CURRICULUM VITAE – Tobias C. Larsson

PERSONAL DATA

Name:	Tobias Christoffer Larsson
Date of birth:	22 March, 1972, in Karlskrona, Blekinge
Gender:	Male
Address:	Skansvägen 14
	SE-371 42 Karlskrona
E-mail:	t.c.larsson@gmail.com
Telephone:	Mobile: +46(0)70 511 94 16
Personal web site @BTH	https://www.bth.se/eng/staff/tobias-larsson-tlr/

Product Development Research Lab

Short biography

- Professor Tobias C. Larsson (TCL), born 1972, got his PhD at Luleå University of Technology in 2001 within the area of simulation driven design within a product development context. The applications were within automotive, and high-speed train sector. Special emphasis was on multi-body dynamics and simulation driven design within a product development context.
- The core of today is within the Engineering Design Research area, where the focus is on developing methods and tools for engineering product development and simulation applications in industrial settings to support development of sustainable solutions (Product-Service Systems – PSS) that should create value in the upcoming Functional & Circular Economy. PSS puts the focus on the functional aspects of the development and drives the usually separated product and service development teams into a more concurrent way of working to ensure delivery of a life-cycle function. Value modelling and simulation, knowledge management, and innovation engineering capability when developing PSS is of extra interest in the research.
- The constantly expanding “engineering desktop” is growing with new tools and methods, and here the focus is on Model Based Engineering/Enterprise. The updated "engineering toolbox 2.0" for the engineer of the future needs to support organisations moving into a “greener” operating environment, hence life-cycle factors and sustainability, besides the traditional factors of product performance, are always in focus.
- TCL is currently supervising 13 PhD students and has examined several PhD's (26) and licentiate (31) degrees. He has contributed in over 100 peer-reviewed publications within his research area. TCL has initiated, led, and finalized several research projects. TCL was the main person behind the creation of the Faste Laboratory, a VINN Excellence Centre within product-service systems (2007-2016). He is also the main applicant and Center Director for the BTH KK Foundation Research Profile within Model Driven Development and Decision Support at BTH (2013-2019, 2019-2022). He is co-founder of the Design for Wellbeing framework, a joint research project together with Stanford University, USA, and Hosei University, Japan, and have taken part in several European Union projects within aerospace sector (VIVACE 2004-2007, CRESCENDO 2009-2012), and healthcare sector (PrimCareIT 2012-2104).
- TCL devotes his teaching efforts to product development courses, both via BTH lectures and via lectures on other universities and in industry on national and international level.
- TCL is very active in outreach activities and on a regular basis gives courses, workshops, lectures and inspirational keynotes for organisations (municipalities and schools) and companies (Ericsson, Volvo, Stena, TetraPak, CGI, etc.)
- The mode of work is collaborative where building strong group dynamics processes in the research team collaboration is one cornerstone, building from experiences in team sports and bringing this into the field of research.
- TCL lives in Karlskrona, Blekinge, with wife Madelene (interaction designer, researcher, by profession and working in applied health technology area) and have three kids; Tilde (2000), Linnea (2004), and William (2008).

Current position

- TCL is currently appointed Chaired Professor in Mechanical Engineering with focus on Product Development at Blekinge Institute of Technology, also with the following responsibilities:
    - Director and Research Leader, Product Development Research Lab, Mechanical Engineering
        - http://www.productdevelopment.se/
    - Director, KK Foundation research profile "Model Driven Development and Decision Support"
        - http://www.productdevelopment.se/?p=68

Research agenda

Traditionally, Swedish industry has developed and sold hardware-dominated products, e.g. trucks, engines and cars. Today, Swedish industry companies have noticed a change. Customers who have until now expressed their needs in relation to the physical artefact, i.e. a technical specification, have begun to express what they expect the physical artefact should bring about in their use of the artefact. A service perspective on product development has grown out of these radical changes concerning market expectations and needs, where customers are increasingly demanding an individualised product and where their primary interest is in functions, rather than hardware. This shifted view is captured in the concept of Product-Service Systems, and the development of PSS's captured in development methods. An integration of the hardware, software and service aspects is the starting point with intention to provide customers with a more encompassing offer, the total offer. Despite the intentions of achieving this integration, it is not yet fully understood how this shifted view will affect the development processes of the physical artefact and the technological progress. It is not either fully understood how sustainability effects can be accounted for.

The overall objective with the PSS research can then be seen as to examine how physical artefacts and services may be designed and developed to become an element in a total offer, as well as enhance integrated product development to extend towards sustainable product-service system innovation.

Services today occur in an *aftermarket* and are seen as add-ons to the physical artefact. A major part of the profits is made on aftermarket activities, such as maintenance and spare parts. One trigger for PSS, found in an industrial context, is the interest to control the aftermarket activities of the physical artefact. The driving force to control the aftermarket also enables ecological sustainability through remanufacturing and design, with respect to technological advances, as well as to minimise the cost of maintenance and spare parts, since it is at the provider's own cost. Fundamentally, this evolving view implies extending the life-cycle commitments of product developing companies (i.e. suppliers retain ownership throughout the total life-cycle) and an increased demand to collaborate in global alliances between value chain partners (i.e. the extended enterprise). Extending the life-cycle commitment creates new demands on the hardware development process, which now will have to deal with additional needs and requirements emanating from the aftermarket. Future customers will judge the physical artefact by the functions it provides in a larger perspective, i.e. an optimisation to the customers' business as a whole.

The PSS area integrates the strands of hardware development and service development into a development process with a life-cycle perspective that in functional sales business agreements predicts risk, improves the maturity of the decision base and ensures visibility of cost and income

Differences presently exist between a core product perspective and a service perspective and highlighting changes in the product development processes that are motivated by the notion of PSS is interesting. Integrating the strands of service development and hardware development into the PSS process with a life-cycle perspective, supported by simulation of not only manufacturing processes and in-service use, but also business processes and services. In addition, a goal of the research within this knowledge area is to advance the knowledge towards a product development methodology where simulation tools and data driven design are used to actually drive, and not only verify, the design of a product, manufacturing processes, business processes or a service commitment.

Within PSS there exists some strands that are of extra interest for TCL regarding the research:

- PSS innovation processes
    - How to design products, and lifecycle driven offerings, in order to create innovation.
    - How to drive innovation using value.
- Model Driven Development and tools and methods for PSS
    - How to design digital tools and methods that support PSS innovation.
    - How to know effects of features on solution before activities are carried out via simulation of outcomes/scenarios.

With efforts in model driven development, simulation driven product development, aiming to support product development teams in product-service system development, modelling and simulation together with knowledge engineering becomes important parts in the research. Modelling and simulation already in early concept stages

becomes even more important when the development of hardware and services meet early on in the development of functions, with life-cycle responsibilities and sustainability effects, rather than products to sell, and earn maintenance incomes on.

Knowledge based tools and methods for fast collection of previous engineering knowledge, and then reapply this knowledge to redesign sustainable concepts and products in early design phases through reuse of previous design rationale is a core topic for TCL.

The current, and planned, research projects where TCL take part in will bring even more attention to the area of PSS. TCL has stakes in this area and collaborate extensively with academia all over the world via the PSS Design Research Community and nationally via national research networks. The research is to a large extent externally funded and the industrial network partners are well aware of the stakes in the research and supports several research projects in the area.

The goal of TCL's research is to continue to build the research team in Product-Service System Innovation to become a world leading research group known for values of high quality in research and collaboration, contributing to a societal change towards sustainable solutions for the future.

Formal higher education

- 2005 – Associate Professor (Docent) in Functional Product Development, Luleå University of Technology.
- 2001 – Ph.D. in Computer Aided Design, Luleå University of Technology. Thesis: "Multibody dynamic simulation in product development"
- 1999 – Licentiate in Engineering, in Computer Aided Design, Luleå University of Technology. Thesis: "Effective development of dynamic systems: A structured approach"
- 1996 – M.Sc. in Mechanical Engineering, major in Computer Aided Design, Luleå University of Technology.
- 1995 – B.Sc. in Mechanical Engineering, major in Computer Aided Design, Mid Sweden University.
- 1994 – University Diploma in Mechanical Engineering/Lower Level, Mid Sweden University.

Further education

- Professional pedagogic evaluation (sakkunnigkurs), Umeå University, 2022.
- Machine Learning, Stanford University, Online Coursera course, 2019.
- eHealth: More than just an electronic record, The University of Sydney, Online Coursera course, 2019.
- Space Exploration, Online Masterclass with astronaut Chris Hadfield, 2018.
- Model Thinking, University of Michigan, Online Coursera course, 2017.
- Many Model Thinker, University of Michigan, Online Coursera course, 2017.
- eHealth – Opportunities and Challenges, Karolinska Institutet, Online edX course, 2015.
- Education for programme managers, Blekinge Institute of Technology, 2012.
- NOAK Leadership programme for future academic leaders, Norrbottens Akademi 2010.
- Coaching for Innovation, PIEp programme, 2010.
- Leadership for Change and Organizational Renewal, Stanford University Executive Programme, Stanford Business School, 2009.
- Strategic leadership programme, LTU 2008-2009.
- VINNOVA Leadership programme, 2008-2009.
- Board Education, 2007-2008
- Mentor programme, LTU, 2007-2008.
- Systematic psycho-social work environment, LTU, 2007.
- Gender workshop series, Faste Laboratory, LTU, 2007.
- IDAS programme (Identification Development Advancement Support), Swedish network, 2006.
- Project Coordinator Education, EC course, Brussels, 2005.
- Education programme for supervisors, "Docentkurs", Step 2, LTU, 2004.
- Media- and presentation training, Foundation for Strategic Research/Stockholm University, 2004.
- Kunskapsbyggande (Pedagogic knowledge creation) i Det skapande universitetet, LTU, 2003.
- Supervisor education, Step 1, LTU, 2003.
- Pedagogic education for university teachers LTU, 2003.

- Project management of technology and product development, CENTEK, Luleå, 2002.

Professional academic experience

- 2014-
  - Guest Professor at China Jiliang University, Hangzhou, China.
- 2014-2018
  - Dean, Faculty of Engineering Sciences, Blekinge Institute of Technology
- 2011-
  - Professor in Mechanical Engineering, Blekinge Institute of Technology
- 2010 – 2012
  - Guest professor at Department of Design Sciences, Faculty of Engineering, Lund University
- 2011 – 2012
  - Guest professor in Functional Product Development, Division of Innovation and Design, Luleå University of Technology
- 2009 – 2011
  - Guest professor and thematic leader of Sustainable Product-Service System Innovation research, Blekinge Institute of Technology
- 2006 – 2011
  - Professor and Head of division, Division of Functional Product Development, Luleå University of Technology.
- 2005 – 2006
  - Associate Professor (Docent) in Functional Product Development. Division of Computer Aided Design, Luleå University of Technology.
- 2001 – 2005
  - Researcher in Division of Computer Aided Design, Luleå University of Technology.
- 2001
  - Visiting Scholar, Optimal Design Laboratory, University of Michigan, Ann Arbor, Michigan, USA.
  - Research Scientist at Ford Motors, Advanced Engineering, Detroit, Michigan, USA
- 1997 – 2001
  - PhD student within ENDREA (The Swedish Engineering Design Research and Education Agenda) national research programme, funded by Foundation for Strategic Research. Employed at Division of Computer Aided Design, Luleå University of Technology.

Research responsibilities

TCL is currently responsible for the following research activities:

- Virtual Production Studio Lab | 2022-
  - The Virtual Production Studio Lab project is led by Blekinge University of Technology and will be a technically innovative arena and a place where the movie and gaming industry meets the traditional manufacturing industry and creates excellence in Blekinge. The VPSL will be the infrastructure foundation for a clustre within Virtual Production, and together with the business community do research and develop the technology, as well as create training courses and educational programmes to secure the skills needed around the technology.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=13088
- RESIST: Regions for climate change resilience through Innovation, Science and Technology
  - …
  - Co-applicant, 2022
  - …
- Lunar Surface Exploration Initiative | 2022
  - …
  - Co-applicant, BTH project leader.

- …
- Future Fossil Free Rock Loading Solution | 2022-
  - This project focus on the system perspective and includes what a new disruptive machine concept and how energy infrastructure should be designed, focusing on productivity, flexibility, economy and the requirements of the electricity network. In a uniquely transcendent collaboration, a complete system for primary loading, with in-depth machine concepts, will be developed and tested.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12601
- VaViM – Validation of virtual models used for simulation of autonomous vehicle systems | 2022-
  - In order to achieve scalability and robustness, verification and validation (V&V) of self-driving vehicle systems need to be largely performed virtually. This requires validated models on sensors, vehicles and environments where the systems are to operate. The aim of this pre-study is to identify state-of-the-art (SoA) and high-priority research questions within methods for validating models required for virtual V&V of self-driving vehicle systems within a fenced area, and to formulate a joint project application with identified key actors for further studies.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12403
- ASPECT – A System for Electric and Connected Transport Solutions | 2021-
  - Project ASPECT aims to, based on learnings from pilot Electric-Site, lift the technology to an energy optimized solution to scale in both volume and size. Focus for this project is within confined area. The project includes design of energy infrastructure, electric system on machines and site management system. Furthermore it includes validation of digital infrastructure for system, method and requirements on infrastructure, digital twin for energy optimized system and to understand if it is possible to increase energy efficiency by using teleoperation
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12235
- TRUST-SOS – TRUSTed – Site Optimisation Solutions | 2021-
  - In the project TRUST–SOS, we are developing digitalized services to increase the level of trusted decision making to optimise overall site systems in off-road transport applications.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12231
- I-Stamp – Intelligent and sustainable stamping processes using hybrid control strategies together with process monitoring | 2021-
  - I-Stamp project aims at drastically increasing the OEE (overall equipment effectiveness) of automotive big size press-lines applied for the production of large critical outer components and high strength inner reinforcements by implementing new digital solutions.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12226
- Ligth2Sustainable – Kompetenscenter för pressnings- och formningsteknologi | 2021-
  - Det övergripande målet med det föreslagna kompetenscentret är att säkerställa kompetens i Sverige för att utveckla och producera hållbara lättviktslösningar.
  - Main applicant, BTH project leader.
  - https://www.productdevelopment.se/?p=12369
- MD3S - Model Driven Development and Decision Support (2013-2019, 2019-2022)
  - This project will in co-production mode develop, disseminate, and integrate relevant, user-friendly and efficient support methods and tools for sustainable product-service system innovation into business leaders, business developers and product developers working environments that enable and inspire industry to thrive in the changing global context.
  - Director, project leader and main applicant 2012, and 2018.
  - https://www.productdevelopment.se/?p=68

