Niels Henrik Mortensen - DTU Orbit (07/02/2019)

Mortensen, Niels Henrik

nhmo@mek.dtu.dk

Department of Mechanical Engineering - Head of section, professor

Engineering Design and Product Development

Centre for oil and gas – DTU

Research outputs:

The impact of applying product-modelling techniques in configurator projects
Research output: Research - peer-review › Journal article – Annual report year: 2019

Achieving long-term modularization benefits: A small- and medium-sized enterprise study
Research output: Research - peer-review › Journal article – Annual report year: 2018

Application of a graphical scheme for representing the mode of action of products for identification of key characteristics
Research output: Research - peer-review › Conference article – Annual report year: 2018

Assessing Increased Product Line Commonality's Effect on Assembly
Research output: Research - peer-review › Conference article – Annual report year: 2018

A study of cost implications from not maintaining a PCS
Research output: Research - peer-review › Paper – Annual report year: 2018

Design for manufacturability of macro and micro products: a case study of heat exchanger design
Research output: Research - peer-review › Journal article – Annual report year: 2018

Design Thinking in Product Configuration Projects
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2018

The main challenges for manufacturing companies in implementing and utilizing configurators
Research output: Research - peer-review › Journal article – Annual report year: 2018

Using business critical design rules to frame new architecture introduction in multi-architecture portfolios
Research output: Research - peer-review › Journal article – Annual report year: 2018
A Framework for Determining Product Modularity Levels
Research output: Research - peer-review › Journal article – Annual report year: 2017

Assessing the financial potential for modularization: A case study in a global OEM
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Construction of Lightweight Loudspeaker Enclosures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Editorial
Research output: Research › Editorial – Annual report year: 2017

Empirical study of ill-supported activities in variation risk identification and assessment in early stage product development
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Identification of critical technology building blocks
Research output: Research - peer-review › Journal article – Annual report year: 2017

Including product features in process redesign
Research output: Research - peer-review › Journal article – Annual report year: 2017

Increased accuracy of cost-estimation using product configuration systems
Research output: Research - peer-review › Paper – Annual report year: 2017

Information rich mapping requirement to product architecture through functional system deployment: The multi entity domain approach
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

A multi-layered approach to product architecture modeling: Applied to technology prototypes
Ravn, P. M., Guðlaugsson, T. V. & Mortensen, N. H. 2016 In : Concurrent Engineering: Research and Applications. 24, 1, p. 3-16
Research output: Research - peer-review › Journal article – Annual report year: 2015

Assessing the cost saving potential of shared product architectures
Research output: Research - peer-review › Journal article – Annual report year: 2016
Defining Interactions and Interfaces in Engineering Design

Establishing Reusable Requirements Derived from Laws and Regulations for Medical Device Development
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Modelling Production System Architectures in the Early Phases of Product Development
Research output: Research - peer-review › Journal article – Annual report year: 2016

Prototypes in Engineering Design: Definitions and Strategies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Towards a Framework for Modular Service Design Synthesis
Research output: Research - peer-review › Journal article – Annual report year: 2015

Coherent Architecture Development as a Basis for Technology Development
Research output: Research › Ph.D. thesis – Annual report year: 2015

Enabling Mass Customization in Engineer-To-Order Industries: A Multiple Case Study Analysis on Concepts, Methods and Tools
Research output: Research › Ph.D. thesis – Annual report year: 2015

Enabling Reuse of Documentation in New Medical Device Development: A Systematic Architecting Approach
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Interface definitions in literature: A reality check
Research output: Research - peer-review › Journal article – Annual report year: 2015

Modelling Architectures in Multi-Product Oriented Technology Development

PLM Support to Architecture Based Development: Contribution to Computer-Supported Architecture Modelling
Research output: Research › Ph.D. thesis – Annual report year: 2015

PLM System Support for Modular Product Development
Tasks and challenges in prototype development with novel technology - an empirical study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

A proposal for a classification of product-related dependencies in development of mechatronic products
Research output: Research - peer-review › Journal article – Annual report year: 2013

Research output: Research › Ph.D. thesis – Annual report year: 2015

Assessment and Development of Engineering Design Processes
Research output: Research › Ph.D. thesis – Annual report year: 2014

End-to-end requirements management for multiprojects in the construction industry
Research output: Research › Ph.D. thesis – Annual report year: 2014

