

Welcome to the lecture series

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

Dr. Alexander Neidhardt
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(Forschungseinrichtung Satellitengeodäsie)

and
Prof. Dr. Richard Bamler

Introduction

- Organisation
- Content
- About me
- Workplace

Introduction – Organisation

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

Introduction – Content

Transportation Systems 2011/12 Applied Computer Science	
18.10.2011 11:30– 13:00	1: Introduction, computer history and architecture
25.10.2011 11:30– 13:00	2: Software and computer language theory
01.11.2011 11:30– 13:00	All Saints Day
08.11.2011 11:30– 13:00	3: Programming languages and development processes
15.11.2011 11:30– 13:00	4: Software design
22.11.2011 11:30– 13:00	5: Binary world and numerical effects
29.11.2011 11:30– 13:00	- (Berlin excursion)
06.12.2011 11:30– 13:00	6: Data structures and organization
13.12.2011 11:30– 13:00	7: Practical training: Robot-Programming
20.12.2011 11:30– 13:00	8: Practical training: Robot-Programming
Christmas holidays (26.12.2011-08.01.2011)	-
10.01.2011 11:30– 13:00	9: Practical training: Robot-Programming
17.01.2011 11:30– 13:00	10: Practical training: Robot-Programming
24.01.2011 11:30– 13:00	11: Practical training: Robot-Programming
31.01.2011 11:30– 13:00	12: Practical training: Robot-Programming
07.02.2011 11:30– 13:00	15: Exam preparation
February 2011	Exam

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



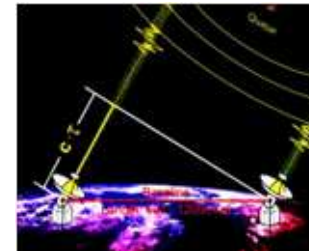
VLBI-Antarctic-Campaign
01/2008 to German Antarctic
Receiving Station O'Higgins



Radiotelescope
Team Wettzell

Introduction - Workplace

Facts about the geodetical observatory „Fundamentalstation Wettzell“

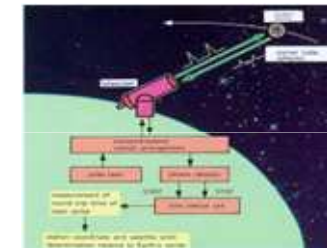


VLBI (Very Long Baseline Interferometry)

SLR/LLR Laserentfernungsmessungen



GNSS (Global Navigation Satellite System)



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