- Technology Accelerator – The Concept Lab (2019-2021)
    - This project will develop a technology accelerator for taking ideas from 0 to 1 in co-production mode.
    - Co-applicant, BTH project leader.
    - https://www.productdevelopment.se/?p=8413
- MINT - Innovation Performance Measuring (2011-)
    - Measuring, and assessing innovation capability in industrial companies
    - Researcher and project leader
    - https://www.productdevelopment.se/?p=828
- Design for Wellbeing (2004-)
    - Thematic research network regarding design methods to create wellness.
    - Founder and main partner together with Stanford University, USA and Hosei University, Japan.
    - https://www.designforwellbeing.org/
    - http://www.productdevelopment.se/?p=118

Finalized projects (*potential dead links)

- LighTEST – Testbeds for future production of lightweight products using smart material solutions (2017-2020)
    - A distributed test bed will be developed for lightweight products with future demands for properties and circularity.
    - Co-applicant, BTH project leader
    - https://www.productdevelopment.se/?p=4480
- Test-Arena Blekinge (2017-2020)
    - The aim of the project is to create research based test arenas for IT, e-health and marine technology with the purpose of bringing research and society closer.
    - Co-applicant, BTH project leader.
    - https://www.productdevelopment.se/?p=4504
- Center of Excellence – stamping (förstudie) (2018-2019)
    - Pre-study on establishment of Center of Excellence in Stamping
    - Co-applicant, BTH project leader.
    - https://www.productdevelopment.se/?p=8529
- VITUM – VIrtual Turbine Module Demonstrator (2015-2017)
    - The aim of the project is to demonstrate how innovative solutions can be developed if traditional modular and component interfaces are challenged and to enable a hardware demonstrator for Clean Sky II.
    - Co-applicant, BTH project leader
    - http://www.productdevelopment.se/?p=76
- ExDin - More effective analysis within medical imaging using collaboration based on networking structure (2012-2017)
    - Medical imaging is facing major challenges. The demographic and geographic structure needs to be addressed with new approaches and services. Digitalization has been ongoing for over 10 years, but there is still great potential to be exploited in sharing capacity and expertise. This project focuses on this potential.
    - Co-applicant, project leader of “innovation model”
    - http://www.productdevelopment.se/?p=54
- Faste Laboratory (2007-2016)
    - VINNOVA VINNEX centre with focus on functional product innovation
    - Member of the Executive Committee that plans and lead the work in the laboratory
    - Future centre director for the laboratory (left 2011 since joining BTH)
    - Responsible for the Functional Product Development research thrust within the centre.
    - Project leader of three projects.

    - https://www.ltu.se/research/subjects/product-innovation/Forskningsprojekt/Fastelaboratoriet-Ett-VINN-Excellence-Center-1.27743?l=en

- PIEp – Product Innovation Engineering Programme (2006-2015)
    - PIEp, Product Innovation Engineering Program is a Swedish national program with the purpose of strengthening the ability in innovative product- and business development.
    - Node leader for LTU. (*left 2011 since joining BTH*)
    - http://www.ltu.se/research/subjects/product-innovation/Forskningsprojekt/PIEp-Product-Innovation-Engineering-Programme-1.31780?l=en
- FI-STAR – Future Internet Social and Technological Alignment Research (2013-2015)
    - FI-STAR will establish early trials in the Health Care domain building on Future Internet (FI) technology leveraging on the outcomes of FI-PPP Phase 1.
    - Co-applicant and researcher
    - http://www.productdevelopment.se/?p=125
- WIESD – Women at the forefront of Innovation, Entrepreneurship and Sustainable Development (2013-2014)
    - A program designed to foster Women's entrepreneurial skills, and to apply Innovative thinking and Sustainable Development knowledge in the creation of new business, the growth of existing business, and the expansion of women-owned/women-led companies.
    - http://www.productdevelopment.se/?p=843
- PrimCareIT – Tele-conferencing to fight social and professional isolation (2012-2014)
    - The project will provide a cost-effective development of sustainable e-health related services and products, especially focused on tele-consultation solutions. This should be done by pilot project demonstrators to create realistic scenarios for a future sustainable health care.
    - Main applicant and BTH project leader
    - http://www.productdevelopment.se/?p=129
- Makerspace Youth (2013-2014)
    - A project where the co-creation of a makerspace innovation environment fosters the abilities to build knowledge and interest among participants to embark onto a “maker” career.
    - http://www.productdevelopment.se/?p=825
- FFI SåNätt – Supply chain for lighter vehicles (2011-2013)
    - 3-year FFI (Vehicle Industry Research Programme) VINNOVA focusing Sustainable PSS development, reducing weight and CO2 signature of new SAAB platform. New OEM collaboration for new business opportunities
    - Senior researcher and BTH project leader responsible for strategic PSS opportunities in supply chain
    - http://www.productdevelopment.se/?p=791
- DecSUS – Decision Support for Sustainable Value Chains (2010-2013)
    - Focus on providing decision support for product developers with emphasis on life-cycle views
    - Co-applicant and member of steering board.
    - http://www.productdevelopment.se/?p=821
- E-health – Sustainable Products and Service within E-health and Tele Medicine (2010-2012)
    - Providing cost-effective development and support for tele medicine and e-health solutions
    - Co-applicant and member of steering board.
    - http://www.productdevelopment.se/?p=818
- Crescendo (2009-2012)
    - 3-year EU FP 7 project within Aerospace
    - Value modelling and simulation
    - Knowledge enabled engineering
    - Project leader and senior researcher (left 2011 since joining BTH)
    - https://cordis.europa.eu/project/id/234344

- ProViking THINK – Teams for Heterogeneous Innovation Knowledge (2008-2011)
    - 3-year Foundation for Strategic Research (SSF) project regarding Functional Product Development within the ProViking programme
    - Senior researcher and project leader. (left 2011 since joining BTH)
    - https://www.ltu.se/research/Utbildning-pa-forskarniva/2.38269/Forskningsprojekt/ProViking-THINK-Team-for-Heterogen-Innovationskunskap-1.39150
- DIM – Digital Integrated Manufacturing (2009-2011)
    - 3 year Interreg IV:A NORD (EU) project focusing deployment of new technologies for the benefit of SME's in the northern region of Sweden, Norway and Finland.
    - Senior researcher and project leader.
    - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/DIM-Digital-Integrated-Manufacturing-1.61753?l=en
- METOPIA - Methodology for Optimization, Integration and Automation (2009-2011)
    - VINNOVA NFFP5 (National Aerospace Research Programme) project with focus to develop the ability to understand, model and simulate behaviour of new and existing engine configurations from a mechanical perspective.
    - https://www.ltu.se/research/subjects/product-innovation/Forskningsprojekt/NFFP5-METOPIA-METodik-for-OPtimering-Integration-och-Automatisering-1.49412
- SAAB Technology Transfer (2009-2012)
    - 4 year FFI (Vehicle Industry Research Programme) VINNOVA project focusing on identifying needs for new/complementary methods and tools to enhance the possibilities for evaluation of new, ground-breaking, technologies in the early development phases of vehicle platform development.
    - Academic supervisor for industrial PhD candidate.
    - Member of steering group.
    - https://www.ltu.se/research/Utbildning-pa-forskarniva/2.38269/Forskningsprojekt/SAAB-Teknikoverforing-1.46484?l=en
- Fuel Efficient Transmission Technology Concept (2009-2012)
    - 4-year FFI (Vehicle Industry Research Programme) VINNOVA project focusing on the development of new transmission technology concept.
    - Senior researcher and project leader (left 2011 since joining BTH)
    - https://www.ltu.se/research/Utbildning-pa-forskarniva/2.38269/Forskningsprojekt/Fuel-Efficient-Transmission-Technology-Concepts-Design-Methodology-1.51185
- FFI Robust Machining (2009-2012)
    - 4-year FFI (Vehicle Industry Research Programme) VINNOVA project focusing research in knowledge intense applications for manufacturing, Knowledge Engineering.
    - Academic supervisor for industrial PhD candidate.
    - Member of steering group.
    - https://www.ltu.se/research/Utbildning-pa-forskarniva/2.38269/Forskningsprojekt/FFI-Robust-Machining-1.60789?l=en
- Centre for Automotive Systems Technology and Testing (2005-2010)
    - Regional project regarding automotive testing
    - Project leader for two subprojects
        - Real-time modelling, simulation and visualization of vehicle dynamics over large distances
        - Real-time road profile scanning to predict vehicle dynamics adaptation.
    - https://www.ltu.se/research/subjects/maskinkonstruktion/Forskningsprojekt/CASTT-Centrum-for-bilsystemteknik-och-testning-1.66977
- FLUD - Swedish Green Engine Demonstrator (2006-2010)
    - Development of lighter and greener jet engines

  - Co-applicant.
  - https://www.ltu.se/research/subjects/product-innovation/Forskningsprojekt/FLUD-Swedish-Green-Engine-Demonstrator-1.46578
- NFFP Experience Feedback (2007-2009)
  - VINNOVA project with focus to develop an ability to engineer fabricated jet engine components through methods and system support for feedback of knowledge and experience into the product development process (product and process definitions).
  - Project leader and main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/NFFP4-Erfarenhetsaterkoppling-1.27739?l=en
- NFFP Whole Engine Modelling (2007-2009)
  - VINNOVA project with focus to develop the ability to understand, model and simulate behaviour of new and existing engine configurations from a mechanical perspective.
  - Main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/NFFP4-Helmotormodellering-1.31781?l=en
- MERA DLP-e (2007-2009)
  - VINNOVA project focusing on reuse of engineering knowledge for increased production performance.
  - Project leader and main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/MERA-DLP-E-1.16271?l=en
- VIVACE - Value improvement in Virtual Aeronautical Collaborative Enterprises (2004-2007)
  - EU FP6 project focusing on knowledge engineering and collaborative tools
  - Single largest EC project today, €70M.
  - Responsible for research tasks within WP3.1 Knowledge Enabled Engineering where knowledge based tools and methods for reduced lead-times and improved aerospace product development time is in focus.
  - Project leader at LTU
  - https://cordis.europa.eu/project/id/502917
- Design for Fabrication (2002-2005)
  - VINNOVA project focusing on knowledge based tools and methods for prediction of manufacturing outcomes in early stages of product development
  - Project leader and main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/Design-for-Fabrication-1.16309?l=en
- NeedInn - Need Centered Product Innovation within E-health (2005-2007)
  - 2-year EC project within RPIA (Regionalt program för innovativa åtgärder) with focus on product development methods and tools for e-health.
  - Project leader and main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/NeedInn-Behovsdriven-produktutveckling-inom-e-halsa-1.16270?l=en
- NFFP - Service Concept Design (2005-2007)
  - VINNOVA project with focus on design and development of functional products by use of knowledge engineering and service development.
  - Project leader and main applicant
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/NFFP4-Service-Concept-Design-1.22135?l=en
- ProViking (2003-2006)
  - Foundation for Strategic Research (SSF) project regarding Functional Product Development
  - Senior researcher and project leader for 2 subprojects in the cluster.

  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/ProViking-Development-of-Functional-Products-in-a-Distributed-Virtual-Environment-1.16272?l=en
- Prioritized Area of Product Development
  - One of 6 prioritized areas at Luleå University of Technology
  - Focusing on increased external funding and international recognition regarding product development research.
  - Area coordinator for the thrust area.
  - https://www.ltu.se/research/subjects/product-innovation/Var-historia/Projektarkiv/Produktutveckling-Prioriterat-omrade-1.16274?l=en

Scientific committee responsibilities

Member of scientific committee for re-occurring conferences:

- ICED, Member of scientific committee for the Design Society conference "International Conference on Engineering Design", held bi-annually around the world. Member of the SC since 2006.
- Design, Member of scientific committee for the Design Society conference "International Design Conference", held bi-annually in Dubrovnik, Croatia. Member of the SC and Advisory Board since 2005.
- CIRP IPS2, Member of the CIRP society conference "Integrated Product/Service Systems – IPS2", held annually around the world. Member of the SC since 2008.
- ICoRD, Member of scientific committee for the International Conference on Research Into Design, held bi-annually in India. Member of the SC since 2007.
- IFIP CAI, Member of the Member of scientific committee for the CIRP conference Computer Aided Innovation, held yearly around the world. Member of the SC since 2005.

Conference planning and review responsibilities

Participated in review and planning of conferences, some listed below:

- DESIGN 2022, 17th International Design Conference, May 23-26, Dubrovnik, Croatia (held online due to COVID-19)
  - Session Chair, Reviewer
- ICED 21, 23rd International Conference on Engineering Design, 16-20 August, Gothenburg, Sweden.
  - Reviewer, scientific committee.
- DESIGN 2020, 16th International Design Conference, May 21-24, Dubrovnik, Croatia (held online due to COVID-19)
  - Keynote speaker, Session Chair, Reviewer
- ICED 19, 22th International Conference on Engineering Design, 5-8 August, Delft, The Netherlands.
  - Reviewer, scientific committee.
- CIRP IPS2, 11th International Conference on Integrated Product-Service Systems, 29-31 May 2019, Hong Kong / Zhuhai, China.
  - Special Session organiser "Model-Driven Decision Support for PSS (MDDS-PSS)", reviewer.
- ICoRD '19, 7th International Conference on Research Into Design, January 9-11 2019, Indian Institute of Science, Bangalore, India.
  - Reviewer, Scientific Committee
- NORDDESIGN 2018, August 14-17, Linköping, Sweden
  - Reviewer, scientific committee.
- DESIGN 2018, 15th International Design Conference, May 21-24, Dubrovnik, Croatia
  - Reviewer
- ICED 17, 21th International Conference on Engineering Design, 21-25 August, UBC, Vancouver, Canada.
  - Reviewer, scientific committee.
- CIRP IPS2, 8th International Conference on Integrated Product-Service Systems, 20-23 June 2016, Bergamo, Italy.
  - Invited keynote speaker, conference organiser, scientific chair.
- ICED 15, 20th International Conference on Engineering Design, 27-30 July 2015, Milan, Italy.
  - Reviewer, scientific committee.
- CIRP IPS2, 7th International Conference on Integrated Product-Service Systems, 21-22 May, Saint-Etienne, France.

