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Face Recognition Attendance System

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Abstract: Biometrics which can be used for identification of individuals based on their physical or behavioral characteristics has gained importance in today's society where information security is essential.
Face geometry based identification systems utilize the geometric features of the face like length andwidth of the face. The proposed system is a verification system which utilizes these face geometry features for user authentication. This project introduces an inexpensive, powerful and easy to use hand geometry based biometric person authentication system. One of the novelties of this work comprises on the introduction of face geometry's related, position independent, feature extraction and identification which can be useful in problems related to image processing.

I. I NTRODUCTION

- Biometrics authentication is the ideal solution to the security requirements. Not only it is much more user friendly than remembering a number of passwords or carrying around a card, but it is something that cannot be stolen or cracked. The biometric authentication systems use human traits which are unique to the individual and neither is stolen nor duplicated. Biometrics authentication is truly the future of personal identification.
- face geometry based biometry systems exploit features on the human hand to perform identity verification. Due to limited discriminatory power of the face geometry features, these systems are rarely employed for applications that require performing identity recognition from a large scale database. Nevertheless, these systems have gained immense popularity and public acceptance as evident from their extensive deployment for applications in access control, attendance tracking and several other verification tasks.
- I.Significant discriminatory information.(Combination of 2-D and 3-D features)
- 2.Contractless Hygienic method
- 3.Improved Performance
- 4.Difficult to forge or counterfeit
- It has Significant discriminatory infonnation means It is Combination of 2-D and 3-D features. This is Contract less Hygienic method. face geometry has had lesser attention paid to its study because most of the difficulties associated with shape definitions and modelling.It doesn't require physical presence like existing system.

Our system uniquely

Behavioural :
It helps m determining if the system requires special effort to educate, retrain, transfer, andchanges in employee's job status on new ways of conducting business.

Operational :
1. It determines whether the system is operating effectively once it is developed andimplemented.
2. It ensures that the management should support the proposed system and its workingfeasible in the current organizational environment.
3. It analyzes whether the users will be affected and they accept the modified or newbusiness methods that affect the possible system benefits.

Table:

BITS/PIXEL	POSSIBLE COLORS
1	2
2	4
3	8
4	16
8	256
16	65000

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II. CONCLUSION

- This project has presented a new approach to achieve more reliable personal authentication using simultaneous extraction and combination of face geometry features.
- The proposed system acquires hand images in a contact -free manner to ensure high user friendliness and also to address the hygienic concerns. Simultaneously acquired range andimages of the face are processed for the feature extraction and matching.
- face geometry based biometric measurement. Simple and efficient metrics are proposed forthe matching of pair of face images . Our research also suggests that significant performance improvement can be achieved by combining hand geometry information extracted from user's face images.

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