

Bernd Resch

[Curriculum Vitae]

[Personal Information]

Bernd Resch

Nationality: Austrian

Date of Birth: 27 March 1981

[Education]

Since February 2005

PhD in Natural Sciences

GIS lectures and projects (technological fundamentals, application development for GIS, geographic databases, sensor webs, location-based services)

University of Salzburg, Austria and Massachusetts Institute of Technology, US

September 2003 –
January 2005

Master of Science in Computer Systems Engineering

Master's Program for Computer Systems Engineering: wireless communication technologies, signal analysis, discrete mathematics, optical physics

Halmstad University, Sweden

Degree with honours

October 2000 – March
2005

Diplomingenieur (FH) [internationally comparable to a Master of Science]

Program „Information technology and systems management“: network technologies, mobile communication, transfer mode systems, technical mathematics, informatics, technical physics, project management, corporate management, business economics

University of Applied Sciences, Salzburg, Austria

Degree with honours

[Work experience]

Since July 2009

Lecturer

Lectures on Software Engineering for GIS

Paris-Lodron University of Salzburg, Kapitelgasse 4-6, 5020 Salzburg, Austria

Area: higher education

Since May 2007

Research Affiliate

Project development and implementation

Conceptual system architecture design, web application engineering, sensor web projects, presentations

Massachusetts Institute of Technology, SENSEable City Lab

77 Massachusetts Avenue, Cambridge, MA 02139 USA

Area: research on urban dynamics coupled with social IT applications

Since February 2005

Research Scientist, PhD Student

Project conception, management and implementation

Web application engineering, sensor web projects, presentations, fund raising

Austrian Research Centers GmbH, Research Studios Austria - iSPACE,
Leopoldskronstrasse 30, 5020 Salzburg

Area: applied research on geo-referenced media and technologies

May 2004 -
August 2004

Internship

Web application development, address standardisation: web-service with XML over HTTP and dynamic database connection

Austrian Research Centers GmbH, Research Studios Austria - iSPACE,
Leopoldskronstrasse 30, 5020 Salzburg

Area: applied research on geo-referenced media and technologies

August 2002 -
September 2002

Internship

Quality of Service in IP networks

Salzburg Research Forschungs GmbH, Jakob Haringer Straße 5/III, A-5020 Salzburg

Area: R&D in ICT applied in digital media, eCulture, eTourism and EduMedia

July 2002 -
August 2002

Internship

Reliability assessment of a laser-based data transmission system (155MBit/s)

Deutsche Telekom AG, T-Systems Enterprise Services GmbH, Dingolfinger Str. 1-11,
81673 München

Area: information and communication technologies

[Publications]

forthcoming 2009

Resch, B. (under review) Live Geography – Standardised Geo-sensor Networks for Real-time Monitoring in Urban Environments. PhD Thesis, Salzburg University, Austria and Massachusetts Institute of Technology, Boston MA, USA.

Type: PhD Thesis, in elaboration

July 2009

Resch, B., Mittlboeck, M., Girardin, F., Britter, R. and Ratti, C. (in press) Real-time Geo-awareness – Embedded Sensing for Standardised Urban Environmental Monitoring. *International Journal On Advances in Systems and Measurements*, 2(2), pp. pending.

Type: Invited Journal Paper.

July 2009

Mittlboeck, M. and Resch, B. (2009) Live Geography – Real-time Analyse mit GI-Systemen. In: *GISBusiness*, 5/2009, pp. 36-39.

Type: Magazine Paper.

8-10 July 2009

Mittlboeck, M., Resch, B., Lippautz, M., Dürr, M. und Kohlmann, M. (2009) Standardisierte Embedded Sensormessnetze zur Integration Lokationsbezogener "Live" Information in GI-Systeme. In: Strobl, J., Blaschke, T., Griesebner, G. (Eds.) (2009) *Angewandte Geoinformatik 2009*, Wichmann Verlag, Heidelberg, pp. 178-183.

Type: Conference Paper.

16-18 June 2009

Resch, B., Mittlboeck, M., Lipson, S., Welsh, M., Bers, J., Britter, R. and Ratti, C. (2009) Urban Sensing Revisited – Common Scents: Towards Standardised Geo-sensor Networks for Public Health Monitoring in the City. In: *Proceedings of the 11th International Conference on Computers in Urban Planning and Urban Management - CUPUM2009*, 16-18 June 2009, Hong Kong.

Type: Conference Paper.

1-7 February 2009

Resch, B., Mittlboeck, M., Girardin, F., Britter, R. and Ratti, C. (2009) Real-time Geo-awareness - Sensor Data Integration for Environmental Monitoring in the City. In: *Proceedings of the IEEE International Conference on Advanced Geographic Information Systems & Web Services - GEOWS09*, 1-7 February 2009, Cancun, Mexico, pp. 92-97.

Type: Conference Paper – *Winner of the "Best Paper Award"*.

26-28 November
2008

Mittlboeck, M. and Resch, B. (2008) Federal Pervasive Sensor Networks Serving Geographic Information Services. In: *Proceedings of the 5th International Symposium on LBS and Telearctography*. November 26-28, 2008, Salzburg, Austria.