Front-end conceptual platform modeling
Research output: Research - peer-review › Journal article – Annual report year: 2014

Identified adjustability dimensions when generating a product specific requirements specification by requirements reuse
Research output: Research - peer-review › Journal article – Annual report year: 2014

Interface diagram: Design tool for supporting the development of modularity in complex product systems
Research output: Research - peer-review › Journal article – Annual report year: 2014

Mapping requirements to a product architecture supported by a PLM system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Proactive identification of scalable program architectures: How to achieve a quantum-leap in time-to-market
Research output: Research - peer-review › Journal article – Annual report year: 2014

The Use of Modelling Methods for Product Configuration in Industrial Applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014
On the Market Aspect of Product Program Design: Towards a Definition of an Architecture of the Market
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Product Platform Screening at LEGO
Research output: Research - peer-review › Journal article – Annual report year: 2013

Radikal Forenkling via Design
Research output: Communication › Book – Annual report year: 2012

Towards a Classification of Architecture Initiatives: Outlining the External Factors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Visual product architecture modelling for structuring data in a PLM system
Bruun, H. P. L. & Mortensen, N. H. 2012 In : IFIP AICT - Advances in Information and Communication technology. 388, p. 598-611
Research output: Research - peer-review › Conference article – Annual report year: 2012

Product Platform Performance: Achieving internal effects
Research output: Research › Ph.D. thesis – Annual report year: 2011

A MECHATRONIC CASE STUDY HIGHLIGHTING THE NEED FOR RE-THINKING THE DESIGN APPROACH
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Improving decision making in the early phases of configuration projects
Research output: Research - peer-review › Journal article – Annual report year: 2011

Innovation and Entrepreneurship in the Automotive Business: ICED11 Automotive Keynote
Research output: Research › Sound/Visual production (digital) – Annual report year: 2011

Mechatronic Design - Still a Considerable Challenge
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Proactive Modeling of Market, Product and Production Architectures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011
The impact of product configurators on lead times in engineering-oriented companies
Research output: Research - peer-review › Journal article – Annual report year: 2011

A layout technique for class diagrams to be used in product configuration projects
Research output: Research - peer-review › Journal article – Annual report year: 2010

Assessment of Benefits from Product Configuration Systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Making Product Customization Profitable
Research output: Research - peer-review › Journal article – Annual report year: 2009

Modelling Product Families for Product Configuration Systems with Product Variant Master
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Produktsanering i praksis: Et casestudie hos Novenco A/S
November 2010
Research output: Research - peer-review › Book chapter – Annual report year: 2010

A classification of strategies for the development of product configurators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Implementation of conceptual product models into configurators: From months to minutes
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Platform Performance and Challenges - using Platforms in Lego Company
Research output: Research - peer-review › Journal article – Annual report year: 2009

Managing the New Product Portfolio.: Towards an end-to-end approach
Research output: Research › Ph.D. thesis – Annual report year: 2008

Implementing a product platform in 35 man-days: The visual thinking approach
Research output: Research - peer-review › Journal article – Annual report year: 2008

Improving decision making in the early phases of configuration projects
Research output: Research - peer-review › Journal article – Annual report year: 2008
Modelling and visualising modular product architectures for mass customisation
Research output: Research - peer-review › Journal article – Annual report year: 2008

Product Customization
Research output: Research - peer-review › Book – Annual report year: 2009

A multi-perspective approach for the design of product configuration systems
Research output: Research - peer-review › Journal article – Annual report year: 2007

Improving decision making in the early phases of configuration projects
Mortensen, N. H. & Harlou, U. 2007 The 2007 World Conference on Mass Customization & Personalization (MCPC) at MIT (Boston, USA) and HEC Montreal (Canada) October 7-12.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Produktkonfigurering: Kundetilpasning af produkter
Research output: Research - peer-review › Book – Annual report year: 2007

Review af Dansk Bygge Klassifikation - DBK2006
Research output: Research › Report – Annual report year: 2007

Developing product families based on architectures: Contribution to a theory of product families
Research output: Research › Ph.D. thesis – Annual report year: 2006

Implementing Product Platforms: A Case Study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Kundetilpassede systemprodukter: - en vej til ny konkurrencekraft i Byggematerialeindustrien
Research output: Research - peer-review › Book – Annual report year: 2006

Produktkonfigurering: Effektiv konfigurering af kundetilpassede produkter
Research output: Research - peer-review › Book – Annual report year: 2006