  - Conference organiser, scientific chair.
- CIRP IPS2, 6th International Conference on Integrated Product-Service Systems, 1-2 May, Windsor, Canada.
  - Conference organiser, scientific chair.
- ICED 13, 19th International Conference on Engineering Design, 19-22 August 2013, Seoul, Korea.
  - Reviewer, session chair and coordinator
- CIRP IPS2, 5th International Conference on Integrated Product-Service Systems, 14-15 March, Bochum, Germany.
  - Conference organiser, scientific chair.
- ICED 11, 18th International Conference on Engineering Design, 15-18 August 2011, DTU, Copenhagen, Denmark.
  - Reviewer, session chair and coordinator
- ICoRD '11, International Conference on Research Into Design, January 10-12 2011, National Science Seminar Complex, Indian Institute of Science, Bangalore, India.
  - Reviewer, Scientific Committee
- 11th International Design Conference, May 17-20, 2010, Dubrovnik, Croatia.
  - Reviewer, Advisory Board.
- CIRP IPS2 International Conference on Integrated Product/Service Systems, 14-17 April, Linköping, Sweden
  - Conference organiser, scientific chair
- FPD2010, 3rd national workshop on "Functional Products – Development and Sales", 13 April, Linköping, Sweden.
  - Conference organiser
- ICED 09, 17th International Conference on Engineering Design, 28-31 August 2009, Stanford University, San Francisco, California, US.
  - Reviewer and workshop organiser
- ICoRD '09, International Conference on Research Into Design, 7-9 January 2009, National Science Seminar Complex, Indian Institute of Science, Bangalore, India.
  - Reviewer, Scientific Committee
- FPD2007, 2nd national workshop on "Functional Products – Development and Sales", 24-25 October, Luleå, Sweden.
  - Conference organiser and conference chairman
- ICED07, 16th International Conference on Engineering Design, Design for Society – Innovation, Sustainability and Knowledge, 28-31 August 2007, Paris, France.
  - Reviewer and workshop organiser
- 2nd IFIP Working Conference on Computer Aided Innovation, Michigan, USA, 2007.
  - Planner, organiser and reviewer.
- ASME Design Engineering Technical Conferences, Computers in Engineering, Philadelphia, USA, 2006.
  - Reviewer
- NordPLM06, 1st Nordic Conference on Product lifecycle Management, 2006.
  - Reviewer
- 4th Workshop on Challenges in Collaborative Engineering, Prague, 2006.
  - Reviewer
- 1st IFIP Working Conference on Computer Aided Innovation, Ulm, Germany, 2005.
  - Planner, organiser and reviewer
- 3rd Workshop on Challenges in Collaborative Engineering, Prague, 2005.
  - Reviewer
- ICED 03, 14th International Conference on Engineering Design, Research for Practice - Innovative Products, Processes and Organisations, 19-21 August 2003, Stockholm, Sweden.
  - Reviewer
- ASME Design Engineering Technical Conferences, Computers in Engineering, Montreal, CA, 2002.
  - Reviewer
- MOKA Interest Group, symposia in Luleå, November 2003.
  - Organiser, planner and reviewer.

- ASME Design Engineering Technical Conferences, Computers in Engineering, Pittsburgh, USA, 2001.
    - Reviewer and session organiser
- ASME Design Engineering Technical Conferences, Computers in Engineering, Las Vegas, USA, 1999.
- IAVSD Workshop, Herbertov, Czech Republic, 1999.

Journal and book and review responsibilities

Reviewer/editor for:

- Journal of Cleaner Production
    - Reviewer, and also editor for one special issue "Systematic Leadership towards Sustainability", https://www.sciencedirect.com/journal/journal-of-cleaner-production/vol/140/part/P1
- Systems, an open access journal systems theory in practice
    - Reviewer https://www.mdpi.com/journal/systems
- Designs, a design engineering Journal
    - Editorial Board: https://www.mdpi.com/journal/designs/editors
    - Editor for Special Issue "Design of Product-Service Systems"
- Computers in Industry
    - Reviewer of journal contributions
- Pearson Education, UK
    - Reviewer for books and manuscripts in the engineering design area
- International Journal of Business and Management Tomorrow
    - Reviewer of journal contributions
- International Journal of Concurrent Engineering: Research and Applications
    - Reviewer of journal contributions
- Journal of Engineering Design
    - Reviewer of journal contributions
- International Journal of e-collaboration
    - Reviewer of journal contributions
- International Journal of Production Economics
    - Reviewer of journal contributions

Ability to apply for and fund research

TCL has a good international network with both industry and academia and has applied for and received research funds totalling 1036 MSEK (total research volume of projects spanning over 3104 MSEK).

- Virtual Production Studio Lab, ERUF/Region Blekinge/Karlskrona Kommun, 9 msek, main applicant, 2022.
- Lunar Surface Exploration Initiative, Canadian Space Agency, 2.75 MSEK, co-applicant, 2022.
- RESIST: Regions for climate change resilience through Innovation, Science and Technology, 25 M€ (3.49 MSEK BTH), EU, co-applicant, 2022.
- Future Fossil Free Rock Loading Solution, VINNOVA FFI, 1.7 MSEK, main applicant, 2022.
- Light2Sustainable - Kompetenscenter för pressnings- och formningsteknologi, 1.5 MSEK VINNOVA, co-applicant, 2021
- VaViM - Validation of virtual models used for simulation of autonomous vehicle systems – pre study with SoA analysis, VINNOVA FFI, 2.2 MSEK, co-applicant, 2021
- ASPECT - A System for Electric and Connected Transport Solutions, VINNOVA FFI, 3.5 MSEK, main applicant, 2021.
- TRUST-SOS - TRUSTed – Site Optimisation Solutions, VINNOVA FFI, 3.9 MSEK, main applicant, 2021.
- Web-based education for Digitalization and Industry 4.0, The Knowledge Foundation, 1.7 MSEK, co-applicant, 2021.
- eTWIN - Digital Twin enabled Transition into Electromobility and Autonomy in Construction Equipment, VINNOVA, 0.75 MSEK, co-applicant, 2021.
- Electrified infrastructure, Trafikverket, 2.1 MSEK, TCL co-applicant, 2020.
- Health & Sports Technology Initiative, ERUF/Region Blekinge, 9 MSEK, TCL co-applicant, 2020.

- Innovative Product Development, 2.6 MSEK, direct company support from AB Volvo, TCL project leader, 2019.
- Blekinge Tech Accelerator, ERUF & Tillväxtverket, 6 MSEK, TCL co-applicant, 2019.
- AVANS, Development of MSc programme in Mechanical Engineering, KKS, 2.7 MSEK, TCL co-applicant, 2019.
- Profile+, Model Driven Development and Decision Support, The Knowledge Foundation, 52.8 MSEK, TCL main applicant, 2018.
- Center of Excellence – stamping (förstudie), ERUF & Tillväxtverket, 0.8 MSEK, TCL co-applicant, 2018.
- LighTEST - Testbeds for future production of lightweight products using smart material solutions, VINNOVA, 35 MSEK, TCL co-applicant, 2017.
- Test-Arena Blekinge, ERUF & Tillväxtverket, 24 MSEK, TCL co-applicant, 2017.
- BTH Sports Academy – Continuation of BTH Sports Academy, 0.7 MSEK, TCL co-applicant, 2016.
- Innovative Product Development, 15 MSEK, direct company support from Volvo CE, TCL project leader, 2016.
- SICAHT – Establishment of innovation platform for digital health, 6.4 MSEK, TCL co-applicant, 2015.
- STOSIP – Strategic, tactical and operational implementation of sustainability into the innovation process, KKS, 7.5 MSEK, TCL co-applicant, 2015.
- ExDIN III - Efficient image diagnostics and innovation networks – Fas III, VINNOVA, 20 MSEK, TCL co-applicant 2014
- VITUM - VIrtual TUrbine Module demonstrator, VINNOVA, 10.5 MSEK, TCL co-applicant, 2014
- Makerspace Youth, 0.8 MSEK, TCL main applicant 2013.
- Women in the Forefront of Innovation, 1.2 MSEK, TCL main applicant 2013.
- Innovative Product Development, 12 MSEK direct company support from Volvo CE, TCL project leader, 2013
- Model Driven Development and Decision Support, The Knowledge Foundation, 108 MSEK, TCL main applicant 2012.
- Efficient image diagnostics and innovation networks, VINNOVA, 20 MSEK, TCL co-applicant 2012
- PrimCareIT, EU Baltic Sea Region Programme, 25 MSEK, TCL co-applicant, 2011.
- Centre for inter-organizational innovation research, VINNOVA, 18 MSEK, TCL co-applicant, 2010.
- FFI SåNätt, VINNOVA, 30 MSEK, TCL co-applicant, 2010.
- E-health for sustainable health care, 18 MSEK, TCL co-applicant, 2010.
- Redesigning Innovation, 1 MSEK, TCL co-applicant, 2009.
- FFI SAAB Technology Transfer, VINNOVA, 8 MSEK, TCL main applicant, 2009.
- FFI Fuel Efficient Transmission Technology Concepts, VINNOVA, 18 MSEK, TCL main applicant, 2009.
- FFI Robust Machining, VINNOVA, 34 MSEK, TCL main applicant, 2009.
- NFFP Metopia, VINNOVA, 4.4 MSEK, TCL main applicant 2009.
- Digital Integrated Manufacturing, EU INTERREG IV:A Nord, 6 MSEK, TCL main applicant 2009.
- Crescendo, EU FP7, 550 MSEK (15 MSEK for LTU), TCL main applicant 2008
- ProViking THINK Teams for Heterogeneous Innovation Knowledge, SSF, 15 MSEK, TCL main applicant, 2008
- Simulation of Functional Products on a Sustainability Driven Market, The Knowledge Foundation, 4 MSEK, TCL co-applicant, 2008.
- NFFP4 Whole Engine Modelling, VINNOVA, 4 MSEK, TCL main applicant, 2007
- NFFP4 Experience feedback, VINNOVA, 4 MSEK, TCL main applicant, 2007.
- Faste Laboratory for Functional Product Innovation, VINNOVA VINN Excellence Centre, 250 MSEK for LTU, TCL main contributor to application and future centre director from 2010, 2006.
- FLUD - Swedish Green Engine Demonstrator, VINNOVA, 126 MSEK (8 MSEK for LTU), TCL co-applicant, 2006.
- CASTT Scanning road, 2 MSEK, TCL main applicant, 2006.
- PIEp - Product Innovation Engineering Programme, VINNOVA, 300 MSEK (10 MSEK for LTU), TCL co-applicant, 2006.
- MERA DLP-E, VINNOVA, 4 MSEK, TCL main applicant, 2006.
- NFFP4 Service Concept Design, VINNOVA, 3 MSEK, TCL main applicant, 2005.
- CASTT Real-time dynamics, 2 MSEK, TCL main applicant, 2005.
- Design for Functional Components, VINNOVA, 3 MSEK for LTU, TCL co-applicant, 2005.
- NeedInn, EU, 6 MSEK, TCL main applicant, 2005.
- VIVACE, EU FP6, 700 MSEK (12 MSEK for LTU), TCL main applicant, 2004.

- Design for wellbeing & Product Design, LTU, 1 MSEK, TCL main applicant, 2004.
- Design for Fabrication, VINNOVA, 8 MSEK, TCL main applicant, 2002.
- ProViking Development of Functional Products in a Distributed Virtual Environment, SSF, 28 MSEK, TCL co-applicant. 2002.

Judgements of TCL in conjunction with research center applications:

- 2006 – International review board when evaluating the Faste Laboratory application at VINNOVA (Prof John Baras, Prof David Williams, Prof Bengt Stenlund evaluators)
    - ”*Because of his contributions to the technical presentation and his importance to the future of the Centre, Larson was closely questioned on his technical area and track record, and his vision and long term metrics for the Centre. His calm and thoughtful responses showed his strategic approach, personal charisma and leadership skills. He is an excellent choice of clear international calibre and shows great promise.”*
    - *”This is a Centre with momentum from its existing work and of unusual promise arising from the clear excellence, energy and vision of its young incoming Director. The proposers and the university are to be commended for the approach that they have taken.”*
    - *”An excellent incoming Director (for beyond 2009) has been designated and succession is clear.”*

Evaluations

TCL has personally been evaluated regarding research competence in conjunctions with professional appointments:

- 2010: Successfully evaluated for chaired Professor at BTH in Product Innovation. 3 external experts evaluated TCL and ranked TCL as no 1 candidate for position in competition (TCL accepted this position).
- 2009: Successfully evaluated for chaired Professor at KTH in Product Innovation Engineering. 3 external experts evaluated TCL and ranked TCL as no 1 candidate for position in competition (TCL eventually turned down the proposal).
- 2007: Successfully evaluated for chaired Professor at LTU. 2 external experts evaluated TCL as no 1 candidate in competition.
- 2005: Successfully evaluated for Associate Professor (Docent) at LTU. 2 external experts evaluated TCL.
- 2004: Successfully evaluated for Senior Lecturer in Functional Product at LTU. 2 external experts evaluated TCL in competition.

Examiner of research work

- TCL has been on grading boards and acted as opponent on both licentiate degrees (22) and doctoral dissertations (10 opponent, 31 grading committees).
- TCL has been evaluating professors, associate professor degree, senior lecturer, research applications, ongoing projects etc. on a frequent basis both for universities and for government (UKÄ).

Strategic academic assignments

- SIG Chair PSS, Design Society, 2020-
- Subject Responsible, Mechanical Engineering research, BTH, 2020-
- Member of Reference Group for Kunskapsförmedlingen, 2018-
- Member of Reference Group for Swedish Research Council (Vetenskapsrådet), 2017-
- Reviewer for UKÄ regarding educations and PhD education, 2014-
- Member of the Board, Red Cross University, 2015-
- Member of the Board, Blue Science Park, 2017-2020
- Strategic Board, Techtank, 2015-2019.
- Dean, Faculty of Engineering, 2014-2018.
- Responsible for Gender and Equality development, BTH. 2015-2018.
- Member of Scientific Council of County Council of Blekinge, 2014-2019.
- Reviewer for VINNOVA regarding research projects, 2014-
- Reviewer for The Knowledge Foundation regarding research projects and ”KKS-miljöer” , 2014-.
- Member of the BTH board of governors, 2013-2014 (left when appointed Dean of Faculty of Engineering)

- Member of the SUNET strategic research board. 2011-2014.
- Member of the BTH School of Engineering Directorate. 2010-2012.
- Member of working group that developed Swedish National Research Agenda on aerospace 2010 & 2011. http://www.nraflyg.se/
- Member of steering group for e-health programme with Landstinget Blekinge, 2009-2011.
- Member of the board of IT & web strategies at LTU, 2010-2011.
- Thematic leader for the Sustainable Product/Service System Innovation theme at section of engineering at BTH, 2009-2011 (2011 transformed into Center for SPSSI)
- Member of the board for Learning Resource Center at LTU, 2008-2011.
- Member of the Department of Applied Physics and Mechanical Engineering Directorate. 2007-2009.
- Member of the Faste Laboratory Executive Committee, 2007-2010.
- Member of the Steering Committee in national product innovation programme PIEp, 2007-2011.
- Responsible for the strategic area of Product Development at LTU, one of 6 prioritized areas at LTU. 2006-2010.
- Participating in a VINNOVA strategy group regarding future research programmes in sustainable product development. 2006-2009.
- Participating in EC strategic FP7 group regarding aerospace research programmes. 2006-2010.
- Participating in EC strategic FP7 group regarding automotive research programmes. 2006-2010.

