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## Curriculum Vitae

Name: Daniel Huerlimann

Birthday: July 29, 1966

Nationality: Swiss

### Main area

- Computer science in railways
- Transport planning and simulation models
- Railway signalling
- Development of data formats for railway applications
- Object-oriented modeling

### Education

- 1982-1986: Apprenticeship as Electromechanic (Integra-Signum AG)
- 1987-1990: Dipl. El.-Ing. HTL / BSc (Polytechnic School of Engineering Winterthur, Dept. of Electrical Engineering)
- 1990-1994: Dipl. Informatik-Ing. ETH / MSc (ETH Zürich, Dept. of Computer Science)
- 1994-2001: Dr. sc. techn. ETH / PhD (ETH Zürich, Dept. of Civil, Environmental and Geomatic Engineering)

### Work experience

- 1986-1987: Software developer, Integra-Signum AG, Wallisellen
- 1994-2001: Teaching assistant and PhD student, Institute for Transport Planning and Systems (IVT), ETH Zürich
- 2001-2006: Research officer, Institute for Transport Planning and Systems (IVT), ETH Zürich
- since 2006: CEO of the ETH Zurich Spin-off-company OpenTrack Railway Technology Ltd.

## Current Projects

- OpenTrack - Simulation of Rail Networks
- RailML - a general Format for Railway Data
- OpenPowerNet - Simulation of Railway Power Supply Systems
- RTSE - Railtransport-Service Environment

## Publications

- T. Erlebach, M. Gantenbein, D. Hürlimann, G. Neyer, A. Pagourtzis, P. Penna, K. Schlude, K. Steinhöfel, D. Taylor, P. Widmayer (2001). On the complexity of train assignment problems. Inst für Theoretische Informatik, ETH Zürich.
- Hürlimann, D. (2002) Objektorientierte Modellierung von Infrastrukturelementen und Betriebsvorgängen im Eisenbahnwesen, Schriftenreihe, 125, Institut für Verkehrsplanung und Transportsysteme, ETH Zürich, Zürich.
- Hürlimann, D. (2003) RailML - ein generelles Austauschformat für Eisenbahndaten, Sonderausgabe der Schriftenreihe der DVWG aus Anlass der Internationalen Fachmesse "transport logistics", 22-26, DVWG, Berlin.
- Hürlimann, D. und A. Nash (2003) OpenTrack - Simulation of Railway Networks, User Manual for the Version 1.3 of OpenTrack, IVT, ETH Zürich, 2003.
- Hürlimann, D. und V.P. Krauss, (2003), RailML - Einheitliche Datenschnittstelle für Eisenbahnen Tagungsband der 19. Verkehrswissenschaftlichen Tage, 105-115, TU Dresden.
- Nash, A. und D. Hürlimann (2004) Railroad Simulation using OpenTrack, Proc. of the Ninth International Conference on Computer in Railways (Comrail IX), eds. J. Allan, C.A. Brebbia, R.J. Hill, G. Sciotto & S. Sone, pp. 45-54, Dresden, Germany, 2004.
- Nash, A., D. Hürlimann, J. Schütte und V.P. Krauss (2004) RailML - a standard data interface for railroad applications, Proc. of the Ninth International Conference on Computer in Railways (Comrail IX), eds. J. Allan, C.A. Brebbia, R.J. Hill, G. Sciotto & S. Sone, pp. 233-240, Dresden, Germany, 2004.
- Lüthi, M., D. Hürlimann, A. Nash (2005) Understanding the Timetable Planning Process as a Closed Control Loop, Proceedings of the 1st International Seminar on Railway Operations Modelling and Analysis, eds I. A. Hansen, F. M. Dekking, R. M. P. Goverde, B. Heidergott, L. E. Meester, Delft, The Netherlands, 2005.
- Weidmann, U., P. Giger, D. Hürlimann (2007) Ein Vierteljahrhundert Bahnbetriebssimulation an der ETH Zürich - von den Anfängen zum Marktdurchbruch, Schweizer Eisenbahnrevue 3/2007, Verlag Minirex AG, Luzern, Schweiz, 2007.
- Hürlimann, D., A. Nash (2007) Railroad Simulation using OpenTrack, European Railway Revue 3/2007, Russell Publishing Ltd., Kent, UK, 2007.
- Medeossi, G., D. Hürlimann, G. Longo (2009) Stochastic mirco-simulation as a timetable robustness estimation tool, Proceedings of the 3rd International Seminar on Railway Research (IAROR), eds I. A. Hansen, E. Wendler, U. Weidmann, J. Rodriguez, S. Ricci, L. Kroon, Zurich, Switzerland, 2009.

- Schoebel A., D. Huerlimann (2012) Mikroskopische Betriebssimulation zur Ermittlung bedarfsgerechter Eisenbahninfrastruktur, ETR - Eisenbahntechnische Rundschau, 10/2012, Eurailpress, Hamburg, Deutschland, 2012.
- Wüst R., Looser J., Seybold B., Laumanns M., Dunkel J., Huerlimann D., Roos S. (2013) RTSE, a multi-component closed-loop control framework for railway networks, 3rd International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS13), Dresden, Germany, 2013.

### **Memberships**

- IAROR: International Association of Railway Operations Research: board member
- IRSE: Institution of Railway Signal Engineers: member (MIRSE)
- RailML: RailML-Community: coordinator

### **Language Skills**

- German (native language)
- English (fluent, spoken and written)
- French (basic skills)