

Doctoral School at SEEU: challenges and future directions after 3 years

Betim Cico, Besnik Selimi, Klaus Bothe

South East European University, Humboldt University Berlin

16th Workshop

Software Engineering Education and Reverse Engineering

Jahorina, BiH, 22nd -26th August 2016

Motivation

- 3 years of building the doctoral school
- Problems encountered and possible solutions
- Recommendation on future steps
 - Changes to admission conditions / procedures
 - Program changes
 - Enforcing deadlines
 - ...
- Discussion

South East European University

- Founded in 2001 as a private, public, not for profit higher education institution.
- Sponsored by the EU Commission and USAID, among other.
- SEEU is now in its 15th year of operation with more than 7000 students and 3500 graduates.
- A model for multi-ethnic, multi-lingual higher education in South East Europe.
 - Lectures offered in Albanian, Macedonian and English.
- www.seeu.edu.mk

South East European University

- Faculty of Languages, Cultures and Communication.
- Faculty of Law.
- Faculty of Public Administration and Political Science.
- Faculty of Business and Economics.
- Faculty of Contemporary Sciences and Technologies.
 - Staff:
 - 3 full professors,
 - 7 associate professors,
 - 7 assistant professors,
 - 3 assistants (PhD candidates)

Faculty of Contemporary Sciences and Technologies

- Undergraduate study programs - ongoing
 - Computer Sciences
 - Business Informatics
 - Computer Engineering

Faculty of Contemporary Sciences and Technologies

- Graduate study programs - ongoing
 - Software Engineering (120 ECTS)
 - Database Management (120 ECTS)
 - Software and Application Development (60 ECTS)
 - Business Informatics (120 ECTS)
 - Software Engineering and Telecommunication (120 ECTS)
 - Application of ICT in Teaching (60 and 120 ECTS)
 - Cloud Computing and Mobile Application (120 ECTS)

Faculty of Contemporary Sciences and Technologies

- PhD Studies from 2013
 - E-Technologies
 - Environmental Management

E-Technologies study program

Semester 1		ECTS		
Code	Course	Mandatory	Elective	Free elective
DET0101	Research Methodology	10		
DET0102	Advanced topics in the field of cloud processing and Grid	10		
DET0103	Advanced concepts in Information Systems	10		
Total		30	/	/

Semester 2		ECTS		
Code	Course	Mandatory	Elective	Free elective
DET0104	Advanced topics in the field of Information and Communication Technologies	10		
	<i>Elective*</i>		10	
	<i>Free elective**</i>		10	
Total		10	20	20

Semester 2	
Code	Elective courses
EET0101	Advanced topics in software engineering
EET0102	Advanced topics in applied statistics
EET0103	Advanced topics in XML and semantic web
EET0104	Advanced topics from web architectures
EET0105	Advanced topics of computer architectures
EET0106	Advanced topics in the analysis and design of algorithms
EET0107	Advanced topics of security in E-Technologies
EET0108	Advanced topics from biomedical data mining
EET0109	Advanced topics in applied information processing and communications
EET0110	Advanced topics in the field of information and communication technologies in energy

Semester 2	
Code	Free elective courses
DFE0101	Computer Crime
DFE0102	Professional Communication
DFE0103	Game Theory
DFE0104	Public Institutions and Management

Statistical Data Processing (Additional Course)

Semester 3		ECTS		
Code	Course	Mandatory	Elective	Free elective
DET0105	Preparation and submission of the application for the topic of doctoral dissertation -research	20		
DET0106-S3	Doctoral seminar with a presentation of the report I	10		
Total		30	/	/

Semester 4		ECTS		
Code	Course	Mandatory	Elective	Free elective
DET0107	Researching and organizing a workshop for research practice	10		
DET0108	Publications	20		
Total		30	/	/

Semester 5		ECTS		
Code	Course	Mandatory	Elective	Free elective
DET0109	Presentation of Research Results	20		
DET0106-S5	Doctoral seminar with a presentation of the report II	10		
Total		30	/	/

Semester 6		ECTS		
Code	Course	Mandatory	Elective	Free elective
CST-PHD-THESIS	Doctoral Thesis	30		
Total		30	/	/