Staff responsibilities

- 2007-2011
  - Responsible for the management of the research division of Functional Product Development, Department of Mechanical Engineering
  - Budget, planning and project execution according to LTU directives are part of daily work routines

Management and collaboration

- Work according to the principle of "pay it forward", sharing knowledge when possible to aid in the creation of new knowledge.
- To create leading research and educational systems it is important to have a clear strategy on all pieces in the puzzle. Proper management and administration of research and education tasks is key, together with a proactive dialogue with companies and the surrounding society.
- On the research management side, it is important to work with clear structures although the research itself may be ambiguous. Here TCL set up clear strategies for project execution and administration and make sure that financial staff is present from the beginning support budget reporting and follow-up.
- On the collaboration side, open seminars and workshops with companies and society act as a door for partners to enter the research arena. Through long-term collaboration comes good research collaboration, and stamina is needed to sustain a good environment. During 2006 TCL was the main person behind the creation of the Faste Laboratory, a VINN Excellence Center in Functional Product Innovation. This process was replicated in 2012 leading up to the initiation of the 6-year BTH KKS research profile in product development deployed 2013. The research profile was prolonged via application and development of further focus (approved 2018), to run also through 2019-2022.
- TCL was recruited to the position as professor, head of division, and research subject responsible for Functional Product Development at LTU in 2006. The division started 2006 and had grown to 28 persons (2011) and with strong research output and strong financial standing (profit all years). 2011 TCL resigned and joined BTH and since then started up a research lab in Product Development with strong external funding support. The collaboration network consists of some 15 academic partners and 40 companies.
- *TCL has since the PhD exam continuously networked with society and this has rendered a rapid build-up of the research solid economy and high research output, known for research and collaboration skills. TCL has the intention to create an internationally leading research centre at BTH.*

Supervisor responsibilities

TCL is supervisor for 15 PhD candidates:

- Yan Zhang (planned for Lic 2022, in research subject Mechanical Engineering, BTH)

- Kent Cronholm (planned for Lic 2020, in research subject Systems Engineering, BTH)
- Jenny Elfsberg (planned for PhD 2022, in research subject Mechanical Engineering, BTH)
- Andreas Olsson (planned for PhD 2023, in research subject Systems Engineering, BTH)
- Ryan Ruvald (planned for PhD 2022, in research subject Mechanical Engineering, BTH)
- Amber Gray (planned for PhD 2021, in research subject Mechanical Engineering, BTH)
- Martin Frank (planned for PhD 2022, in research subject Mechanical Engineering, BTH)
- Sravan Tatipala (planned for PhD 2022, in research subject Mechanical Engineering, BTH)
- Mårten Silvanius (planned for PhD 2022 in research subject Systems Engineering, BTH)
- Johan Flyborg (planned for Lic 2022 in research subject Applied Health Technology, BTH)
- Martin Gredehall (planned for Lic 2022 in research subject Mechanical Engineering, BTH)
- Omsri Kumar Aeddula (planned for PhD 2023, in research subject Mechanical Engineering, BTH)
- Raj Machchhar (planned Lic 2022, in research subject Mechanical Engineering, BTH)
- Wu Peng (planned Lic 2023, in research subject Mechanical Engineering, BTH)
- Leon Poot (planned Lic 2025, in research subject Mechanical Engineering, BTH)

TCL has been main supervisor for the following degrees (12 PhD, 18 Lic):

- Omsri Kumar Aeddula, Lic 2021-12, Blekinge Institute of Technology
- Mårten Silvanius, Lic 2020-11, Blekinge Institute of Technology
- Sravan Tatipala, Lic 2019-12, Blekinge Institute of Technology
- Martin Frank, Lic 2019-12, Blekinge Institute of Technology
- Jenny Elfsberg, Lic 2018-05, Blekinge Institute of Technology
- Mikael Johansson, PhD 2016-11, Blekinge Institute of Technology
- Massimo Panarotto, Lic 2013-09, PhD 2015-12, Blekinge Institute of Technology
- Koteshwar Chirumalla, Lic 2011-06, Luleå University of Technology
- Åsa Kastensson, Lic 2011-05, Luleå University of Technology
- Peter Thor, Lic 2011-06, Luleå University of Technology
- Petter Andersson, Lic 2008, PhD 2011-06, Luleå University of Technology
- Johan Wenngren, Lic 2010, Luleå University of Technology
- Mikael Nybacka, Lic 2007, PhD 2009-12, Luleå University of Technology
- Christian Johansson, Lic 2007, PhD 2009-12, Luleå University of Technology
- Mattias Bergström, PhD 2009-06, Luleå University of Technology
- Henrik Nergård, Lic 2006, PhD 2009-06, Luleå University of Technology
- Mikael Andersson, PhD 2007, Luleå University of Technology
- Åsa Ericson, Lic 2006, PhD 2007-12 (Professor at Luleå University of Technology 2016)
- Marcus Sandberg, Lic 2005, PhD 2007-12
- Magnus Löfstrand, Lic 2004, PhD 2007-06 (Professor at Örebro University 2016)
- Patrik Boart, Lic 2005, PhD 2007-06

TCL has been supervisor for the following degrees (14 PhD, 14 Lic):

- Raj Jiten Machchhar, Lic 2022-12, Blekinge Institute of Technology
- Syed Azad Chowdhery, Lic 2020-02, Blekinge Institute of Technology
- Shahryar Eivazzadeh, Lic 2015-12, PhD 2019-12, Blekinge Institute of Technology
- Ryan Ruvald, Lic 2019-12, Blekinge Institute of Technology.
- Shafiqul Islam, Lic 2016-12, PhD 2019-09, Blekinge Institute of Technology
- Eskil Andreasson, Lic 2015-05, PhD 2019-05, Blekinge Institute of Technology.
- Lisiana Nurhadi, Lic 2016-10, Blekinge Institute of Technology.
- Rachael Gould, Lic 2015-12, Blekinge Institute of Technology.
- Andre Benaim, Lic 2015-06, Lund University of Technology.
- Johan Holmqvist, PhD 2015-03, Luleå University of Technology.
- Alessandro Bertoni, PhD 2013-12, Luleå University of Technology.

- Koteshwar Chirumalla, PhD 2013-12, Luleå University of Technology.
- Johanna Wallin, PhD 2013-12, Chalmers.
- Malte Jung, PhD 2012, Stanford University.
- Alessandro Bertoni, Lic 2012-03, Luleå University of Technology.
- Johan Holmqvist, Lic 2012-03, Luleå University of Technology.
- Johanna Wallin, Lic 2012-01, Luleå University of Technology.
- Neeraj Sonalkar, PhD 2011-10, Stanford University.
- Anthony Thompson, Lic 2010-10, PhD 2012-12, Blekinge Institute of Technology.
- Vinit Parida, Lic 2008, PhD 2010-04, Luleå University of Technology. (Professor at Luleå University of Technology 2016)
- Andreas Larsson, Lic 2002, PhD 2005-06, Luleå University of Technology.
- Nicklas Bylund, PhD 2004, Luleå University of Technology.
- Belind Lopez-Mesa, PhD 2004, Luleå University of Technology.

Graduate school responsibilities

TCL is responsible for the graduate school in Mechanical Engineering at BTH 2011-.

TCL has been responsible for the graduate school within Arena Innovative Technology and enterprise at LTU between 2004-2006:

- Green house projects and graduate school courses from 2004-2006.
- 13 licentiate degrees between 2004-2006.
- Now starting up version 2, 2007-2009.

Graduate school courses:

- Product-Service Systems, http://www.productdevelopment.se/?p=977
  - International graduate course.
  - Examiner 2010-
- Engineering Design Research Methodology, https://www.productdevelopment.se/?p=984
  - International graduate course.
  - Examiner 2012-
- Global Product Innovation, http://www.productdevelopment.se/?p=5192
  - National graduate course.
  - Examiner 2012-
- Modeling Simulation and Optimization in the Engineering Product Development Process, http://www.productdevelopment.se/?p=5146
  - National graduate course.
  - Examiner 2018-
- Innovative Technology and Enterprise
  - Local graduate course for PhD students within Arena Innovative Technology and Enterprise.
  - Examiner 2005-2006.
- Functional Product Development
  - National PhD course.
  - Examiner and course developer, 2009-.
- Simulation and Digital Prototyping
  - National PhD course within the ENDREA and ProViking programme
  - 1997-
  - Examiner since 2005, and course developer since 2004.
- Simulation of Vehicle Dynamics
  - National PhD course.
  - Examiner and course developer, 1997-.

- Participatory Product Innovation
    - Local PhD course.
    - Examiner and course developer, 2005-.
- Knowledge Enabled Engineering
    - National PhD course.
    - Examiner and course developer, 2007-.

PEDAGOGIC SKILLS

On the educational side TCL works with the changing facets of our society where new knowledge is needed to create the products and services of tomorrow. Here we need to educate in both exploit end (do the things you need to do with less resources) and the explore dimension (find new ways to do new things) and this means that we need to mix disciplines in education and create the future problem solvers. Through the development of a new master programme in sustainable product-service system innovation (MSPI, http://www.mspi.se) that was deployed at BTH fall 2010, an educational platform for innovation education is created. Here different disciplines can meet and together with entrepreneurs and companies develop the sustainable solutions for tomorrow. Now we are reshaping this program together with the mechanical engineering program via the AVANS (https://www.productdevelopment.se/?p=8617) project to become a modern mechanical engineering program that support the society with engineers that can develop sustainable product-service systems and innovation.

Previous, at LTU, TCL was developer and programme coordinator of an international master's programme in Product Development that started 2007. The programme was a manifestation of the previous and current research within engineering design and product development where the focus is on the ability to train the ability to develop products that answers to new customer demands. New products and services (PSS as an example) require new tools and methods, and hence other competencies than the "regular" engineering programmes train, hence the new master's programme.

Product development and product innovation builds on the training and execution of innovation, creativity, and entrepreneurship, together with domain knowledge in, for example, mechanical engineering. The teaching is a mix of theory and projects together with industry and society where the process of going from idea to concept is pursued during the programmes. Close collaboration with the Stanford d.school programme and colleagues and business in the Bay Area is established in the BTH MSPI/MechEng/IndEk programmes to have good mentors and examples in the programmes.

TCL focus the education efforts to teaching in product-service innovation and engineering skills and integrates research into this education via thesis projects, industrial visits and industrial key notes, hence making sure that students are given good opportunities to gather latest knowledge and also the chance to interact and collaborate with market actors from the start in education.

The pedagogic idea is that the students should be encouraged to gain their knowledge in an active way rather than passively build the knowledge only from theoretical lectures by the teachers. Hence, live course projects with entrepreneurs and industry is a common part in education and master students are also encouraged to take part in research projects. Reflection reports are used extensively as a tool to support the individual knowledge creation process when students work in team to perform projects. There are influences of problem based learning and triple learning loop is one goal of the course setups.

TCL have taken LTU programme regarding "Kunskapsbyggande" (Knowledge Creation pedagogic courses) and mix this foundation with the international CDIO (Conceive, Design, Implement, Operate) curricula and Problem Based Learning to find a good way forward regarding Bologna and other surrounding agendas of today in education.

TCL's ambition is to deliver the best product development education in Sweden, via unique pedagogic idea, collaboration with companies and society, via latest methods and tools, and via continuous interaction with students. TCL has developed educational programmes, courses, and examined on both undergraduate and graduate research level and is well aware of the educational system setup and evolution.

Development

The following development activities regarding education is worth to mention:

- Smart Industry courses for industry (BTH, 2020), https://www.bth.se/utbildning/hogskoleforberedande-utbildningar/#section-smart-industri

  - Smart Industri: Människa/maskin-samarbete inom industry 4.0. https://www.bth.se/kurser/G5838/20211/
  - Smart Industri: Automation och artificiell intelligens inom industry 4.0. https://www.bth.se/kurser/G5839/20211

- Mechanical Engineering Master (Civilingenjör, BTH, 2019), https://www.productdevelopment.se/?p=8617
  - Programme team participant in the reshaping of mechanical engineering education and merger of the MSPI master into a modern programme.
- Master in Sustainable Product/Service System Innovation (BTH), http://www.mspi.se.
  - Programme team participant and responsible for the creation and development of the international masters programme together with course responsibility for courses in the programme.
  - Programme Director 2012-
- Master in Product Development (LTU)
  - Programme coordinator and responsible for the creation and development of the international masters programme in product development that started at LTU fall 2007.
  - Programme Director
- Arena Innovative Technology and Enterprise (LTU, AITF – Arena Innovativ Teknik och Företagande)
  - Programme coordinator and examiner for master's programme (civilingenjör) and has been part of the development of AITF between 2004-2007. The Arena builds on traditional subjects and the students can graduate with different titles (civilingenjörsprogram-180p, högskoleingenjörexamina-120p, civilekonom-160p, kandidatexamen-120p). The foundation of the arena is education and research within market driven or needs driven product development with focus on the innovation process – from development of new technical solutions to the commercialisation of the products and processes. Within the arena, green house projects are an interesting concept where innovators gather up with students to together work as an incubator to develop new products and businesses. The arena concept is closely linked to the Aurorum Science Park in Luleå.
- SIRIUS – Final year course on Mechanical Engineering programme (LTU)
  - TCL is one of the key persons behind the pedagogic development in "MTM077 SIRIUS – Creative Product Development" fin order to be able to check both the students individual efforts and learning during the course, while at the same time study the team performance in relation to the given task of the course project. Two parallel processes have been developed to facilitate the smooth taking of the project-based course. A review process is active for the project work, and this process is synced with the guiding product development process the students are following; Participatory Product Innovation (P2I, developed by Tobias Larsson, and Andreas Larsson. "Need Driven Product Development in Team-Based Projects" describes the process). The other process handles the students' individual learning and this is monitored and reflected upon using a weekly log that students have to submit, and where reflective sessions are held with the team coach/supervisor on regular basis.
- Design for Wellbeing (LTU)
  - A thematic subject of study for students interested in project based work for the benefit of society. DfW projects have been conducted on a regular basis over the past 4 years and three projects have been conducted with Stanford University. The DfW concept trains students especially in the needfinding phases of product development since wellbeing is about personal preferences rather than hardware performance of products.

