The main objective of this work is to develop an authentication scheme that will enhance ATM security using multifactor based authentication scheme, which combines Biometric Fingerprint, PIN and QR-Code authentication. In these system, Bankers will collect the customers fingerprint and mobile number while opening the accounts then customer only accesses ATM machine. The working of this ATM machine is when customer places finger on the fingerprint module when its access automatically generates every time different 4-digit code as a message to the mobile of the authorized customer through GSM modem connected to the microcontroller. The code received by the customer should be entered by pressing the keys on the screen. After entering it checks whether it is a valid one or not and allows the customer further access.

References

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**Index Terms**

Computer Science  
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**Keywords**

ATM-MAS, QR-Code, Fingerprint,