

**Änderungssatzung für die Studien- und Prüfungsordnung für den  
Double-Degree-Masterstudiengang ICT Innovation an der Technischen Universität Berlin**

**Vom 23. Juli 2014**

Der Fakultätsrat der Fakultät IV Elektrotechnik und Informatik der Technischen Universität Berlin hat am 23. Juli 2014 gemäß § 18 Abs. 1 Nr. 1 der Grundordnung der Technischen Universität Berlin, § 71 Abs. 1 Nr. 1 des Gesetzes über die Hochschulen im Land Berlin (Berliner Hochschulgesetz, BerlHG) in der Fassung vom 26. Juli 2011 (GVBl. S. 378), die folgende Änderungssatzung für den Double-Degree-Masterstudiengang ICT Innovation beschlossen:\*\*)

**Artikel I – Änderung der Studienordnung**

In der Anlage zur Studienordnung wird Punkt 2 wie folgt neu gefasst:

**2. Exemplarische Studienverlaufspläne / Modulübersichten**

**Innovation & Entrepreneurship (jeweils in Kombination mit einem Technical Major)**

	Innovation & Entrepreneurship (I & E)	Technical Major
1. Semester	FüS-Entrepreneurship and Innovation Management 6 LP Electives 5 LP	19 LP
2. Semester	Venture Campus 6 LP Ideation Seminar 3 LP Summer School 4 LP	17 LP
3. Semester	I&E Thesis 6 LP	24 LP
4. Semester		Masterarbeit 30 LP

Electives:

The Human Side of Innovation	6 LP
Innovation Economics	6 LP
Innovation Marketing	6 LP
Intellectual Property Management	6 LP
Strategic Management	6 LP
Strategic Standardisation	6 LP
Innovation Policy	6 LP
Open Source and IP in the Digital Society	6 LP
Strategic Innovation Management	6 LP

**Human Computer Interaction and Design**

(1. und 2. Semester nicht an der TU Berlin)

	Innovation & Entrepreneurship (I & E)	Technical Major	
1. Semester	I & E 11 LP (nicht an der TU Berlin)	19 LP (nicht an der TU Berlin)	
2. Semester	I & E 13 LP (nicht an der TU Berlin)	17 LP (nicht an der TU Berlin)	
3. Semester	I & E 6 LP	Speech & Audio Technology 9 LP	Communication Acoustics 6 LP
		Electives 9 LP	
4. Semester		Masterarbeit 30 LP	

Electives:

Photogrammetric Computer Vision	9 LP
Automatic Image Analysis	6 LP
Study Project Quality and Usability	6 LP
Biometric Identification	3 LP
Introduction to Physiological Computing	6 LP

**Internet Technology and Architecture**

	Innovation & Entrepreneurship (I&E)	Technical Major			
1. Semester	I & E 11 LP	Network Architectures – Basics 6 LP	Next Generation Network – Basis 1 9 LP	Network Technologies (Small) 6 LP	Electives 9 LP
2. Semester	I & E 13 LP	Mobile Services 6 LP			
3. Semester	I & E 6 LP	Electives 24 LP			
4. Semester		Masterarbeit 30 LP			

Electives:

Hot Topics in Operating Systems and Distributed Systems	3 LP
Parallel Systems	6 LP
Embedded Operating Systems	6 LP
Operating System Design	6 LP
Operating System Project and Seminar	9 LP
CIT7 – Current topics in IT infrastructures	3 LP
Seminar Readings in Database Systems	3 LP
Computational Complexity	9 LP
IDB: Database Internals & Scalable Data Processing	6 LP
IDB-PRA: Implementation of a Database Engine	6 LP
Parameterized Algorithmics	6 LP
Randomized Algorithms	6 LP
Special Topics in Communication Networks and Autonomous Security	3 LP
Network Architectures – WirelessLab	9 LP
Network Architectures – RouterLab	9 LP
Network Architectures – Specialization (big)	9 LP
Network Architectures – Specialization (small)	6 LP
Network Architectures – Master Project	12 LP
Network Architectures – Master Project (small)	6 LP
Network Architectures – Seminar	3 LP
Network Algorithms	6 LP
Digital Communities	6 LP
Ad-hoc- and Sensor Networks	6 LP
Network Technologies (Medium)	9 LP
Performance Evaluation of Computer Communication Systems	6 LP
Project in Advanced Network Technologies	6 LP
Next Generation Networks & Future Internet Technologies – Project 1	9 LP
Next Generation Networks & Future Internet Technologies – Project 2	9 LP
Hot Topics in Next Generation Networks and Future Internet Technologies	3 LP