Teaching

Courses taught by TCL together with role in course (together with students statements where such are collected):

- Smart Industri: Människa/maskin-samarbete inom industry 4.0, 7.5 ECTS
  - Basic level, BTH, 2021.
- Product-Service Systems Innovation module in Supply and Service Chain Management course.
  - Masters level, University of Bergamo, 2018, 2019.
- Value Innovation, 7.5 ECTS
  - Masters level
  - Master in Sustainable Product-Service System Innovation, examiner and developer, 2012-.

  - Master in Mechanical Engineering, examiner and developer, 2012-.
- PSS Extreme Innovation, 15 ECTS
  - Masters level
  - Master in Sustainable Product-Service System Innovation, examiner and developer, 2011-.
- Product-Service Systems Design Research Methodology, 7.5 ECTS
  - Masters level
  - Master in Sustainable Product-Service System Innovation, examiner and developer, 2011-.
- Systems Engineering, 7.5 ECTS
  - Masters level
  - Master in Sustainable Product-Service System Innovation, examiner and developer, 2011-.
- Product Development Processes, 7.5 ECTS
  - Masters level
  - Master in Product Development, examiner and developer, 2007-.
- Theory and methodology for engineering product development, 7.5 ECTS
  - Masters level
  - Master in Product Development, examiner and developer, 2007-.
- Creative concept design, 7.5 ECTS
  - Masters level
  - Master in Product Development, examiner and developer, 2007-.
- Innovative Technology and Enterprise (MTIT01), 7.5 ECTS
  - Basic course in AITF year one.
  - Examiner and developer, 2005-.
- Green House courses, 7.5 ECTS per course, two per year
  - Year 1-5
  - Project courses within AITF programme
  - Examiner 2005-.
- SIRIUS – Creative Product Development, 30 ECTS
  - 4th year on ME programme
  - Course development, theory classes in product development theories, project coach, 1997-.
- Product Development, 7.5 ECTS
  - National course within Gröna Bilen, 2003-
  - Invited teacher to KTH.
    - *”Mycket intressant föreläsning med relevanta exempel”*
    - *”I especially liked the process for product development presented by Mr Larson since it gave me an overview of the studied topic”*
- Applied modelling and simulation, 7.5 ECTS
  - 4th year on ME programme
  - Examiner -2005, course developer
- Simulation of dynamic systems, 7.5 ECTS
  - 4th year on ME programme
  - Examiner and developer, 1997-.
    - *”Bra uppgifter, lite tuffa att komma igång med, men när jag väl satt mig in i programmet var det utmanande att arbete med uppgifterna”*
- Computer Graphics, 7.5 ECTS
  - 4th year on ME programme
  - Teacher and developer, 1997-2000.
- Integrated Product Development, 7.5 ECTS
  - 2nd year on ME programme

- Teacher 1997-2000.
- Integrated Product Development, 7.5 ECTS
  - 3rd year on ME programme at BTH, Blekinge
  - Teacher and developer, 1998-2000.
- 3D Modelling and Virtual Reality, 7.5 ECTS
  - 3rd year on ME programme at BTH, Blekinge
  - Teacher and developer, 1998-2000.
- Computer Graphics, 7.5 ECTS
  - 1st year at Nordic School for Set Design, Skellefteå
  - Examiner and developer, 1996-2000.

Master thesis supervision

TCL have supervised and examined some 100+ MSc theses within the mechanical engineering and sustainable product innovation area. Below are some recent examples:

- Gylleneiden, J. (2021), "Digitalize analog dirt: How to track and store information regarding analog dirt in a digital way", Master of Science in Mechanical Engineering, BTH.
- Ehrenberg, H., Malmenryd, F. (2020), "Feasibility study for geometry assurance in low volume manufacturing of complex products: With application in the shipbuilding industry", Master of Science in Mechanical Engineering, BTH.
- Skoog, M., Backman, A. (2020), "Replacing waste streams in the healthcare industry by applied technology: Developing technology for a circular economy", Master of Science in Mechanical Engineering, BTH.
- Noh, S. (2018), "Konceptframtagning av design och funktioner till branddörrar i Stora Bält-tunneln", Master of Science in Mechanical Engineering, BTH.
- Moreira, M., Ruiz, J.L. (2017), "Smart Hockey Goal", Master of Science in Electrical Engineering, BTH
- Winqvist, D., (2016), "Augmenting communication channels toward the evolution of autonomous construction sites", Master of Science in Mechanical Engineering, BTH.
- Chengqi, L., (2016), "PSS for Functional Offering of Automotive Fixtures using Knowledge Enabled Engineering Techniques", Master of Science Programme in Sustainable Product-Service System Innovation, BTH.
- Ha, S., (2015), "Construction industry market segmentation: Foresight of needs and priorities of the urban mining segment", Master of Science in Industrial Management and Engineering, BTH
- Dahlqvist, K., Erlingsson, O., (2015), "Designing for the Unknown – Exploring Urban Mining as a case study", Master of Science in Mechanical Engineering, BTH.
- Kågesson, G., Zainalabidin, T., (2015), "Urban Mining: Manufacturing", Master of Science in Mechanical Engineering, BTH.
- Söderberg, V., Nilsson, N., (2015), "How to futureproof a Business Model – Capture and capitalize in the field of Urban Mining", Master of Science in Industrial Management and Engineering, BTH.
- An, H., Gu, L., (2015), "Main Success Factors for Developing Car-sharing in China", Master of Science Programme in Sustainable Product-Service System Innovation, BTH.

OTHER

Collaborative efforts besides research work

TCL has participated in several workshops and seminars as speaker, organiser and facilitator and have given over 100 keynotes and workshops etc., and also acted as a consultant in the research field. Below, an excerpt of these collaborative activities are listed:

- 2020: Keynote on "Design Automation and AI", industrial seminar.
- 2020: Keynote on "AI; The end for the designer as we know it?", Design 2020 conference.
- 2019: Keynote on "Innovation Engineering – One man show or shared opportunity", Volvo CE India, 2019.
- 2019: Keynote on "Future of transportation – evolution or disruption", Volvo Innovation Conference 2019, Wroclaw, Poland.

- 2019: Keynote on "Ambidextrous organizations – Attentive companies embrace disruption and create organizational advantage", Volvo Innovation Conference 2019, Wroclaw, Poland.
- 2019: External funding and Popular scientific knowledge sharing, Röda Korsets Högskola.
- 2019: External funding and Popular scientific knowledge sharing, Jönköping University.
- 2019: Keynote on "Zero to One innovation", Volvo Innovation Competition, Wroclaw, Poland.
- 2019: Popular scientific knowledge sharing, BTH PhD candidate day, BTH.
- 2018: Keynote on "Zero to One innovation – practical cases", Volvo Innovation Days, Wroclaw, Poland.
- 2018: Keynote on "Product-Service System Innovation", University of Bergamo, Italy.
- 2017: Keynote on "Wearables and health" together with innovation workshop. Evry.
- 2017: Keynote on "Smart stamping and digital twins" at Techtank Member Days, Volvo Cars.
- 2016: Keynote on Disruptive Technologies and PSS at CIRP IPSS in Bergamo, Italy.
- 2016: E-health 3.0, Evry, Stockholm
- 2016: Wearable Technology keynote and workshop with Landstinget Blekinge
- 2016: Innovation keynote and workshop with Stena.
- 2015: 10X Labs Innovation workshops with Ericsson and Volvo CE.
- 2015: Innovation workshop with CGI.
- 2014: Keynote on Innovative Product Development at Jiliang University, Hangzhou, China.
- 2014: Keynote on Industrial Product-Service Systems in SSPU, Shanghai, China.
- 2014: Blekinge X-labs public demo at Näringslivsgalan 2014.
- 2012: In jury for BTH Innovation Prize at Guldeken galan.
- 2012: Keynote on Innovative Product Development at TelecomCity Catwalk.
- 2012: Innovation Engineering seminar at Volvo Construction Equipment.
- 2011: Knowledge Seminar Inspirational Speaker on Applied Health Technology at Blekinge Health Arena.
- 2011: Keynote speaker iCoach days, Volvo CE, with talks on ambidextrous innovation
- 2011: Keynote speaker at DTU Proteus consortium meeting with talk on Swedish lessons learned from PSS implementations.
- 2011: Keynote speaker on Automation 2011 in Malmö regarding Swedish industry competitiveness.
- 2008-2009: Organizer of "Open Talks" series at LTU to promote knowledge sharing across the university and to researchers and students. The invited lecturers were from Stanford University, Volvo Aero, Sandvik Coromant, Lund University, and Politecnico Di Milano to mention some.
- 2007-2010: Organizer and facilitator of Radical Innovation Workshops in collaboration with ABB, Sandvik, Metso, Billerud and Volvo Aero.
- 2008: Organizer of the workshop series "From Foresight to Design", held in Trollhättan/Stockholm/Luleå, Sweden, with some 60 participants from different companies in the Volvo Group, partners of the LTU research and partners of the PIEp programme. In Partnership with the Center for Foresight and Innovation and the Center for Design Research at Stanford University, USA.
- 2009-2011: Invited Keynote speaker at yearly Konkurrenskraft event in Stockholm regarding increased competitiveness through innovation and product development.
- 2009: Responsible for the development of the popular science magazine "Funktioneering Magazine" edited by Andreas Larsson and a co-production effort by the network of TCL. "FUNKTIONEERING Magazine" available at https://www.dropbox.com/s/xhcoliqabfd5ev7/FUNKTIONEERING_Magazine_090119.pdf?dl=0.

Awards

- 2022 - Reviewer's favourite, top 10%. Design'22 conference.
- 2021 – Distinguished paper award. ICoRD'21 conference.
- 2020 – Top 100 list, IVA (The Royal Swedish Academy of Engineering Sciences)
- 2013 – Reviewer's favourite, top 10%. ICED'13 conference.
- 2011 – Best paper award at the International Conference on Research into Design - ICoRD'11, with the paper "Towards open innovation practices in aerospace industry: challenges and opportunities"

- 2008 – Ranked top 4 in "Future Technology Star" review in Metro magazine.
- 2001 – CONEX award of SEK 50.000 for research efforts within "Modelling and Simulation in Product Development".
- 2001 – Best presentation at ASME Design Engineering Technical Conferences 2001, CIE track, Pittsburgh, USA.
- 2001 – Global top ten on the "The 10 Best Intranet Designs of 2001" by NNGroup and Useit.com for the development of the LTU intranet.
- 2001 - The Swedish Engineering Design Research and Education Agenda (ENDREA) stipendiate of 2001 and receiver of SEK 25.000 in travel funds, used for visiting researcher work at University of Michigan (Ann Arbor) and Ford Motors, Advanced Engineering (Detroit).

Boards

- Red Cross University Board: 2015-.
- TelecomCity Board: 2017-2019.
- Blue Science Park Board, 2017-2020.
- Techtank: 2016-2019
- BTH Board: 2013-2014.
- SIG-PM: Swedish Interest Group for Product Modelling, Member of the board since 2006 and since 2007 also Chairman.
- ProViking graduate school: Board member 2003-2005.
- Karlskrona HK (Ice hockey): 2013- (Chairman of the board 2014-)
- SHL: Swedish Hockey League (Ice hockey): Board member 2015-2018
- HA: HockeyAllsvenskan (Ice hockey): Board member 2018-2020
- Chairman of the Board; Antnäs BK, 2007-2009

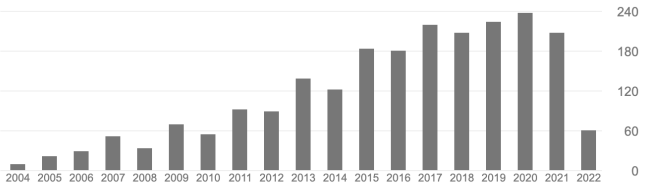
Memberships

- ASME
- Design Society
- SMR: Svenska Mekanisters Riksförening
- SIG-PM
- Innovationsledarna
- Innovation Pioneers

PUBLICATIONS

Below are some 140+ publications (full list here), and Google Scholar profile.

	All	Since 2017
Citations	2276	1159
h-index	23	18
i10-index	61	38



Below are the publications (pending publishing date in *italics*):

1. Bertoni, A., R.J. Machchhar, T. Larsson, B. Frank (2022). Digital Twins of Operational Scenarios in Mining for Design of Customized Product-Service Systems Solutions. Procedia CIRP, Volume 109, 2022, Pages 532-537, ISSN 2212-8271, https://doi.org/10.1016/j.procir.2022.05.290.
2. Yan, Z., Larsson, T., & Larsson, A. (2022). PSS Value Transformation: From Mass-Manufactured Vehicles to Provision of Mass-Customized Services – A Case Study of Designing and Prototyping Customized Digital Services for SAIC Motor in China. *Proceedings of the Design Society, 2*, 1179-1188. doi:10.1017/pds.2022.120.
3. Aeddula, Omsri Kumar, J. Flyborg, T. Larsson, P. Anderberg, J. Sanmartin Berglund, S. Renvert. 2021. A Solution with Bluetooth Low Energy Technology to Support Oral HealthCare Decisions for Improving Oral Hygiene. In 2021 5th International Conference on Medical and Health Informatics (ICMHI 2021). Association for Computing Machinery, New York, NY, USA, 134–139. DOI:https://doi.org/10.1145/3472813.3473179
4. Zhang, Y., T. Larsson, A. Larsson. (2021). Chinese Product-Service System Innovations Enabled via Governmental Policies: The E-Scooter Case. In: Proceedings of Design Society 2021, Cambridge University Press, 2021, Vol. 1, p. 611-620.
5. Ruvald, R., C. Johansson Askling, A. Bertoni, T. Larsson (2021). EVALUATING PROTOTYPING SUPPORT IN EARLY TRANSFORMATIVE PSS DESIGN. In: Proceedings of Design Society 2021, Cambridge University Press, 2021, Vol. 1, p. 1411-1420.
6. Elfsberg, J., T. Larsson, C. Johansson Askling, A. Larsson (2021). How Covid-19 Enabled a Global Student Design Team to Achieve Breakthrough Innovation. In: Proceedings of Design Society 2021, Cambridge University Press, 2021, Vol. 1, p. 1705-1714.
7. Aeddula, O., Wall, J. & Larsson, T. (2021). Artificial Neural Networks Supporting Cause and Effect Studies in Product-Service System Development. In: Chakrabarti, A., Poovaiah, R., Bokil, P., Kant, V. (Eds.) (Ed.), Design for Tomorrow—Volume 1: Proceedings of ICoRD 2021. Paper presented at 8th International Conference on Research Into Design (ICoRD' 21) 7-10 January 2021, IIT, Bombay, India. , I, Article ID 132.
8. Gaiardelli, P., Pezzotta, G., Rondini, A. et al. (2021). Product-service systems evolution in the era of Industry 4.0." Serv Bus 15, 177–207 (2021). https://doi.org/10.1007/s11628-021-00438-9
9. Tatipala, S., Larsson, T., Johansson, C., Wall, J., (2021). The influence of industry 4.0 on product design and development: Conceptual foundations and literature review. In Proceedings of 8th International Conference on Research Into Design (ICoRD' 21).
10. Lugnet, Johan; Ericson, Åsa; Larsson, Tobias. (2020). Design of Product–Service Systems: Toward an Updated Discourse. *Systems* 8, no. 4: 45.
11. Jagtap, S. and Larsson, T. (2020). Designing Integrated Solutions for Resource-limited Societies. International Research & Education in Design Conference — REDES2019, Lisbon, Portugal, 2019. https://doi.org/10.1201/9781003046103
12. Wall, J., Bertoni, M., & Larsson, T. (2020). The Model-Driven Decision Arena: Augmented Decision-Making for Product-Service Systems Design. Systems, 8(22). https://doi.org/10.3390/systems8020022
13. Tatipala, S., Wall, J., Larsson, T., Johansson, C., & Sigvant, M. (2020). Towards Improving Process Control in Sheet Metal Forming: A Hybrid Data-and Model-Based Approach. In Proceedings of the Swedish Production Symposium (Vol. 13, pp. 367–377). https://doi.org/10.3233/ATDE200174
14. Chowdhery, A.S., M. Bertoni, J. Wall, T. Larsson (2020). A data-driven design framework for early stage PSS design exploration, *In:* Design Science, ISSN 2053-4701.

