# IEEE Brainwaves

IEEE Brainwaves Newsletter is published by the IEEE Brainwaves student chapter of D.J. Sanghvi College of Engineering

## IEEE Brainwaves Feature Events :

### Mentorship Program



This year the IEEE Brainwaves has come forward with a way to connect the current Third Year Electronics Department students with the Alumni through a mentorship program. Through this program the department wishes to bridge the gap between the students and the Alumni wherein the students will work under the mentors on projects assigned to them according to their respective domains of interest. In this program two mentees will be assigned to the mentors, through a thorough filtering process. These mentees will be working under the assigned mentors for a period of 6 months. These Third Year students will in turn pass on the knowledge to the Second Year Students (members) of IEEE Brainwaves. Through this program IEEE Brainwaves wishes to reduce the gap that the students encounter while making the leap from a protected environment of Undergraduate level to that of the industrial work place which is often something that is never ever faced by them before.

MENTORS INVOLVED IN THE MENTORSHIP PROGRAM:

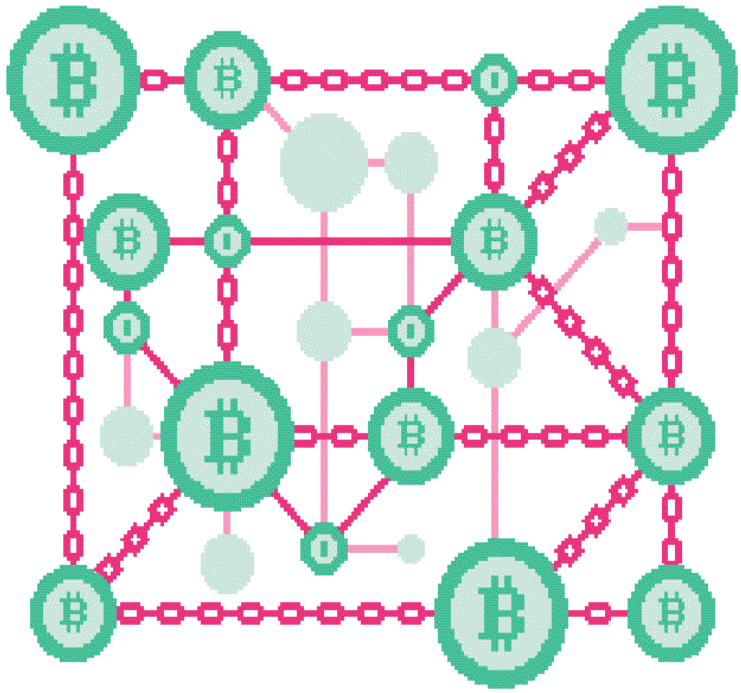
RAHUL SHETTY

SIDDHANTH GANGAPURWALA

VIRAJ PADTE
HILONI PUNATAR
RANVEER ALLAHBADIA
SAMUEL RAMRAJKAR
DHAVAL SHROFF

# IEEE Spectrum Article :

## Blockchains: How They Work and Why They'll Change the World



The technology behind Bitcoin could touch every transaction you ever make

Bitcoin was hatched as an act of defiance. Unleashed in the wake of the Great Recession, the cryptocurrency was touted by its early champions as an antidote to the inequities and corruption of the traditional financial system. They cherished the belief that as this parallel currency took off, it would compete with and ultimately dismantle the institutions that had brought about the crisis. Bitcoin's unofficial catchphrase, "In cryptography we trust," left no doubt about who was to blame: It was the middlemen, the bankers, the "trusted" third parties who actually couldn't be trusted. These humans simply got in the way of other humans, skimming profits and complicating transactions.

Bitcoin sought to replace the services provided by these intermediaries with cryptography and code. When you use a check to pay your mortgage, a series of agreements occur in the background between your financial institution and others, enabling money to go from your account to someone else's. Your bank can vouch that your money is good because it keeps records indicating where every penny in your account came from, and when.

Bitcoin and other cryptocurrencies replace those background agreements and transactions with software—specifically, a distributed and secure database called a blockchain. The process with which the ownership of a Bitcoin token will pass from one person to another—wherever they are, no matter what government they live under—is entrusted to a bunch of computers.

Now, eight years after the first blockchain was built, people are trying to apply it to procedures and processes beyond merely the moving of money with varying degrees of success. In effect, they're asking, What other agreements can a blockchain automate? What other middlemen can blockchain technology retire?

Can a blockchain find people offering rides, link them up with people who are trying to go somewhere, and give the two parties a transparent platform for payment? Can a blockchain act as a repository and a replay platform for TV shows, movies, and other digital media while keeping track of royalties and paying content creators? Can a blockchain check the status of airline flights and pay travelers a previously agreed upon amount if their planes don't take off on time?

If so, then blockchain technology could get rid of Uber, Netflix, and every flight-insurance provider on the market.

Those three proposed applications aren't hypothetical—they're just a few of the things now being built on Ethereum, a blockchain platform that remotely executes software on a distributed computer system called the Ethereum Virtual Machine. In the blockchain universe, Ethereum, which has its own cryptocurrency, called ethers, is by far the project that is most open to experimentation. But zoom out and a diverse collection of potentially disruptive innovators floods into view. New groups are pitching blockchain schemes almost daily. And the tech world's titans don't plan to miss out: Microsoft is offering its customers tools to experiment with blockchain applications on its Azure cloud. IBM, Intel, and others are collaborating on an open-source blockchain initiative called Hyperledger, which aims to provide the bones for business-oriented blockchains. Meanwhile, many of the largest banks—the very institutions that blockchain pioneers were trying to neutralize—have cobbled together their own version of the technology in an attempt to stay ahead of the curve. And even Bitcoin, which runs on the first and most successful blockchain, is being retrofitted for applications its designers never dreamed of.

Pretty much without exception, these new blockchain projects remain unencumbered by actual mass adoption. No single blockchain concept or strategy has yet revolutionized any industry.Bitcoin itself is used by no more than 375,000 people in the entire world on any given day, according to Blockchain.info. But the investor dollars are pouring in, and proposals are floating and colliding like tectonic plates on a hot undercurrent of hype and intrigue.

Continue Reading at

https://spectrum.ieee.org/computing/networks/blockchains-how-they-work-and-why-theyll-change-the-world