



Univ.-Prof.in Dr.in Iris Eisenberger, M.Sc. (LSE)

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## **Governance of Emerging Technologies**

(Course number: 736004; 2 ECTS credits)

### **1. Course dates:**

- Wednesday, **22.03.2017** (Introduction)  
MENH HS II (MENH-01/43), 4pm – 4.30pm
- Further dates (three) will be set during the introduction

### **2. Course description:**

Emerging technologies such as nanotechnology, biotechnology, drones, robotics, blockchains or artificial intelligence are rapidly changing our society. This optional course will provide you with an overview of legal issues concerning emerging technologies, especially in the field of blockchain technology. Blockchain technology is not only the underlying principle of Bitcoin and other cryptocurrencies. It also offers new possibilities for (renewable) energy trading, cap-and-trade contracts or emission reporting.

We will address issues such as:

- Pros and cons of blockchain technology
- Which other applications than cryptocurrencies might emerge out of blockchain technology?
- Would you use blockchain processes in your daily (business) life?
- What regulatory measures should or could be taken?
- Which role do states have in controlling and governing emerging technologies such as blockchain and cryptocurrencies?

### **3. Assessment:**

- Presentation of one paper per student (20%; the grade is based on the quality and substance of the presentation).
- Active participation in class discussions (40%; the grade is based on the quality of students' participation in class).
- Drafting a short recommendation regarding a regulatory question (20%; the grade is based on the strength of the argument).

#### 4. Course outline:

##### Introduction (22.03.2017)

Course structure, brief introduction into blockchain.

Readings:

- European Union Agency for Network and Information Security (ENISA). **Glossary – Blockchain**. [Online], 12.03.2017. Available at <https://www.enisa.europa.eu/topics/national-csirt-network/glossary/blockchain>
- Murphy, Edward V. and M. Maureen Murphy, Michael V. Seitzinger. **Bitcoin: Questions, Answers, and Analysis of Legal Issues**. Congressional Research Service (October 13, 2015). Pages 1-8
- World Economic Forum's Meta Council on Emerging Technologies. **Top 10 Emerging Technologies of 2016** (June 2016).

##### Session I – Law, Technology & Society

„Hands-on activity“, lecture and discussion.

Readings / Presentations:

- Filippi, Primavera and Samer Hassan. **Blockchain technology as a regulatory technology: From code is law to law is code**. First Monday [Online], 21.12 (2016): n. pag. Web. 12 Mar. 2017
- Huckle, S.; White, M. **Socialism and the Blockchain** (2016). Future Internet, 8, 49
- Wright, Aaron and De Filippi, Primavera, **Decentralized Blockchain Technology and the Rise of Lex Cryptographia** (March 10, 2015). Available at SSRN: <https://ssrn.com/abstract=2580664>  
Pages 1-4 & 44-58

##### Session II – Regulatory measures

Lecture, discussion and writing a recommendation.

Readings / Presentations:

- Viswanath, Raghavi and Tadwalkar, VaibhaviAbhay, **Bitcoins - A Viable Currency? Regulatory and Legal Issues** (November 28, 2014). Available at SSRN: <https://ssrn.com/abstract=2531729> or <http://dx.doi.org/10.2139/ssrn.2531729>
- Vondráčková, Aneta, **Regulation of Virtual Currency in the European Union** (December 30, 2016). Charles University in Prague Faculty of Law Research Paper No. 2016/III/3. Available at SSRN: <https://ssrn.com/abstract=2896911>

##### Session III – Policy-makers

Teamwork and discussion.

Readings / Presentations:

- Boucher Philip and Susana Nascimento, MihalisKritikos, European Parliamentary Research Service. **How blockchain technology could change our lives**. Science and Technology Options Assessment (2017).
- Scott, Brett. **How Can Cryptocurrency and Blockchain Technology Play a Role in Building Social and Solidarity Finance?** (February 2016). United Nations Research Institute for Social Development Working Paper 2016-1. Available at <http://www.unrisd.org/brett-scott>