Identification of platform levels
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Method for alignment of product and production concepts
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Method for creating and visualizing product architectures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005
Multi-Produkt-Entwicklung - praxisorientierte Werkzeuge und praktische Erfahrungen
Research output: Research - peer-review › Book chapter – Annual report year: 2005

Preparing for a Product Platform: Product Family Hierarchy Procedure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

A Proposal for an eventbased Approach to portfolio management for new products
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Recognizing the needs for improving the portfolio management for new products in the industry
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Produktmodellering - procesanalyse, produktanalyse, objektorienteret analyse - Center for Produktmodellering
Research output: Education › Book – Annual report year: 2002

Case study on the impact of modularization in Danish industry
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Conceptual modelling of product families in configuration projects
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Managing modularization
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

On the way towards definition of product architecture
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

The Need for Proper Understanding of Modularisation
Research output: Research - peer-review › Book – Annual report year: 2000

Contribution to a Theory of Detailed Design
Mortensen, N. H. 1999 Proceedings of "Fertigungsgerechtes Konstruieren". University of Erlangen-Nürnberg
Research output: Research - peer-review › Book chapter – Annual report year: 1999
Critical Enthusiasm: Contribution to Design Science
Research output: Research - peer-review › Book – Annual report year: 1999

Function Concepts for Machine Parts: Contribution to a Theory of Detailed Design
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Structuring as a Basis for Product Modelling
Research output: Research - peer-review › Book chapter – Annual report year: 1999

A design language for synthesis and systematization
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998

Design Preparation - by means of a Design Handbook
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998

Produktstrukturer og produktmodellering
Mortensen, N. H. 1998 Produktudviklingsdagen. IPU
Research output: Research - peer-review › Book chapter – Annual report year: 1998

Basic thinking patterns and working methods for multiple DFX
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

Design Characteristics as Basis for Design Languages
Mortensen, N. H. 1997 World Class Design by World Class Methods. Tampere: Tampere University of Technology
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

Getting from Organ- to Part- Structure
Research output: Research - peer-review › Book chapter – Annual report year: 1997

Improving conditions for reuse of design solutions - by means of a context based solution library
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

Konsstruktionsforberedelse hos Kværner
Research output: Research › Article in proceedings – Annual report year: 1997

On the identification of Product Structure Laws
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997
The Nature of Design Features
Research output: Research - peer-review › Article in proceedings – Annual report year: 1997

Designing in an Interplay with a Product Model - Explained by Design Units
Research output: Research - peer-review › Book chapter – Annual report year: 1996

On the Identification of design Feature Characteristics
Research output: Research - peer-review › Article in proceedings – Annual report year: 1996

Product Variant Master as a Means to Handle Variant Design
Research output: Research - peer-review › Article in proceedings – Annual report year: 1996

Produktudvikling i et produktionsperspektiv
Research output: Research › Article in proceedings – Annual report year: 1996

The structuring of products and product programmes
Research output: Research › Article in proceedings – Annual report year: 1996

Projects:

Planning Project Configuration System Projects
Ghosh, A., Mortensen, N. H. & Hvam, L.
01/01/2019 → 31/12/2021
Project: PhD

Maintenance Strategy at Rockwool
Lemes, L. C., Hvam, L. & Mortensen, N. H.
01/12/2018 → 30/11/2021
Project: PhD

Design by Prototyping - From Idea to Product Realisation
Hansen, C. A., Özkil, A. G. & Mortensen, N. H.
01/12/2018 → 30/11/2021
Project: PhD

Systematic Maintenance Improvement - A Data Driven Approach
Soleymani, I., Mortensen, N. H. & Hvam, L.
15/10/2018 → 14/10/2021
Project: PhD

Optimization of maintenance shutdown of large-scale equipment
Khalid, W., Mortensen, N. H. & Hvam, L.
15/10/2018 → 14/10/2021
Project: PhD
Application of Product Configuration Systems in Engineering Companies
Kristjánsdóttir, K., Hvam, L., Mortensen, N. H., Thuesen, C., Anisic, Z. & Jensen, L. J.
Samfinansieret - Andet
15/11/2014 → 14/11/2017
Project: Research

Quantitative Modular Maintenance Principles
Sigsgaard, K. V., Mortensen, N. H. & Hvam, L.
Fonde
01/02/2018 → 31/01/2021
Project: PhD

