**عنوان مقاله:**

Time Series Clustering of Bitcoin and other Cryptocurrencies based on Consensus Protocols

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**خلاصه مقاله:**

In cryptocurrencies, consensus protocols are considered as one of the fundamental differences in the mechanism of their creation. The purpose of this paper is time series clustering of daily prices of cryptocurrencies during ۲۰۱۵ to ۲۰۲۰ using time series clustering algorithm. This research attempts to cluster the time series of twenty cryptocurrencies that have different consensus protocols such as algorithm designed to proof of work, proof of stake or proof of a subject, algorithm designed for voting and so on. The results of this study show that cryptocurrencies are in a specific group with a proof of work mechanism such as Bitcoin and Litecoin. Zcash, Tron, Obyte, Neo, Iota, and EOS are also in a separate group with new consensus mechanisms, including a Directed acyclic graph algorithm. Stellar, Monero, and Ripple cryptocurrencies are also clustered in a group with almost similar mechanisms. This indicates that the time series of cryptocurrencies with similar creation mechanisms and consensus have the same behavior and are in the same cluster.

**کلمات کلیدی:**

Cryptocurrency, Time series clustering, Consensus, bitcoin

**لینک ثابت مقاله در پایگاه سیویلیکا:**