**Distributed Systems and Services**

	Innovation & Entrepreneurship (I&E)	Technical Major		
1. Semester	I & E 11 LP	Distributed Algorithms 6 LP	Network Architectures - Basics 6 LP	Electives 9 LP
2. Semester	I & E 13 LP	CIT 9 - Cloud Computing 6 LP	Internet of Services Lab 9 LP	
3. Semester	I & E 6 LP	Electives 24 LP		
4. Semester		Masterarbeit 30 LP		

Electives:

Network Architectures - Router Lab	9 LP
Operating System Design	6 LP
Mobile Services	6 LP
IDB: Database Internals & Scalable Data Processing	6 LP
IDB-PRA: Implementation of a Database Engine	6 LP
Advanced Information Management I – Heterogeneous and Distributed Information Systems	6 LP
Parallel Systems	6 LP
Web Technologies	6 LP
Network Architectures - WirelessLab	9 LP
Performance Evaluation of Computer Communication Systems	6 LP
Digital Communities	6 LP
Advanced Information Management III – Scalable Data Analysis and Data Mining	6 LP
Hot Topics in Information Management / IMPRO	6 LP
IMPRO 3: Big Data Analytics Project	9 LP
Sustainable Information Systems Management	6 LP
Distributed Algorithms	6 LP
Network Architectures – Basics	6 LP
CIT 9 – Cloud Computing	6 LP
Internet of Services Lab	9 LP

**Embedded Systems**

	Innovation & Entrepreneurship (I & E)	Technical Major			
1. Semester	I & E 11 LP	Applied Embedded Systems Project 6 LP	Embedded Operating Systems 6 LP	Compiler Construction 6 LP	Quality Assurance of Embedded Systems 6 LP
2. Semester	I & E 13 LP	Advanced Computer Architectures 6 LP		Electives 6 LP	
3. Semester	I & E 6 LP	Multicore Architectures 6 LP	Analysis and Optimization of Embedded Systems 6 LP	Electives 12 LP	
4. Semester		Masterarbeit 30 LP			

Electives:

Ad-hoc- and Sensor Networks	6 LP
Parallel Systems	6 LP
Multicore Architectures	6 LP
Analysis and Optimization of Embedded Systems	6 LP
Operating Systems Project and Seminar	9 LP
Recent Advances in Computer Architecture	3 LP
Hot Topics in Operating Systems and Distributed Systems	3 LP
Computer Arithmetic: Circuit Perspective	6 LP
Communication Technologies for Embedded Systems	12 LP
Seminar Software Engineering for Embedded Systems	3 LP
Embedded Systems Security Labor	6 LP
Networked Embedded Systems	6 LP

**Security & Privacy**

	Innovation & Entrepreneurship (I & E)	Technical Major			
1. Semester	I & E 11 LP	Computer Security Specialization Large 9 LP	Communication Network Security 9 LP	IT Security Lab: Vulnerability Assessment 6 LP	Quality Assurance of Embedded Systems 6 LP
2. Semester	I & E 13 LP	(3 LP WS, 6 LP SS)	(3 LP WS, 6 LP SS)	(Embedded System) Security Labor 6 LP	
3. Semester	I & E 6 LP	Computer Security Project 9 LP	Software Security 6 LP	Electives 9 LP	
4. Semester		Masterarbeit 30 LP			

Electives:

Hot Topics in Operating Systems and Distributed Systems	3 LP
Embedded Operating Systems	6 LP
Operating System Design	6 LP
Special Topics in Communication Networks & Autonomous Security	3 LP
Computer Security – Seminar	3 LP

