**Introduction**

Authentication is the act of proving an assertion, such as the identity of a computer system user. In contrast with identification, the act of indicating a person or thing's identity, authentication is the process of verifying that identity. It might involve validating personal identity documents, verifying the authenticity of a website with a digital certificate, determining the age of an artifact by carbon dating, or ensuring that a product or document is not counterfeit.

Authentication is relevant to multiple fields. In art, antiques and anthropology, a common problem is verifying that a given artifact was produced by a certain person or in a certain place or period of history. In computer science, verifying a user's identity is often required to allow access to confidential data or systems.

Biometric authentication is a security process that relies on the unique biological characteristics of an individual to verify that he is who is says he is. Biometric authentication systems compare a biometric data capture to stored, confirmed authentic data in a database. If both samples of the biometric data match, authentication is confirmed. Typically, biometric authentication is used to manage access to physical and digital resources such as buildings, rooms and computing devices.

Fingerscanning, the digital version of the ink-and-paper fingerprinting process, works with details in the pattern of raised areas and branches in a human finger image.

Fingerprint recognition is one of the most secure systems because a fingerprint of one person never matches with the others. Bio-metrics authorization proves to be one of the best traits because the skin on our palms and soles exhibits a flow like pattern of ridges on each fingertip which is unique and immutable. This makes fingerprint a unique identification for everyone.

Authentication is important because it enables organizations to keep their networks secure by permitting only authenticated user (or processes) to access its protected resources, which may include computer systems, networks, databases, websites and other network-based applications or services.

The literature that will be touched upon in this survey deals with the various components involved in the making a ATM transaction system using Fingerprint Authentication and the various libraries that are being used to implement this particular system. It deals with a fingerprint scanner, RFID scanner, RFID tags and the two libraries, Adafruit and RESTful APIs, which will be used to implement the final product.