

16th Workshop
**Software Engineering Education
and Reverse Engineering**
Jahorina, BiH
22nd – 26th August 2016

Introduction

Klaus Bothe

Institute of Informatics, Humboldt University – Berlin, Germany,
bothe@informatik.hu-berlin.de

Termag Hotel, Jahorina



Jahorina, 21st August 2016



Contents

- Overview of the workshop
- What happened in our DAAD project since September 2015 until August 2016?
- Current work in our DAAD project

Workshop Software Engineering Education and Reverse Engineering

- Novi Sad, YU, 2001
- Plovdiv, BG, 2002
- Ohrid, MK, 2003
- Zagreb, CRO, 2004
- Baile Herculane, RO, 2005
- Ravda, BG, 2006
- Risan, MNE, 2007
- Durrës, ALB, 2008

- Neum, *BiH*, 2009
- Ivanjica, *RS*, 2010
- Ohrid, *MK*, 2011
- Opatija, CRO, 2012
- Bansko, *BG*, 2013
- Sinaia, *RO*, 2014
- Bohinj, *SLO*, 2015
- *Jahorina, BiH*, 2016

Workshop participants

• Novi Sad, YU, 2001	23
• Plovdiv, BG, 2002	26
• Ohrid, MK, 2003	27
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• Zagreb, CRO, 2004	30
• Baile Herculane, RO, 2005	31
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• Risan, MNE, 2007	40
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• Opatija, CRO, 2012	65
• <i>Bansko</i> , BG, 2013	62
• <i>Sinaia</i> , RO, 2014	53 *)
• Bohinj, <i>SLO</i> , 2015	65
• <i>Jahorina</i> , BiH, 2016	53 *)

*) reduced budget

Background

Stability Pact for
South-Eastern Europe

DAAD

(German Academic
Exchange Service)

**Academic Reconstruction
of South Eastern Europe**

2016

**Additional
workshop participant:**

Tessaloniki; Greece

2000

Humboldt University Berlin
University of Novi Sad

2001

University of Skopje
University of Plovdiv
University of Belgrade, Fac. EE + Nat. Sc.

University of Kragujevac *)
University of Nis, Fac. of Nat. Sc. *)

2003

University of Zagreb
University of Sarajevo
University of Banja Luka
University of Timisoara
University of Tirana *)

