

CURRICULUM VITAE

Dr. Matthias Schubert

Matrisk GmbH, April 2010

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PERSONAL INFORMATION

Name	Dr. Matthias Schubert
Address	Matrisk GmbH Am Börtli 17 P.O. Box 469 CH-8049 Zurich
Telephone	+41 78 798 87 55
E-mail	schubert@matrisk.com
Homepage	http://www.matrisk.com
Nationality	German
Date of birth	20. December 1974

WORK EXPERIENCE

Occupation/position	Study coordinator of the Master of Advanced Studies in Natural Hazards Management
Employer	Institute of Structural Engineering, ETH Zurich
Dates	Since 05.2009
Type of sector	University
Main activity	Administration
Occupation/position	Scientific research assistant
Employer	Institute of Structural Engineering, ETH Zurich
Dates	06.2004 – 05.2009
Type of sector	University
Main activity	Research

Occupation/position	Consulting engineer, CEO
Employer	Matrisk GmbH, Zurich, Switzerland
Dates	Since December 2008
Type of sector	Company
Main activity	Consulting
Occupation/position	Student Assistant
Employer	Institute of Steel Construction, RWTH Aachen, Germany
Dates	2002 - 2004
Type of sector	University
Main activity	Laboratory Assistance, Research Assistance
Occupation/position	Carpenter
Employer	Röhrig und Pohl, Troisdorf, Germany
Dates	1996 - 2003
Type of sector	Private Company
Main activity	Building trade
EDUCATION	
Dates	06.2004 – 2009
Title of qualification	Doctor of Sciences (Dr. sc. ETH Zurich)
Organization	Institute of Structural Engineering, ETH Zurich
Principal subjects	Civil engineering, sustainability
Dates	09.2003 – 11.2004
Title of qualification	Diploma (corresponding to Master Degree)
Organization	RWTH Aachen, Germany
Principal subjects	Civil engineering
PERSONAL SKILLS	
Mother tongue	German
Other languages	English (Excellent) French (Basic)

SELECTED PROJECTS

Title	Reliability analysis of a penstock in a hydropower station
Period	09.2009 – 01.2010
Partners	-
Fund organization	Grande Dixence SA
Title	Development of a best practice methodology for risk assessment in roadway tun-nels
Period	05.2009-05.2010
Partners	HOJ Consulting GmbH
Fund organization	Federal Road Authorities, FEDRO, Switzerland, Staten Vegvesen, Norway.
Title	Excel [®] -based tool for the risk analysis of rockfall protection galleries
Period	09.2008 – 04.2009
Partners	PRA Ingenieurs Conseils, Sion, Switzerland
Fund organization	Federal Road Authorities, FEDRO, Switzerland
Title	Reliability of the Swiss Road Network
Period	06.2006 – 01.2008
Partners	Ernst Basler & Partner, Engineering Consulting, Switzerland
Fund organization	Federal Road Authorities, FEDRO, Switzerland
Title	Development of a methodology for a standardized risk-assessment in the area of highway networks;
Period	06.2006 – 01.2008
Partners	Ernst Basler & Partner, Engineering Consulting, Risk&Safety Consulting, Switzerland
Fund organization	Federal Road Authorities, FEDRO, Switzerland

Title	Assessment of residual risks and acceptance criteria for accidental loading for infrastructural facilities
Period	06.2004 – 08.2008
Partners	-
Fund organization	Federal Road Authorities, FEDRO, Switzerland

PUBLICATIONS

PhD dissertation

- 2009 Schubert, M. (2009). Konzepte zur informierten Entscheidungsfindung im Bauwesen, ETH Zurich, Zurich (in German).

Master thesis

- 2003 Schubert, M. (2003). Plastische Grenzschnittgrößen von Einzelwinkeln, Rheinisch-Westfälische Technische Hochschule Aachen, RWTH, Aachen, Germany (in German).

Refereed journal papers

- 2010 Schubert M., Faber M.H., (submitted). Common Cause Effects in Portfolio Loss Estimation, *Structure and Infrastructure Engineering*.
- 2008 Baker J.W., Schubert M., Faber M.H., (2008). On the Assessment of Robustness, *Journal of Structural Safety*, Volume 30, Issue 3, pp. 253-267, DOI:10.1016/j.strusafe.2006.11.004.
- Straub D., Schubert M., (2008). Modeling and managing uncertainties in rock-fall hazards, *Georisk, Assessment and Management of Risk for Engineered Systems and Geohazards*, Volume 2, Issue 1, pp. 1-15, DOI: 10.1080/17499510701835696.
- Radowitz v. B., Schubert M., Faber M.H., (2008). Robustness of externally and internally post-tensioned bridges, *Journal of Structural Concrete*, Ernst&Sohn, Wiley Company, Volume 103, pp. 16-22, Special Edition: Robustness and Safety of Concrete Structures, DOI: 10.1002/best.200810111.

Conference papers

- 2008 Schubert M., Faber M.H., (2008). System Effects in Portfolio Loss Estimation, *Proceedings 14th IFIP WG 7.5 Working Conference, Reliability and Optimization of Structural Systems*, Toluca, Mexico, August 6-9.
- Thiemig C., Schubert M., Pinnekamp J., Faber M.H., (2008). Modeling of a Membrane Bioreactor using Bayesian Probabilistic Networks, *Proceedings IWA Regional Membrane Conference*, Moscow, Russia, June 2-4.
- Schubert M., Faber M.H., (2008). On the Modeling and Analysis of Robustness of Systems, *Proceedings EM08, Inaugural International Conference of the Engineering Mechanics Institute*, Minneapolis, USA, May 18-21.
- 2007 Faber M.H., Schubert M., (2007). Beurteilung von Restrisiken und Kriterien zur Festlegung akzeptierter Risiken in Folge aussergewöhnlicher Einwirkungen bei Kunstbauten, *Neues aus der Brückenforschung 4. FBH / ASTRA Tagung*, Bern, Switzerland, November 20, pp. 123-132.

