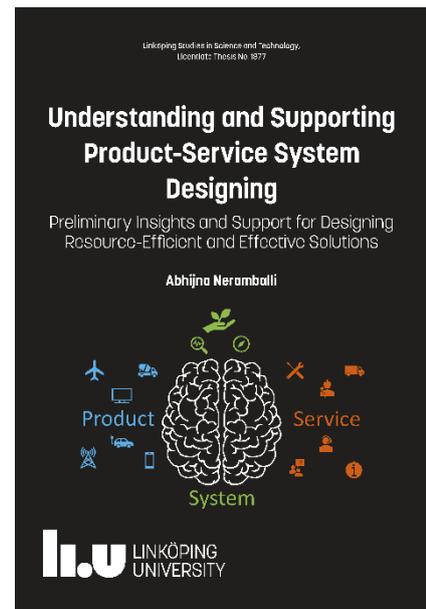


New dissertation helps companies design circular resource-efficient and effective solutions

Neramballi, Abhijna (2020). Understanding and Supporting Product-Service System Designing: Preliminary Insights and Support for Designing Resource-Efficient and Effective Solutions. Licentiate Thesis. Linköping, Linköping University Electronic Press: 73



The goal of Abhijna Neramballi's research within Mistra REES is to help companies design circular and resource-efficient solutions by gathering and analyzing knowledge and insights about circular working methods, methods and business models in a structured way. His research can help companies in their daily work:

"My work has contributed to designers and product developers now gaining a greater understanding of how resource efficiency aspects can be integrated into product and service development. Among other things, I have worked to develop a product navigator that can systematically support companies in their resource efficiency work. Through the tool, we have been able to help product developers highlight resource efficiency aspects."

The analysis tool also makes it possible to map the environmental and climate impact in existing product portfolios to support companies and organizations to be able to reorient their operations in a more circular and resource-efficient direction.

Another purpose of Neramballi's research has been to investigate how big data and analysis of this can be used to make manufacturing processes and business models more resource efficient. The dissertation also contains a case study that illustrates how companies can take advantage of circular business models to reduce their climate impact and increase their profitability through function sales. Functional sales means that suppliers provide a function instead of a product. This means that the product is constantly checked by the supplier and can be taken back when the customer's needs cease. An obvious advantage of functional sales is that products can be reused and remanufactured – something that results in significant environmental and financial savings over time.

The ambition for Naramballi in his research is to be able to contribute and facilitate the overall work in the transition to a more resource-efficient and climate-smart society.