2004

University of Rijeka

2006

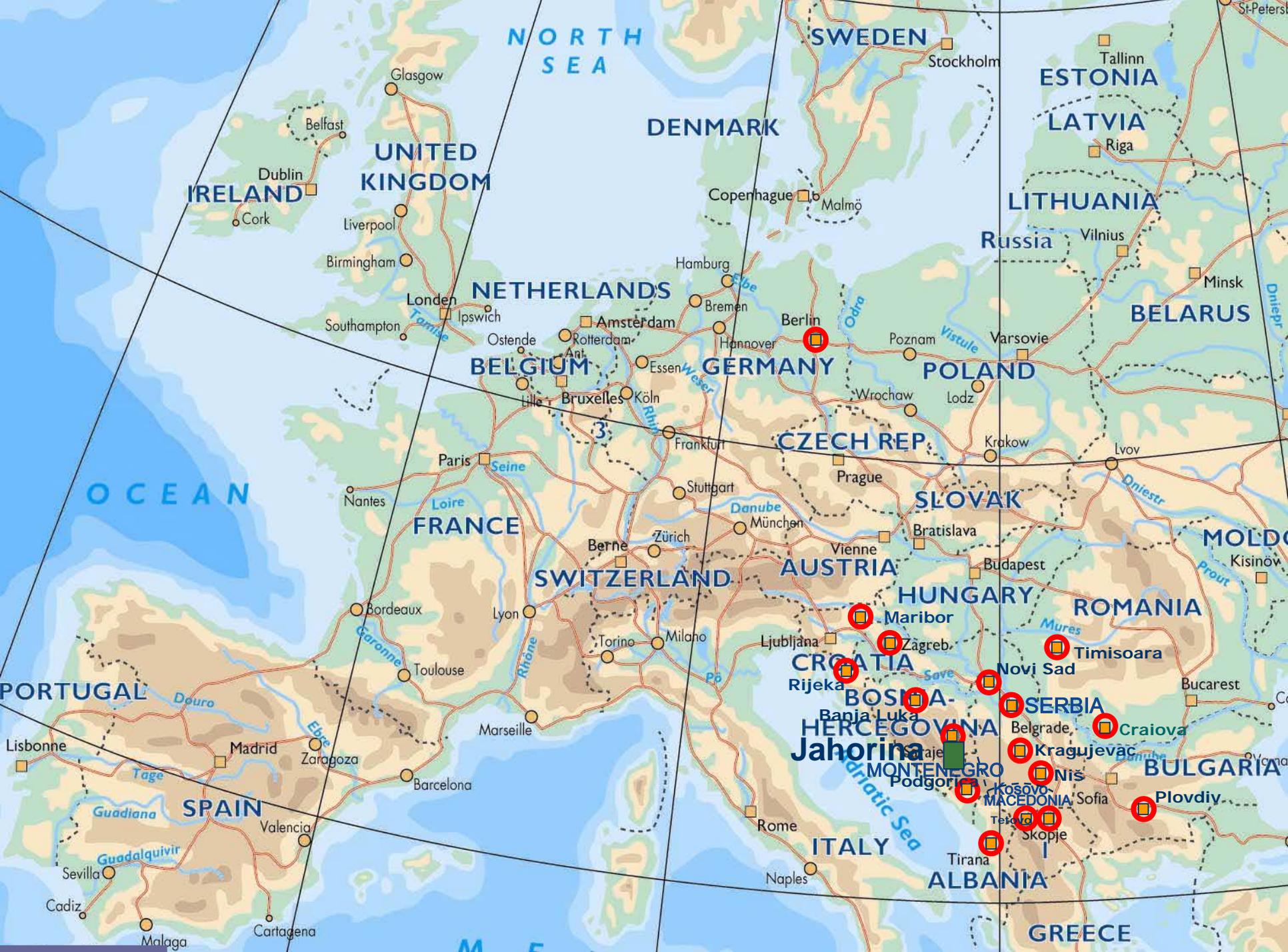
University of Nis, Fac. of EE
Polytechnic University of Tirana

2007

University of Montenegro (Podgorica)

2013

University of Tetovo (South-Eastern)
University of Craiova
University of Maribor



NORTH SEA

IRELAND
UNITED KINGDOM

DENMARK

SWEDEN

ESTONIA
LATVIA

LITHUANIA

NETHERLANDS

BELGIUM

GERMANY

POLAND

BELARUS

FRANCE

SWITZERLAND

CZECH REP.

SLOVAK

MOLDOVA

AUSTRIA

HUNGARY

ROMANIA

PORTUGAL

SPAIN

CROATIA

BOSNIA-HERCEGOVINA

MONTENEGRO

SERBIA

BULGARIA

ITALY

ALBANIA

GREECE

Glasgow

Belfast

Dublin

Cork

Liverpool

Birmingham

London

Ipswich

Southampton

Ostende

Amsterdam

Rotterdam

Essen

Bruxelles

Köln

Paris

Seine

Nantes

Loire

Berne

Zürich

München

Stuttgart

Prague

Vienne

Bratislava

Budapest

Bordeaux

Lyon

Torino

Milano

Ljubljana

Maribor

Zagreb

Novi Sad

Timisoara

Lisbonne

Madrid

Zaragoza

Marseille

Rijeka

Banja Luka

Sarajevo

Podgorica

Tuzla

Kragujevac

Nis

Belgrade

Craiova

Sevilla

Cadiz

Malaga

Cartagena

Rome

Naples

Tirana

Skopje

Plovdiv

M E F

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What happened in our DAAD project since September 2015?

