
IEEE BCTE 2020

 **University of Colorado Boulder**

Blockchain in Transactive Energy

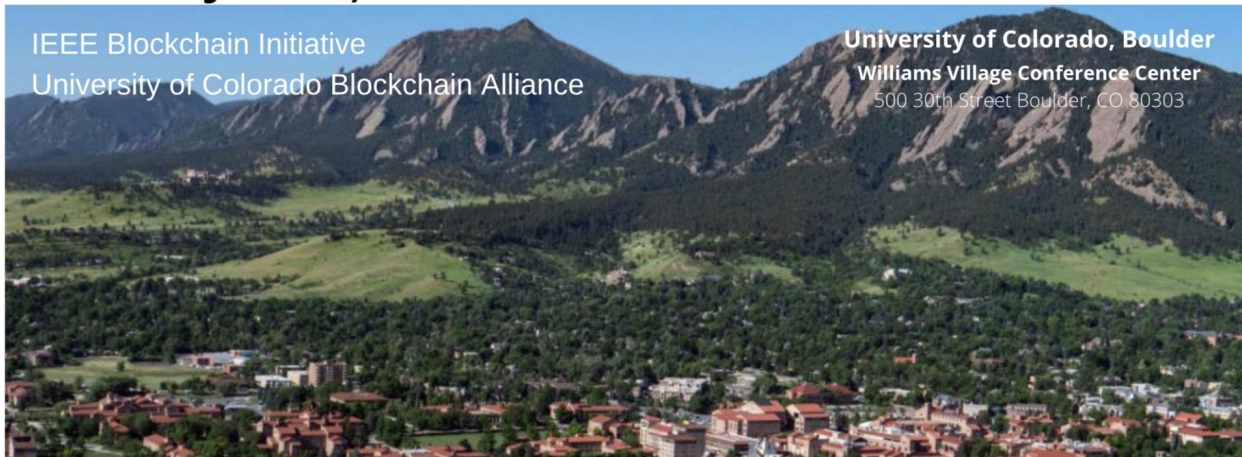
Workshop

February 3-4th, 2020



IEEE Blockchain Initiative
University of Colorado Blockchain Alliance

University of Colorado, Boulder
Williams Village Conference Center
500 30th Street Boulder, CO 80303



PROGRAM DESCRIPTION

The University of Colorado Blockchain Alliance is excited to announce that we will be co-hosting an event with the IEEE Blockchain Initiative on February 3-4, 2020 that will focus on the applications of blockchain in the transactive energy space. This 2-day event will feature It will feature keynotes, tutorials, peer-reviewed technical paper presentations, posters, demos, and exhibitions from world-leading service providers, solution vendors, research institutes, open-source projects, and academia. The Summit is a forum for technical exchange of the latest research and innovation, regulation, policies, standards, and applications in the exciting and emerging area of blockchain for transactive energy.

PROGRAM

Monday, February 3rd, 2020

Morning Session

8:30-8:45am Welcome to Colorado University

Jason Rupe, Cable Labs, IEEE Summit Chair
Hunter Albright - Colorado University

8:45-9:15am IEEE Blockchain Transactive Energy Initiative and Standards Development

Claudio Lima, Blockchain Engineering Council, BEC
IEEE Blockchain Energy Initiative and IEEE P2418.5 Std Chair

9:15-10:00am What Blockchain can do for Transactive Energy Economics and Governance?

Lynne Kiesling, Institute for Regulatory Law & Economics, Department of Eng. and Public Policy at Carnegie Mellon University
Eric Christopher Alston, Leeds School of Business, University of Colorado

10:00-10:30am *Coffee Break*

10:30-11:30am **How Blockchain Can Propel New Business Models for the Energy Industry and Disrupt the Utility of Today?**
Elizabeth Escobar-Fernandes, Duke Energy
Carl Miller, Xcel Energy

11:30-12:00am **A Look at Enterprise Blockchain Use Across Multiple Industries**
John Chappell, BlockApps

12:00-12:30am **Blockchain in Energy Use Case Categories**
Chris Peoples, PP&A

12:30-1:30pm *Lunch Break*

Afternoon Session

1:30-2:00pm **How Blockchain is Impacting the Legal and Regulatory Landscape in the Energy Sector**
Joseph Reiben, Reiben & Reiben LLC Law Firm

2:00-3:00pm **PANEL: R&D Blockchain Energy Projects and Research in Microgrid**
Joe Gersch - Colorado State University - moderator

Panelists:

Small-Scale Microgrid Energy Market Based on Blockchain, Wei Gao, University of Denver (DU), Tim Weil, ComSoc
Parallel Blockchain and Parallel Intelligence: Methods and Application, Dr. Fei-Yue Wang

3:00-3:30pm *Coffee Break*

3:30-4:00pm **Cybersecurity Controls for Renewable Energy Certificate Trading using Blockchain Technology**
Ramesh Reddi, CybSecBCML

4:00-4:30pm **Transactive Energy in SmartGrid Control Networks**
David Cohen, Taekion

4:30-5:00pm **Estimating the Value of Jointly Optimized Electric Power Generation and Residential Electrical Use as an Opportunity for Blockchain Enabled Transactions**
Robert Cruickshank, National Renewable Energy Labs, NREL, US Department of Energy (DOE)

5:00-5:30pm **EnergyChain: Applications in Blockchain Energy and Asset Fractionalization**
Ryan Molecke, EnLedger

5:30-5:45pm **Day One Wrap Up**
Claudio Lima, Technical Program Chair (TPC)

6:00-7:30pm **Network Reception** (Happy Hour)

Tuesday, February 4h, 2020

Morning Session

8:45-9:00am **Chairs' Overview of Day Two**
Jason Rupe, Cable Lab, Summit Chair

9:00-9:30am **Design and Modelling of Blockchain Enabled Distribution Energy Markets**
Tarek Elgindy, National Renewable Energy Labs, NREL, US Department of Energy (DOE)

9:30-10:00am **Smart Energy Systems and IOT using Blockchain**
Chris Gorog, CTO Blockframe

10:00-10:30am *Coffee Break*

10:30-11:00am **Oklahoma Gas and Electric Blockchain Experience**
IBM Speaker

11:00-11:20am **Denver COMSOC Chapter**
Tim Weil- ComSoc

11:20-11:40am **IEEE Blockchain Transactive Energy Initiative - breakout session topics**

Claudio Lima, BEC
Jason Rupe, Cable Labs

- Topic 1:** What are the uses cases in transactive energy that uses DLT blockchain technology?
- Topic 2:** How market mechanisms and incentives can be created that uses transactive energy DLT blockchain?
- Topic 3:** How to classify the different types of transactive energy using DLT blockchain technology?
- Topic 4:** What technical and legal parameters should be included and specified in a Smart Legal Energy Contract (SLEC) framework for blockchain DLT transactive energy?
- Topic 5:** TBD

11:40-12:00am **Breakout Session Organization and Sign-Up**

session chair, All

12:00-1:00pm *Lunch Break*

1:00-2:30pm **Breakout Session**

session chair, All

2:30-3:15pm **Breakout Sessions Summary/Next Steps**

session chairs

3:15-3:30pm **Workshop Wrap-Up**

Jason Rupe, Summit Chair

IEEE Organizing Committee

Dr. Jason Rupe – IEEE Summit Chair
Dr. Claudio Lima – IEEE Technical Program Committee (TPC) Chair

IEEE Local Committee

Hunter Albright - Colorado University
Tim Weil – SecurityFeeds
John Campbell - BlockApps

Event Registration

<https://www.eventbrite.com/e/ieee-blockchain-transactive-energy-summit-tickets-86235575929>