Cryptosystems in Asymmetric Cryptography for Securing Data on Cloud at Various Critical Levels

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Abstract : With upcoming threats in a digital world, we need to work continuously in the area of security in all aspects, from hardware to software as well as data modelling. The rise in social media activities and hunger for data by various entities leads to cybercrime and more attack on the privacy and security of persons. Cryptography has always been employed to avoid access to important data by using many processes. Symmetric key and asymmetric key cryptography have been used for keeping data secrets at rest as well in transmission mode. Various cryptosystems have evolved from time to time to make the data more secure. In this research article, we are studying various cryptosystems in asymmetric cryptography and their application with usefulness, and much emphasis is given to Elliptic curve cryptography involving algebraic mathematics.

Keywords : cryptography, symmetric key cryptography, asymmetric key cryptography

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