- Papers at Conferences and Journals
- NO Coordination meeting of project group leaders, May 2016
- Guest lecturing – like the years before:
 - included partners:
 - Novi Sad, Skopje, Berlin, Tirana, Sarajevo, Tetovo, Rijeka

Papers

- Z. Putnik, Ivanović, M., Budimac, Z., Bothe, K. (2016, in print). Partial Solution for a Problem of Developing a Large Number of eLearning Resources. International Journal of Human Capital and Information Technology Professionals (IJHCITP), doi:10.4018/ijhcitp
- Z. Putnik, M. Ivanović, Z. Budimac , K. Bothe, Teaching "Ten Commandments" of Software Engineering, MIPRO 2016 - 39th international convention on information and communication technology, electronics and microelectronics, May 30 - June 03, 2016, Opatija, Croatia
- Mirjana Ivanović, Jovana Ivković, Milan Vidaković, Nikola Luburić and Costin Badica. Fault-tolerance in XJAF Agent Middleware, WASA - WASA 2016: 6th Workshop on Applications of Software Agents, within ICCCI 2016 - 8th International Conference on Computational Collective Intelligence, 28-30 September, Halkidiki, Greece (accepted)

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Overview of intensive courses delivered during last 12 months

Guest lecturing

Intensive courses for TEMPUS joint Master: Skopje – Novi Sad (since 2007)



Intensive courses for TEMPUS joint Master:

Skopje → Novi Sad

- Katerina Zdravkova:
Privacy, Ethics, and Social responsibilities
(December 2015 – Jan 2016)
- Anastas Misev: Software Testing
(June 2016)



Intensive courses for TEMPUS joint Master:

Novi Sad → Skopje

- Zoran Budimac, Research Methods (April 2016)
- Mirjana Ivanovic, Requirements engineering (December 2015, April 2016)
- Zoran Budimac, Software Engineering for Critical Systems (December 2015, June 2016)

