

Welcome to the lecture series

**(Applied Signal Processing and)  
Applied Computer Science/  
Transportation Systems**

**Dr. Alexander Neidhardt**  
neidhardt@fs.wetzell.de  
(Forschungseinrichtung Satellitengeodäsie)

and  
**Prof. Dr. Richard Bamler**

## **Introduction**

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- Content
- About me
- Workplace

## Introduction – Organisation

Transportation Systems 2011/12 Applied Computer Science	
<b>Semester:</b>	1 (WS 2011/2012: 2011-10-17 – 2012-02-10)
<b>Hours per week:</b>	2 (1 lecture hour = 45 minutes) + 1 (Prof. Bamler, starts later)
<b>Hours total:</b>	30 + 15 (Prof. Bamler)
<b>Credits:</b>	3
<b>Time:</b>	Tuesday (11:30 – 13:00 c.t.)
<b>Exercises:</b>	For some lessons an exercise sheet is offered to train the lesson contents at home. Solutions are available.
<b>CIP-Pool:</b>	For the practical work it is necessary to use a laptop.
<b>Examination:</b>	Written test (with part of Neidhardt and part of Prof. Bamler)
<b>Documentation access:</b>	URL: <a href="http://www.iapg.bv.tum.de/Lehre/Service_fuer_andere_Studiengaenge/Applied_Computer_Science/">http://www.iapg.bv.tum.de/Lehre/Service_fuer_andere_Studiengaenge/Applied_Computer_Science/</a> Username/Password: TBD (or contact Karin Hedman or Mary Fletcher from ESPACE)
<b>Contact to me:</b>	Forschungseinrichtung Satellitengeodäsie (FESG), Geodätisches Observatorium Wettzell Sackenrieder Str. 25 D-93444 Bad Kötzing Phone: +49-9941-603-263; FAX: +49-9941-603-222 Email: <a href="mailto:neidhardt@fs.wettzell.de">neidhardt@fs.wettzell.de</a> Skype: neidhardtwz Facebook-Message: Alexander Neidhardt (Personal consultations after individual conventions)

## Introduction – Content

Transportation Systems 2011/12 Applied Computer Science	
<b>18.10.2011 11:30– 13:00</b>	1: Introduction, computer history and architecture
<b>25.10.2011 11:30– 13:00</b>	2: Software and computer language theory
<b>01.11.2011 11:30– 13:00</b>	All Saints Day
<b>08.11.2011 11:30– 13:00</b>	3: Programming languages and development processes
<b>15.11.2011 11:30– 13:00</b>	4: Software design
<b>22.11.2011 11:30– 13:00</b>	5: Binary world and numerical effects
<b>29.11.2011 11:30– 13:00</b>	- (Berlin excursion)
<b>06.12.2011 11:30– 13:00</b>	<del>6: Data structures and organization</del>
<b>13.12.2011 11:30– 13:00</b>	7: Practical training: Robot-Programming
<b>20.12.2011 11:30– 13:00</b>	8: Practical training: Robot-Programming
<b>Christmas holidays (26.12.2011-08.01.2012)</b>	-
<b>10.01.2012 11:30– 13:00</b>	9: Practical training: Robot-Programming
<b>17.01.2012 11:30– 13:00</b>	10: Practical training: Robot-Programming
<b>24.01.2012 11:30– 13:00</b>	11: Practical training: Robot-Programming
<b>31.01.2012 11:30– 13:00</b>	12: Practical training: Robot-Programming
<b>07.02.2012 11:30– 13:00</b>	15: Exam preparation
<b>February 2012</b>	Exam

Shifted



## Introduction – Personal facts

Chief of the radiotelescope group, research scientist and software engineer at Forschungseinrichtung Satellitengeodäsie (FESG), Geodätisches Observatorium Wettzell, TUM.

- 1994-1998 Study of computer science at the university of applied science Regensburg (diploma)
- 1998-2001 Study of computer science at the Friedrich-Alexander-University Erlangen-Nürnberg (diploma) (practical work at the Fraunhofer Institute for Integrated Circuits Erlangen with the domain of automatical code generation in combination with hardware-/software-co-design)
- 2001-2005 Doctoral thesis as research scientist at the Fundamentalstation Wettzell/ TU Munich
- Since 2005 Research scientist and software engineer for the control system of the new, automatic Laser Ranging Telescope at the Fundamentalstation Wettzell/ TU Munich
- Since 2007 „Habilitation“ (postdoctoral lecture qualification) at the TU Munich
- Since 2008 Head of the radio telescope group



GPS-maintenance-journey to Lhasa/Tibet (China) 2006

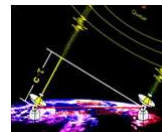


VLBI-Antarctic-Campaign 01/2008 to German Antarctic Receiving Station O'Higgins

Radiotelescope Team Wettzell

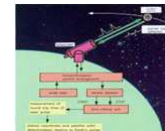
## Introduction - Workplace

Facts about the geodetical observatory „Fundamentalstation Wettzell“



VLBI (Very Long Baseline Interferometry)

SLR/LLR Laserentfernungsmessungen



GNSS (Global Navigation Satellite System)

Bundesamt für Kartographie und Geodäsie  
 Forschungseinrichtung Satellitengeodäsie der Techn. Univ. München  
 in line with the Forschungsgruppe Satellitengeodäsie  
 URL: <http://www.wettzell.ifag.de>  
 Fundamentalstation Wettzell, Sackenrieder Straße 25, D-93444 Kötzing  
 Tel.:09941-603-0, Fax: 09941-603-222

