

COURSE ANALYSIS, postgraduate course

Third cycle courses, EECS School, KTH , from 2018

An asterix (*) denotes non-compulsory data.

Course data

Course name	Blockchain Fundamentals – Technology & Applications
Course ID	FID3022
Credits	7.5
Credits per module	
Time period for course	Winter 2020
Teachers	Leila Bahri (lbahri@kth.se)
Classroom hours	5 x 2
Nr of registered students	11
Examination rate, in %	100%

Goals

Global course goals

After the course the student will be able to:

- Demonstrate systematic understanding of Blockchain and capacity to scholarly analyze and criticize interactions between all its components.
- Reflect on the ideas and technologies related to Blockchain with insight on its possibilities and limitations, as well as examine how it is currently used in society and evaluate how it can be used for new purposes and under different application domains.
- Identify the need for further knowledge in improving Blockchain technology with insights from the students own fields of research/interest.

How the course design helps fulfill these goals

The course is organized in two main parts, one designed to obtain basic knowledge about the subject matter and the other to allow for reflections, analysis, and research on related problems. The first part is given as a set of 7 lectures, recorded with explanations and reading material, available for the students to self-study and prepare questions, which should be shared to a common Q\A online forum dedicated to the course, before attending one of 5 classroom sessions where group discussions are undertaken. The classroom sessions were offered online this year and structured such that joint-discussion of the subject matter takes place and also to allow for obtaining an understanding of the key concepts in case that was not achieved from the self-study. In the second part of the course, students are asked to choose a related problem\topic where the subject matter intersects with their own area(s) of research and to carry and in-depth analysis which is to be shared with the rest of the group in one of the 2 online sessions organized for student

presentations and discussions. Each student is also tasked to write a scientific report about their performed research.

Pedagogical development - I

Changes made since previous time course was given

The most important change was that the course had to be adapted for an online offering when it was not possible to meet f2f in classrooms. Recordings of all the lectures were available and published on the course website. Classroom meetings were replaced by online sessions focused on join discussions about the subject matter. Additional reading and support material is also made available through the course website.

Course evaluation; comments from students

Based on the anonymous questionnaire.

Evaluation response rate 5/11; circa, 45%

Overall student view*
Positive comments
Negative comments

Pre-knowledge, comments*
Course design, comments*
Literature, comments
Examination, comments

Particularly interesting*
comments

Course teacher's impressions from the evaluation

Comments

Course teacher's summary

Overall view

Based on the evaluation, the course was well received. The score for all questions was above 6.2 except for one which was at 5.8. Positive comments with very instructive feedback were made. In addition, the discussions during the learning process, the engagement of the students, and the quality of the presentations made towards the end of the course, all gave positive indications to that everything worked well and the course achieved its ILOs.

Positive comments

- "Well structured and well presented material, excellent lecturer"
- "Excellent. She is very pedagogical, encourages discussion and makes sure to answer all the questions. The course was also well organized and logged."
- "The lectures were well organized with good content."
- "It was perfect, she explained everything in detail, gave us time to ask our questions. She put so much effort to answer all the questions and help us do our projects."

Negative comments

- “A bonus lecture on an interesting topic would be exciting”

**View on pre-knowledge*
View on course design***

- “For me, the concept was totally new and it was taught very well”

View on course material

- “I find the lectures concise and easy to follow”

View on examination

- “Lectures, discussion, and the form of examination (in form of both presentation and a report).”

Pedagogical development - II

Outcome of course changes made since last time course was given N/A

Changes to be made before next time course is given

It seems that some of the students would have liked to see more advanced content in the course. The course is clearly offered to establish a basic understanding of the knowledge matter and is primarily meant for students with little to no knowledge about Blockchains. However, for the next offering, we will:

- consider adding more hands-on exercises with slightly advanced content for those who would like to raise the challenge, and
- make the second part of the course more interactive with more team work and opposition based discussions\panels.

Other

Comments*