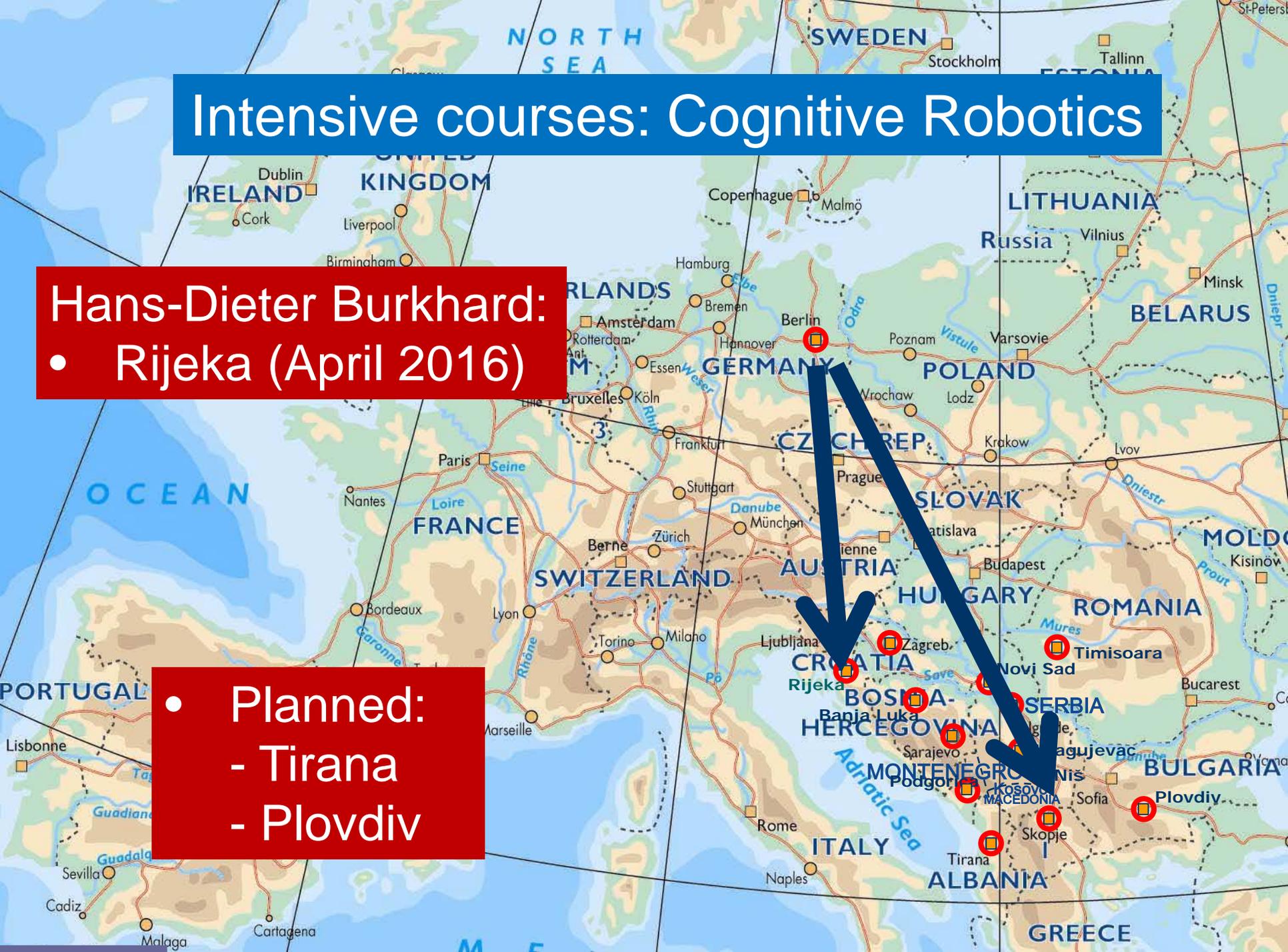


Intensive courses: Cognitive Robotics

Hans-Dieter Burkhard:

- Rijeka (April 2016)

- Planned:
 - Tirana
 - Plovdiv



A map of Europe is shown in the background. A blue text box is overlaid on the top half, and a red text