15. Wall, J., Aeddula, O., & Larsson, T. (2020). Data analysis method supporting cause and effect studies in product-service system development. In DESIGN 2020 - 16th International Design Conference (Vol. 1, pp. 461–470). Cambridge University Press. https://doi.org/10.1017/dsd.2020.123

16. Tatipala, S.; Wall, J.; Johansson, C.; Larsson, T. (2020). "A Hybrid Data-Based and Model-Based Approach to Process Monitoring and Control in Sheet Metal Forming". *Processes* **2020**, *8*, 89.

17. Frank, M., R. Ruvald, C. Johansson Askling, T. Larsson, A. Larsson, (2019), Towards autonomous construction equipment: supporting on-site collaboration between automatons and humans, In: International Journal of Product Development, ISSN 1477-9056, E-ISSN 1741-8178, Vol. 23, no 4, p. 292-308. https://doi.org/10.1504/IJPD.2019.105496

18. Jagtap, S., T. Larsson, (2019), "Resource-Limited Societies, Integrated Design Solutions, and Stakeholder Input", She Ji: The Journal of Design, Economics, and Innovation, Volume 5, Issue 4,2019, Pages 285-303, ISSN 2405-8726, https://doi.org/10.1016/j.sheji.2019.10.001.

19. Eivazzadeh S, Fiedler M, Berglund JS, Anderberg P, Larsson TC (2019) Design of a Semi-Automated and Continuous Evaluation System: Customized for Application in e-Health, to be concluded.

20. Eivazzadeh S, Berglund JS, Larsson TC, Fiedler M, Anderberg P (2018) Most Influential Qualities in Creating Satisfaction Among the Users of Health Information Systems: Study in Seven European Union Countries, JMIR Med Inform 2018;6(4):e11252, DOI: 10.2196/11252

21. Jagtap, S., T. Larsson (2018), Design and Frugal Innovations: Three roles of resource-poor people, The Design Society, 2018. p. 2657-2668, https://doi.org/10.21278/idc.2018.0152

22. Wall, J, M. Bertoni, T. Larsson (2018), A model-driven decision arena: Augmenting decision making in early design, NordDesign, Linköping.

23. Ruvald, R., M. Frank, C. Johansson, T. Larsson (2018), Data Mining through Early Experience Prototyping: A step towards Data Driven Product Service System Design, 16th IFAC Symposium on Information Control Problems in Manufacturing, Bergamo.

24. Jaghbeer, Y., S. I. Hallstedt, T. Larsson, J. Wall (2017), Exploration of Simulation-Driven Support Tools for Sustainable Product Development, Procedia CIRP, Volume 64, 2017, Pages 271–276, https://doi.org/10.1016/j.procir.2017.03.069

25. Panarotto, M., J. Wall, T. Larsson (2017), Simulation-driven Design for Assessing Strategic Decisions in the Conceptual Design of Circular PSS Business Models, Procedia CIRP, Volume 64, 2017, Pages 25–30, https://doi.org/10.1016/j.procir.2017.03.026

26. Bertoni, A., T. Larsson (2017), Data Mining in Product Service Systems Design: Literature Review and Research Questions, Procedia CIRP, Volume 64, 2017, Pages 306–311, https://doi.org/10.1016/j.procir.2017.03.131

27. Johansson, C., T. Larsson, S. Tatiapala (2017), Product-Service Systems for Functional Offering of Automotive Fixtures: Using Design Automation as Enabler, Procedia CIRP, Volume 64, 2017, Pages 411–416, https://doi.org/10.1016/j.procir.2017.03.006

28. Panarotto, M., J. Wall, M. Bertoni, T. Larsson (2017), Value-driven simulation: thinking together through simulation in early engineering design, 21st International Conference on Engineering Design (ICED), Vancouver.

29. Bertoni, A., T. Larsson, J. Larsson, J. Elfsberg (2017), Mining data to design value: a demonstrator in early design, 21st International Conference on Engineering Design (ICED), Vancouver.

30. Broman, G., K-H. Robèrt, T. J. Collins, G. Basile, R. J. Baumgartner, T. Larsson, D. Huisingh. (eds.) (2017). Science in support of systematic leadership towards sustainability, Journal of Cleaner Production, Volume 140, Part 1, 1 January 2017, Pages 1–9, https://doi.org/10.1016/j.jclepro.2016.09.085

31. Nurhadi, L., S. Borén, H. Ny, T. Larsson. (2017). Competitiveness and sustainability effects of cars and their business models in Swedish small town regions, Journal of Cleaner Production, Volume 140, Part 1, 1 January 2017, Pages 333–348. http://dx.doi.org/10.1016/j.jclepro.2016.04.045

32. Bertoni, M., M. Panarotto, T. Larsson. (2016). Boundary objects for PSS Design, Procedia CIRP, Volume 47, 2016, Pages 329–334, http://dx.doi.org/10.1016/j.procir.2016.03.226

33. Johansson, C., J. Elfsberg, T. Larsson, M. Frank, L. Leifer, N. Nilsson, V. Söderberg. (2016). Urban Mining as a Case for PSS, Procedia CIRP, Product-Service Systems across Life Cycle, Volume 47, 2016, Pages 460-465. http://dx.doi.org/10.1016/j.procir.2016.03.089

34. Bertoni, A., C. Levandowski., O. Isaksson, T. Larsson. (2016). Virtual Modeling for Lifecycle Performance Assessment in Aerospace Design, Procedia CIRP, Product-Service Systems across Life Cycle, Volume 47, 2016, Pages 335–340. http://dx.doi.org/10.1016/j.procir.2016.03.219.

35. Bertoni, Alessandro, M. Bertoni, M. Panarotto, C. Johansson, T.C. Larsson. (2016). Value-driven product service systems development: Methods and industrial applications. CIRP Journal of Manufacturing Science and Technology. http://dx.doi.org/10.1016/j.cirpj.2016.04.008.

36. Eivazzadeh, S., P. Anderberg, T.C. Larsson, S.A. Fricker, J. Berglund (2016). Evaluating Health Information Systems Using Ontologies, JMIR Medical Informatics 4 (2), 1-30

37. Kianian, B., S. Tavassoli, T.C. Larsson and O. Diegel, (2016). The Adoption of Additive Manufacturing Technology in Sweden. 13th CIRP Global Conference on Sustainable Manufacturing-Decoupling Growth from Resource Use, September 16th-18th, 2015, Ho Chi Minh City & Binh Duong, Vietnam. DOI: https://doi.org/10.1016/j.procir.2016.01.036.

38. Benaim, A., Elfsberg, J., Larsson, T.C., Larsson, A., (2015). The Implementation of Innovation Metrics: A case study. Proceedings of the 20th International Conference on Engineering Design (ICED 15), July 27-30, 2015, Milan, Italy.

39. Kianian Babak, Tavassoli Sam, Larsson Tobias C., and Diegel Olaf (2015). The Adoption of Additive Manufacturing Technology in Sweden. 3D Printing and Additive Manufacturing. December 2015, 2(4): 152-158. https://doi.org/10.1089/3dp.2015.0013.

40. Kianian, B., T.C. Larsson (2015). Additive Manufacturing Technology Potential: A Cleaner Manufacturing Alternative. 20th Design for Manufacturing and the Life Cycle Conference (DFMLC). Proceedings of the ASME 2015 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2015), August 2nd-5th, 2015, Boston, Massachusetts, USA.

41. Tavassoli, S., T.C. Larsson, B. Kianian, (2015). Manufacturing Renaissance: Return of manufacturing to western countries. In C. Karlsson, B. Johansson, & R. Stough, Innovation and Entrepreneurship in the Global Economy: Knowledge, Technology and Internationalization'', Edward Elgar Publishing.

42. Eivazzadeh, S., P. Anderberg, J. Berglund, T. Larsson (2015). Designing with Priorities and Thresholds for Health Care Heterogeneity: The Approach of Constructing Parametric Ontology. ICED 2015, Design for Life, Milan, Italy, 27-30 July, 2015.

43. Bertoni, A., M. Bertoni, M. Panarotto, C. Johansson, T. Larsson (2015). Expanding Value Driven Design to Meet Lean Product Service Development. 7th Industrial Product-Service Systems Conference – PSS, industry transformation for sustainability and business, May 21-22, 2015, Saint-Étienne, France. https://doi.org/10.1016/j.procir.2015.02.153

44. B. Kianian, S. Tavassoli, T.C. Larsson (2015). The Role of Additive Manufacturing Technology in job creation: an exploratory case study of suppliers of Additive Manufacturing in Sweden. 12th CIRP Global Conference on Sustainable Manufacturing - Emerging Potentials, September 22nd-24th, 2014, Johor Bahru, Malaysia. https://doi.org/10.1016/j.procir.2014.07.109

45. Benaim, A., T.C. Larsson, A. Larsson, J. Elfsberg (2014). Becoming an innovative company: Assessing an organization's innovation capability from the perspective of a team. CINet, Budapest, 2014.

46. Benaim, A., T.C. Larsson, A. Larsson, J. Elfsberg (2014). Building a pathway for innovation -Lessons Learned from developing an online platform. NordDesign 2014, Eespo, Finland: Aalto University , 2014.

47. Broman G., Robèrt K-H., Basile G., Larsson T., Baumgartner R., Collins T. and Huisingh D., (2013). Systematic leadership towards sustainability, Journal of Cleaner Production, 2013. https://doi.org/10.1016/j.jclepro.2013.07.019

48. Panarotto, M., T. Larsson, A. Larsson. (2013). Enhancing supply chain collaboration in automotive industry by value driven simulation. 19th International Conference on Engineering Design (ICED13), 19-22 August, 2013, Seoul, Korea.
49. Hallstedt, S., T. Thompson, H. Ny, O. Isaksson, T. Larsson. (2013). A Decision Support Approach for Modeling Sustainability Consequences in an Aerospace Value Chain. IDETC/CIE 2013, August 5-9, Portland, US.
50. Kianian, B., T.C. Larsson, S. Tavassoli (2013). Manufacturing Renaissance: Return of manufacturing to western countries. International Conference on Sustainable Intelligent Manufacturing (SIM2013) at Lisbon, Portugal, from June 26 to June 29, 2013.
51. Motamediyan, F., A. Thompson, T. Larsson (2012). Impacts of project-overload on innovation inside organizations: Agent-based modeling. ICTI 2012: International Conference on Technology and Innovation, Venice, Italy, November 14-16, 2012.
52. Larsson, A., M. Bertoni, Å. Ericson, K. Chirumalla, T. Larsson, O. Isaksson, D. Randall. (2012). The Rise of Social Product Development. International Journal of Networking and Virtual Organisations, Vol.11, No.2, pp.188 - 207, DOI: http://dx.doi.org/10.1504/IJNVO.2012.048346.
53. Isaksson, O., T. Larsson, M. Kokkolaras, M. Bertoni. (2012). Simulation Driven Design for Product-Service Systems. 4th CIRP International Conference on Industrial Product Service Systems, Nov 8-9, 2012, Tokyo, Japan. THE PHILOSOPHER'S STONE FOR SUSTAINABILITY, 2013, 465-470, DOI: https://doi.org/10.1007/978-3-642-32847-3_78.
54. Panarotto, M., Å. Ericson, T. Larsson. (2012). Intangibles in design of PSS value proposition, 4th CIRP International Conference on Industrial Product Service Systems, Nov 8-9, 2012, Tokyo, Japan. THE PHILOSOPHER'S STONE FOR SUSTAINABILITY, 2013, 85-90, DOI: https://doi.org/10.1007/978-3-642-32847-3_14.
55. Nopparat, N., B. Kianian, A.W. Thompson, and T.C. Larsson. (2012). Resource Consumption in Additive Manufacturing with a PSS Approach, 4th CIRP International Conference on Industrial Product Service Systems, Nov 8-9, 2012, Tokyo, Japan. THE PHILOSOPHER'S STONE FOR SUSTAINABILITY, 2013, 357-362, DOI: https://doi.org/10.1007/978-3-642-32847-3_60.
56. Ericson, Å., T. Larsson, O. Isaksson, A. Larsson (2012). Revisiting the Research Field of Product-Service Systems Development. ASME 2012 International Design Engineering Technical Conferences (IDETC) and Computers and Information in Engineering Conference (CIE), August 12-15, 2012 in Chicago, IL. https://doi.org/10.1115/DETC2012-70779
57. Tretten, P., A. Gärling, R. Nilsson, T. Larsson (2011). An On-Road Study of Head-Up Display: Preferred Location and Acceptance Levels. Proceedings of the Human Factors and Ergonomics Society Annual Meeting, September 2011 vol. 55 no. 1 1914-1918. doi: https://doi.org/10.1177/1071181311551398.
58. Panarotto, M., T. Larsson (2012). Towards Value Driven Simulation of Product-Service Systems - A Conceptual Scenario. 12th International Design Conference, DESIGN 2012, May 21st-24th, 2012, Dubrovnik, Croatia.
59. Sandberg, M., I. Tyapin, M. Kokkolaras, O. Isaksson, J-O. Aidanpää, T. Larsson (2011). A Knowledge-based Master-model Approach with Application to Rotating Machinery Design. Concurrent Engineering 1063293X11424511, December 2011, vol. 19, no. 4, pp. 295-305, Doi: https://doi.org/10.1177/1063293X11424511.
60. Bertoni, M., C. Johansson, T. Larsson (2011). Methods and Tools for Knowledge Sharing in Product Development. In: Innovation in Product Design Eds. Monica Bordegoni, Caterina Rizzi. Springer, 2011, p. 37-53. DOI: https://doi.org/10.1007/978-0-85729-775-4_3.
61. Ericson, Å., A. Larsson, T. Larsson (2011). Expanding the social dimension: Towards a knowledge base for product-service innovation. 18th International Conference on Engineering Design, ICED'11, Copenhagen, Denmark, August 15-18, 2011.
62. Thompson, A., T. Larsson, G. Broman (2011). Towards sustainability-driven innovation through product-service systems. 3rd CIRP International Conference on Industrial Product Service Systems, IPS2 2011 - Functional thinking for value creation, Braunschweig, Germany, May 5-6, 2011, Springer. DOI: https://doi.org/10.1007/978-3-642-19689-8_22.
63. Andersson, P., O. Isaksson, T. Larsson (2011). A case study of how knowledge based engineering tools support experience re-use. 3rd International Conference on Research into Design, ICoRD'11, Indian Institute of Science, Bangalore, India, January 10-12, 2011.
64. Isaksson, O., T. Larsson, P. Johansson (2011). Towards a framework for developing product/service systems. 3rd CIRP International Conference on Industrial Product Service Systems, IPS2 2011 - Functional thinking for