Type: Conference Paper

- 2-4 July 2008
Mittlboeck, M. and Resch, B. (2008) Standardisierte Integration von Real-time Sensormessungen für Zeitnahe GIS-Analyse. In: Strobl, J., Blaschke, T., Griesebner, G. (Eds.) (2008) Angewandte Geoinformatik 2008, Wichmann Verlag, Heidelberg, pp. 112-117.
Type: Conference Paper
- 17-21 March 2008
Resch, B., Calabrese, F., Ratti, C. and Biderman, A. (2008) An Approach Towards a Real-time Data Exchange Platform System Architecture. In: Proceedings of the 6th Annual IEEE International Conference on Pervasive Computing and Communications, Hong Kong, 17-21 March 2008.
Type: Conference Paper
- 10-12 September 2007
Resch, B. (2007) Standardised Real-time Information Systems for Environmental Monitoring - An Elaborate Challenge. In: Proceedings of the GI Days Conference, Muenster, Germany, 10-12 September 2007.
Type: Conference Paper
- 4-6 July 2007
Resch, B. und Mittlboeck, M. (2007) Einbindung von Echtzeitmessinformation in Geographische Informationssysteme. In: Strobl, J., Blaschke, T., Griesebner, G. (Eds.) (2007) Angewandte Geoinformatik 2007, Wichmann Verlag, Heidelberg, pp. 615-620.
Type: Conference Paper
- 29 May – 1 June 2007
Blaschke, T., Zeil, P., Strobl, J., Lang, S., Tiede, D., Möller, M., Triebnig, G., Schiller, C., Mittlböck, M. and Resch, B. (2007) GMES: from Research Projects to Operational Environmental Monitoring Services. International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, XXXVI-1/W51.
Type: Journal Paper
- 15-17 April 2007
Resch, B., Schmidt, D. und Blaschke, T. (2007) Enabling Geographic Situational Awareness in Emergency Management. In: Proceedings of the 2nd Geospatial Integration for Public Safety Conference, New Orleans, Louisiana, US, 15-17 April 2007.
Type: Conference Paper
- 5-7 July 2006
Mittlboeck M., Resch, B. and Eibl, C. (2006) geOpinion: Interaktives geo-Collaboration Framework - 3D-Visualisierung in Google Earth mit OGC WMS- und WFS- Diensten. In: Strobl, J., Blaschke, T. and Griesebner, G. (Eds.) (2006) Angewandte Geoinformatik 2006, Wichmann Verlag, Heidelberg, pp. 464-469.
Type: Conference Paper
- March 2006
Bigun, J., Resch, B. and Romirer-Maierhofer, P. (2005) World Geometry by Direction in N-D. In: Bigun, J. (2006) Vision with Direction - A Systematic Introduction to Image Processing and Computer Vision, XVI, 396 p., 146 illus., 130 in colour, Hardcover, ISBN-10: 3-540-27322-0, ISBN-13: 978-3-540-27322-6, Springer, Berlin, Germany, 2006.
Type: Book Chapter
- March 2005
Resch, B. (2005) Adressen Web-Service mit Java Web-Services Developing Framework und SOAP. Diploma Thesis, Salzburg University of Applied Sciences, Austria.
Type: Diploma Thesis
- January 2005
Resch, B. und Romirer-Maierhofer, P. (2005) Global Positioning in Harsh Environments. Master's Thesis, Halmstad University, Sweden.
Type: Master's Thesis

[Grants]

- April 2007 – present **International Communication Grants**
Institution: Austrian Research Association
- January 2005 – April 2007 **PhD Grant (ARC All-round Excellence as part of the Brainpower Initiative)**
Institution: Austrian Research Centers - ARC
- August 2003 – January 2005 **Erasmus Mobility Grant**
Institution: European Commission

[Invited Talks]

- June 2008 **Sensors, RFID and GIS: Technology – Applications – Society**
Location-based Services Summer School, University of Salzburg, Austria
- July 2007 **New Hypes: Map Web 2.0, Mashups, Location-based Services - A Look Behind the Scenes**
Location-based Services Summer School, University of Salzburg, Austria
- October 2006 **Collaborative Web Mapping - An Introduction**
Human Security: People-Homes-Infrastructure Summer School, University of Salzburg, Austria
- January 2003 **Laser-based Data Transmission – An Empirical Assessment**
ICT Forum, University of Applied Sciences, Salzburg, Austria

[Other Skills, Competences and Functions]

- to present **Member of the Scientific Committee of the Free and Open Source Software for Geospatial (FOSS4G) Conference**
<http://www.foss4g.org>
- to present **Member of the Scientific Committee of the IEEE-IARIA International Conference on Advanced Geographic Information Systems, Applications, and Services**
<http://www.iaria.org/conferences2010/GEOProcessing10.html>
- July 2006 – October 2007 **Member of the Development Team of the Bachelor/Master Programme of the Salzburg University of Applied Sciences**
Elaboration of a degree course scheme, responsible for the specialisations of Media Informatics and Signal Processing
- Languages German: mother tongue
English: excellent
French: good
Swedish: good
(Latin: good)