Enrollment of the students 2013-2015

- Academic year 2013-2014

Personal Data				PhD Application (Faculty/Program/Language)						Status	Decision/Comment
#	App ID	City	Country	Faculty	Study program	Study language	UGS GPA	MA GPA	Av. GPA	ADMISSION	FACULTY
1	130668	Tetovë	Macedonia	CST	E - Technologies - PhD	ENG	9.19	8.53	8.86	Eligible	Eligible
2	131024	Preshevë	Kosovo	CST	E - Technologies - PhD	ENG	8.22	9.15	8.69	Eligible	Eligible
3	130658	Prishtinë	Kosovo	CST	E - Technologies - PhD	ENG	8.36	8.60	8.48	Eligible	Eligible
4	130657	Mitrovicë	Kosovo	CST	E - Technologies - PhD	ENG	8.40	8.80	8.60	Eligible	Eligible
5	131309	Gjilan	Kosovo	CST	E - Technologies - PhD	ENG	8.86	8.30	8.58	Eligible	Eligible
6	130036	Ferizaj	Kosovo	CST	E - Technologies - PhD	ENG	8.91	8.07	8.49	Eligible	Eligible
7	131017	Ferizaj	Kosovo	CST	E - Technologies - PhD	ENG	7.00	9.11	8.06	?	B&M studies not in the field
8	131207	Glogovc	Kosovo	CST	E - Technologies - PhD	ENG	7.32	8.50	7.91	?	B&M studies not in the field
9	130659	Prishtinë	Kosovo	CST	E - Technologies - PhD	ENG	7.56	8.20	7.88	?	interview
10	130660	Prishtinë	Kosovo	CST	E - Technologies - PhD	ENG	7.44	8.26	7.85	?	interview
11	130410	Gjilan	Kosovo	CST	E - Technologies - PhD	ENG	7.19	8.13	7.66	?	interview
12	130682	Gjilan	Kosovo	CST	E - Technologies - PhD	ENG	6.77	7.80	7.29	?	not accepted
13	130440	Suharekë	Kosovo	CST	E - Technologies - PhD	ENG	6.31	8.00	7.16	?	not accepted
14	131204	Gjilan	Kosovo	CST	E - Technologies - PhD	ENG	6.83	Diff. grading scale	#VALUE!	?	not accepted
15	131205	Prizren	Kosovo	CST	E - Technologies - PhD	ENG	6.80	Diff. grading scale (A)	#VALUE!	?	not accepted
16	130067	Kumanovë	Macedonia	CST	E - Technologies - PhD	ENG	6.16	Different scale (3,83)	#VALUE!	?	not accepted

Academic year 2014-2015

No	File no	University	GPA/UGS	University	GPA/GS	Admitted
1	140909	University of Prishtina, Kosovo	8.00	University of Prishtina	7.53	no
2	140010	SEE University, Macedonia	7.64	SEE University, Macedonia	7.40	no
3	140020	University of Prishtina, Kosovo	7.40	Kolegji Evropian Dukagjini	9.2	no
4	140363	University of Prishtina, Kosovo	6.77 ?	SEE University, Macedonia	7.80	no
5	140684	University of Shkodra 'Luigj Gurakuqi'	7.20	University of Tirana	8.01	no
6	140766	University of Prishtina, Kosovo	7.76	University of Prishtina	8.12	no
7	140851	University of Prishtina, Kosovo	7	University of Prishtina	7.20	no
8	140860	University of Prishtina, Kosovo	7.53	University of Prishtina	7.26	no
9	140862	University of Prishtina, Kosovo	8.90	University of Prishtina	8.13	yes
10	140646	SEE University, Macedonia	9.76	SEE University, Macedonia	9.20	yes
11	140639	SEE University, Macedonia	9.61	Lineaus University, Sweden	?	yes (conditionally)
12	141092	University of Prishtina, Fakulteti i Elektroteknikës, Kosovo	8.51	University of Prishtina	8.33	yes
13	140938	PUT, Computer Engineering, Albania	8.04?	PUT, Computer Engineering, Albania	8.73	yes
14	140933	SEE University	9.93	SEE University, Macedonia	9.07	yes
15	140930	Kiril i Metodij 'Elektroteknika i informaciski tehnologji, Macedonia	6.79	George Mason University (Information Systems)	3.5	no
16	141096	USh of Tetovo, Macedonia	9.60	SEE University, Macedonia	9.09	yes
17	141093	University of Prishtina, Computer Sciences, Kosovo	7.33	University of Prishtina, Computer Sciences	7.53	no
18	141085	PUT, Computer Engineering, Albania	9.29	PUT, Computer Engineering, Albania	9.42	yes
19	141080	UBT, sistemet informative dhe bazate te dhenave., Prishtina, Kosovo	8.44	Politecnico di Milano Inxhinjeri informatike, Italy	8.05	yes
20	141053	University of Prishtina, Electrical Engineering, Kosovo	8.25	University of Prishtina, Electrical Engineering, Kosovo	8.25	Yes(not rec. in Macedonia)
21	143618	PUT, Computer Engineering, Albania	8.2	PUT, Computer Engineering, Albania	8.5	yes (conditionally)

