Curriculum Vitae – Dan Högberg

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1. Scientific merits

Scientific background

Titles / Awards / Exams / Educations

2017	Professor (Full Professor) in Integrated Product Development, University of Skövde.
2010	Docent in Product Development, Department of Product and Production Development, Chalmers University of Technology.
2005	PhD, Mechanical and Manufacturing Engineering, Loughborough University, UK.
1999	MSc Engineering Design (Distinction), Loughborough University, UK.
1998	BSc Product Design Engineering, University of Skövde.
1995	Design Engineer Program, KTH Royal Institute of Technology.

Employments in academia

2017 – to date	Professor (Full Professor) in Integrated Product Development, School of Engineering Science, University of Skövde. Full time.
2012 – 2017	Biträdande Professor (Associate Professor) in Integrated Product Development, School of Engineering Science, University of Skövde. Full time.
2006 – 2012	Universitetslektor (Senior Lecturer) in Integrated Product Development, School of Technology and Society, University of Skövde. Full time.
1999 – 2006	Universitetsadjunkt (Lecturer) in Integrated Product Development, School of Technology and Society, University of Skövde. Full time.

Scientific Production

Publications

PhD Thesis

Högberg, D. (2005). *Ergonomics Integration and User Diversity in Product Design*. Department of Mechanical and Manufacturing Engineering, Loughborough University, UK. Openly accessible at: http://hdl.handle.net/2134/7772

Journal publications

1. Brolin, E., Högberg, D., Hanson, L., Örtengren, R. (2019). Development and Evaluation of an Anthropometric Module for Digital Human Modelling Systems. Submitted to International Journal of Human Factors Modelling and Simulation. Under review.
2. Rhén, I.M., Forsman, M., Örtengren, R., Högberg, D., Keyvani, A., Lämkull, D. and Hanson, L. (2018). Ergonomic Risk Assessment in DHM tools Employing Motion Data – Exposure

Calculation and Comparison to Epidemiological Reference Data. *International Journal of Human Factors Modelling and Simulation*, Vol. 6(1), pp. 31-64.

3. Brolin, E., Högberg, D., Hanson, L. and Örtengren, R. (2017). Adaptive regression model for synthesizing anthropometric population data. *International Journal of Industrial Ergonomics*, Vol. 59, pp. 46-53.
4. Brolin, E., Högberg, D., Hanson, L. and Örtengren, R. (2017). Adaptive regression model for prediction of anthropometric data. *International Journal of Human Factors Modelling and Simulation*, Vol. 5(4), pp. 285-305.
5. Högberg, D., Hanson, L., Bohlin, R. and Carlson, J.S. (2016). Creating and shaping the DHM tool IMMA for ergonomic product and production design. *International Journal of Digital Human*, Vol. 1, No. 2, pp. 132-152.
6. Brolin, E., Högberg, D., Hanson, L. and Örtengren, R. (2016). Generation and Evaluation of Distributed Cases by Clustering of Diverse Anthropometric Data. *International Journal of Human Factors Modelling and Simulation*, Vol 5, No. 3, pp. 210-229.
7. Högberg, D., Brolin, E. and Hanson, L. (2015). Accommodation levels for ellipsoid versus cuboid defined boundary cases. *Procedia Manufacturing*, Volume 3, 2015, pp. 3702-3708.
8. Bergman, C., Castro, P.M., Högberg, D. and Hanson, L. (2015). Implementation of Suitable Comfort Model for Posture and Motion Prediction in DHM Supported Vehicle Design. *Procedia Manufacturing*, Volume 3, 2015, pp. 3753-3758.
9. Mårdberg, P., Carlson, J.S., Bohlin, R., Delfs, N., Gustafsson, S., Högberg, D. and Hanson, L. (2014). Using a Formal High-Level Language and Automated Manikin to Automatically Generate Assembly Instructions. *International Journal of Human Factors Modelling and Simulation*, Vol. 4, No. 3/4, pp. 233-249.
10. Thorvald, P., Högberg, D. and Case, K. (2014). The Effect of Information Mobility on Production Quality. *International Journal of Computer Integrated Manufacturing*, Volume 27, Issue 2, pp. 120-128.
11. Brolin, E., Högberg, D. and Hanson, L. (2012). Description of boundary case methodology for anthropometric diversity consideration. *International Journal of Human Factors Modelling and Simulation*, Vol. 3, No. 2, pp. 204-223.
12. Thorvald, P., Högberg, D. and Case, K. (2012). Applying Cognitive Science to Digital Human Modelling for User Centred Design. *International Journal of Human Factors Modelling and Simulation*, Vol. 3, No. 1, pp. 90-106.
13. Bertilsson, E., Högberg, D. and Hanson, L. (2012). Using experimental design to define boundary manikins. *Work: A Journal of Prevention, Assessment and Rehabilitation*, Vol. 41, Suppl.1, pp. 4598-4605.
14. Hanson, L., Högberg, D. and Söderholm, M. (2012). Digital test assembly of truck parts with the IMMA-tool. *Work: A Journal of Prevention, Assessment and Rehabilitation*, Vol. 41, Suppl.1, pp. 2248-2252.
15. Falck, A., Örtengren, R. and Högberg, D. (2010). The Impact of Poor Assembly Ergonomics on Product Quality: A Cost–Benefit Analysis in Car Manufacturing. *Human Factors and Ergonomics in Manufacturing & Service Industries*, Vol. 20, No. 1, pp. 24–41.
16. Högberg, D. (2009). Digital human modelling for user-centred vehicle design and anthropometric analysis. *International Journal of Vehicle Design*, Vol. 51, No. 3/4, pp. 306-323.
17. Högberg, D., Bäckstrand, G., Lämkull, D., Hanson, L. and Örtengren, R. (2008). Industrial customisation of digital human modelling tools. *International Journal of Services Operations and Informatics*, Vol. 3, No. 1, pp. 53-70.
18. Bäckstrand, G., Högberg, D., De Vin, L.J., Case, K. and Piamonte, P. (2007). Ergonomics Analysis In A Virtual Environment. *International Journal of Manufacturing Research*, 2007, Vol 2 No 2, pp 198-208.

19. Hanson, L., Blomé, M., Dukic, T. and Högberg, D. (2006). Guide and documentation system to support digital human modeling applications. *International Journal of Industrial Ergonomics*, Vol 36, No.1, pp. 17-24.
20. Högberg, D. (2001). Use of Finite Element Method in Trailer Deck Design. *Journal of Materials Processing Technology*, Vol. 117, No. 1, pp. 238-243, ISSN 0924-0136.

Full paper publications in peer reviewed conference proceedings and associated books