Data Driven Analysis of Plant Operation
Bertram, C. A., Mortensen, N. H. & Hvam, L.
Grundforskningsfonden
01/01/2018 → 31/12/2020
Project: PhD

Developing Product Architectures in Collaboration with Key-Customers
Askhøj, C., Mortensen, N. H. & Hvam, L.
Grundforskningsfonden
01/01/2018 → 31/12/2020
Project: PhD

Complexity Management at DSV A/S
Industrial PhD
15/11/2017 → 14/11/2020
Project: PhD

Developing Modular Product and Process Architectures in Engineer to Order (ETO) Companies
Christensen, C. K. F., Mortensen, N. H. & Hvam, L.
Grundforskningsfonden
15/09/2017 → 14/09/2020
Project: PhD

Management of product and production data
Battistello, L., Hvam, L. & Mortensen, N. H.
Forskningsrådsfinansiering m/virksomhed
01/09/2017 → 31/08/2020
Project: PhD

End-to-end configuration
Rasmussen, J. B., Mortensen, N. H. & Hvam, L.
Samfinansieret - Andet
01/10/2016 → 30/09/2019
Project: PhD

Diagnose på og specifikation af produktprogram og produktudviklingsprocessen
DTU, Samfinansiering
01/04/2004 → 14/04/2010
Project: PhD

Strategi for produktinnovation - et værktøj til generering og udvælgelse af produktinnovationsprojekter
Ansat eksternt
01/02/2003 → 08/07/2008
Genetisk produktmodellering og synteseværktøjer til konstruktionsstøttesystem med aluminiumstekn. som anvendt område
Mortensen, N. H. & Andreasen, M. M.
Gammel ordning u/skema-SU
01/04/1992 → 11/04/2000
Project: PhD

Træfssikkerhed i produktudvikling gennem brugercentreret design: En undersøgelse af teori og praksis
ErhvervsPhD-ordningen VTU
01/04/2012 → 25/02/2016
Project: PhD

Håndtering af interfaces i højkomplekse og multidisciplinære produkter
ErhvervsPhD-ordningen VTU
01/01/2013 → 04/07/2016
Project: PhD

Application of Architectures in SME's
Rask, L. C., Mortensen, N. H., Hvam, L. & Vestergaard, J.
Industrial PhD
01/02/2016 → 01/08/2019
Project: PhD

Early application of tolerance design
Samfinansierede - Virksomhed
15/12/2015 → 14/12/2018
Project: PhD

Analysis and modelling of Engineering Systems using Data Science and Complex Networks
Institut stipendie (DTU)
01/11/2015 → 31/10/2018
Project: PhD

Investigating New Design Paradigms in Agile Product Development and Rapid Prototyping
Samfinansieret - Andet
15/07/2015 → 31/10/2018
Project: PhD

Application of Product Configuration Systems in Engineering Companies
Samfinansieret - Andet
15/11/2014 → 06/03/2018
Project: PhD

Reducing time-to-market by means of modular platforms
Forskningsrådsfinansiering
01/08/2014 → 06/03/2018
Project: PhD
Conceptual Modelling for Product Configuration Systems
Shafiee, S., Hvam, L., Mortensen, N. H., Jacobsen, P., Malis, M., Vareilles, É. & Vareilles, É.
Industrial PhD
01/05/2014 → 21/09/2017
Project: PhD

Business Intelligence i Engineeringvirksomheder
ErhvervsPhD-ordningen VTU
15/10/2010 → 26/05/2014
Project: PhD

Requirement management with multiple product platforms
Hauksdóttir, D., Mortensen, N. H., Hvam, L., Nielsen, P. E., Malmqvist, J., Hildre, H. P., Krause, D., Malmqvist, J., Hildre, H. P. & Krause, D.
Institut/centerfinansieret
01/12/2011 → 24/09/2015
Project: PhD

Indlejret produktkonfiguration hos Grundfos Strukturering af produktviden
Oddsson, G. V., Hvam, L., Mortensen, N. H. & Malmqvist, J.
Forskningsrådsfinansiering
01/06/2005 → 31/10/2008
Project: PhD

Indlejret konfigurering: Modellering af produktfamilier og versionsstyring
Christensen, T. T., Hvam, L., Mortensen, N. H. & Jensen, L. J.
Forskningsrådsfinansiering
01/03/2005 → 05/05/2010
Project: PhD