box is overlaid on the bottom half. A red circle highlights Berlin on the map. A blue arrow points from the red text box towards Tirana, Albania.

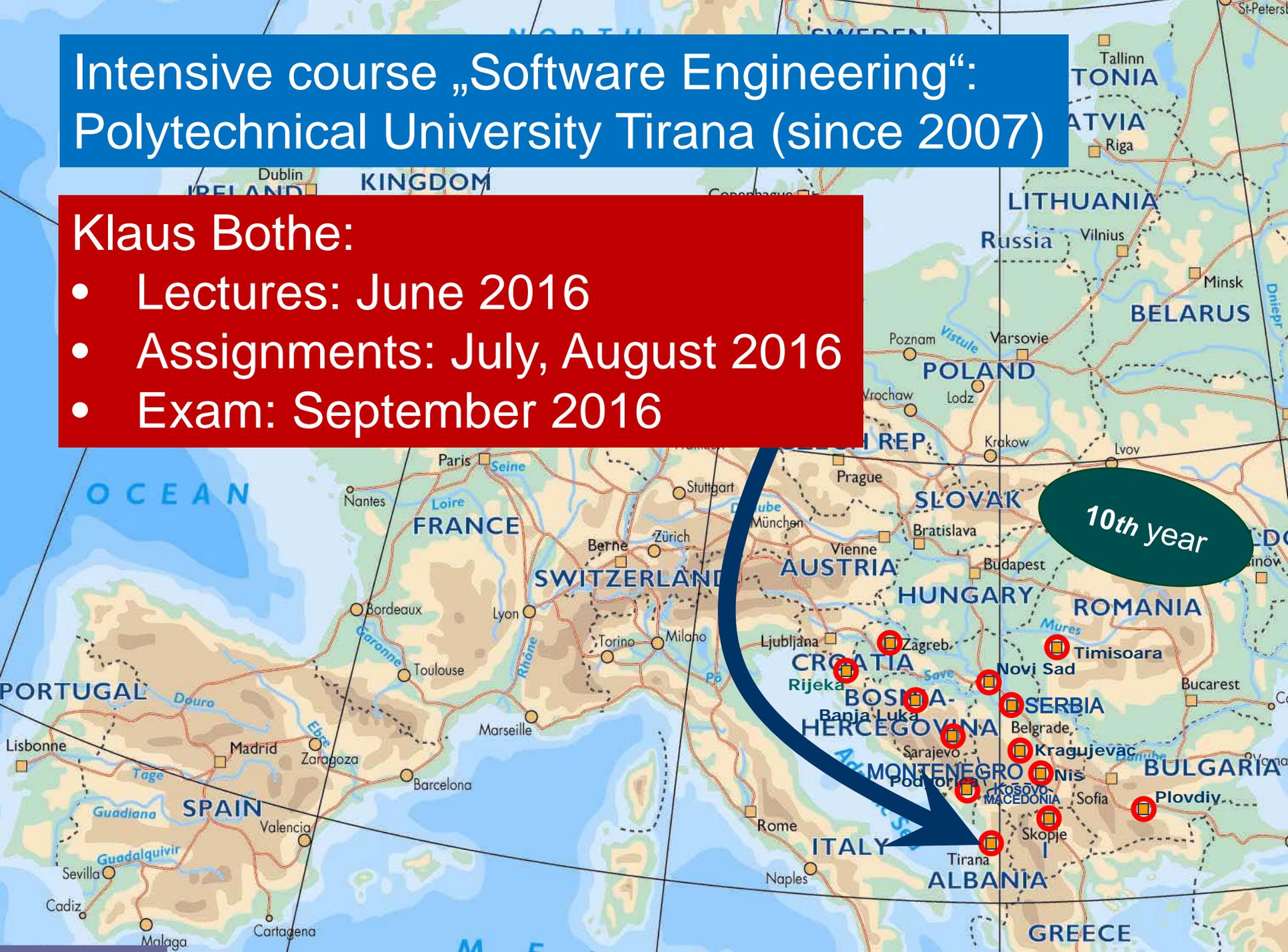
Intensive course „Research Methods“: at Polytechnical University Tirana (2016)