- Radowitz v. B., Schubert M., Faber M.H., (2007). Robustness of externally and internally post-tensioned bridges, Proceedings of the 5th International Probabilistic Workshop, Ghent, Belgium, November 28-29, pp. 81-95.
- Schubert M., Faber M.H., Baker J.W., (2007). Decision making subject to aversion of low frequency high consequences events, Proceedings of the Special Workshop on Risk Acceptance and Risk Communication, Stanford University, Palo Alto, USA, March 26-27.
- Schubert M., Faber M.H., (2007). Robustness of Infrastructures Subject to Rare Events, 10th International Conference on Applications of Statistics and Probability in Civil Engineering, Tokyo, Japan, July 31 - August 03.
- 2006 Schubert M., (2006). Probabilistic Assessment of the Robustness of Structural Systems, Proceedings of the 6th international PhD Symposium in Civil Engineering, Zurich, Switzerland; August 23-26 (abstract)
- 2005 Schubert, M., Straub, D., Baker, J. and Faber, M.H., (2005). On the Assessment of Robustness II: Numerical Investigations Proceedings of the Workshop "Robustness of Structures", Garston, Watford/UK, November 28-29 (abstract)
- Schubert M., Straub D., Faber M.H., (2005). Reliability of rock-fall protection galleries - a case study with a special focus on the uncertainty modeling Proceedings of the ninth international conference on structural safety and reliability ICOSSAR'05 Rome, Italy, June 19-23 (abstract)

Monographs

- 2010 Schubert M., Faber M.H. (submitted), Forschungsauftrag AGB 2008/001 auf Antrag der Arbeitsgruppe Brückenforschung, Bundesamt für Strassen (ASTRA), Bericht Nr. 616, VSS Zürich, Switzerland.
- Schubert M. (2010) Konzepte zur informierten Entscheidungsfindung im Bauwesen, Südwestdeutscher Verlag Für Hochschulschriften, ISBN 9783838114859.
- 2009 Schubert M., Faber M.H. (2009), Beurteilung von Restrisiken und Kriterien zur Festlegung akzeptierter Risiken in Folge aussergewöhnlicher Einwirkungen bei Kunstbauten, Forschungsauftrag AGB 2002/020 auf Antrag der Arbeitsgruppe Brückenforschung, Bundesamt für Strassen (ASTRA), Bericht Nr. 616, VSS Zürich, Switzerland.
- Faber M.H., Köhler J., Schubert M., Sabiote E., Fermaud C. and Scheiwiler A. (2009). Forschungspaket AGB1, Sicherheit des Verkehrssystems Strasse und dessen Kunstbauten, Methodik zur vergleichenden Risikobeurteilung, Forschungsauftrag AGB 2005/102 auf Antrag der Arbeitsgruppe Brückenforschung, Bundesamt für Strassen (ASTRA), Bericht Nr. 618, VSS Zürich, Switzerland.
- Fermaud C., Willi C., Köhler J., Schubert M. and Faber M.H. (2009). Forschungspaket AGB1, Sicherheit des Verkehrssystems Strasse und dessen Kunstbauten, Ermittlung des Netzrisikos, Forschungsauftrag AGB 2005/103 auf Antrag der Arbeitsgruppe Brückenforschung, Bundesamt für Strassen (ASTRA), Bericht Nr. 619, VSS Zürich, Switzerland.

Conference presentations

- 2008 System Effects in Portfolio Loss Estimation , 14th IFIP WG 7.5 Working Conference, Reliability and Optimization of Structural Systems, August, 07, 2008, Toluca, Mexico
- Characterization Of Design Impact Loads For Rock-Fall Protection , Interdisciplinary Workshop on Rockfall Protection; June, 25, 2008, Morschach, Switzerland
- On the Modeling and Analysis of Robustness of Systems , Inaugural International Conference of the Engineering Mechanics Institute; May, 19, 2008, Minneapolis, Minnesota, USA
- Robustness of Structures - Discussion and Examples , 1st Workshop and 3rd Management Committee (MC) Meeting COST Action TU0601Robustness of Structures; February, 04-05, 2008, ETH-Zurich, Zurich, Switzerland
- 2007 Analysis of Tunnel Accidents by using Bayesian Networks , 5th International Probabilistic Symposium; November, 28-29, 2007, Magnel Laboratory for Concrete Research, Ghent University, Ghent, Belgium
- Robustness of Infrastructures Subject to Rare Events, 10th International Conference on Applications of Statistics and Probability in Civil Engineering, July 31 - August 03, The University of Tokyo ,Tokyo, Japan
- Decision making subject to aversion of low frequency high consequences events, Special Workshop on Risk Acceptance and Risk Communication; March, 26-27, 2007, Stanford University, Palo Alto, California, USA
- 2006 Integrating Bayesian Networks into a GIS for avalanche risk assessment , 4th International Probabilistic Symposium; October, 12-13, 2006, Federal Institute for Material Research and Testing (BAM), Berlin, Germany
- Probabilistic Assessment of the Robustness of Structural Systems , 6th international PhD Symposium in Civil Engineering; August, 23-26, 2006, ETH Zurich, Zurich, Switzerland
- 2005 On the Assessment of Robustness II - numerical investigations , Robustness of Structures, Workshop organised by the JCSS & IABSE WC 1; November, 28-29, 2005 BRE, Garston, Watford, United Kingdom
- Reliability of rock-fall protection galleries - a case study with a special focus on the uncertainty modeling, ICOSAR'05; June, 19-23, 2005, "La Sapienza" University of Rome, Rome, Italy