

# EE 465 Cryptocurrency and Blockchain Technologies

Saravanan Vijayakumaran  
sarva@ee.iitb.ac.in

Department of Electrical Engineering  
Indian Institute of Technology Bombay

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# Course Details

**Instructor** Saravanan Vijayakumaran

**Office** EE 122B (opposite PC lab)

**Off. Hours** Mondays, 4pm to 5:30pm

**TA** Suyash Bagad (15D070007)

**Webpage** [www.ee.iitb.ac.in/~sarva/courses/EE465/Autumn2019.html](http://www.ee.iitb.ac.in/~sarva/courses/EE465/Autumn2019.html)



# Prerequisites

Any one of the following courses

- EE 720
- CS 406
- CS 416
- CS 649
- CS 742

If you don't have the prerequisite, you are welcome to sit through

# Evaluation Policy

- Attendance = 10%
  - Will begin recording after last date for course adjustment
- Assignments = 20%
  - May involve programming
- Exams = 50% (10% Quizzes + 15% Midsem + 25% Endsem)
- DApp Project = 20%
  - Teams of two (no individual projects)
  - Poster/Demo
  - Evaluation before October 15th
- Relative grading
- No audits

# Official Syllabus

- Bitcoin
- Ethereum
- Stellar
- Monero
- ZCash
- Hyperledger Fabric
- Hyperledger Sawtooth
- Quorum

Detailed syllabus and references

[www.ee.iitb.ac.in/web/academics/courses/EE465](http://www.ee.iitb.ac.in/web/academics/courses/EE465)

# Last Year's Topics

## Slides

- [Course Information](#)
- [Cryptographic Hash Functions](#)
- [Digital Signatures](#)
- [Bitcoin Introduction](#)
- [Bitcoin Transactions](#)
- [Bitcoin Smart Contracts](#)
- [Ethereum Introduction](#)
- [Ethereum Transactions](#)
- [Ethereum Blocks](#)
- [Ethereum Smart Contracts](#)
- [Stellar Introduction](#)
- [Stellar Transactions](#)
- [Stellar Consensus Protocol](#)
- [Monero Introduction](#)
- [Monero Ring Signatures](#)
- [Zero Knowledge Proofs](#)
- [zkSNARKs](#)
- [Hyperledger Fabric](#)

# Planned Syllabus for This Year

- Bitcoin
- Ethereum\*
- Stellar
- Monero
- ~~ZCash~~ zkSNARKs
- Hyperledger Fabric\*
- ~~Hyperledger Sawtooth~~
- Quorum\*
- Corda\*
- Blockstack\*
- IPFS\*
- Mumblewimble

\*Potential frameworks for project

Questions?