1. Iriondo Pascual, A., Högberg, D., Syberfeldt, A., Brolin, E., Hanson, L. (2019). Application of Multi-Objective Optimization on Ergonomics in Production – a Case Study. Submitted to AHFE2019.
2. Lind, C.M., Sandsjö, L., Mahdavian, N., Högberg, D., Hanson, L., Antonio Diaz Olivares, J., Yang, L., Forsman, M. (2018). Prevention of Work-Related Musculoskeletal Disorders Using Smart Workwear – The Smart Workwear Consortium. Proceedings of IHSED2018, Reims, France, 25-27 Oct, 2018.
3. Mahdavian, N., Lind, C.M., Antonio Diaz Olivares, J., Iriondo Pascual, A., Högberg, D., Brolin, E., Yang, L., Forsman, M., Hanson, L. (2018). Advances in Manufacturing Technology XXXII: Proceedings of the 16th International Conference on Manufacturing Research, Thorvald, P., Case, K. (Eds.), Amsterdam, Netherlands: IOS Press, 2018, s. 247-252.
4. Ruiz Castro, P., Högberg, D., Ramsen, H., Bjursten, J., Hanson, L. (2018). Virtual simulation of human-robot collaboration workstations. Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), Volume V: Human Simulation and Virtual Environments, Bagnara, S., Tartaglia, R., Albolino. S., Alexander, T., Fujita, Y. (Eds.), pp. 250-261, ISBN 978-3-319-96076-0 (print), 978-3-319-96077-7 (online), DOI https://doi.org/10.1007/978-3-319-96077-7.
5. Brolin, A., Brolin, E., Högberg, D. (2018). Second cycle education program in virtual ergonomics and design. Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), Volume VII: Ergonomics in Design, Bagnara, S., Tartaglia, R., Albolino. S., Alexander, T., Fujita, Y. (Eds.), pp. 1058-1065, ISBN 978-3-319-96070-8 (print), 978-3-319-96071-5 (online), DOI https://doi.org/10.1007/978-3-319-96071-5.
6. Brolin, E., Mahdavian, N., Hanson, L., Högberg, D., Johansson, J. (2018). Possibilities and challenges for proactive manufacturing ergonomics. Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), Volume VIII: Ergonomics and Human Factors in Manufacturing, Bagnara, S., Tartaglia, R., Albolino. S., Alexander, T., Fujita, Y. (Eds.), pp. 11-20, ISBN 978-3-319-96067-8 (print), 978-3-319-96068-5 (online), DOI https://doi.org/10.1007/978-3-319-96068-5.
7. Högberg, D., Ruiz Castro, P., Mårdberg, P., Delfs, N., Nurbo, P., Fragoso, P., Andersson, L., Brolin, E., Hanson, L. (2018). DHM based test procedure concept for proactive ergonomics assessments in the vehicle interior design process. Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), Volume V: Human Simulation and Virtual Environments, Bagnara, S., Tartaglia, R., Albolino. S., Alexander, T., Fujita, Y. (Eds.), pp. 314-323, ISBN 978-3-319-96076-0 (print), 978-3-319-96077-7 (online), DOI https://doi.org/10.1007/978-3-319-96077-7.
8. Iriondo Pascual, A., Högberg, D., Kolbeinsson, A., Ruiz Castro, P., Mahdavian, N., Hanson, L. (2018). Proposal of an Intuitive Interface Structure for Ergonomics Evaluation Software. Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), Volume VIII: Ergonomics and Human Factors in Manufacturing, Bagnara, S., Tartaglia, R., Albolino. S., Alexander, T., Fujita, Y. (Eds.), pp. 289-300, ISBN 978-3-319-96067-8 (print), 978-3-319-96068-5 (online), DOI https://doi.org/10.1007/978-3-319-96068-5.
9. Högberg, D., Brolin, E. and Hanson, L. (2018). Concept of Formalized Test Procedure for Proactive Assessment of Ergonomic Value by Digital Human Modelling Tools in Lean Product Development. Advances in Human Factors in Simulation and Modeling. Cassenti, D.N. (Ed.). AHFE Conference, pp. 425-436, ISBN 978-3-319-60590-6.

10. Brolin, E., Högberg, D. and Hanson, L. (2017). Virtual test persons based on diverse anthropometric data for ergonomics simulations and analysis. Proceedings of NES 2017, Lund, August 2017.
11. Ruiz Castro, P., Mahdavian, N., Högberg, D., Ore, F., Brolin, E. and Hanson, L. (2017). IPS IMMA for designing human-robot collaboration workstations. Proceedings of DHM 2017, Fifth International Digital Human Modeling Symposium, Germany, June 2017.
12. Mahdavian, N., Ruiz Castro, P., Högberg, D., Brolin, E. and Hanson, L. (2017). Digital human modelling in a virtual environment of CAD parts and a point cloud. Proceedings of DHM 2017, Fifth International Digital Human Modeling Symposium, Germany, June 2017.
13. Björkenstam, S., Carlson, J.S., Nyström, J., Roller, M., Linn, J., Hanson, L., Högberg, D. and Leyendecker, S. (2017). A framework for motion planning of digital humans using discrete mechanics and optimal control. Proceedings of DHM 2017, Fifth International Digital Human Modeling Symposium, Germany, June 2017.
14. Högberg, D., Brolin, E. and Hanson, L. (2015). Identification of redundant boundary cases. Proceedings of the 19th Triennial Congress of the International Ergonomics Association. Lindgaard, G. and Moore, D. (Eds.), Melbourne, Australia, 9-14 August 2015.
15. Li, C., Bredies, K., Lund, A., Nierstrasz, V., Hemeren, P. and Högberg, D. (2015). k-Nearest-Neighbour based Numerical Hand Posture Recognition using a Smart Textile Glove. Proceedings of the Fifth International Conference on Ambient Computing, Applications, Services and Technologies, AMBIENT 2015, Nice, France, 19-24 July 2015. ISBN 978-1-61208-421-3.
16. Bergman, C., Högberg, D., Bäckstrand, G. and Moestam, L. (2014). A Library Based Tool to Assist the Generative Activity in Workstation Design. Advances in Ergonomics in Design, Usability & Special Populations, Part II. Rebelo, F. and Soares, M. (Eds.). AHFE Conference, pp. 206-214, ISBN 978-1-4951-2107-4.
17. Högberg, D., Brolin, E. and Hanson, L. (2014). Basic Method for Handling Trivariate Normal Distributions in Case Definition for Design and Human Simulation. Advances in Applied Digital Human Modeling. Duffy, V.G. (Ed.). AHFE Conference, pp. 27-40, ISBN 978-1-4951-2094-7.
18. Brolin, E., Högberg, D. and Hanson, L. (2014). Design of a Digital Human Modelling Module for Consideration of Anthropometric Diversity. Advances in Applied Digital Human Modeling. Duffy, V.G. (Ed.). AHFE Conference, pp. 114-120, ISBN 978-1-4951-2094-7.
19. Brolin, E., Hanson, L. and Högberg, D. (2014). Digital human arm models with variation in size, strength and range of motion. Proceedings of DHM 2014, Third International Digital Human Modeling Symposium, Japan, May 2014.
20. Hanson, L., Högberg, D., Carlson, J.S., Bohlin, R., Brolin, E., Delfs, N., Mårdberg, P., Gustafsson, S., Keyvani, A., Rhen, I-M. (2014). IMMA – Intelligently moving manikins in automotive applications. Proceeding of ISHS 2014, Third International Summit on Human Simulation, Japan, May 2014.
21. Delfs, N., Bohlin, R., Hanson, L., Högberg, D. and Carlson, J.S. (2013). Introducing Stability Of Forces To The Automatic Creation Of Digital Human Postures. Proceedings of DHM 2013, Second International Digital Human Modeling Symposium, USA, June 2013.
22. Brolin, E., Hanson, L., Högberg, D. and Örtengren, R. (2013). Conditional Regression Model for Prediction of Anthropometric Variables. Proceedings of DHM 2013, Second International Digital Human Modeling Symposium, USA, June 2013.
23. Keyvani, A., Högberg, D., Hanson, L., Lämkull, D., Delfs, N., Rhen, I.M. and Örtengren, R. (2013). Ergonomics risk assessment of a manikin's wrist movements – a test study in manual assembly. Proceedings of DHM 2013, Second International Digital Human Modeling Symposium, USA, June 2013.
24. Bergman, C., Bäckstrand, G., Högberg, D. and Moestam, L. (2013). A tool to assist and evaluate workstation design. Proceedings of NES 2013, 45th Nordic Ergonomics & Human Factors Society conference, Iceland, August 2013. ISBN 978-9979-72-397-4.

