

## CURRICULUM VITAE (April 2011)

**Name:** Prof. Dr.-Ing. Ingo A. Hansen  
**Date of Birth:** 13-10-1946  
**Employer:** Delft University of Technology  
**Position:** since 1994 Full Professor for Design of Transport and Traffic Facilities  
Faculty of Civil Engineering and Geosciences  
2000-2009 Head of department of Transport & Planning

### Education:

1968-1974 Civil Engineering Studies at Technical University of Hannover/Germany.  
1974 Graduated engineer (Dipl.-Ing.) Technical University of Hannover.  
1978 Doctorate (Dr.-Ing.) University of Hannover.

### Languages:

German, English, Dutch, French, Spanish



### Short description of work field:

Research: Railway operations analysis and modelling, timetabling, signalling and train control, railway station and network capacity estimation, public transport system design, road traffic congestion, management and design, traffic safety.

Teaching: BSc : Road and Railway Infrastructure Design; MSc: Design and Control of Public Transport Systems; MSc: Railway traffic management and simulation; Supervision of Master's and PhD candidates. Director of postgraduate course Master in Rail Business for professionals of the railway industry.

### Main competences:

17 years of professional experience as transportation consultant (transportation studies; master plans; traffic counts and passenger surveys; traffic analysis and forecast; network design; feasibility studies; preliminary and detailed design of highways and public transport systems; operation of buses, tramways, LRT, metros, railways; public transport system technologies; management of comprehensive public transport projects).

15 years of research experience in the area of railway design, capacity management, traffic analysis, traffic control, safety and railway operations research.

President of International Association of Railway Operations Research ([www.iaror.org](http://www.iaror.org))

Organisation of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> International Seminar on Railway Operations Modelling and Analysis, Delft 2005, Hannover 2007, Zurich 2009 and Rome 2011 ([www.jror.nl](http://www.jror.nl)).

Editor-in-chief of Journal of Rail Transport Planning & Management; Member of Editorial Advisory Board Transportation Research Part B.

### Selected railway publications

- Corman, F., D'Ariano, A., Pranzo, M., Hansen, I.A. (2011), Reordering and rerouting trains in complicated and densely occupied station areas, *Transportation Planning and Technology*, 34(4)
- Hansen, I.A., Goverde, R.M.P., Meer, D.J. van der (2010), Online train delay recognition and running time prediction, IEEE ITSC Madeira
- Hansen, I.A. Ed.) (2010), *Timetable Planning & Information Quality*, Southampton: WIT Press
- Corman, F., D'Ariano, A., Hansen, I.A., (2010). Disruption handling in large railway networks, In Ning, Brebbia, Tomii (Eds), *WIT Transactions of the Built Environment* 114, 629-640

