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Brownie Bee: An Appetizing Way to Implement Bayesian Optimization in Companies

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Design of Experiments (DOE) is a powerful tool for optimizing industrial processes with a long history and impressive track record. However, despite its success in many industries, most businesses in Denmark still do not use DOE in any form due to a lack of statistical training, preference for intuitive experimentation, and misconceptions about its effectiveness.

To address this issue, the Danish Technological Institute has developed *Brownie Bee*, an open-source software package that combines Bayesian optimization with a simple and intuitive user interface. Bayesian optimization uses a more iterative approach to solve DOE tasks than classic designs but is much easier for non-expert users. The simple interface serves to sneak Bayesian optimization through the front door of companies that need it the most, particularly those with low digital maturity.

In this talk, I will explain why Bayesian optimization is an excellent alternative and supplement to traditional DOE, particularly for companies with minimal statistical expertise. During the talk, I will showcase the tool *Brownie Bee* and share insights from case studies where it has been successfully implemented in 15 Danish SMEs.

Join me to discover how you can incorporate Bayesian optimization through *Brownie Bee* into your DOE toolbox for process optimization and achieve better results faster compared to traditional DOE designs.

<https://www.browniebee.dk/>

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