

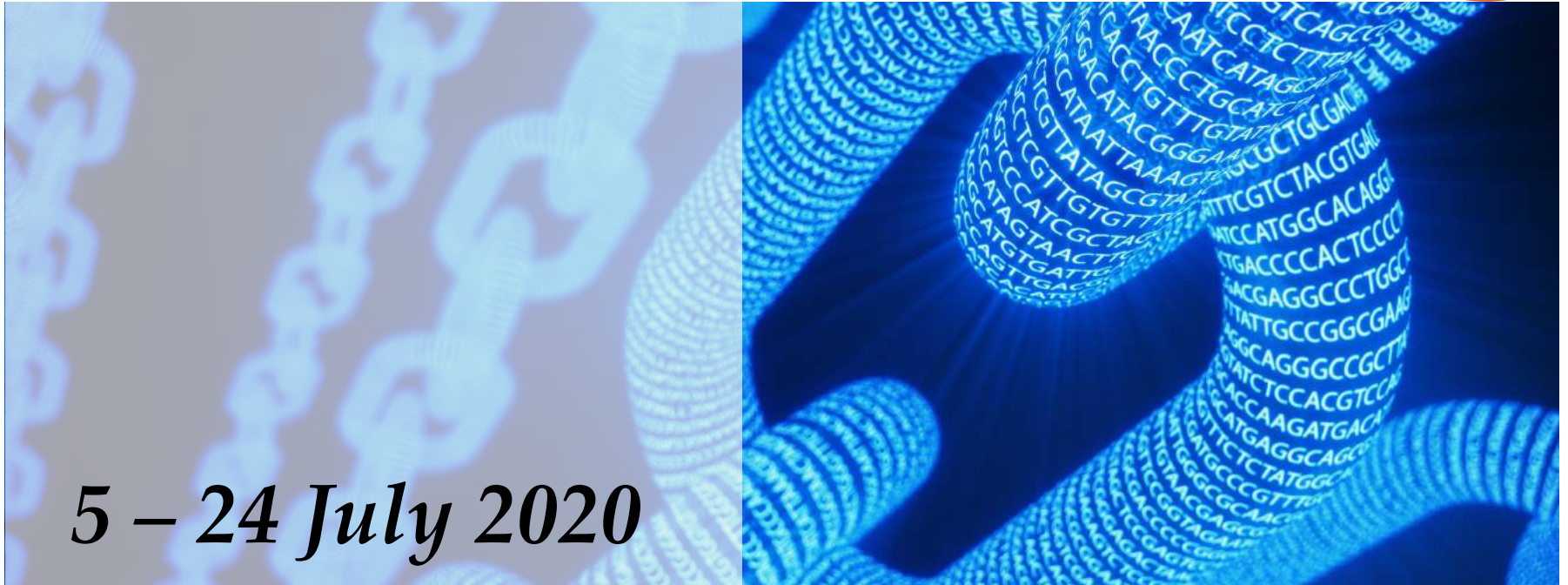


# UZH International Summer Schools 2020

*Deep Dive into Blockchain –  
Linking Economics, Technology and Law*

Online  
Format

*5 – 24 July 2020*





## Preface

This online summer school will give you a complete immersion into the topic of blockchain from world-leading experts and practitioners in the field. Blockchain-based systems, with cryptocurrencies as the most prominent example, have disrupted and reshaped the way we now think about digital finance and other similar applications, such as supply chains. Blockchain and related technologies allow to store sequential, trustful information without enforced consensus by central authorities or trustees.

For a full understanding of Blockchain, with all its implications and potential for application in practice, it is absolutely crucial to look at it from a multidisciplinary perspective. This is exactly what the UZH Blockchain Center offers during the three weeks of this course: you will understand the three key pillars of blockchain systems, namely the technology, the economics and the legal aspects behind it. Building on this, we will then explore other fields of application, such as forensics and data analytics.

But most importantly, the online program is highly interactive, with both theory and hands-on practice sessions offered by blockchain experts from Switzerland, Austria, China, Germany, Japan, South Korea and the United Kingdom!



## Main learning objectives

- ✓ Get to know how blockchain-based systems work
- ✓ Understand the economic incentives as the basis of blockchain-based systems
- ✓ Learn to critically assess the decisions taken when designing blockchain technologies
- ✓ Learn from experts in academia and industry, and obtain hands-on experience in both established and advancing technologies



## Content

### Blockchain-based Systems

Technology

Economics / Business

Law / Regulation



## Content: Technology

Blockchains are complex techno-economic systems that revolutionize multiple industries. The various forms of this technology have evolved over the last few years. In this summer school, the students will learn the main shared elements of blockchain systems, while gaining a broad overview of the technological landscape and future trends.

