

## **MULTIFACTOR GRAF AUTHENTICATION SCHEME FOR MOBILE DEVICES**

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### **Abstract**

To provide adequate authentication to the users is a constant problem especially with mobile devices such as mobile phones, Personal Digital Assistant (PDA) because they access different networks (Bluetooth, Internet, and *etc*) and many sensitivity data are stored in them. The password is a very common and widely authentication method still used up to now. Textual passwords are the most common authentication technique but most prone to attacks. Graphical password is an image based authentication method which is considered as a promising alternative to traditional textual password for mobile devices, to achieve better trade off between usability and security. Many graphical password schemes have been proposed. However, previous proposals of graphical password have the limitation of limited entropy. In this paper, we propose Multifactor GRAF password which is a new scheme incorporating user face based authentication into Random Geometric Graphical Password to achieve better entropy.

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**Keywords :** Authentication, biometrics, graphical passwords, face hashing, RGG Password