value creation, Braunschweig, Germany, May 5-6, 2011, Springer. DOI: https://doi.org/10.1007/978-3-642-19689-8_10.

65. Bertoni, A., O. Isaksson, M. Bertoni, T. Larsson (2011). Assessing the Value of Sub-System Technologies including Life Cycle Alternatives. Glocalized Solutions for Sustainability in Manufacturing: Proceedings of the 18th CIRP International Conference on Life Cycle Engineering, 2011, p. 669-674, Berlin, Germany, May 2nd - 4th, 2011, Springer.
66. Wallin, J., T. Larsson, O. Isaksson (2011). Measuring innovation capability - Assessing collaborative performance in product-service system innovation. Functional thinking for value creation: Proceedings of the 3rd CIRP International Conference on Industrial Product Service Systems, Technische Universität Braunschweig, Braunschweig, Germany, May 5th - 6th, 2011 / [ed] Jürgen Hesselbach; Christoph Herrmann, Berlin: Encyclopedia of Global Archaeology/Springer Verlag, 2011, p. 207-212. DOI: https://doi.org/10.1007/978-3-642-19689-8_37.
67. Sturm, D., V. Parida, T. Larsson, O. Isaksson (2011). Design of user-centred wireless sensor technology in sports - an empirical study of elite kayak athletes. 3rd International Conference on Research into Design, ICoRD'11, No 3, Indian Institute of Science, Bangalore, India, January 10-12, 2011.
68. Chirumalla, K., A. Larsson, M. Bertoni, T. Larsson (2011). Knowledge Sharing Across Boundaries: Web 2.0 and Product-Service System Development. 3rd International Conference on Research into Design, ICoRD'11, No 3, Indian Institute of Science, Bangalore, India, January 10-12, 2011.
69. Parida, V., T. Larsson, O. Isaksson, P. Oghazi (2011). Towards open innovation practices in aerospace industry : challenges and opportunities. 3rd International Conference on Research into Design, ICoRD'11, No 3, Indian Institute of Science, Bangalore, India, January 10-12, 2011.
70. Larsson, A., Å. Ericson, T. Larsson, O. Isaksson, M. Bertoni (2010). Engineering 2.0 - Exploring Lightweight Technologies for the Virtual Enterprise. In: From CSCW to Web 2.0 : European Developments in Collaborative Design. eEds. David Randall ; Pascal Salembier. Springer, 2010. p. 173-191 (Computer Supported Cooperative Work). DOI: https://doi.org/10.1007/978-1-84882-965-7_9.
71. Kastensson, Å., A. Larsson, T. Larsson (2010). Embracing risk to pursue product innovation in automotive industry. 17th International Product Development Management Conference IPDM, Murcia, Spain, University of Murcia, June 13-15, 2010.
72. Wallin, J., O. Isaksson, A. Larsson, T. Larsson (2010). Measuring innovation capability in technology-focused development. 17th International Product Development Management Conference IPDM, Murcia, Spain, University of Murcia, June 13-15, 2010.
73. Ritzén, S., T. Larsson, F. Nilsson, B. Regnell (2010). MINT - Mätinspiration i innovativa team. In: Management of Innovation and Technology, ISSN 1102-5581, Vol. 17, no 3, p. 7-9, 2010.
74. Nybacka, M., Å. Ericson, T. Larsson (2010). Prospective service innovation in automotive testing - beyond distributed technology. In: International Journal of Technology Intelligence and Planning (IJTIP), ISSN 1740-2832, E-ISSN 1740-2840, Vol. 6, no 1, p. 14-31, 2010. DOI: https://doi.org/10.1504/IJTIP.2010.033921.
75. Wenngren, J., P. Thor, Å. Ericson, T. Larsson (2010). PSS innovation - Discussing knowledge based tools. Proceedings of 2nd CIRP IPS2 Conference 2010 - Industrial product-service systems -IPS², Linköping, Sweden, April 14-15, 2010.
76. Ericson, Å. and T. Larsson (2009). People, product and process perspectives on product/service-system development. Introduction to Product/Service-System Design. Eds. T. Sakao, M. Lindahl. London, Springer: 219-236. DOI: https://doi.org/10.1007/978-1-84882-909-1_11.
77. Hicks, B., A. Larsson, S. Culley, T. Larsson (2009). A methodology for evaluating technology readiness during product development. 17th International Conference on Engineering Design, ICED'09. Design Society. p. 3-157--3-168, Stanford University, California, USA, August 24-27, 2009.
78. Nergård, H., T. Larsson (2009). Challenges for experience feedback in engineering design. PIn: Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference 2009: DETC 2009, New York: American Society of Mechanical Engineers, 2010, Vol. 2, Part A, p. 835-842.
79. Isaksson, O., T. Larsson, A. Öhwrwall Rönnbäck (2009). Development of product-service systems: challenges and opportunities for the manufacturing firm. Journal of Engineering Design, 20:4, p 329 — 348, August 2009. DOI: https://doi.org/10.1080/09544820903152663.
80. Parida, V., C. Johansson, T. Larsson. (2009) Implementation of open innovation practices in Swedish manufacturing industry. In: Design has never been this cool: ICED 09, the 17th International Conference on Engineering Design ; 24 - 27 August 2009, Stanford University, Stanford, California, USA ; proceedings volume

/ [ed] Margareta Norell Bergendahl; Martin Grimheden; Larry Leifer, Glasgow: Design Research Society, 2009, Vol. 1: Design processes, p. 435-446.

81. Sundin, E., G. Ölundh Sandström, A. Öhrwall Rönnbäck, T. Sakao, T. Larsson. (2009) Challenges for Industrial Product/Service Systems - Experiences from a learning network of large companies. In: Industrial product-service systems (IPS2): proceedings of the 1st CIRP IPS2 Conference ; [01 - 02 April 2009, Cranfield University, UK] / [ed] Rajkumar Roy, Cranfield: Cranfield University Press , 2009.
82. Bertoni, Marco ; Ericson, Åsa ; Larsson, Tobias. (2009) Needs and requirements - how TRIZ may be applied in product-service development. In: Proceedings of the 2nd Nordic Conference on Product Lifecycle Management - NordPLM'09. Chalmers tekniska högskola. Institutionen för produkt- och produktionsutveckling, 2009.
83. Ericson, Åsa ; Müller, Patrick ; Larsson, Tobias ; Rainer, Stark. (2009) Product-service systems - from customer needs to requirements in early development phases. In: Industrial product-service systems (IPS2): proceedings of the 1st CIRP IPS2 Conference ; [01 - 02 April 2009, Cranfield University, UK] / [ed] Rajkumar Roy, Cranfield: Cranfield University Press , 2009.
84. Bertoni, Marco ; Larsson, Tobias (2009) Requirements for a KEE system supporting PSS development.. In: Research into design : supporting multiple facets of product development. Research Publishing Services, 2009. 10 p.
85. Nergård, Henrik ; Sandberg, Marcus ; Larsson, Tobias. (2009) Towards life-cycle awareness in decision support tools for engineering design. In: Design has never been this cool: ICED 09, the 17th International Conference on Engineering Design ; 24 - 27 August 2009, Stanford University, Stanford, California, USA ; proceedings volume / [ed] Margareta Norell Bergendahl, Glasgow: Design Research Society, 2009, p. 23-30.
86. Sandberg, Marcus ; Kokkolaras, Michael ; Aidanpää, Jan-Olov ; Isaksson, Ola ; Larsson, Tobias. (2009) A master-model approach to whole jet engine analysis and design optimization. Conference: WCSMO-8, 8th World Congress on Structural and Multidisciplinary Optimization, No. 8, Lisbon, Portugal, June 1, 2009 - June 5, 2009.
87. Bertoni, Marco ; Johansson, Christian ; Larsson, Tobias ; Isaksson, Ola (2008) A methodology for KEE systems target cascading. In: Tools and methods of competitive engineering : proceedings of the seventh international symposium on tools and methods of competitive engineering - TMCE 2008. Delft : Delft university of technology, 2008. 10 p.
88. Larsson, Tobias ; Larsson, Andreas (2008) Design for wellbeing**.** In: The Engineering Handbook of Smart Technology for Aging, Disability and Independence. / ed. Abdelsalam Helal ; Mounir Mokhtari ; Bessam Abdulrazak. Hoboken, N.J : Wiley, 2008. p. 819-832
89. Larsson, Andreas ; Ericson, Åsa ; Larsson, Tobias ; Randall, Dave (2008) Engineering 2.0 - exploring lightweight technologies for the virtual enterprise. In: Proceedings of the 8th International Conference on the Design of Cooperative Systems, COOP 08 : Carry-le-Rouet, Provence, France, May 20-23, 2008. 2008. 12 p.
90. Johansson, Christian ; Larsson, Andreas ; Larsson, Tobias ; Isaksson, Ola. (2008) Gated maturity assessment - supporting gate review decision documents with maturity of knowledge assessment. In: CIRP Design Conference 2008: April 7 - 9, 2008, Enschede / [ed] Fred J. A. M. van Houten, Enschede: Laboratory of Design, Production and Management, Faculty of Engineering Technology, Univ. of Twente , 2008.
91. Ny, Henrik ; Thompson, Anthony ; Lindahl, Pia ; Broman, Göran ; Isaksson, Ola ; Carlson, Raul ; Larsson, Tobias ; Robèrt, Karl-Henrik ; Broman, Göran. (2008) Introducing strategic decision support systems for sustainable product-service development across value chains. 6p. Conference: Sustainable Innovation ’08. Future Products, Technologies and Industries, Malmö, Sweden, October 27, 2008 - October 28, 2008.
92. Sandberg, Marcus ; Johnsson, Helena ; Larsson, Tobias. (2008) Knowledge-based engineering in construction - the prefabricated timber housing case. In: Journal of Information Technology in Construction (ITcon), ISSN 1874-4753, E-ISSN 1874-4753, Vol. 13, p. 408-420.
93. Bergström, Mattias ; Ericson, Åsa ; Larsson, Madelene ; Nergård, Henrik ; Larsson, Tobias ; Renström, Boo. (2008) Needs as a basis for design rationale**.** In: / [ed] Dorian Marjanovic, Mario Storga, Neven Pavkovic, Nenad Bojcetic, University of Zagreb, Dubrovnik, Croatia: University of Zagreb , 2008, 8 p.
94. Bertoni, Marco ; Bordegoni, Monica ; Johansson, Christian ; Larsson, Tobias. (2008) Pilot specifications definition guidelines for the implementation of a KEE solution in the aeronautical domain**.** 6 p. In: CIRP Design Conference 2008 / [ed] Fred J. A. M. van Houten, Laboratory of Design, Production and Management, Faculty of Engineering Technology, Univ. of Twente , 2008.
95. Larsson, Andreas ; Larsson, Tobias ; Isaksson, Ola ; Bylund, Nicklas. (2008) Rethinking virtual teams for streamlined development. In: Virtual technologies: concepts, methodologies, tools, and applications, Hershey PA: Information Science Reference, 2008. 19 p.

