



# JUAN JAUREGUI BECKER

## Faculty of Engineering Technology Lab of Design, Production and Management

My research focuses on the development of design tools and methods to drastically improve the efficiency and effectiveness of complex and multi stakeholder design processes. More specifically I develop two types of design support:

1. Paper based methods to support planning and control in product design processes involving a large variety of disciplines and stakeholders (e.g. the design of thermoelectric plant).
2. Computer based tools that generate solution spaces to complex design problems (e.g. the design of a gas distribution system for a city).

Key to my research is its pragmatism, especially considering that the developed solutions need to be thought off from the perspective of the designers and their decision making processes rather than only for demonstrating research hypothesis.

### PUBLICATIONS:

Juan M. Jauregui Becker, Jesper Borst, Abele van Der Veen,. Improving the Overall Equipment Effectiveness (OEE) in Mix-Low-Volume (HMLV) Manufacturing Environments. CIRP Annals - Manufacturing Technology 64(1);, 2015.

Taede Weidenaar, Juan Jauregui Becker, Sipke Hoekstra, Mannes Wolters. Enabling lean design of biomethane gas distribution grids. In: Gas for Energy, 1, pp. 48-52, 2015.

Juan M. Jauregui Becker, Taede. D. Weidenaar, Sipke Hoekstra and Mannes Wolters. Design Support Tool for biomethane supply chains and gas distribution grids. International Gas Union Conference , Copenhagen, Denmark.

Wessel W Wits and Juan M Jauregui-Becker. Method to explore technology innovation fully exploiting in-house capabilities. CIRP Annals - Manufacturing Technology 63(1):201-204, 2014

Juan M. Jauregui Becker, Guido Tosello, Fred J.A.M. van Houten, Hans N. Hansen. Performance Evaluation of a Software Engineering Tool for Automated Design of Cooling Systems in Injection Moulding. Procedia CIRP, Volume 7, 2013, Pages 270-275.

Juan M. Jauregui Becker, Wessel W. Wits. An Information Model for Product Development: A Case Study at PHILIPS Shavers. Procedia CIRP, Volume 9, 2013, Pages 97-102.

Taede D. Weidenaar, Errit Bekkering, Juan M. Jauregui Becker, Sipke Hoekstra And Mannes Wolters. Finding Robust Investments For The Dutch Gas Distribution Infrastructure In 2050 By A Scenario. In Proceedings Of Ecos 2013 - The 26th International Conference On Efficiency, Cost, Optimization, Simulation And Environmental Impact Of Energy Systems 2013. Guilin, China.