### Topics:

- Functioning of public and private blockchains and distributed ledger
- Smart contracts and digital autonomous organizations
- Solving scalability riddles



## Content: Economics

Blockchain systems are based on economic incentives that ultimately determine their functioning. In most cases, these incentives are placed by design, but others have remained hidden to the designers, to only surface upon system deployment. In general, the effect of these rewards has been opposed to the initial intentions. In this summer school, the students will understand the typical pitfalls and how to avoid them.

### Topics:

- The processes of token creation and distribution
- The foundations of centralization and accumulation in cryptocurrencies
- The different business models around blockchain applications



## Content: Law and Regulation

Blockchains and - its most widely known application - cryptocurrencies allow to transfer property in a digital, decentralized manner which is still uncommon with regulatory bodies dominating commerce worldwide. They further provide the possibility to sign digital and automatically enforced contracts – so called smart contracts. In this summer school, students will learn about the various regulatory frameworks and how they compare to each other.

### Topics:

- Legal implications of smart contracts
- Comparison of various regulatory frameworks
- Token issuance mechanisms



## Teaching and Learning Methods

- **Podcasts** – watch two sessions per day by lecturers from academia and industry as often as you like
- **Test your knowledge** – following the sessions, you will have an assignment (individual and group) to assess and deepen the knowledge
- **Hands-on sessions** – Interact with our lecturers and benefit from their expertise
- **Q&A sessions every day** – ask your questions and get answers from our teaching team at the University of Zurich during the daily interactive Q&A sessions
- **Wrap-up** – get an interactive recap of the program at the end of each week
- **Group work** – interact with other students and work together on your final project
- **Mentoring for your final project** – join the interactive mentoring sessions in the third week and ensure that you are on the right path with your final project

(All course content will be provided via one platform. You will get an invitation to join this platform before the summer school starts.)





## Assessment

In order to get the 6 ECTS for this summer school you will have to:

- Watch all podcast sessions in accordance with the schedule
- Participate actively in the daily interactive sessions (hands-on sessions / Q&A / mentoring and wrap-up sessions)
- Work in groups and hand in your final project in time

→ You will receive your Transcript of Records (stating your grade with „pass“ or „fail“) and a Certificate of Attendance by the end of July 2020.



## Tentative Schedule Week 1 (5 – 10 July 2020)

CEST (GMT+2)	China Standard Time (GMT+8)	US Eastern Timezone (GMT-4)	Sun, 5 July	Mon, 6 July	Tue, 7 July	Wed, 8 July	Thu, 9 July	Fri, 10 July	
08:00:00	14:00:00	02:00:00							Academic / Theory Section (podcast)
09:00:00	15:00:00	03:00:00							Industry Section (podcast)
10:00:00	16:00:00	04:00:00			Q&A	Q&A	Q&A	Q&A	Introduction / Wrap-up Section (interactive)
11:00:00	17:00:00	05:00:00							Hands-on Section with speakers (interactive)
12:00:00	18:00:00	06:00:00							Social Program
<b>13:00:00</b>	<b>19:00:00</b>	<b>07:00:00</b>							
<b>14:00:00</b>	<b>20:00:00</b>	<b>08:00:00</b>	Welcome and Introduction / Social Program	Introduction to the Course	Hands-on sessions with speakers	Hands-on sessions with speakers	Hands-on sessions with speakers	Wrap up	
<b>15:00:00</b>	<b>21:00:00</b>	<b>09:00:00</b>		Q&A	Q&A	Q&A	Q&A	Q&A	
<b>16:00:00</b>	<b>22:00:00</b>	<b>10:00:00</b>							
17:00:00	23:00:00	11:00:00							
18:00:00	00:00:00	12:00:00							
19:00:00	01:00:00	13:00:00							
20:00:00	02:00:00	14:00:00							
	Podcast sessions (each 90mins) this day to be watched individually before the Q&A session:			Introduction to Blockchain	Cryptocurrencies	Economics of Blockchains	Cryptoeconomics	Economics of Blockchains	
				Blockchain Technology	Blockchain Platforms	Smart Contracts	Web3 Foundation	Token Regulations	

- Q&A sessions will be offered twice a day. Choose the one that fits your time zone.
- Make sure that you have watched all podcasts for the specific day before the hands-on sessions and the Q&A.
- The Welcome and Introduction on Sunday, 5 July, is mandatory.