**Artikel II – Änderung der Prüfungsordnung**

In der Anlage zur Prüfungsordnung wird Punkt 2 wie folgt neu gefasst:

**2. Modulliste**

Modultitel	Fak./ FG.	Pflicht (P)/ Wahlpflicht (WP)	LP	Prüfungs- form	Differenzierte Bewertung mit Note
Innovation & Entrepreneurship					
EIT ICT Labs Summer School		P	4	P	Ja
FüS-Entrepreneurship and Innovation Management	VII	P	6	P	Ja

I&E Thesis	VII	P	6	P	Ja
Venture Campus	VII	P	6	P	Ja
Ideation Seminar	VII	P	3	P	Ja
Entrepreneurship Research	VII	WP	6	P	Ja
The Human Side of Innovation	VII	WP	6	P	Ja
Innovation Economics	VII	WP	6	P	Ja
Innovation Marketing	VII	WP	6	P	Ja
Intellectual Property Management	VII	WP	6	P	Ja
Strategic Management	VII	WP	6	P	Ja
Strategic Standardisation	VII	WP	6	P	Ja
Innovation Policy	VII	WP	6	P	Ja
Open Source and IP in the Digital Society	VII	WP	6	P	Ja
Strategic Innovation Management	VII	WP	6	P	Ja
<b>Human Computer Interaction and Design</b>					
Automatic Image Analysis	IV	WP	6	S	Ja
Communication Acoustics	IV	P	6	P	Ja
Photogrammetric Computer Vision	IV	WP	9	S	Ja
Speech and Audio Technology	IV	P	9	M	Ja
Study Project Quality and Usability	IV	WP	6	P	Ja
Biometric Identification	IV	WP	3	P	Ja
Introduction to Physiological Computing	IV	WP	6	P	Ja
<b>Internet Technology and Architecture</b>					
Ad-hoc- and Sensor Networks	IV	WP	6	P	Ja
CIT7 – Current Topics in IT Infrastructures	IV	WP	3	P	Ja
Computational Complexity	IV	WP	9	M	Ja
Digital Communities	IV	WP	6	M	Ja
Embedded Operating Systems	IV	WP	6	M	Ja
Hot Topics in Operating Systems and Distributed Systems	IV	WP	3	P	Ja
Seminar Readings in Database Systems	IV	WP	3	P	Ja
Mobile Services	IV	P	6	M	Ja
IDB: Database Internals & Scalable Data Processing	IV	WP	6	P	Ja
IDB-PRA: Implementation of a Database Engine	IV	WP	6	P	Ja
Network Architectures – Basics	IV	P	6	P	Ja
Network Architectures – WirelessLab	IV	WP	9	P	Ja
Network Architectures – RouterLab	IV	WP	9	P	Ja
Network Architectures – Specialization (big)	IV	WP	9	P	Ja
Network Architectures – Specialization (small)	IV	WP	6	P	Ja
Network Technologies (Small)	IV	P	6	P	Ja
Network Technologies (Medium)	IV	WP	9	P	Ja
Next Generation Network – Basis 1	IV	P	9	P	Ja
Operating System Design	IV	WP	6	M	Ja
Operating System Project and Seminar	IV	WP	9	P	Ja
Parallel Systems	IV	WP	6	M	Ja
Parameterized Algorithms	IV	WP	6	M	Ja
Performance Evaluation of Computer Communication	IV	WP	6	P	Ja
Randomized Algorithms	IV	WP	6	M	Ja
Special Topics in Communication Networks and Autonomous Security	IV	WP	3	P	Ja
Network Architectures – Master Project	IV	WP	12	P	Ja
Network Architectures – Master Project (small)	IV	WP	6	P	Ja