25. Bäckstrand, G., Bergman, C., Högberg, D. and Moestam, L. (2013). Lean and its impact on workstation design. Proceedings of NES 2013, 45th Nordic Ergonomics & Human Factors Society conference, Iceland, August 2013. ISBN 978-9979-72-397-4.
26. Högberg, D., Bertilsson, E. and Hanson, L. (2012). A pragmatic approach to define anthropometric boundary manikins for multiple populations. Proceeding of the 44th annual Nordic Ergonomics Society Conference, NES2012, Ergonomics for sustainability and growth, August 2012, Antonsson, A-B. and Hägg, G.M. (Eds.), KTH Royal Institute of Technology, Sweden. ISBN 978-91-637-1150-3.
27. Bertilsson, E., Keyvani, A., Högberg, D. and Hanson, L. (2012). Assessment of manikin motions in IMMA. Advances in Applied Human Modeling and Simulation. Duffy, V.G. (Ed.). CRC Press. pp. 235–244, ISBN 978-1-4398-7031-0 (print), ISBN 978-1-4398-7032-7 (eBook).
28. Rhen, I.M., Högberg, D., Hanson, L. and Bertilsson, E. (2012). Dynamic wrist exposure analysis of a digital human model. Proceedings of the 4th International Conference on Applied Human Factors and Ergonomics (AHFE), USA, July 2012, pp. 3944-3953, ISBN 0-9796435-5-4.
29. Brolin, A., Bäckstrand, G., Thorvald, P., Högberg, D. and Case, K. (2012). Kitting as an information source in manual assembly. Advances in Ergonomics in Manufacturing. Karwowski, W. (Ed.). CRC Press. pp. 346–353, ISBN 978-1-4398-7039-6 (print), ISBN 978-1-4398-7040-2 (eBook).
30. Mårdberg, P., Carlson, J.S., Bohlin, R., Hanson, L. and Högberg, D. (2012). Using Ergonomic Criteria to Adaptively Define Test Manikins for Design Problems. Advances in Applied Human Modeling and Simulation. Duffy, V.G. (Ed.). CRC Press. pp. 265–274, ISBN 978-1-4398-7031-0 (print), ISBN 978-1-4398-7032-7 (eBook).
31. Thorvald, P., Bäckstrand, G., Högberg, D. and Case, K. (2012). Syntax and Sequencing of Assembly Instructions. Advances in Usability Evaluation Part II. Rebelo, F. and Soares, M.M. (Eds.). CRC Press. ISBN 978-1-46-656054-3.
32. Bohlin, R., Delfs, N., Hanson L., Högberg, D. and Carlson, J.S. (2012). Automatic Creation of Virtual Manikin Motions Maximizing Comfort in Manual Assembly Processes. Proceedings of the 4th CIRP Conference On Assembly Technologies And Systems, Hu, S.J. (Ed.), USA, May 2012, pp. 209-212. ISBN 978-0-615-64022-8.
33. Bertilsson, E., Hanson, L., Högberg, D. and Rhen, I.M. (2011). Creation of the IMMA manikin with consideration of anthropometric diversity. Proceedings of the 21st International Conference on Production Research (ICPR), Stuttgart, Germany, August 2011, ISBN: 978-3-8396-0293-5.
34. Brolin, A., Bäckstrand, G., Högberg, D. and Case, K. (2011). Inadequate presented information and its effect on the cognitive workload. Proceedings of the 28th International Manufacturing Conference (IMC 28), Dublin, Ireland, August 2011.
35. Brolin, A., Bäckstrand, G., Högberg, D. and Case, K. (2011). The use of kitting to ease assemblers' cognitive workload. Proceedings of the 43rd annual Nordic Ergonomics Society Conference, Oulu, Finland, September 2011, ISBN 978-951-42-9541-6.
36. Bertilsson, E., Gustafsson, E., Hanson, L. and Högberg, D. (2011). Swedish Engineering Anthropometric Web Resource. Proceedings of the 43rd annual Nordic Ergonomics Society Conference, Oulu, Finland, September 2011, ISBN 978-951-42-9541-6.
37. Rhen, I.M., Hanson, L. and Högberg, D. (2011). Risk exposure assessment of dynamic wrist motions of a digital human model. Proceedings of the 43rd annual Nordic Ergonomics Society Conference, Oulu, Finland, September 2011, ISBN 978-951-42-9541-6.
38. Bertilsson, E., Högberg, D., Hanson, L. and Wondmagegne, Y. (2011). Multidimensional consideration of anthropometric diversity. Proceedings of DHM 2011, First International Symposium on Digital Human Modeling, France, June 2011, ISBN 978-2-9539515-0-9.
39. Rhen, I.M., Gyllensvärd, D., Hanson, L. and Högberg, D. (2011). Time dependent exposure analysis and risk assessment of a manikin's wrist movements. Proceedings of DHM 2011, First International Symposium on Digital Human Modeling, France, June 2011, ISBN 978-2-9539515-0-9.

40. Bohlin, R., Delfs, N., Hanson L., Högberg, D. and Carlson, J.S. (2011). Unified solution of manikin physics and positioning. Exterior root by introduction of extra parameters. Proceedings of DHM 2011, First International Symposium on Digital Human Modeling, France, June 2011, ISBN 978-2-9539515-0-9.
41. Högberg, D., Bertilsson, E. and Hanson, L. (2011). A basic step towards increased accommodation level accuracy when using DHM tools. Proceedings of DHM 2011, First International Symposium on Digital Human Modeling, Lyon, France, June 2011, ISBN 978-2-9539515-0-9.
42. Hanson, L., Högberg, D., Bohlin, R. and Carlson, J.S. (2011). IMMA – Intelligently Moving Manikins – Project Status 2011. Proceedings of DHM 2011, First International Symposium on Digital Human Modeling, Lyon, France, June 2011, ISBN 978-2-9539515-0-9.
43. Hanson, L., Högberg, D., Bohlin, R. and Carlson, J.S. (2010). IMMA – Intelligently Moving Manikin – Project Status. Advances in Applied Digital Human Modeling, Duffy, V.G. (Ed.), CRC Press, USA, ISBN 9781439835111.
44. Bertilsson, E., Högberg, D. and Hanson, L. (2010). Digital Human Model Module and Work Process for Considering Anthropometric Diversity. Advances in Applied Digital Human Modeling, Duffy, V.G. (Ed.), CRC Press, USA, ISBN 9781439835111.
45. Svensson, E., Bertilsson, E., Högberg, D. and Hanson, L. (2010). Anthropometrics and Ergonomics Assessment in the IMMA manikin. Advances in Applied Digital Human Modeling, Duffy, V.G. (Ed.), CRC Press, USA, ISBN 9781439835111.
46. Thorvald, P., Brolin, A., Högberg, D. and Case, K. (2010). Using Mobile Information Sources to Increase Productivity and Quality. Proceedings of 3rd Applied Human Factors and Ergonomics (AHFE) International Conference, Karwowski, W. and Salvendy, G. (Eds.), USA, July 2010, ISBN 978-0-9796435-4-5.
47. Bäckstrand, G., Brolin, A., Högberg, D. and Case, K. (2010). Supporting Attention in Manual Assembly and its Influence on Quality. Proceedings of 3rd Applied Human Factors and Ergonomics (AHFE) International Conference, Karwowski, W. and Salvendy, G. (Eds.), USA, July 2010, ISBN 978-0-9796435-4-5.
48. Svensson, E., Bertilsson, E., Högberg, D. and Hanson, L. (2010). Review of the incorporation, utilization and future demands of ergonomic evaluation methods in Digital Human Modelling. Proceedings of the 42nd annual Nordic Ergonomic Society Conference, Stavanger, Norway, September 2010, ISBN 978-82-995747-2-3.
49. Bertilsson, E., Svensson, E., Högberg, D. and Hanson, L. (2010). Use of digital human modelling and consideration of anthropometric diversity in Swedish industry. Proceedings of the 42nd annual Nordic Ergonomic Society Conference, Stavanger, Norway, September 2010, ISBN 978-82-995747-2-3.
50. Lundström, D., Case, K. and Högberg, D. (2010). Anthropometric rigging for variable manikin appearance. Proceedings of the 8th International Conference on Manufacturing Research (ICMR 2010), Durham University, UK, September 2010, pp. 250-255, ISBN 9781905866519.
51. Hanson, L., Högberg, D., Lundström, D. and Wårell, M. (2009). Application of Human Modelling in Health Care Industry. HCII 2009 Proceedings, Digital Human Modeling, Duffy, V.G. (ed), Springer, Germany, July 2009, pp 521-530, LNCS 5620, ISBN 978-3-642-02808-3.
52. Thorvald, P., Högberg, D. and Case, K. (2009). Incorporating Cognitive Aspects in Digital Human Modelling. HCII 2009 Proceedings, Digital Human Modeling, Duffy, V.G. (ed), Springer, Germany, July 2009, pp 323-332, LNCS 5620, ISBN 978-3-642-02808-3.
53. Case, K., Marshall, R., Högberg, D., Summerskill, S., Gyi, D. and Sims, R. (2009). HADRIAN: Fitting Trials by Digital Human Modelling. HCII 2009 Proceedings, Digital Human Modeling, Duffy, V.G. (ed), Springer, Germany, July 2009, pp. 673-680, LNCS 5620, ISBN 978-3-642-02808-3.
54. Högberg, D., Lundström, D., Hanson, L. and Wårell, M. (2009). Increasing Functionality of DHM Software by Industry Specific Program Features. SAE Technical Paper 2009-01-2288.

