

Abstract: In, Bitcoin was launched as peer-to-peer electronic cash. Bitcoin inspired the launch of several other cryptocurrencies. Abstract: In, Bitcoin was launched as peer-to-peer electronic cash. Furthermore, technical challenges and recent advances are The journal publishes theoretical and applied papers in established and emerging areas of blockchain research to shape the future of blockchain technology. The emergence and popularity of blockchain techniques have significantly changed the operation and management of digital systems globally blockchain advocates a entralized, transparent, and more democratic version of the Internet. We examine the methodology used in Abstract—Blockchain, as the basis for cryptocurrencies, has received extensive attentions recently. Blockchain-based applications are springing up, covering nu- The findings of this research deliver a holistic picture of blockchain research, which illuminates the future direction of research, and provides implications for both academic research and enterprise practice. Open Access — free for readers, with Read the latest articles of Blockchain: Research and Applications at, Elsevier's leading platform of peer-reviewed scholarly literature Blockchain is democratizing and entralized economy and information system, which is truly an unprecedented breakthrough in digital security. In this paper, we provide a systematic and comprehensive study of four popular yet widely different blockchain systems: Bitcoin, Ethereum, Hyperledger Fabric, and IOTA Blockchain technology. An overview. Bitcoin inspired the launch of several other cryptocurrencies This paper presents an overview of blockchain technology, identifies the blockchain's key functional characteristics, builds a formal definition, and offers a discussion and Blockchains is an international, peerreviewed, open access journal on blockchain and its applications published quarterly online by MDPI. Bitcoin set the stage for a new field called blockchain, which is a special case of distributed ledger technology (DLT) Essentially being a trusted and entralized database, blockchain finds its applications in fields as varied as the energy sector, forestry, fisheries, mining, material recycling, air pollution monitoring, supply chain management This paper delves into the core concepts of blockchain, exploring its entralized architecture, cryptographic security mechanisms, and consensus protocols. Keywords blockchain; bitcoin; cryptocurrency; bibliometric analysis; co-citation network This paper presents an overview of blockchain technology, identifies the blockchain's key functional characteristics, builds a formal definition, and offers a discussion and classification of current and emerging blockchain applications Blockchain technology: An overview. This article will In, the blockchain idea was combined with several other technologies and computing concepts to create modern cryptocurrencies: electronic cash protected through Consequently, this paper outlines the theoretical model research of blockchain basic knowledge, the design of network services based on blockchain mechanisms and We provide an overview of blockchain architechture firstly and compare some typical consensus algorithms used in different blockchains. Blockchain serves as an immutable distributed ledger technology which allows transac-tions to be carried out credibly in a entralized environment.