- Hansen, I.A. (2009), Special Issue on Railway Network Optimization, *Networks and Spatial Economics*, guest editorial, 9 (1), 1-5
- Daamen, W., Goverde, R.M.P., Hansen, I.A. (2009) Non-discriminatory Automatic Registration of Knock-On Train Delays, *Networks and Spatial Economics*, Vol. 9 (1), 47-61
- Hansen, I.A., Pachi, J. (editors) (2008), *Railway timetable & traffic: Analysis, modeling, simulation*, Hamburg: Eurailpress, 7-8 and 209-211
- Goverde, R.M.P., Daamen, W., Hansen, I.A. (2008) Automatic identification of route conflict occurrences and their consequences. In: J Allan, E Arias, CA Brebbia, CJ Goodman, AF Rumsey, G Sciotto & N Tomii (eds.), *Computers in Railways XI*, Southampton: WIT Press, 473-482
- Yuan, J., Hansen, I.A. (2008), Closed form expressions of optimal buffer times between scheduled trains at railway bottlenecks, *Proc. IEEE ITSC 2008*, Beijing
- D'Ariano, A., Pranzo, M., Hansen, I.A. (2007), Conflict resolution and train speed coordination for solving real-time timetable perturbations, *IEEE Transactions on Intelligent Transportation Systems*, 8 (2), 208-222
- Hansen, I.A. (2007), Advanced modelling of train operations in stations and networks, guest editorial Special Issue, *Transportation Research Part B*, 41, 145-147
- Yuan, J., Hansen, I.A. (2007) Optimizing capacity utilization of stations by estimating knock-on train delays, *Transportation Research Part B*, Vol. 41(2), 202-217
- Daamen, W., Houben, T., Goverde, R., Hansen, I., Weeda, A. (2006), Monitoring system for reliability of rail transportation chains, *Proc. World Conf. of Railway Research*, Montreal, 2006, CD-ROM, 8 p.
- Hansen, I.A. (2006), Planning and innovative contracting of major Dutch railway projects as part of the European transportation network, *3rd Int. Symposium Networks for Mobility*, 4-6 October, University of Stuttgart, CD-ROM, 14 p.
- Hansen, I.A., Yuan, J. (2006), Stochastic Modeling of Delay Propagation at Railway Stations and Junctions, in: Mao, B., Z. Tian, Q. Sun (eds.) *Proc. ICTTS'2006 Traffic & Transportation Studies*, Xi'an, China, August 2-4, Science Press, 887-898
- Hansen, I.A. (2006), State-of-the-art of Railway Operations Research, *Proc. Computers in Railways X*, J. Allan, C.A. Brebbia, R.J. Hill, G. Sciotto & S. Sone (ed.), Southampton: WIT Press, 2006, 565-579
- Yuan, J., Hansen, I.A. (2005) Optimising capacity utilisation of stations by forecasting knock-on train delays, *Proc. 1st Int. Seminar on Railway Operations Modelling and Analysis*, 8-10 June Delft, CD-ROM, ISBN 90-9019596-3, 21 p.
- Nie, L., Hansen, I.A. (2005) System Analysis of train operations and track occupancy at railway stations, *European Journal of Transport and Infrastructure Research*, 1 (1), 31-54
- Hansen, I.A. (2004) Increase of capacity through optimised timetabling, in: Allan, J., Hill, R.J., Brebbia, C.A., Sciotto, G., Sone, S. (eds.), *Computers in Railways IX*, WIT Press, Southampton, 529-538
- Hansen, I.A. (2004) Optimisation of railway capacity use by stochastic modelling, in: Mao, B., Z. Tian, Q. Sun (eds.) *Proc. ICTTS'2004 Traffic & Transportation Studies*, Dalian, China, August 2-4, Science Press, 1-10
- Hansen, I. A. (2003), Snelheids- en frequentieverhoging door metroachtig stoptreinmaterieel, *Verkeerskunde*, 8, 30-36
- Hansen, I.A., Goverde, R.M.P. (2003) Ermittlung und Verteilung von Zugverspätungen in Bahnhöfen, *Verkehr und Technik*, 56 (2), 69-74
- Hansen, I.A., Goverde, R.M.P. (2002), Bestimmung und Analyse von Ankunftsverspätungen in Bahnhöfen, *Verkehr und Technik*, 55 (10), 447-453
- Yuan, J., Goverde, R.M.P., Hansen, I.A. (2002), Propagation of train delays in stations, in: Allan, J., Hill, R.J., Brebbia, C.A., Sciotto, G., Sone, S. (eds.), *Computers in Railways VIII*, WIT Press, Southampton, 975-984
- Tromp, J.P.M., Hansen, I.A. (2002), Hindrance between conflicting train movements at a level crossing, in: Allan, J., Hill, R.J., Brebbia, C.A., Sciotto, G., Sone, S. (eds.), *Computers in Railways VII*, WIT Press, Southampton, 985-993
- Hansen, I. (2001), Improving railway punctuality by automatic piloting, in: *Proc. IEEE 4<sup>th</sup> Int. Conf. on Intelligent Transportation Systems*, Oakland, Cal., Aug. 25-29, 792-797

- Goverde, R.M.P., Hansen, I.A. (2000), TNV-Prepare: Analysis of Dutch Railway Operations Based on Train Detection Data, in: Allan, J., Hill, R.J., Brebbia, C.A., Sciutto, G., Sone, S. (eds.), *Computers in Railways VII*, WIT Press, Southampton, 779-788
- Hansen, I.A. (2000), Station capacity and stability of train operations, in: Allen, J., Hill, R.J., Brebbia, C.A., Sciutto, G., Sone, S. (eds.), *Computers in Railways VII*, WIT Press, Southampton, Boston, 809-816
- Hansen, I. (1999), Seamless container transport by rail, *rail international*, February, 7-16
- Hansen, I.A. (1997), Linienführung von Hochgeschwindigkeits-Eisenbahnstrecken – Neubau oder Bündelung?, *Internationales Verkehrswesen*, 49 (10), 504-510
- Hansen, I.A. (1996), Present and future container transport in Port of Rotterdam, Dock & Harbour Authority, No. 866, April, 267-272