55. Falck, A., Örtengren, R. and Högberg, D. (2009). Early risk identification and cost-benefit analyses through ergonomics simulation. SAE Technical Paper 2009-01-2287.
56. Case, K., Bäckstrand, G., Högberg, D., Thorvald, P. and De Vin, L. (2008). An assembly line information system study. Proceedings of the 6th International Conference on Manufacturing Research (ICMR08), Brunel University, UK, September 2008, pp. 181-188.
57. Högberg, D., Hanson, L., Lundström, D., Jönsson, M. and Lämkull, D. (2008). Representing the elderly in digital human modelling. Proceedings of the 40th annual Nordic Ergonomic Society Conference, Reykjavik, Iceland, August 11-13, ISBN 978-9979-70-471-3.
58. Bäckstrand, G., Thorvald, P., De Vin, L., Högberg, D. and Case, K. (2008). The impact of information presentation on work environment and product quality: a case study. Proceedings of the 40th annual Nordic Ergonomic Society Conference, Reykjavik, Iceland, August 11-13, ISBN 978-9979-70-471-3.
59. Thorvald, P., Bäckstrand, G., Högberg, D., De Vin, L. and Case, K. (2008). Information presentation in manual assembly - a cognitive ergonomics analysis. Proceedings of the 40th annual Nordic Ergonomic Society Conference, Reykjavik, Iceland, August 11-13, ISBN 978-9979-70-471-3.
60. Falck, A., Örtengren, R. and Högberg, D. (2008). The influence of assembly ergonomics on product quality in car manufacturing – a cost-benefit approach. Proceedings of the 40th annual Nordic Ergonomic Society Conference, Reykjavik, Iceland, August 11-13, ISBN 978-9979-70-471-3.
61. Lundström, D., Hanson, L., Högberg, D. and Sundin, A. (2008). Visualization of Comfort and Reach in Cab Environment. Proceedings of the 40th annual Nordic Ergonomic Society Conference, Reykjavik, Iceland, August 11-13, ISBN 978-9979-70-471-3.
62. Thorvald, P., Bäckstrand, G., Högberg, D., De Vin, L. and Case, K. (2008). Demands on technology from a human automatism perspective in manual assembly. Proceedings of the 18th International Conference on Flexible Automation and Intelligent Manufacturing, FAIM2008, Skövde, Sweden, June 30 - July 2.
63. Högberg, D. and Case, K. (2007). Predefined manikins to support consideration of anthropometric diversity by product designers. HCII 2007 Proceedings, Digital Human Modeling, Duffy, V.G. (ed), Springer, Germany, July 2007, pp 110-119, LNCS 4561, ISBN 978-3-540-73318-8.
64. Blomé, M., Hanson, L., Högberg, D., Jönsson, M., Lundström, D. and Lämkull, D. (2007). Visualisation of Human Characteristics in Vehicle and Health Care Product Development. Proceedings of the SIGRAD 2007 Conference, Uppsala, Sweden, November 29-30.
65. Högberg, D., Bäckstrand, G., Lämkull, D., De Vin, L.J., Case, K., Örtengren, R., Hanson, L. and Berlin C. (2007). Towards Dynamic Ergonomics Analysis of Work Sequences in Virtual Environments. Proceedings of the 17th International Conference on Flexible Automation and Intelligent Manufacturing (2007 FAIM), Philadelphia, USA, June 2007, pp 581-588, ISBN 978-1-4276-2092-7.
66. Bäckstrand, G., Lämkull, D., Högberg, D., De Vin, L.J. and Case, K. (2007). Reduction of ergonomics design flaws through virtual methods. Proceedings of the 39th annual Nordic Ergonomic Society Conference, Lysekil, Sweden, October 1-3, CD-ROM.
67. Bäckstrand, G., Högberg, D., De Vin, L.J., Case, K. and Piamonte, P. (2006). Ergonomics Analysis in a Virtual Environment. Proceedings of the International Manufacturing Conference, IMC 23, University of Ulster, Jordanstown, Ireland, August 2006.
68. Högberg, D. and Case, K. (2006). Manikin Characters: User Characters in Human Computer Modelling. Contemporary Ergonomics, Bust, P.D. (ed), Taylor & Francis, UK, April 2006, pp 499-503, ISBN 0-415-39818-5.
69. Bäckstrand, G., De Vin, L.J., Högberg, D. and Case, K. (2006). Attention, Interpreting, Decision-making and Acting in Manual Assembly. Proceedings of the International Manufacturing Conference, IMC 23, University of Ulster, Jordanstown, Ireland, August 2006.

70. Högberg, D. and Case, K. (2005). The impact of manikin family configuration on accommodation. Proceedings of the 37th annual Nordic Ergonomic Society Conference, Oslo, Norway, October 10-12, pp 91-95, ISBN 82-995747-1-4.
71. Bäckstrand, G., Möller, S., Högberg, D., Sundin, A., De Vin, L.J. and Case, K. (2005). A Roadmap towards Cost Calculation Methods Connected to Ergonomics Analysis and Simulation. Proceedings of the 37th annual Nordic Ergonomic Society Conference, Oslo, Norway, October 10-12, pp. 312, ISBN 82-995747-1-4.
72. Bäckstrand, G., De Vin, L.J., Högberg, D. and Case, K. (2005). Parameters affecting quality in manual assembly of engines. Proceedings of the International Manufacturing Conference, IMC 22, Institute of Technology Tallaght, Dublin, Ireland, August 2005, pp 395-402.
73. Janhager, J. and Högberg, D. (2004). Product Developers' Relation to Their Users - Interview Study. Proceedings of NordDesign 2004: Product Development in Changing Environment. Tampere, Finland, August 2004.
74. Blomé, M., Dukic, T., Hanson, L. and Högberg, D. (2003). Simulation of Human-Vehicle Interaction in Vehicle Design at Saab Automobile: Present and Future. SAE Technical Paper 2003-01-2192. SAE 2003 Transactions, Journal of Passenger Cars - Electronic and Electrical Systems.
75. Blomé, M., Dukic, T., Hanson, L. and Högberg, D. (2003). Web-Based Protocol for Human Simulation Process and Documentation. The Europe Chapter Annual Meeting on Human Factors in Design, Lund, Sweden, October 2003.
76. Högberg, D., Hanson, L. and Case, K. (2003). Computer Manikin Family Usage for Human Accomodation. Proceedings of the Nordic Ergonomics Society conference "Mind and Body in a Technological World", Reykavik, Iceland, August 2003, pp. 184-188, ISBN 9979-60-861-7.
77. Blomé, M., Dukic, T., Hanson, L. and Högberg, D. (2003). Computer-Based Protocol for Human Simulation Report. Proceedings of IEA 2003 - the XVth Triennial Congress of the International Ergonomics Association, Seoul, Korea, August 2003, V.3, pp. 30-33.
78. Högberg, D., Case, K. and De Vin, L.J. (2002). Overlapping Ergonomic Evaluation in the Automotive Design Process. Proceedings of the International Manufacturing Conference, IMC19, P.J. Armstrong (Ed.), Queen's University, Belfast, August 2002, pp. 233-241, ISBN 0-85389-8227.
79. Högberg, D. and Case, K. (2002). Supporting 'Design for All' in Automotive Ergonomics. Proceedings of the XVIth Annual International Occupational Ergonomics and Safety Conference, The International Society for Occupational Ergonomics & Safety, Toronto, Canada, June 2002, CD-ROM.

Editorships

1. Högberg, D., Hanson, L. and Case, K. (2010). Guest Editors of International Journal of Human Factors Modelling and Simulation (IJHFMS), Special Issue on Application of Digital Human Modelling Tools in User Centred Design Processes, Vol. 1, No. 4, Inderscience Enterprises Ltd, ISSN (Print): 1742-5549, ISSN (Online): 1742-5557. www.inderscience.com/info/inarticletoc.php?jcode=ijhfms&year=2010&vol=1&issue=4

Book chapters in anthologies

1. Hanson, L., Högberg, D., Carlson, J.S., Delfs, N., Brolin, E., Mårdberg, P., Spensieri, D., Björkenstam, S., Nyström, J., Ore, F. (2019). IPS IMMA – Intelligently Moving Manikins. Book chapter submitted to anthology: DHM and Posturography, Elsevier. To be published in 2019.
2. Hanson, L. and Högberg, D. (2012). Use of Anthropometric Measures and Digital Human Modelling Tools for Product and Workplace Design. In: Handbook of Anthropometry: Physical Measures of Human Form in Health and Disease. Preedy, V.R. (Ed.). Springer. pp. 3015-3034, ISBN 978-1-4419-1787-4.
3. Hanson, L., Högberg, D. and Nåbo, A. (2008). Digital Human Modelling in Automotive Product Applications. In: Handbook of Digital Human Modeling: Research for Applied Ergonomics and

Human Factors Engineering. Duffy, V.G. (Ed.). Taylor & Francis, CRC Press. ISBN 978-0805-85-646-0.

