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## A REVIEW- DESIGN AND IMPLEMENTATION OF FLAME TECHNIQUE FOR CRIMINAL IDENTIFICATION USING SKIN MARKS

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**Abstract:** RPPVSM were latest introduced as biometric trait using various techniques. It shows identification using skin marks and vein patterns. The system is divided into the main phases. Skin Segmentation, RPPVSM Representation (Detection) and Matching Classifier. For Criminal Identification comparison for classification techniques is done. These techniques should be comparing for low of enforcement to stop sexual child maltreatment, and rampage. Child maltreatment and rampage is failure to act hence skin mark detection is used. The system was find out about 1200 back images gathered from 283 Asian and Causian Subjects in different point of view conditions. The system achieves more than accuracies, higher than the identification accuracies given by old skin marks detection methods. To the best of knowledge these are one of better techniques to be implemented in this paper.

**Keywords:** Forensics, Biometrics, Skin marks, Criminal Identification, Recognition.



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## INTRODUCTION

At presently digital imaging is very easily manufactured. With this leaning and tendency digital images used greater in amount or degree. There is invitation to competition to discern by using these images. In which there is challenge of shortage of unique identifiers accessible for recognition. Usually gangster terrorists, bandit, rioters wrap their physiognomy with domino or mask. There is no way for detection of particular identity.

To keep away from identification one should cover their faces with tattoos or any other specific symbol and design. So it is tough job for identification of natural and raw skin of other body parts such as back, chest, arm, thighs. In such a way, identification of particular physiognomy is done. The forensic investigations take collection of the victim or criminal face images and then they perform face matching techniques. This way it develops a single candidate suspect list required for human analysis.

Crimes such as robberies, kidnappings require related recognitions so that only resources are available to solve these types of crimes. Thus, for face recognition researchers and practitioners should have a good understanding of optimal strategies for combining more than roots of face information, this is called as physiognomy media.

### I. Brief Review of Literature

**Jean-S et.al [1]** proposed Systematic localized framework is constructed to stop the asymmetry in facial skin i.e. (moles, skin marks).

To extract the persons features this characteristics are used. Small scale variations which tends to be highly discriminative features. This system finds out highly sensitive large number of scale template for matching. Two methods are used One is segmentation based on gray scale texture.

Segmentation is where the Skin is get isolated to divide into two clusters. Particular method for identification like fuzzy clustering is used by using such method skin gets illuminated in order to divide in different clusters. Second is local saliency to show special and assured texture. They uses FERET face database for it. Image as input given to shading compensation and texture similarity then both mole localization and skin segmentation is described to achieve mole configuration. The drawback is this paper presented new approach to show local skin irregularities as features for face identification. Focused on the methodology of detection and evaluation of such regions and showed that it is possible to find out a person's identity which

not that much robust in manner. However it is not able to provide better efficiency to the system.

**Arfika Nurhudatiana et.al [2]** recently invented System for digital images and videos are used for crimes mostly in higher order. Identifying a particular suspect is very challenging task such as Gunmen, Pornography, Physical parts of victims are hidden like their chest arm, back, and thigh. It can be seen as digital evidence. Here we examine 269 male subjected. We found RPPVSM in high density Patterns tends to the pattern structure. They represent particular model for independent and uniform RPPVSM pattern and it get compared. The drawbacks involve the reexamined using data with similar properties. With this model, the potential error rates of using RPPVSM patterns for verification and identification were also approximated. Small error rates should be initialized.

**Nisha Srinivas et.al [3]** identified the same fact that is very difficult task because of high degree of correlation. System gives poor performance in differentiating twins images. In this paper use Of facial marks are used as biometric trait for identification. It produces fast radial symmetry transform. It transforms the dark and bright regions at different scales then evaluate the signature whether these scales are matching or not. The repercussion is initiated dispensation of physiognomy as an application of biometric impression. Schematic representation of impute is given to manual annotation then feature extraction and normalization is done to get isolate skin. Onwards graph matching and performance evaluation is extracted. The drawback of this system is not able to approach local skin irregularities as features for face identification. Detection of such regions is not possible to determine ones identity based on only a few well-chosen pixels.