Zoran Budimac, Mirjana Ivanovic, Gordana Rakic:
Research Methods
April 2016

Intensive course „Software Engineering“: Polytechnical University Tirana (since 2007)

Klaus Bothe:

- Lectures: June 2016
- Assignments: July, August 2016
- Exam: September 2016

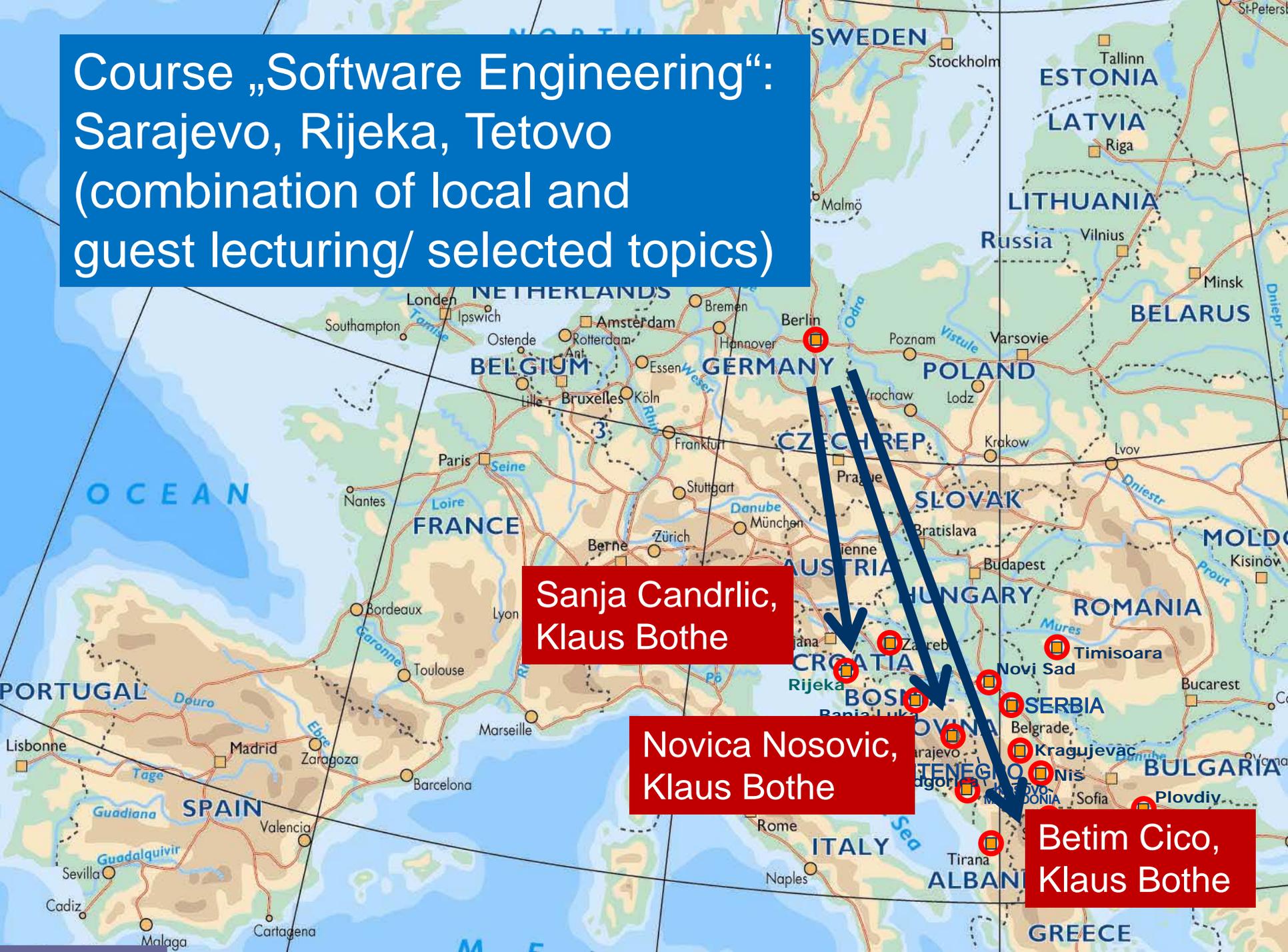


**Course „Software Engineering“:
Sarajevo, Rijeka, Tetovo
(combination of local and
guest lecturing/ selected topics)**

**Sanja Candrlic,
Klaus Bothe**

**Novica Nosovic,
Klaus Bothe**

**Betim Cico,
Klaus Bothe**



JCSE: Applications in real lectures

JCSE: 13 (out of 17) universities included teaching materials

- Novi Sad: 2002-04: 2 times, English, 10 particular participants, 2004-16: ordinary students, Serbian slides
- Skopje:
English, materials used in 2 different courses since 2004;
in 2007 the first real delivery of the JCSE in Skopje
- Plovdiv: Bulgarian, 2 different curricula, 100 participants, since 2003, textbook in 2006
- Kragujevac: Serbian, since 2003
- Zagreb (Dubrovnik): Croatian, 1 topic
- Timisoara: Romanian, 1 topic
- Berlin: 4 times (transparencies) + 6 times (ppt), German, 80 participants
- Belgrade (Faculty Elec.Eng.): 2005 - 2016, Serbian slides, 12 topics, 133 participants in 2005
- University of Tirana: 2007, some topics used in a Bachelor course
- Polytechnic University Tirana: 2007 - 2016, course delivered by guest lecturers and local teachers in a Master's study
- Rijeka: since 2010, selected topics by guest lecturing since 2014
- Sarajevo: selected topics, in 2012 - 2016 by guest lecturing
- Tetovo: since 2014, selected topics by guest lecturing



Workshop organization

Workshop program: Sections

- *Curricula Issues*
- *Modules in programming, software engineering, and others*
- Case Studies and Projects
- eLearning

Workshop program: Timetable

- Chairpersons and sections:
Please, refer to all problems with your presentations to the responsible chairperson (e.g. modification of title ...)
 - 20 minutes for presentation and questions
 - Please, send your presentation after your lecture to
 - Olga Schiemangk schieman@informatik.hu-berlin.de
 - Michael Ritzschke ritzschk@informatik.hu-berlin.de
- Subject: Day 1 / 2 ...
- File name: e.g. Novica.Nosovic-Title

Workshop program: Social program

- Today: reception before dinner (7 p.m.)
- Wednesday: Gala dinner
- Four half-day excursions:
 - Sarajevo (guided tour, Tuesday)
 - Jahorina (guided walk, Wednesday)
 - Sarajevo (by yourself, Thursday)
 - Jahorina (guided walk, Friday)

Workshop program: Finances

- This afternoon: refunding travel expenses
- All meals included – water on workshop costs
- Free: swimming pool, sauna ...