Other publications and dissemination activities

1. Sun, J., Redyuk, S., Billing, E., Högberg, D. and Hemeren, P. (2017). Tactile interaction and social touch: Classifying human touch using a soft tactile sensor. 5th International Conference on Human-Agent Interaction (HAI 2017), Germany, October 17-20, 2017.
2. Sun, J., Billing, E., Seoane, F., Zhou, B., Högberg, D. and Hemeren, P. (2017). Categories of touch: Classifying human touch using a soft tactile sensor. 2017 IEEE International Conference on Robotics and Automation (ICRA), Singapore, 29 May to 3 June, 2017.
3. Blomé, M., Lundh, M., Hanson, L. and Dan Högberg, D. (2015). Introducing ergonomics visualisation and simulation for exploring design problems and solutions in workstation design on ships. Proceedings of the 19th Triennial Congress of the International Ergonomics Association. Lindgaard, G. and Moore, D. (Eds.), Melbourne, Australia, 9-14 August, 2015. Abstract paper.
4. Film about the IMMA project (2014). View at: www.youtube.com/watch?v=4rP36HA8yjY (in Swedish).
5. Bäckstrand, G. and Högberg, D. (2010). Variants = Customer value? *Standards News Magazine*, Volvo Corporate Standards, Volvo Group, No. 2, Dec. 2010, pp. 17-19.
6. Interview about my view of the car industry's consideration of anthropometric diversity when designing new vehicles, *Motor* magazine, Issue 7 2006, pp 38-40 (in Swedish).
7. TV feature about my research in Vetenskapslandet ("Land of Science") in the Swedish Television Channel (SVT) *Kunskapskanalen* ("Knowledge Channel"), broadcasted 7 December 2005 (in Swedish).
8. Article about my human simulation related research, *CAD & ritnytt* magazine, Issue 4, 2005, pp 26-27 (in Swedish).
9. Interviewed about ergonomics simulation issues, and about my present research in the area, *Perspektiv* magazine (issued by University of Skövde), Issue 2, 2004, pp 10-11 (in Swedish).
10. Invited to comment on issues related to human diversity in the context of bicycle saddle design, *Cykla* magazine, Issue 1, 2004 (in Swedish).
11. Högberg, D. (2003). Use of Characters and Scenarios in Gear Shift Design. Proceedings of the Conference on Designing Pleasurable Products and Interfaces, Pittsburgh, USA, June 2003, pp. 140-141.

Own MSc and BSc degree projects

Högberg, D. (1999). *Versatile 2nd Deck for Curtainsided Bodies*. Degree project report, for degree of MSc in Engineering Design at Loughborough University, UK. www.researchgate.net/publication/247841959_Versatile_2nd_Deck_for_Curtainsided_Bodies

Högberg, D. (1998). *Gear Shift Vision / Växelreglagevision*. Degree project report, for degree of BSc in Product Design Engineering at University of Skövde (in Swedish). With this degree project Dan Högberg won SAF's (today Confederation of Swedish Enterprise / Svenskt Näringsliv) national price for best BSc Engineering degree project in Sweden 1998. www.researchgate.net/publication/299392675_Gear_Shift_Vision_Vaxelreglagevision

PhD student supervision – PhD degrees being awarded

2010-2016 Primary supervisor[1] for Dr. Erik Brolin at University of Skövde. PhD thesis title: *Anthropometric diversity and consideration of human capabilities - Methods for virtual product and production development*. (Thesis download at: http://publications.lib.chalmers.se/publication/232940-anthropometric-diversity-and-consideration-of-human-capabilities) PhD degree awarded by

[1] *De facto* supervisor locally at University of Skövde. Responsible for main part of the supervision.

Chalmers University of Technology 8 April 2016. Erik's main supervisor was Professor Roland Örtengren, Chalmers University of Technology.

2008-2011 Primary supervisor[1] for Dr. Peter Thorvald at University of Skövde. PhD thesis title: *Presenting information in manual assembly*. (Thesis download at: https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/8970) PhD degree awarded by Loughborough University Dec 2011. Peter's main supervisor was Professor Keith Case, Loughborough University.

2006-2010 Primary supervisor[1] for Dr. Gunnar Bäckstrand. Gunnar was industrial PhD student at Volvo Powertrain in Skövde, having supervision at University of Skövde and Loughborough University. PhD thesis title: *Information Flow and Product Quality in Human Based Assembly*. (Thesis download at: https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/6293) PhD degree awarded by Loughborough University July 2010. Gunnar's main supervisor was Professor Keith Case, Loughborough University.

2008-2009 Assistant supervisor for Dr. Anne-Christine Falck at Chalmers University of Technology, in the period from licentiate to PhD degree. PhD thesis title: *Ergonomics Methods and Work Procedures in Car Manufacturing for Improvement of Quality, Productivity and Health at Work*. PhD degree awarded by Chalmers University of Technology May 2009. Anne-Christine Falck's main supervisor was Professor Roland Örtengren, Chalmers University of Technology.

PhD student supervision – current PhD students

2018-to date Primary supervisor for PhD student Aitor Iriondo Pascual at University of Skövde. Aitor's main supervisor is Prof. Anna Syberfeldt, University of Skövde. Expected licentiate seminar 2021.

2016-to date Primary supervisor for PhD student Nafise Mahdavian at University of Skövde. Nafise's main supervisor is Prof. Lars Hanson, University of Skövde. Expected licentiate seminar 2019.

2013-to date Main supervisor for PhD student Ari Kolbeinsson at University of Skövde. The subject area is interruption management in information systems. Ari's primary supervisor is Dr. Peter Thorvald, University of Skövde. Ari successfully held his licentiate seminar in September 2016. Disputation 26 Feb 2019.

Scientific leaderships, applications and funding

Research group leadership

2003-to date Leader (Forskningsgruppsledare) and initiator of the *User Centred Product Design* (UCPD) research group at School of Engineering Science at University of Skövde. www.his.se/ucpd
UCPD exhibited in survey done within Produktion2030: www.produktion2030.se/en/forskningsaktor/user-centred-product-design

Research project applications, funding, leaderships and participations

2018-2026 Participant in research project *VF-KDO (Virtual Factories-Knowledge Driven Optimization)* (Sep 2018-Aug 2026). Partners: Volvo Car Corporation, Volvo Group Trucks Operations, Scania CV, IKEA Industry, Flexlink, Arla Foods Götene och ABB. Total grant of 49 000 000 SEK from the Knowledge Foundation (KK-stiftelsen).

2019-2022 Co-applicant and participant of research project *VIVA - the Virtual Vehicle Assembler* (May 2019-Apr 2022). Partners: Chalmers University of Technology, Fraunhofer-Chalmers Centre (FCC), University of Skövde, CEVT, NEVS, Scania CV, Volvo Cars. Total grant of 4 600 000 SEK from VINNOVA/FFI. Grant 2018-05026.

2018-2021	Participant in research project *MOSIM* (Sep 2018-Aug 2021). Partners: Canada: Archiact Interactive , Finger Food Studios, National Research Council Canada, QUBE Building Systems Inc., Simon Fraser University, Unity Technologies, University of Calgary; Finland: Dark Amber Softworks, Lappeenranta University of Technology, MeVEA Ltd; France: CEA, Cnam - Conservatoire national des arts et métiers, HAPTIQUE ET REALITE VIRTUELLE, INSERM, Maidis; Germany: Daimler AG, Daimler Protics GmbH, DFKI, ESI Software Germany, Goodbye Kansas Studios/Hamburg, Human Solutions GmbH, Mimic Productions, TWT GmbH Science & Innovation, Universität Siegen; Sweden: Fraunhofer-Chalmers Research Centre for Industrial Mathematics, Industrial Path Solutions Sweden AB, Scania, Solme AB, University of Skövde, Virtual Manufacturing Sweden AB, Volvo Trucks AB. Total grant of 13 700 500 SEK from VINNOVA (for the Swedish consortia of the project), in project type/cluster: EUREKA/ITEA3. Grant 2018-02227.
2017-2021	Co-applicant and participant of research project *SUMMIT* (Nov 2017-Apr 2021). Partners: Chalmers University of Technology, Fraunhofer-Chalmers Centre (FCC), KTH, University of Skövde, ATS Real Reality, CEVT, Combitech CSE, Göteborg Energi, Microsoft, Preem, Saab, Siemens Industry Software, Sigma IT Consulting, SSAB EMEA, Scania CV, Volvo Cars. Total grant of 8 000 000 SEK from VINNOVA/Produktion2030. Grant 2017-04773.
2017-2019	Main applicant and project leader for research project *Virtual Driver Ergonomics* (Mar 2017-Feb 2019). Partners: University of Skövde, Volvo Technology, Scania CV, Volvo Cars, Fraunhofer-Chalmers Centre (FCC). Total grant of 2 952 000 SEK from the Knowledge Foundation (KK-stiftelsen). Grant 20160296.
2016-2018	Co-applicant and participant of research project *Smarta textilier för ett hållbart arbetsliv* (Dec 2016-Nov 2018). Partners: Hultafors Group AB, University of Skövde, KTH Royal Institute of Technology, University of Borås, Karolinska Institutet, University of Gävle, Fraunhofer-Chalmers Centre (FCC), Swerea IVF, Scania CV, Volvo Cars, Volvo Trucks, Feelgood Svenska, Helsa Företagshälsovård Sverige. Total grant of 9 754 000 SEK from VINNOVA/ Utmaningsdriven innovation - Steg 2. Grant 2016-03782.
2016-2018	Co-applicant and participant of research project *Virtual Verification of Human Robot Collaboration* (Jan 2016-Dec 2018). Partners: Chalmers University of Technology, Fraunhofer-Chalmers Centre (FCC), University of Skövde, Volvo Group, GKN Aerospace Sweden, Scania CV, Volvo Cars. Total grant of 5 400 000 SEK from VINNOVA/FFI. Grant 2015-03719.
2016-2018	Co-applicant and co-project leader of strategic research collaboration initiative between University of Borås and University of Skövde within the theme *Design, Textiles and Sustainable Development* (DesTex) (May 2016-Jul 2018). Total grant of 13 076 924 SEK from Västra Götalandsregionen, University of Borås and University of Skövde. Grant RUN 612-0016-16.
2015-2017	Co-applicant and participant of research project *3D-SILVER* (July 2015-Dec 2017). Partners: Chalmers University of Technology, Fraunhofer-Chalmers Centre (FCC), University of Skövde, GKN Aerospace Sweden, Scania CV, ATS. Total grant of 4 500 000 SEK from VINNOVA/Produktion2030. Grant 2015-01451.
2015-2016	Co-applicant and participant of research project *Utveckling och utvärdering av hälsobefrämjande arbetshandske* (Nov 2015-May 2016). Partners: University of Skövde, University of Borås, KTH Royal Institute of Technology, Swerea IVF, Scania CV, Volvo Group, Volvo Cars, Hultafors. Total grant of 500 000 SEK from