Academic year 2015-2016

#	App ID	BSc.	BSc. Credits	Avg. BSc	MSc.	Avg. MSc.	Avg. Sum	Accept/Rejected	Comment
1	151010	Informatics	240	9.93	Informatics	10	19.93	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL, No experience, 10 publications?!
2	150662	Computer Science	180	9.93	Computer Science	10	19.93	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL,
3	150007	Computer Science	180	9.73	Business Informatics	9.78	19.51	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL,
4	150824	Computer Science	180	8.98	Computer Science	8.93	17.91	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL,
5	150215	Computer Science	180	9.27	Database Management	8.43	17.7	ACCEPT	Conditions fulfilled for acceptance
6	150965	Computer Engineering	180	7.64	Computer Engineering	9.64	17.28	REJECTED	Average GPA not fulfilling the minimum requirements by LAW, TOEFL NO
7	150808	Computer Sc. And Electr. Engineering	180	8.53	Computer Sc. And Engineering	8.65	17.18	ACCEPT	Conditions fulfilled for acceptance
8	159955	Computer Science	180	8.59	Computer Science	8.53	17.12	ACCEPT	Conditions fulfilled for acceptance, no TOEFL, NO PUBLICATIONS (36 vjec)
9	150961	Computer Engineering	180	7.67	Computer Engineering	9.4	17.07	REJECTED	Average GPA not fulfilling the minimum requirements by LAW
10	150923	Computer Engineering	180	9	Computer Engineering	8	17	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL, MUNGOJNE NOTAT E BACHELORIT,
11	150977	Computer Science	240	8.27	SAD	8.5	16.77	ACCEPT	Conditions fulfilled for acceptance, NO TOEFL, very ;low average on professional courses
12	150753	Computer & Telecom	240	7.76	Computer Engineering	8.12	15.88	REJECTED	Average GPA not fulfilling the minimum requirements by LAW
13	151011	Informatics	180	7.69	Computer Engineering	7.37	15.06	REJECTED	Average GPA not fulfilling the minimum requirements by LAW
14	150956	Mathematics	180	7.33	Computer Science	7.53	14.86	REJECTED	Average GPA not fulfilling the minimum requirements by LAW

Summary of admissions

- Student admissions during 3 years

Academic Year	Macedonia	Kosovo	Albania	Applications
2013-2015	1	7	0	16
2014-2015	4	3	3	21
2015-2016	4	4	0	14

- Admission based on previous success and interviews
 - Last year additional interviews by a 3 member commission
- Studies in English – applications only from Albanian speaking students
 - Should work on direction of further internationalization

Professors

- Full professors involved in first year lectures
 - Prof. Dr. Betim Çiço (Albania)
 - Prof. Dr. Zamir Dika (Macedonia)
 - Prof. Dr. Bernd Freisleben (Germany)
 - Prof. Dr. Klaus Bothe (Germany)
 - Prof. Dr. Aksenti Grnarov (Macedonia)
 - Prof. Dr. Llukan Puka (Albania)
 - Prof. Dr. Ilir Spahiu (Macedonia)
- Assigned supervisors
 - Macedonia, Albania, Germany, USA
- According to legal regulations, up to 3 students per supervisor
 - Internal rule: newly accredited supervisors can have only 1 student



2013 - 2014

Nr	ACI S	ATG CC	RM	ATAS	ATICT	ATSE	GPA
1	10	10	7	9	8	8	8,70
2	10	10	10	9	9	8	9,30
3	10	10	10	10	10	9	9,80
4	9	10	7	8	8	7	8,30
5	9	10	9	9	9	9	9,16
6	10	10	8	8	9	9	9,00
7	9	7	IN	9	10	9	8,80
8	10	10	9 (T)	10 (T)	10	10 (T)	9,80
GPA	9,60	9,60	8,50	8,86	9,10	8,86	-----



2014-2015

Nr	ACI S	ATGC C	RM	ATAS	ATICT	ATSE	GPA
1	9	10	NP	9	9	8	9.0 (-1)
2	9	10	NP	8	8	9	8.80(-1)
3	10	10	8	9	9	9	9.16
4	10	10	8	9	9	9	9.16
5	8	10	NP	NP	7	9	8.75(-2)
6	9	10	9	8	10	8	9.00
7	9	10	NP	8	9	9	9.00(-1)
8	10	10	NP	9	9	9	9.40(-1)
9	9	10	NP	9	10	10	9.60(-1)
10	10	10	8	8	9	9	9.00
GPA	9.3	10	8.2	8.56	8.9	8.9	-----



2015 - 2016

Nr	ACIS	ATGCC	RM	ATAS	ATICT	ATSE	GPA
1	10	10		10			
2	10	10		10			
3	10	10		9			
4	10	10		9			
5	10	9		8			
6	7	9		9			
7	9	9		9			
8	10	10		9			
GPA	9,50	9,60		9,12			

Problems

- 1st year problems with exams
- Research Methodologies
 - 1st gen: 1 student still not passed
 - 2nd gen: after 1 year (late) about 50 % completed
 - 3rd gen: expected to finish by the end of December
 - Serious questioning about research methodology during master degree
- To be noted: the subject Research Methodologies is completed only when the research proposal prepared in collaboration with the supervisor is presented and accepted by the Faculty Council

Fundamental problems

- Difficulties in making a real research proposal
 - 1-3 years
- Insufficient preparation during previous degrees
- Not trained for research and academic writing
- Tendency towards simplistic solutions without profound research

- This year we will require submitting a research proposal for admission

Fundamental problems

- Main interest: obtaining a registration to be able to teach at private universities, multiple cases
- Proposal: students should work full-time at the University during their PhD
- Insufficient long-term projects for involving them

Thank you!

Questions, Comments and Suggestions are welcome.