**Dahua Lin Xiaou Tang [4]** reported old face detection techniques are lost the significant information on low resolution. They introduce multiple layers of framework where high resolution gets performed for face recognition. Each face recognition face image is divided into global appearances in global appearances they install PCA and LDA for show facial organs. However facial organs had details of faces left eye, right eye, nose and mouth. Then skin forehead and mouth. Here SIFT technique is used. It gives flexible effective graph. The drawback is seen deviation of particular face organs, skin marks, and with respective details is a time consuming process. The paper established not much effective method for high resolution face recognition. Irregular details are not able to provide smoothness to the system.

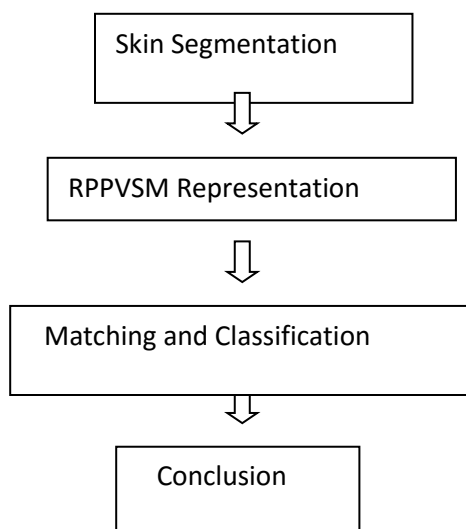
**Han su et.al [5]** narrated where these criminal victims images marks, vein patterns are failed then hair pattern is used. Medical research overcome weakness over skin and vein pattern.

A per their research this is happen for first time the recognition is done by hair patterns after skin marks and blood vessels. In low resolution images get matching Performance of hair pattern. They uses Gabor study filters to inclination of hair patterns, histogram for local declination fields and block by block chi square distance to count differentiation of two patterns. The typical drawback is by using different hair pattern Technique system is quite confusing method. To achieve the hair recognition method is not so easy process.

**Arfika Nurhudatiana et.al [6]** marked out the system in which it describes the effects of prevention. Using three different phases it described the whole unit. The whole scene is divided into different structures First is crime scene in RGB image and second one is database in law enforcement agencies on RGB image both Crime scene law enforcement agencies divided into vein uncovering and RPPVSM detection. Then Extraction and Representation of the vein pattern and skin marks is done. Matching of skin marks and vein pattern done with classifier in forward continuation. Score gets managed by vein and marks matching by make it normalized and fusion it to find out the rank. Drawback is it is time consuming process and matching score is narrow down.

## II. Proposed Scheme—

The proposed system has three specific ways named Segmentation, Representation and Detection, Matching and Classification. By using these methods we implement one diagrammatic flow to associate offender with epidermis blotch.



- I. **Segmentation**—Fuzzy Clustering is applied to isolate the epidermis dots.
- II. **RPPVSM Representation**—Detection and representation of integument dots by Homomorphic and log filter.
- III. **Matching and Classification**—here the skin spot get matched and classified. Accuracy will increase by using FLAME Technique.

#### CONCLUSION—

This paper suggested overall review regarding recognition, representation and classification techniques widely used in image processing. While it is very less noticed that the lawbreakers faces in verification of sexual child maltreatment and rampage, riots their non-facial physiognomy are quite visible to naked eye. To find out the lawbreaker in these images, a process of facility RPPVSM Identification system which is incorporated of skin segmentation, RPPVSM detection, RPPVSM matching Algorithms. As per to the survey of this work, this is the systematic study of nonfacial skin marks and their fusion with vein patterns for operated culprit identification in skin color images in public settings. Based on the Conditions, corresponding performance and feature each one as needed can be

Selected for effective identification Technique.

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