VINNOVA/Utmaningsdriven innovation - Steg 1. Grant 2015-04309.

2015-2016 Main applicant and project leader for research project *Virtual Driver* (Feb 2015-Jan 2016). Partners: University of Skövde, Fraunhofer-Chalmers Centre (FCC), Volvo Technology, Scania CV, Volvo Cars. Total grant of 1 471 000 SEK from the Knowledge Foundation (KK-stiftelsen). Grant 20140296.

2013-2016 Co-applicant and co-project leader for research project *CROMM* (Creation of muscle manikin) (July 2013-October 2016). Partners: Chalmers University of Technology, University of Skövde, University West, Fraunhofer-Chalmers Centre (FCC), Volvo Technology, Scania CV, Volvo Cars, Virtual Manufacturing Sweden, Combitech Systems and International Automotive Components Group Sweden (IAC). Total grant of 7 200 000 SEK from VINNOVA/FFI. Grant 2012-04584.

2013-2015 Co-project leader for strategic research collaboration initiative (research platform establishment) between University of Borås and University of Skövde within the theme *Design, Textiles and Sustainable Development* (Jan 2013-Dec 2015). Total grant of 13 000 000 SEK from Västra Götalandsregionen, University of Borås and University of Skövde. Grant 612-0197-13.

2011-2013 Co-applicant and co-project leader of research project *Lean & Green Production Navigator - Step 2*. (June 2011-Dec 2013). Partners: Volvo Group, Volvo Cars, Swerea IVF, Finnveden Gjutal, University of Skövde, Mälardalen University, Stockholm University. Total grant of 6 150 000 SEK from VINNOVA/FFI. Grant 2011-01107.

2009-2013 Co-applicant and co-project leader in research project *IMMA* (Intelligently moving manikins) (Oct 2009-Dec 2013). Partners: Chalmers University of Technology, University of Skövde, Lund University, Volvo Group, Saab Automobile, Scania, Volvo Cars, Innovatum and Virtual Manufacturing. Total grant of 8 900 000 SEK from Swedish Foundation for Strategic Research (SSF). Grant PV09-0007.

2009-2012 Co-applicant of research project *FACECAR* (Flexible Assembly for Considerable Environmental improvements of CAR´s) (Oct 2009-Mars 2012). Partners: University of Skövde, Linköping University, Saab Automobile, Volvo Cars, Volvo Group, ETC Battery and FuelCells Sweden, JMAC, DELFOI, Innovatum and SP Sveriges Tekniska Forskningsinstitut. Total grant of 5 100 000 SEK from VINNOVA, Vägverket and Energimyndigheten. Grant 2009-02814.

2010-2011 Co-applicant of research project *Lean & Green Production Navigator - Step 1*. (Sept 2010-Jan 2011). Partners: AB Volvo, Swerea IVF, University of Skövde, Mälardalen University, Stockholm University. Total grant of 500 000 SEK from VINNOVA/FFI. Grant 2010-01338.

2007-2011 Local co-project leader in EU Integrated Project *MyCar* (Aug 2007-Apr 2011), containing a large number of EU participants, e.g. Volvo Trucks, University of Skövde, Chalmers University of Technology, University of Patras, CASP S.A. and Emphasis Telematics. Total grant of approx. 57 000 000 SEK) (6 M€) from the European Commission under the FP6 Thematic Area: Priority 3 – NMP. Grant NMP2-CT-2006-026631.

2008-2009 Main applicant and project leader for research project *Visualisering av brukarkaraktäristik vid produktutveckling inom fordons- och hälsoindustrin*, a.k.a. "*Digital Albert"* (Jan 2008-June 2009). Partners: University of Skövde, Lund University, Volvo Cars and ArjoHuntleigh. Total grant of 300 000 SEK from the Knowledge Foundation (KK-stiftelsen), VINNOVA, SSF, ISA and Vårdalstiftelsen, grant 2007/0137.

2006-2009 Participant of research project *4D Ergonomics* (May 2006-June 2009). Partners: Chalmers University of Technology, Lund University, Volvo Cars,

	Saab Automobile, Dassault Systèmes, Siemens/UGS, Alviva and Etteplan. Total grant of 7 740 000 SEK from VINNOVA/MERA. Grant 2005-01998.
2002-2004	Participant of research project *VERDI* (Virtual Ergonomics Design Integration) (Jan 2002-June 2004). Partners: Saab Automobile, Lund University, Chalmers University of Technology, National Institute of Working Life -West, University of Skövde and Loughborough University. Supported by the Program Board for Swedish Automotive Research and the Knowledge Foundation (KK-stiftelsen).

Scientific proficiency

- Expert opinions by an external group of four international experts about the research and collaboration qualities of the UCPD research group (lead by Dan Högberg), as part of a research evaluation initiative, involving all research centres at University of Skövde, called ARC13 (Assessment of Research and Collaboration 2013). ARC13 was carried out January to October 2013. One of the external experts was Professor Heiner Bubb at Technical University Munich in Germany who is a major name in the area of ergonomics simulation and digital human modelling, e.g. through his involvement in the development of the Ramsis software for occupant packaging. ARC13 full report download: http://www.his.se/Documents/Forskning/ARC13_final_compiled.pdf

External assignments, contacts and dissemination activities

Review assignments for scientific journals

- International Journal of Human Factors Modelling and Simulation
- Human Factors and Ergonomics in Manufacturing & Service Industries
- Applied Ergonomics
- International Journal of Robotics and Automation
- Journal of Biomechanics
- IEEE Transactions on Human-Machine Systems
- Journal of Automobile Engineering
- Social Inclusion
- International Journal of Vehicle Design
- International Journal of Industrial Ergonomics

Program board member, session organizer, chair or reviewer for scientific conferences

- Reviewer of papers for 17th International Conference on Manufacturing Research ICMR 2019, Sept 2019, Belfast.
- Member of the Scientific Advisory Board of the 8th International Conference on Digital Human Modeling and Applied Optimization (at 10th AHFE2019), July 2019, Washington D.C., USA. http://www.ahfe2019.org/board.html#dhmao
- Member of the Program Board for the *10th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management* (at 21th HCI International 2019), July 2019, Orlando, USA. http://2019.hci.international/dhm
- Reviewer of papers and chair in the domain of Human Simulation and Virtual Environments for the *20th International IEA 2018 conference*, Aug 2018, Florence, Italy. www.iea2018.org
- Member of the Scientific Advisory Board of the *7th International Conference on Digital Human Modeling and Applied Optimization* (at 9th AHFE2018), July 2018, Orlando, USA. http://www.ahfe2018.org/board.html#dhmao
- Member of the Program Board and reviewer of papers for the *9th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management* (at 20th HCI International 2018), July 2018, Las Vegas, USA.

