

# One Day Symposium on Blockchain enabled Smart Grid Market

**Date: 22 February 2019**  
**Venue: C-DAC Knowledge Park, Bengaluru-560038**

## ABOUT C-DAC

Centre for Development of Advanced Computing (C-DAC), a Scientific Society of Ministry of Electronics and Information Technology (MeitY), Govt. of India is the premier R&D Organization in IT, Electronics and Associated areas.

## INTRODUCTION:

Blockchain is a decentralized database in the form of open distributed ledger for maintaining a tamper-proof record of transactional data from un-trusted participants over a distributed network. It uses cryptography, consensus algorithms and digital signatures for commoditizing trust and provides features like security, trust, immutability, transparency, fastness, integrity etc. Blockchain facilitates adoption and negotiation of distributed energy transactions through automated smart contracts for modernizing the power marketplace. This, in turn, makes the power grid more secure and resilient.

## CURRENT REQUIREMENTS IN SMART GRID:

- Decentralization through customers engaging in self-generation and/or energy arbitrage through storage solutions
- Lowering losses and cost by encouraging renewables
- Reduce entry barriers for power distribution
- Improved procurement process to reduce latency for timely decisions
- Managing the disruption introduced by renewable and storage solutions in power market

## BLOCKCHAIN APPLICATION IN SMART GRID:

- Open distributed blockchain-based ledger (ODDBL) enables machine proxies of producers and consumers to negotiate pricing and enter into a power sale transaction based on a smart contract
- Facilitates the adoption and monetization of distributed energy transactions and exchanges
- Increase the security and sustainability of distributed energy resource integration
- Blockchain simplifies and makes the power procurement process faster utilizing Smart Contracts
- Automated smart contracts helps to remove the need to interact with third-parties and thereby reduce transactive energy costs
- Helps to remove barriers to a more decentralized marketplace and resilient power grid
- Integration and management of all power markets like Open Access, PX, IEX, balanced transactions, peer-to-peer etc. would introduce huge transaction traffic which requires a technology with enough up scaling features, minimal time lags and inconsistencies

## EXPECTED LEARNING:

- Understanding Smart Energy Contracts using Blockchain
- How Blockchain enhances the trustworthiness and integrity of transactive energy data
- How Blockchain makes distributed energy transactions process Un-hackable
- Transactive energy applications using Blockchain

## REGISTRATION FEE:

Category	Amount (INR) Incl. GST
Non IEEE Member	₹ 2500
IEEE Member	₹ 2000
Non IEEE Student Member	₹ 1500
IEEE Student Member	₹ 1000

## SPEAKERS:

From Research Labs, Industry and Academics

## TARGET AUDIENCE:

Working Professional from Govt./Industry, Utilities, Academia and Researchers

## REGISTRATION DETAILS:

Registration starts from 10th December 2018  
 Registration closes by 11th February 2019

## MODE OF PAYMENT:

**Registration fee should be sent through DD in favor of "C-DAC Bengaluru", payable at Bengaluru along with the completely filled online registration form available at: <https://goo.gl/forms/Ac19mRkQG3ooEVc13>**

**OR Through RTGS/NEFT/IMPS**

**COORDINATOR:** Lageneni Mahendra ([lagenenim@cdac.in](mailto:lagenenim@cdac.in))  
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## VENUE:

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