine-learning-applica)

Provided by Eindhoven University of Technology

Citation: Data-driven decision-making process can be easier in the building services sector (2022, August 23) retrieved 6 May 2024 from <https://techxplore.com/news/2022-08-data-driven-decision-making-easier-sector.html>

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