http://2018.hci.international/dhm

- Member of the Program Board and reviewer of papers for the *8th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management* (at 19th HCI International 2017), July 2017, Vancouver, Canada. http://2017.hci.international/dhm
- Member of the Scientific Advisory Board of the *6th International Conference on Digital Human Modeling and Applied Optimization* (at 8th AHFE2017), July 2017, Los Angeles, USA. http://www.ahfe2017.org/board.html#adhm
- Member of Scientific Committee and reviewer of papers for DHM 2017, *5th International Digital Human Modeling Symposium*, June 2017, Bonn, Germany. www.dhm2017.de
- Reviewer of paper for *WCX 17: SAE World Congress Experience - Load Simulation and Vehicle Performance: Ride Comfort (M207)*. April 2017, Detroit, USA.
- Member of the Program Board of the 7th International Conference on *Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management* (at 18th HCI International 2016), July 2016, Toronto, Canada. http://2016.hci.international/dhm
- Member of the Scientific Advisory Board and reviewer of papers for the *5th International Conference on Applied Digital Human Modeling* (at 7th AHFE2016), July 2016, Orlando, USA. http://www.ahfe2016.org/board.html#adhm
- Session organiser, member of the Scientific Advisory Board and reviewer of papers for the *4th International Conference on Applied Digital Human Modeling* (at 6th AHFE2015), July 2015, Las Vegas, USA.
- Reviewer of papers for IEA-DHM 2015, *International Symposium on Digital Human Modeling*, August 2015, Melbourne, Australia.
- Session organiser, chair and member of the Scientific Advisory Board for the *3rd International Conference on Applied Digital Human Modeling & Human Factors* (at 5th AHFE2014), July 2014, Krakow, Poland.
- Session organiser and reviewer for DHM2013 conference, June 2013, Ann Arbor, USA.
- Reviewer of papers for the Swedish Production Symposium 12 (SPS12), November 2012, Linköping, Sweden.
- Session organiser, chair and member of the Scientific Advisory Board for the *2nd International Conference on Applied Digital Human Modeling* (at 4th AHFE2012), July 2012, San Francisco, USA.
- Member of scientific committee and reviewer of papers for IEA-DHM 2011, *International Symposium on Digital Human Modeling*, June 2011, Lyon, France.
- Session organiser, chair and Member of the Scientific Advisory Board for the *1st International Conference on Applied Digital Human Modeling* (at 3rd AHFE2010), July 2010, Miami, USA.
- Chair at the HCII2009 conference, July 2009, San Diego, USA.
- Reviewer of papers for the 40th annual Nordic Ergonomic Society Conference, NES 2008, August 2008, Reykjavík, Iceland.
- Chair and reviewer of papers at the FAIM 2008 conference, June 2008, Skövde, Sweden.
- Reviewer of papers for the *SAE Digital Human Modeling for Design and Engineering Conference*, June 2007, Seattle, USA.
- Chair at the *Design & Emotion 2006 conference*, Chalmers University of Technology, September 2006, Gothenburg, Sweden.
- Reviewer of papers for the *SAE Digital Human Modeling for Design and Engineering Conference*, July 2006, Lyon, France.

Expert reviewer of external research projects or research applications

- Recruited as external reviewer of a research application submitted to Flanders Innovation & Entrepreneurship, Belgium. July 2018.

- Appointed by European Commission as reviewer, in the role as independent expert, of the EU FP7/ICT project 285176 *VISTRA*. One or two review meetings per year in Brussels or Germany, including writing of review reports. From 2012 to 2014.
- Recruited as expert in Site Visit Committee for review of NSERC, Automotive Partnership Canada, research application "Improving Automotive Manufacturing Design and Ergonomics through Work Simulation and Digital Human Modeling", submitted by Dr. J. Potvin, McMaster University, Canada, within the U.S. Council for Automotive Research. May 2011.

Opponent assignments

- Internal reviewer and opponent for research proposal and planning seminar for PhD student M. Ayani at University of Skövde, 1 Nov 2018. Research proposal title: *Use of emulation for the entire lifecycle of Cyber Physical Systems*.
- Opponent/discussion leader at halfway seminar for PhD student C. Lind at KTH Royal Institute of Technology, 12 April 2016. Tentative PhD thesis title: *Assessment and design of industrial manual handling to reduce physical ergonomics hazards - use and development of assessment tools*.
- Chair of grading committee and opponent at licentiate seminar for PhD student F. Ore at Mälardalen University, 8 Sept 2015. Lic. thesis title: *Human-Industrial Robot Collaboration: Simulation, Visualisation and Optimisation of Future Assembly Workstations*.
- Opponent/discussion leader at licentiate seminar for PhD student A. Keyvani at Chalmers University of Technology, 21 May 2012. Lic. thesis title: *Toward Motion-Capture-Based Digital Human Modelling*.
- Opponent/discussion leader at licentiate seminar for PhD student E. Ayas at Linköping University, 9 May 2008. Lic. Thesis title: *Engineering Feelings of Quality*.
- Opponent/discussion leader at licentiate seminar for PhD student A. Falck at Chalmers University of Technology, 24 April 2007. Lic. thesis title: *Virtual and Physical Methods for Efficient Ergonomics Risk Assessments – A Development Process for Application in Car Manufacturing*.

External examination assignments for PhD degrees

- External examiner for PhD student S. Reddi at Indian Institute of Science, Bangalore, India, 2014. PhD thesis title: *Geometric Approach for Discrete and Statistical Reach Analysis for a DHM with Mutable Supports*.
- External examiner for PhD student S. Hermawati at Loughborough Design School at Loughborough University, UK, 28 October 2011. PhD thesis title: *A Methodology to Support Elbow Flesh Deformation for Ergonomics Modelling*.

External assignments for giving expert opinions on employments at other universities

- External expert (sakkunnig) for appointment of associate professor (biträdande professor) at Malmö University, Jan 2015.
- External expert (sakkunnig) for appointment of senior lecturer (lektor) in industrial product development at Malmö University, May 2014.

Editorial assignments

- Editorial Board Member of *International Journal of the Digital Human* (IJDH), since 2014. www.inderscience.com/jhome.php?jcode=ijdh
- Editorial Board Member of *International Journal of Human Factors Modelling and Simulation* (IJHFMS), since 2011. www.inderscience.com/jhome.php?jcode=ijhfms
- Editorial Board Member of *International Journal of Services Operations and Informatics* (IJSOI), since 2009. www.inderscience.com/jhome.php?jcode=ijsoi

Expert reviewer of books or book proposals

- Reviewer of DHM book proposal for Elsevier's Biomedical Engineering books program (2018).

Collaboration, networks etc.

- Member of the steering committee at University of Skövde for Volvo Group's Academic Partner Programme (APP), within the area of Virtual Manufacturing (since 2014).
- Member of the International Ergonomics Association (IEA) Technical Committee on Human Simulation and Virtual Environments. www.iea.cc/about/technical.php?id=51deab500e62e
- Collaboration with Loughborough University, mainly with Professor Keith Case at Department of Mechanical and Manufacturing Engineering (Keith is guest professor at University of Skövde) and Dr Russell Marshall and Dr Steve Summerskill at Loughborough Design School, UK.
- Member of *VEC, Virtual Ergonomics Centre* (since the start 2005). VEC is a network of researchers and industry representatives e.g. from Chalmers University of Technology, University of Skövde, Volvo Cars and Scania, in the area of virtual ergonomics and digital human modelling.

Other dissemination activities

- The research within digital human modelling (DHM) at University of Skövde/UCPD contributes to the development of the DHM software IMMA (Intelligently Moving Manikins). First official release May 2017 (new version rereleased each 6 month), supplied by IPS AB in Gothenburg. http://industrialpathsolutions.se/ips-imma/
- Presentation at Volvo GTO Manufacturing Show 2017, for approx. 100 international managers within manufacturing at Volvo Group, of the project "Smart textiles for a sustainable work life" (2 Febr 2017).
- Jointly with research colleagues within ongoing DHM related research projects we regularly arrange open seminars (approx. 2-4 per year) directed to industry representatives or anyone interested in digital human modelling. From 2012.
- Presentation of Motion Capture Based Ergonomics Assessments at ForskarFredag ("Research Friday") at University of Skövde (30 Sept 2016).
- Presentation at ForskarFredag at University of Skövde (25 Sept 2015).
- Presentation about the digital human modelling related research we do within the User Centred Product Design research group, at a day event held for all employees at University of Skövde (19 March 2015).
- Presentation about Anthropometry and Digital Human Modelling at ForskarFredag ("Reseach Friday") at De La Gardie Gymnasiet in Lidköping (28 Sept 2012).
- Contribution to anthropometric webpage www.antropometri.se (in Swedish). Webpage mainly developed by research colleague (former PhD student) Erik Brolin. From 2011.
- Arranged, together with National Institute of Working Life, a full-day seminar at University of Skövde about benefits of using ergonomics tools to improve ergonomics and productivity. The seminar was mainly directed to practitioners and persons working in industry (31 Oct 2005).
- Invited presenter at a seminar on ergonomics standardisation at Chalmers University of Technology (26 Nov 2004).

