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Extraction Of Latent Fingerprint Using Corn Seed Powder

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Abstract: One of the earliest techniques in forensic science is the development of fingerprints, which is a popular technique for identifying criminals. Due to their ease of use and effectiveness, the powder and ninhydrin methods remain the most popular ones in forensic investigation. Latent fingerprint detection is frequently done using powder dusting. In order to replace expensive, toxic, and complex powders, we need to find a cheap, non-toxic, widely accessible powder. For the visualisation of latent fingerprints, we use corn seed powder in this method. Determining the most affordable and accessible household powder used in Indian homes for the purpose of developing fingerprints. The majority of rigid cases showed clear ridge detail on different surfaces in the results, as opposed to rigid cases developed using non-conventional powder. This paper describes the use of a non-conventional powder for the visualisation of latent fingerprints on porous, semi-porous, and non-porous surfaces.

Index Terms - forensic science, ninhydrin methods, non-conventional powder, fingerprint

Development

- **Introduction**The forensic science specialty of fingerprint analysis has seen many innovative and fascinating advancements over the past 20 years. As fingerprint individuality is widely acknowledged by scientists and courts, fingerprints rank among the most significant categories of physical evidence. Without special lighting or after the prints have been processed, latent prints are invisible and cannot be seen with the naked eye. The only reliable way to solve a crime is frequently to identify the offender using latent print evidence. Latent print is the result of the replication of friction ridges that are made on the palmar side of the fingers, hands, and feet. It is a mixture of various chemicals that come from contaminants and natural secretions. Eccrine, sebaceous, and apocrine glands—three glands that contain known chemical components—are the primary sources of natural secretions. For the visualisation of latent prints, the more traditional methods—such as powder dusting, ninhydrin spraying, iodine fuming, and silver nitrate—are still the most frequently employed methods. This calls for an effort to create some new techniques for fingerprint development for the latent prints recovered under various circumstances because the conventional methods for latent print detection are not always successful. In the current study, an effort has been made to use corn seed powder for the development of fingerprints. Any powder used in processing this method will be used favourably for the purpose of later fingerprint development because the powder development method is based on fundamental properties like fitness, adherence, sensitivity, colour, and flon

IV. RESULTS AND DISCUSSION

In this research, these results reported here show that we had taken 6 surface glass, wood, steel, plastic, marble for detection of fingerprint. Like it was better works on porous and non-porous surfaces. On a variety of surfaces, including paper, cardboard, and plastic, this technique has been proven to work well. It is crucial to remember that this method's efficacy can vary based on the caliber of the maize seed powder and the circumstances in which it is applied. In order to maximize the use of corn seed powder in this research, these results reported here show that we had taken 6 surface glass, wood, steel, plastic, marble for detection of fingerprint. Like it was better works on porous and non-porous surfaces. On a variety of surfaces, including paper, cardboard, and plastic, this technique has been proven to work

well. It is crucial to remember that this method's efficacy can vary based on the caliber of the maize seed powder and the circumstances in which it is applied. In order to maximize the use of corn seed powder in fingerprint development and identify any potential drawbacks, more research is required fingerprint development and identify any potential drawbacks, more research is required







Method and material In this research, these results reported here show that we had taken 6 surfaces: glass, wood, steel, plastic, marble, for detection of fingerprints. Like it works better on porous and non-porous surfaces. On a variety of surfaces, including paper, cardboard, and plastic, this technique has been proven to work well. It is crucial to remember that this method's efficacy can vary based on the caliber of the maize seed powder and the circumstances in which it is applied. In order to maximize the use of corn seed powder in fingerprint development and identify any potential drawbacks, more research is required.

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