



**REVIEW ARTICLE**

# **A Review of Geometry Based Symmetric Key Encryption Using Ellipse**

**Prerna Gaur<sup>1</sup>, Dr. Paramjit Singh<sup>2</sup>**

<sup>1</sup>Computer Science and Engineering Department, PDM College of Engineering, Bahadurgarh, Haryana, India

<sup>2</sup>Professor of Computer Sciences, PDM College of Engineering, Bahadurgarh, Haryana, India

<sup>1</sup> [prernagaur4@gmail.com](mailto:prernagaur4@gmail.com); <sup>2</sup> [director\\_engg@pdm.ac.in](mailto:director_engg@pdm.ac.in)

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**Abstract—** *Cryptography is the way to secure the data to achieve higher reliability during the communication process. There exist a number of cryptographic approaches. This paper defines a geometry based Symmetric cryptography algorithm that is used to encrypt the input data. As the name suggests the approach is based on the geometric figure to perform the cryptography. In this work, we will define an elliptic shape geometry to generate the dynamic key so as to perform the dynamic symmetric encryption of input text. Based on the geometric elliptic figure's properties the key will be generated and by using the key parameters the length and breadth of Cartesian plain will be defined. Once the area will be defined, the next work is to define a group of ellipses and to perform the translation and rotation of axis. By extracting the pixel positions on these ellipses and to place the input data respectively to these locations the cryptography will be performed. The actual work of this algorithm is to change the data locations instead of changing the data. The secure and reliable encoding of the data is expected from the work.*

**Key Terms: - Encryption; Symmetric Key Encryption; Ellipse Generation; Translation; Rotation**

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