2. Pedagogical merits

Pedagogical education

- *Supervision of Research*, 3 ECTS, IT University, Gothenburg (2009)
- *University Pedagogics, continuation course*, 7.5 ECTS, University of Skövde (2006)
- *University Pedagogics, basic course*, 7.5 ECTS, University of Skövde (2004)

Pedagogical experience and proficiency

Experience and educational assignments on Basic (BSc) level (first cycle)

- Course coordinator (kursansvarig), developer and examiner in course: *Bachelor Degree Project in Integrated Product Development*[1] (G2E), 30 ECTS. University of Skövde. During years: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019.
- Course coordinator (kursansvarig), developer and examiner in course: *Bachelor Degree Project in Integrated Product Development* (G2E), 22,5 ECTS. University of Skövde. During years: 2006, 2007, 2008, 2009.
- Course coordinator (kursansvarig), developer, examiner and lecturer in course: *Design Methodology* (G1F), 7.5 ECTS. University of Skövde. During years: 2012, 2013, 2014, 2015, 2016.
- Course coordinator (kursansvarig), developer, examiner and lecturer in course: *Ergonomic Product Design* (G1F), 7.5 ECTS. University of Skövde. During years: 2007, 2008, 2009, 2014, 2015, 2016.
- Guest lecturer on BSc course *Ergonomics for Engineers*, 7,5 ECTS, at Halmstad University. During years: 2015, 2016, 2017.
- Course coordinator (kursansvarig), developer, examiner and lecturer in course: *Product Development Methods* (G1F), 7.5 ECTS. University of Skövde. During years: 2001, 2002, 2003.
- Course coordinator (kursansvarig), developer, examiner and lecturer in course: *Strategic Product Development* (G1F), 7.5 ECTS. University of Skövde. During years: 2000, 2001, 2002, 2003, 2004, 2005, 2006.
- Supervisor or examiner for approx. 50 BSc (and a few MSc) thesis projects in integrated product development and mechanical engineering related areas. University of Skövde.

Experience and educational assignments on Advanced (MSc) level (second cycle)

- Involved in the development of 1 and 2-year MSc program *Virtual Ergonomics and Design* (60/120 ECTS) at University of Skövde starting autumn semester 2019.
- Course coordinator (kursansvarig), developer, examiner and lecturer in course: *Ergonomics Design with Virtual Applications* (A1N), 7.5 ECTS. Given as a distance based course at University of Skövde, within a 2- year MSc programme given jointly by Örebro University, University of Skövde and Halmstad University. During years: 2009, 2010, 2011, 2012.
- Guest lecturer on MSc course *Ergonomics Design for All*, 7,5 ECTS, at Chalmers University of Technology. During years: 2013, 2014.

Experience and educational assignments related to education on Research (PhD) level (third cycle)

- Guest lecture about Digital Human Modelling in PhD course *P03 Produktion2030 – Overview and State-of-the Art*, 4 ECTS, Chalmers University of Technology. 2017, 2019.
- Member of the Committee for PhD studies in Informatics at University of Skövde. Since 2015.
- Member of the research (PhD) school *Human - Technology - Design* at the Department of

[1] In 2012-2013 *Högskoleverket* (today *Universitetskanslersämbetet*/*The Swedish Higher Education Authority*) performed a national quality of assessment of all engineering degrees in Sweden. The method of assessment was largely based on assessing the quality of degree projects, as assessed by external experts. The outcome for degrees within Integrated Product Development at University of Skövde was judged “High quality”.

Product and Production Development at Chalmers University of Technology. During years: 2014, 2015, 2016, 2017, 2018.
- Member of the Council for Doctoral (PhD) Studies in Information Technology (RUFIT) at University of Skövde. 2011 to 2014.
- Member of management team for the national graduate research (PhD) school *ProViking*, supported by the Swedish Foundation for Strategic Research. 2012 to 2013.

Additional pedagogical review or development activities

- Member of working group for comment to the Swedish Higher Education Authority (UKÄ) concerning the report "Quality Assurance of Research" (Kvalitetssäkring av forskning)(2018).
- Involved in the establishment of the new subject *Virtual Product Realization* at University of Skövde (for education on advanced level at the School of Engineering Science). 2017.
- Reviewer of pre-publication of a textbook proposal within Ergonomics for CRC Press - Taylor & Francis Group (2016).
- Partly involved in the adaptation of the BSc Product Design Engineering programme at University of Skövde to the CDIO educational framework (www.cdio.org). 2012-2014. Collaboration with other lecturers who have more responsible roles for the implementation of CDIO.
- Recruited by Högskoleverket (today Universitetskanslersämbetet/The Swedish Higher Education Authority) as expert reader to assess the quality of approved BSc and MSc degree project reports within engineering and related subjects at Swedish universities, as part of the national quality control of higher education in Sweden, Nov 2012 to Febr 2013.
- Conference publication written during the development of a 2-year MSc programme in Mechanical Engineering given jointly by University of Örebro, University of Skövde and Halmstad University. The teaching implemented case methodology as pedagogical model.
  Nilsson, P., Johansson, H., Högberg, D., Arén, B., Söderström, E. and Chibba, A. (2009). Distribuerad case-metodik i ingenjörsutbildningen. Proceedings, 2:a Utvecklingskonferensen för Sveriges ingenjörsutbildningar, Lund University, December 2009, pp. 71-73. (In Swedish)

Pedagogical leadership

Programme director (Programansvarig)

- Program Director (Programansvarig) for BSc *Product Design Engineering* (Designingenjörsprogrammet), 180 ECTS at University of Skövde. The programme leads to a BSc Engineering degree in the subject Integrated Product Development. During the years: 2001 to 2005.
- Program Director (Programansvarig) for MSc Programme in *Engineering Design*, 90 ECTS (post-graduate) given as a co-operation between Loughborough University, UK (Department of Mechanical and Manufacturing Engineering) and University of Skövde. During the years: 2001 to 2007.
- Program Director (Programansvarig) for MSc Programme in *Industrial Design*, 90 ECTS (post-graduate) given as a co-operation between Loughborough University, UK (Design School) and University of Skövde. During the years: 2003 to 2007.

Responsibility for education quality (Ämnesföreträdare)

- Responsible for education quality (Ämnesföreträdare) in the subject Integrated Product Development at University of Skövde. During the years: 2005 to 2011.

3. Administrative merits

Administrative assignments

- Chair at doctoral thesis defence (disputation) of F. Seigmund at University of Skövde, 12 December 2016. PhD thesis title: *Dynamic Resampling for Preference-based Evolutionary Multi-objective Optimization of Stochastic Systems*.
- Member of Election Committee (Valberedning) for lecturer members (Lärarledamöter) of the Board of Governors at the University of Skövde (2016).
- Member of Election Committee (Valberedning) for lecturer members (Lärarledamöter) of the Faculty Board at the University of Skövde (2013 to 2016).
- Member of the Development Council of the School of Engineering Science (IUR, Institutionsutvecklingsråd) at University of Skövde (2014 to date).
- Member of the Faculty Board for Engineering and Natural Sciences (2010).
- Member of the committee (Lärarledamot) of Research and Education (Forsknings- och utbildningsnämnden, FUN) at University of Skövde (2009-2010).

Administrative leadership

- Chairman of the Advisory Board (Forskningsråd) at the School of Engineering Science at University of Skövde (2019).
- Chairman of the Council for Doctoral (PhD) Studies in Information Technology (RUFIT) at University of Skövde (2012 to 2013).
- Vice-Chairman of the Council for Doctoral (PhD) Studies in Information Technology (RUFIT) at University of Skövde (2011 to 2012).
- Vice-Chairman of the Course Syllabus Committee for Engineering Sciences, School of Technology and Society, University of Skövde (2011).

4. Other merits

Work experience outside academia

1986 – 1995	Design Engineer (hydraulic systems design), Lidköping Machine Tools AB/SKF, Sweden

Additional merits

- Issued patents:
  - Manoeuvring device, No. 6,427,553 B1. (https://www.google.com.ar/patents/US6427553)
  - Piston device, No. SE9803143. (http://was.prv.se/spd/patent?p1=1jngILek3qF7eM42P9NdVA&p2=8lZvUc2l2oE&hits=true&tab=1&content=9803143&lang=en&hitsstart=0&start=0)