*(Program subject to change)*



## Tentative Schedule Week 2 (12 – 17 July 2020)

CEST (GMT+2)	China Standard Time (GMT+8)	US Eastern Timezone (GMT-4)	Sun, 12 July	Mon, 13 July	Tue, 14 July	Wed, 15 July	Thu, 16 July	Fri, 17 July	
08:00:00	14:00:00	02:00:00							Academic / Theory Section (podcast)
09:00:00	15:00:00	03:00:00							Industry Section (podcast)
10:00:00	16:00:00	04:00:00			Q&A	Q&A	Q&A	Q&A	Wrap-up and Project Selection (interactive)
11:00:00	17:00:00	05:00:00							Hands-on Section with speakers (interactive)
12:00:00	18:00:00	06:00:00							Social Program
13:00:00	19:00:00	07:00:00	Social Program: Moderated discussion on COVID-19						
14:00:00	20:00:00	08:00:00		Hands-on sessions with speakers	Hands-on sessions with speakers	Hands-on sessions with speakers	Hands-on sessions with speakers	Project Selection	
15:00:00	21:00:00	09:00:00		Q&A	Q&A	Q&A	Q&A	Q&A	
16:00:00	22:00:00	10:00:00							
17:00:00	23:00:00	11:00:00							
18:00:00	00:00:00	12:00:00							
19:00:00	01:00:00	13:00:00							
20:00:00	02:00:00	14:00:00							
Podcast sessions (each 90mins) this day to be watched individually before the Q&A session:				Cardano	Polkadot	IOST	Ripple	IOTA	
				NEO platform	NEO Dapps	Aeternity	Hyperledger I	Hyperledger II	

- Q&A sessions will be offered twice a day. Choose the one that fits your time zone.
- Make sure that you have watched all podcasts for the specific day before the hands-on sessions and the Q&A.
- The Social Program on Sunday, 12 July 2020, is optional.
- Select the topic of your final project by the end of this week.

*(Program subject to change)*



## Tentative Schedule Week 3 (19 – 24 July 2020)

CEST (GMT+2)	China Standard Time (GMT+8)	US Eastern Timezone (GMT-4)	Sun, 19 July	Mon, 20 July	Tue, 21 July	Wed, 22 July	Thu, 23 July	Fri, 24 July	
08:00:00	14:00:00	02:00:00							Academic / Theory Section (podcast)
09:00:00	15:00:00	03:00:00							Industry Section (podcast)
10:00:00	16:00:00	04:00:00			Q&A	Q&A	Q&A	Q&A	Wrap-up and Project Selection (interactive)
11:00:00	17:00:00	05:00:00							Mentoring Final Project (interactive)
12:00:00	18:00:00	06:00:00							Social Program
13:00:00	19:00:00	07:00:00	Social Program: Moderated discussion on COVID-19						
14:00:00	20:00:00	08:00:00		Mentoring Final Project	Mentoring Final Project	Mentoring Final Project	Mentoring Final Project	Wrap-up	
15:00:00	21:00:00	09:00:00		Q&A	Q&A	Q&A	Q&A	Graduation	
16:00:00	22:00:00	10:00:00							
17:00:00	23:00:00	11:00:00							
18:00:00	00:00:00	12:00:00							
19:00:00	01:00:00	13:00:00							
20:00:00	02:00:00	14:00:00					Hand in Projects		
				ICO and Asset tokenisation (45mins)	Blockchain Analytics (90mins)	IoT Blockchains (45mins)	Consortium Blockchain (90mins)		
			Podcast sessions this day to be watched individually before the Q&A session:	Cryptoeconomics II (45mins)	3D AG (45mins)	Data Protection (45mins)			
				Blockchain Governance (90mins)	Blockchain Communities (90mins)	Swiss Re (45mins)			

- Q&A sessions will be offered twice a day. Choose the one that fits your time zone.
- Make sure that you have watched all podcasts for the specific day before the Q&A.
- Use your „free“ time to work in groups on your final project.
- The Social Program on Sunday, 19 July 2020, is optional. The Graduation Ceremony on 24 July 2020, is mandatory.

*(Program subject to change)*

## Lecturers and Guest Speakers from Academia

Profit from the expertise of multiple Professors from the University of Zurich and other leading experts from academia!



Check our website for details on already confirmed lecturers:

<https://www.int.uzh.ch/en/in/shortprograms/UZH-International-Summer-Schools/DeepDiveIntoBlockchain/Speakers.html>



## Ecosystems in the programme

Get to know different blockchain platforms and obtain hands-on experience from our industry partners!



web3  
foundation



HYPERLEDGER  
FABRIC



CARDANO



IOTA



MONERO

But this is just a partial list... Learn the full list of involved partners from the industry at

<https://www.int.uzh.ch/en/in/shortprograms/UZH-International-Summer-Schools/DeepDiveIntoBlockchain/Involved-Companies.html>



## Your Team at the University of Zurich

Your Course Director



Prof. Dr. Claudio J. Tessone

Your Contacts at the  
International Relations Office



Carmen Richard



Katja Hager



## Contact

In case of any questions regarding the UZH International Summer Schools please contact Ms. Carmen Richard and Ms. Katja Hager:

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