Systemintegration i teknologiudviklingsprojekter
Institut, samfinansiering
01/07/2012 → 04/07/2016
Project: PhD

Requirements management with multiple product platforms
Institut, samfinansiering
01/10/2011 → 21/05/2015
Project: PhD

Udvikling af teknologisk produktarkitektur fra specification til produktion
Institut, samfinansiering
01/10/2011 → 07/04/2016
Project: PhD

Development of modeling techniques for project management in product development
Institut, samfinansiering
01/03/2011 → 26/05/2014
Project: PhD
Parallelsyntese af marked, produkt og produktion/supply chain
Munk, L., Mortensen, N. H., Johannesson, H. L., Hildre, H. P. & Riitahuhta, A.
DTU, Samfinansiering
01/09/2004 → 31/08/2011
Project: PhD

Platforme i produktion
Nielsen, O. F., Mortensen, N. H., Boelskifte, P., Malmqvist, J. & Riitahuhta, A.
DTU, Samfinansiering
15/08/2004 → 14/04/2010
Project: PhD

Referencearkitektur for produktplatforme og produktionsprocesser
Pedersen, R., Mortensen, N. H., McAloone, T. C., Hildre, H. P., Kyvsgaard Hansen, P., Johannesson, H. L. & Hansen, P. K.
DTU, Samfinansiering
01/09/2004 → 09/06/2010
Project: PhD

Modeling of product- and process architecture
1/3 FUU, 1/3 inst 1/3 Andet
01/09/2009 → 21/05/2015
Project: PhD

Quantitative Architecture Synthesis
Jensen, T. V., Mortensen, N. H. & Hansen, C. T.
1/3 FUU, 1/3 inst 1/3 Andet
15/11/2013 → 01/04/2018
Project: PhD

Syntese af produktarkitekturer
DTU-lønnet stipendie
01/01/2001 → 08/11/2006
Project: PhD

Complexity Management
Myrodia, A., Hvam, L., Mortensen, N. H., Jacobsen, P., Malis, M., Olhager, J. E. & Olhager, J. E.
Samfinansierede - Virksomhed
01/11/2013 → 18/05/2017
Project: PhD

Udvikling af mekatroniske platforme
Institut stipendie (DTU) Samf.
01/01/2011 → 23/02/2015
Project: PhD

Design for micro manufacturing
Institut, samfinansiering
15/06/2012 → 30/10/2015
Project: PhD

Koordineret udvikling af produktarkitektur og forretningsprocesser
Hansen, C. L., Mortensen, N. H., Hvam, L., Welo, T., Johannesson, H. & Krause, D.
Institut stipendie (DTU) Samf.
01/08/2009 → 26/01/2015
Project: PhD

Metodisk konstruktion af produkter
Torry-Smith, J., Mortensen, N. H., Johannesson, H. L., McAlone, T. C. & Riitahuhta, A.
Institut stipendie (DTU) Samf.
01/01/2009 → 27/08/2013
Project: PhD

Connovate - optimized building system using High Performance Concrete
Bro, K., Hvam, L., Mortensen, N. H., Serwin, B., Nieport, C., Svendsen, S., Stang, H., Olesen, H., Bertelsen, I. & Gregersen, J.
Forsk. Andre statslige danske i øvrigt
01/09/2010 → 31/08/2013
Project: Research

Systemleverancer i byggeriet - et forskningsnetværk
Hvam, L. & Mortensen, N. H.
27/02/2007 → 31/05/2007
Project: Research

Design for Manufacture
Andreasen, M. M., Mortensen, N. H. & Robotham, A. J.
01/01/1980 → 31/12/1999
Project: Research

Integrated Production System
Andreasen, M. M., Mortensen, N. H., Dawids, S. & Grothe-Møller, T.
01/01/1992 → ...
Project: Research

Development of a designer’s workbench
01/01/1991 → 31/12/1999
Project: Research

Design Languages
Mortensen, N. H. & Andreasen, M. M.
01/01/1998 → 01/12/1999
Project: Research

Product Variant Master Design
Mortensen, N. H.
01/01/1997 → 01/10/1999
Project: Research

Development and integration of tools for a Designer’s Workbench
01/05/1995 → 31/05/1998
Project: Research

Press clippings:

Automatic design system saves millions
Lars Hvam & Niels Henrik Mortensen