96. Nergård, Henrik ; Johansson, Christian ; Larsson, Tobias. (2008) Supporting decision making with agent-based modelling and simulation. In: Design 2008: 10th International Design Conference, May 19-22, 2008, Dubrovnik, Croatia / [ed] Dorian Marjanovic; Mario Storga; Neven Pavkovic; Nenad Bojcetic, Zagreb: University of Zagreb , 2008, p. 1191-1198.
97. Eriksson, Johan ; Nybacka, Mikael ; Larsson, Tobias ; Lindgren, Per. (2008) Using Timber in a multi-body design environment to develop reliable embedded software**.** In: Intelligent vehicle iniative (IVI) technology controls and navigation systems, 2008. Warrendale, PA : SAE, 2008. 8 p. (SP / Society of Automotive Engineers, SAE; 2193). DOI: https://doi.org/10.4271/2008-01-0742.
98. Nybacka, Mikael ; Larsson, Tobias ; Ericson, Åsa. (2007) Collaboration in winter vehicle testing - real-time simulations boosting innovation opportunities. In: Trends in computer aided innovation: 2nd IFIP working conference on computer aided innovation / [ed] Noel León-Rovira, Encyclopedia of Global Archaeology/Springer Verlag, 2007, p. 211-220. DOI: https://doi.org/10.1007/978-0-387-75456-7_21.
99. Nybacka, Mikael ; Larsson, Tobias (2007) Distribuerad simulering och visualisering av fordonsdynamik i realtid.. In: Svenska Mekanikdagar 2007 : Program och abstracts. Luleå : Luleå tekniska universitet, 2007. p. 92 (Research Report / Luleå University of Technology; 2007:10).
100. Ericson, Åsa ; Larsson, Tobias ; Åström, Peter (2007) Functional product innovation - reaping the benefits of simulation driven design. In: Knowledge Sharing and Collaborative Engineering: Proceedings of Fourth IASTED International Conference on Knowledge Sharing and Collaborative Engineering, KSCE 2006 / [ed] M. Boumedine; C. Touzet, ACTA Press, 2007. 6 p.
101. Ericson, Åsa ; Larsson, Tobias ; Larsson, Andreas (2007) In search of what is missing - needfinding the SIRIUS way. In: Proceedings of the Fourth IASTED International Conference on Knowledge Sharing and Collaborative Engineering: November 29 - December 1, 2006, St. Thomas, US Virgin Islands / [ed] M. Boumedine; C. Touzet, Anaheim: ACTA Press, 2007, 6 p.
102. Johansson, Christian ; Larsson, Andreas ; Larsson, Tobias.(2007) Knowledge enabled engineering - knowledge lifecycle approach**.** In: Svenska Mekanikdagar 2007 : Program och abstracts. Luleå : Luleå tekniska universitet, 2007. p. 102 (Research report / Luleå university of technology; 2007:10).
103. Larsson, Tobias ; Isaksson, Ola. (2007) Knowledge engineering for functional product innovation. Conference: National Workshop on Functional Products - Development and Sales, No. 2, Luleå, Sweden, October 24, 2007 - October 25, 2007.
104. Ericson, Åsa ; Larsson, Tobias ; Larsson, Andreas ; Larsson, Madelene (2007) Need driven product development in team-based projects.. In: Design for society: knowledge, innovation and sustainability ; ICED '07 - Paris, 16th International Conference on Engineering Design ; 28 - 30 August 2007, Paris, France, 11 p.
105. Larsson, Tobias ; Larsson, Madelene (2007) NeedInn - behovsdriven produktutveckling inom E-hälsa. Luleå : Luleå tekniska universitet, 2007. 60 p.
106. Larsson, Tobias ; Ericson, Åsa. (2007) Needs as a foundation for life-cycle commitments. Conference: National Workshop on Functional Products - Development and Sales, No. 2, Luleå, Sweden, October 24, 2007 - October 25, 2007.
107. Ericson, Åsa ; Bergström, Mattias ; Johansson, Christian ; Larsson, Tobias. (2007) On the way to knowledge awareness in early design**.** In: The future of product development: proceeding of the 17th CIRP design conference / [ed] Frank-Lothar Krause, Berlin: Encyclopedia of Global Archaeology/Springer Verlag, 2007, p. 607-616. DOI: https://doi.org/10.1007/978-3-540-69820-3_59.
108. Ylinenpää, Håkan ; Larsson, Tobias ; Westerberg, Mats. (2007) Open approaches and methods to enable Functional Product Development. Conference: Functional Products - Development and Sales, No. 2, Luleå, Sweden, October 24, 2007 - October 25, 2007.
109. Larsson, Andreas ; Larsson, Tobias ; Bylund, Nicklas ; Isaksson, Ola. (2007) Rethinking virtual teams for streamlined development**.** In: Higher creativity for virtual teams: developing platforms for co-creation, Hershey, PA: Information Science Reference, 2007, p. 138-156.
110. Löfstrand, Magnus ; Larsson, Tobias ; Karlsson, Lennart (2006) An activity based simulation approach to functional product development**.** In: Challenges in collaborative engineering : CCE '06. 2006. 10 p.
111. Sandberg, Marcus ; Larsson, Tobias. (2006) Automating redesign of sheet-metal parts in automotive industry using KBE and CBR. In: Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - 2006: presented at 2006 ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 10 - 13, 2006, Philadelphia, Pennsylvania, USA, New York: American Society of Mechanical Engineers , 2006, Vol. 1, p. 349-357. DOI: https://doi.org/10.1115/DETC2006-99545.

112. Nybacka, Mikael ; Larsson, Tobias ; Johanson, Mathias ; Törlind, Peter (2006) Distributed real-time vehicle validation.. In: Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - 2006: presented at 2006 ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 10 - 13, 2006, Philadelphia, Pennsylvania, USA, New York: American Society of Mechanical Engineers , 2006, Vol. 3 : 26th Computers and Information in Engineering Conference, p. 805-812. DOI: https://doi.org/10.1115/DETC2006-99154.
113. Nergård, Henrik ; Ericson, Åsa ; Bergström, Mattias ; Sandberg, Stefan ; Larsson, Tobias ; Törlind, Peter (2006) Functional product development - discussing knowledge enabling technologies. In: Proceedings of Design 2006 : 9th International Design Conference, May 15-18, 2006, Dubrovnik, Croatia. University of Zagreb, 2006. p. 587-593
114. Nybacka, Mikael ; Karlsson, T. Larsson, Tobias (2006) Vehicle validation visualization.: Proceedings of Virtual Concept 2006 : Interactive Design and Manufacturing Methodologies, Tools and Processes. Springer, 2006. 7 p.
115. Sandberg, Marcus ; Larsson, Tobias ; Åström, Peter ; Näsström, Mats. (2005) A design tool integrating CAD and virtual manufacturing for distortion assessment. In: 15th International Conference on Engineering Design - ICED 05: 15 - 28 August 2005 / [ed] Andrew Samuel; William Lewis, Barton: Institution of Engineers, Australia , 2005, 10 p.
116. Ericson, Åsa ; Larsson, Tobias (2005) A service perspective on product development - towards functional products.. In: Proceedings of 12th International Product Development Conference : IPDM. 2005. 15 p.
117. Löfstrand, Magnus ; Larsson, Tobias ; Karlsson, Lennart. (2005) Demands on engineering design culture for implementing functional products. In: 15th International Conference on Engineering Design - ICED 05: 15 - 28 August 2005 / [ed] Andrew Samuel; William Lewis, Barton: Institution of Engineers, Australia , 2005. 15 p.
118. Larsson, Andreas ; Larsson, Tobias ; Leifer, Larry ; Van der Loos, Machiel ; Feland, John. (2005) Design for Wellbeing - Innovations for People. In: 15th International Conference on Engineering Design - ICED 05: 15 - 28 August 2005 / [ed] Andrew Samuel; William Lewis, Batyon: Institution of Engineers, Australia , 2005. 10 p.
119. Leifer, Larry ; Larsson, Andreas ; Larsson, Tobias ; Van der Loos, Machiel ; Feland, John (2005) Design for wellbeing - innovations for people. In: Human Centered Design : Maruzen for 10th anniversary of the Kanto Branch, Japanese Society of Mechanical Engineers. / ed. S Fukuda. 2005. 11 p.
120. Sandberg, Marcus ; Boart, Patrik ; Larsson, Tobias. (2005) Functional product life-cycle simulation model for cost estimation in conceptual design of jet engine components**.** In: Concurrent Engineering - Research and Applications, ISSN 1063-293X, E-ISSN 1531-2003, Vol. 13, no 4, p. 331-342. DOI: https://doi.org/10.1177/1063293X05060136.
121. Karlsson, Lennart ; Löfstrand, Magnus ; Larsson, Andreas ; Larsson, Tobias ; Törlind, Peter ; Elfström, Bengt-Olof ; Isaksson, Ola (2005) Information driven collaborative engineering - enabling functional product innovation.. n: Challenges in Collaborative Engineering - CCE '05: the knowledge perspective in collaborative engineering : proceedings of the International Workshop 14th-15th April 2005, Sopron, Hungary in conjunction with DDECS '05 / [ed] Gianni Jacucci, Adam Pawlak, Kurt Sandkuhl, Jönköping, Sweden: Department of Computer & Electrical Engineering, School of Engineering, Jönköping University , 2005.
122. Larsson, Tobias ; Larsson, Andreas ; Kassfeldt, Elisabet (2005) Innovations for Life - Design for Wellbeing**.**. In: First International Conference on Lifestyle, Health and Technology : June 1-3, 2005 at Luleå University of Technology, Porsön, Luleå, Sweden. 2005. 1 p.
123. Ericson, Åsa ; Nergård, Henrik ; Larsson, Tobias. (2005) Knowledge exchange challenges within the extended enterprise**.** In: 15th International Conference on Engineering Design - ICED 05: 15 - 28 August 2005 / [ed] Andrew Samuel; William Lewis, barton: Institution of Engineers, Australia , 2005. 14 p.
124. Boart, Patrik ; Sandberg, Marcus ; Nergård, Henrik ; Larsson, Tobias. (2005) Multidisciplinary design tool for conceptual design and evaluation. In: 15th International Conference on Engineering Design - ICED 05: 15 - 28 August 2005 / [ed] Andrew Samuel; William Lewis, Barton: Institution of Engineers, Australia , 2005. 13 p.
125. Bylund, Nicklas ; Isaksson, Ola ; Kalhori, Vahid ; Larsson, Tobias. (2004) Enhanced engineering design practice using knowledge enabled engineering with simulation methods. In: Design 2004: proceedings of the 8th International Design Conference, May 18 - 21, 2004, Dubrovnik - Croatia / [ed] Dorian Marjanovic, Zabreb: University of Zagreb , 2004, 6 p.
126. Sandberg, Stefan ; Kalhori, Vahid ; Larsson, Tobias (2004) FEM simulation supported knowledge enabled engineering in high strength steel car body design. In: Proceedings of the ASME Design Engineering Division - 2004: IMECE 2004, New York: American Society of Mechanical Engineers , 2004, p. 907-913, 7 p. DOI: https://doi.org/10.1115/IMECE2004-61584.

127. Larsson, Andreas ; Törlind, Peter ; Karlsson, Lennart ; Mabogunje, A. ; Leifer, L. ; Larsson, Tobias ; Elfström, Bengt-Olof. (2003) Distributed team innovation - a framework for distributed product development. In: Research for practice - innovation in products, processes and organisations: ICED 03, 14th International Conference on Engineering Design ; 19 - 21 August 2003, The Royal Institute of Technology, Stockholm / organized by the Royal Institute of Technology / [ed] Anders Folkeson, Glasgow: Design Research Society, 2003, p. 321-322.
128. Nyström, Mattias ; Larsson, Tobias ; Karlsson, Lennart ; Kokkolaras, Michael ; Papalambros, P.Y. (2003) Linking analytical target cascading to engineering information systems for simulation-based optimal vehicle design. In: Research for practice - innovation in products, processes and organisations: ICED 03, 14th International Conference on Engineering Design ; 19 - 21 August 2003, The Royal Institute of Technology, Stockholm / [ed] Anders Folkeson, Glasgow: Design Research Society, 2003.
129. Larsson, Andreas ; Larsson, Tobias ; Törlind, Peter (2002) The Mobile intranet - managing people and information in a distributed organization. In: WWDU 2002 : work with display units - world wide work. 2002. 4 p.
130. Larsson, Tobias ; Larsson, Andreas (2002) Web-based multibody dynamics using distributed simulation modules.. In: Annals of 2002 Int'l CIRP design seminar. 2th CIRP Design Seminar. Hong Kong, 2002. 8 p.
131. Larsson, Tobias ; Larsson, Andreas (2001) A modular approach to web based multibody dynamic simulation.; Karlsson, Lennart. In: Proceedings of 2001 International CIRP Design Seminar, Design in the New Economy. 2001. 6 p.
132. Larsson, Tobias ; Larsson, Andreas ; Karlsson, Lennart. (2001) Distributed multibody dynamic analysis within product development. In: Proceedings of the ASME 2001 Design Engineering Technical Conferences and Computers and Information in Engineering Conference DETC'01, Pittsburgh, Pennsylvania, USA, 2001, p. 501-507.
133. Larsson, Andreas ; Larsson, Tobias ; Törlind, Peter (2001) Intranet - Luleå University of Technology. Nielsen Norman Group Report: Intranet Design Annual: 10 Best Intranets of 2001. In "Intranet Design Annual - Ten Best Intranets of 2001" by Kara Pernice Coyne, Jakob Nielsen, and Candice Goodwin.
134. Larsson, Tobias. (2001) Multibody dynamic simulation in product development. Luleå : Luleå tekniska universitet, 2001. 60 p. (Doctoral thesis / Luleå University of Technology; 2001:07).
135. Larsson, Tobias (2001) Simulering av dynamiska system vid produktutveckling. In: Mekanisten. 2001 ; No. 2, p. 46-49
136. Drugge, Lars ; Larsson, Tobias ; Stensson, Annika. (2000) Modelling and simulation of catenary-pantograph interaction. In: Vehicle System Dynamics, ISSN 0042-3114, E-ISSN 1744-5159, Vol. 33, no suppl, p. 490-501.
137. Stensson, Annika ; Larsson, Tobias ; Merkt, Thomas ; Schuller, J. ; Williams, R.A. ; Mauer, L. (1999) Industry demands on vehicle development - methods and tools. In: Vehicle System Dynamics, ISSN 0042-3114, E-ISSN 1744-5159, Vol. 33, no Suppl, p. 202-213.
138. Larsson, Tobias (1999) Effective development of dynamic systems - a structured approach. Luleå : Luleå tekniska universitet, 1999. 16 p. (Licentiate thesis / Luleå University of Technology; 1999:40).
139. Drugge, Lars ; Larsson, Tobias ; Berghuvud, Ansel ; Stensson, Annika. (1999) The nonlinear behaviour of a pantograph current collector suspension. In: Proceedings of the 1999 ASME Design Engineering Technical Conferences, Las Vegas, Nevada, USA, 1999, 7 p.
140. Larsson, Tobias ; Drugge, Lars (1998) Dynamic behaviour of pantographs due to different wear situation. IIn: Computers in railways, VI : [Sixth International Conference on Computer Aided Design, Manufacture and Operation on the Railway and Other Advanced Mass Transit Systems, Lisbon, Portugal, 2 - 4 September 1998, 1998.
141. Johansson, Henrik ; Larsson, Tobias. (1998) Information flow and simulation support in the product development process - a case study. In: Proceedings / Produktmodeller -98. 1998. p. 271-280 (LiTH-IKP-R / Department of mechanical engineering; 1035).

Master thesis

- Larsson, Tobias., Söderberg, Thommy (1996) Strömavtagare till X2000-tåg : modellering med hjälp av I-DEAS och ADAMS. Högskolan i Luleå, 1996. (Examensarbete Civilingenjörsprogrammet; 1996:164)