Group photo in 2015 (Bohinj/Bled)



Timetable (1): Monday

“Software Engineering Education and Reverse Engineering”

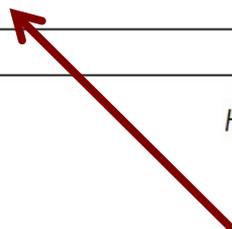
Jahorina, BiH, 22nd - 26th August 2016

Duration	Monday, August, 22nd - Chairperson: Costin Badica
	20 minutes for presentation and discussion
00:30:00	Klaus Bothe: Opening talk
	SECTION: Curricula Issues
00:20:00	Novica Nosović: Who can (not) call him/herself a SW engineer?
00:20:00	Patrizia Pošćić: Aligning Study Programmes with Occupational Standards and Qualifications Standards in the Field of Informatics Based on Croatian Qualifications Framework
00:20:00	Betim Cico, Besnik Selimi , Klaus Bothe: Doctoral School at SEEU: challenges and future directions after 3 years
	SECTION: Learning Issues: modules in programming, software engineering, and others
00:20:00	Anastas Mishev: Software quality by design
00:20:00	Boštjan Šumak: User Experience Design and Evaluation in Software Engineering
00:30:00	<i>SHORT BREAK</i>

Chairperson: **Stanimir Stavarov**

Timetable (2): Friday

Duration	Friday, August, 26th - Chairperson: Elinda Kajo Mece
	20 minutes for presentation and discussion
	SECTION: Learning Issues: modules in programming, software engineering, and others
00:20:00	Amelia Badica, Costin Badica , Mirjana Ivanovic: Programming Reinforcement Learning in Jason
00:20:00	Krešimir Fertalj : PhD Seminar 'Project Management and Doctoral Research' (PhD as a Project)
00:20:00	Ivica Marković : Data science – How to prepare engineers for this field
00:20:00	Nevena Ackovska , Magdalena Kostovska: ADP Course Evolution – Six years long journey
00:20:00	Nenad Katanić : Doctoral Research 'Commercialization'
00:20:00	Michael Ritzschke , Klaus Bothe: HU examination questions of JCSE in English
00:30:00	<i>SHORT BREAK</i>
on:	Chairperson: Dražen Brdanin
	SECTION: Case Studies and Projects
00:20:00	Danijela Banjac : Recent achievements in automated database design from BPMN models
00:20:00	Agon Memeti , Betim Cico: Architectural Pattern for RESTful Service Coordination
00:20:00	Klaus Bothe : Final remarks
01:00:00	<i>LUNCH BREAK</i>
Afternoon	<i>HALF DAY EXCURSION (Jahorina guided tour - longer one)</i>



16th Workshop (Jahorina):

Last one in the DAAD program

**Academic Reconstruction of South Eastern
Europe**

Last workshop in the DAAD program

Stability Pact for
South-Eastern Europe

(1999 - 2008)

DAAD

(German Academic
Exchange Service)

**Academic Reconstruction
of South Eastern Europe**

(until 2016)

DAAD project:

**Software Engineering:
Education and Research
Cooperation**

Summary:

- 9 countries
- 17 universities
- 19 faculties
- (3 have been lost *)

2000

Humboldt University Berlin
University of Novi Sad

2001

University of Skopje
University of Plovdiv
University of Belgrade, Fac. EE + Nat. Sc.

University of Kragujevac *)
University of Nis, Fac. of Nat. Sc. *)

2003

University of Zagreb
University of Sarajevo
University of Banja Luka
University of Timisoara
University of Tirana *)

2004

University of Rijeka

2006

University of Nis, Fac. of EE
Polytechnic University of Tirana

2007

University of Montenegro (Podgorica)

2013

University of Tetovo (South-Eastern)
University of Craiova
University of Maribor

16th Workshop (Jahorina):

Last one in the DAAD program
**Academic Reconstruction of South
Eastern Europe**

- **Current negotiations with DAAD to continue in another program (result open)**
- **Hopefully not the last workshop**