Network Architectures – Seminar	IV	WP	3	P	Ja
Network Algorithms	IV	WP	6	S	Ja
Project in Advanced Network Technologies	IV	WP	6	P	Ja
Next Generation Networks & Future Internet Technologies – Project 1	IV	WP	9	P	Ja
Next Generation Networks & Future Internet Technologies – Project 2	IV	WP	9	P	Ja
Hot Topics in Next Generation Networks and Future Internet Technologies	IV	WP	3	P	Ja
Distributed Systems and Services					
Advanced Information Management I – Heterogeneous and Distributed Information Systems	IV	WP	6	M	Ja
Advanced Information Management III – Scalable Data Analysis and Data Mining	IV	WP	6	M	Ja
Digital Communities	IV	WP	6	M	Ja
Hot Topics in Information Management/IMPRO	IV	WP	6	P	Ja
IDB: Database Internals & Scalable Data Processing	IV	WP	6	P	Ja
IDB-PRA: Implementation of a Database Engine	IV	WP	6	P	Ja
Mobile Services	IV	WP	6	M	Ja
Network Architectures – Basics	IV	P / WP	6	P	Ja
Network Architectures – WirelessLab	IV	WP	9	P	Ja
Network Architectures – RouterLab	IV	WP	9	P	Ja
Operating System Design	IV	WP	6	M	Ja
Parallel Systems	IV	WP	6	M	Ja
Performance Evaluation of Computer Communication	IV	WP	6	P	Ja
Sustainable Information Systems Management	IV	WP	6	P	Ja
IMPRO 3: Big Data Analytics Project	IV	WP	9	P	Ja
Web Technologies	IV	WP	6	P	Ja
Distributed Algorithms	IV	P / WP	6	P	Ja
CIT 9 - Cloud Computing	IV	P / WP	6	M	Ja
Internet of Services Lab	IV	P / WP	9	P	Ja
Embedded Systems					
Ad-hoc- and Sensor Networks	IV	WP	6	P	Ja
Advanced Computer Architectures	IV	P	6	P	Ja
Analysis and Optimization of Embedded Systems	IV	P / WP	6	M	Ja
Applied Embedded Systems Project	IV	P	6	P	Ja
Compiler Construction I	IV	P	6	S	Ja
Embedded Operating Systems	IV	P	6	M	Ja
Hot Topics in Operating Systems and Distributed Systems	IV	WP	3	P	Ja
Multicore Architectures	IV	P / WP	6	P	Ja
Operating System Project and Seminar	IV	WP	9	P	Ja
Parallel Systems	IV	WP	6	M	Ja
Quality Assurance of Embedded Systems	IV	P	6	M	Ja
Recent Advances in Computer Architecture	IV	WP	3	P	Ja
Computer Arithmetic: Circuit Perspective	IV	WP	6	P	Ja
Communication Technologies for Embedded Systems	IV	WP	12	P	Ja
Seminar Software Engineering for Embedded Systems	IV	WP	3	P	Ja
(Embedded Systems) Security Labor	IV	WP	6	P	Ja
Networked Embedded Systems	IV	WP	6	P	Ja
Security and Privacy					

Communication Network Security	IV	P	9	P	Ja
Computer Security - Project	IV	P	9	P	Ja
Computer Security - Specialization Large	IV	P	9	P	Ja
Embedded Operating Systems	IV	WP	6	M	Ja
(Embedded Systems) Security Labor	IV	P	6	P	Ja
Quality Assurance of Embedded Systems	IV	P	6	M	Ja
Hot Topics in Operating Systems and Distributed Systems	IV	WP	3	P	Ja
IT Security Lab: Vulnerability Assessment	IV	P	6	P	Ja
Operating System Design	IV	WP	6	M	Ja
Software Security	IV	P	6	P	Ja
Special Topics in Communication Networks and Autonomous Security	IV	WP	3	P	Ja
Computer Security – Seminar	IV	WP	3	P	Ja

### Artikel III – Schlussbestimmungen

Diese Änderungssatzung tritt zu Beginn des Wintersemesters 2014/15, spätestens jedoch an dem Tage nach der Veröffentlichung im Amtlichen Mitteilungsblatt der Technischen Universität Berlin in Kraft.

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\*\*) Bestätigt vom Präsidium der Technischen Universität Berlin am 30. September 2014.