

Development of Latent Fingerprint by 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 finger prints, 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 rigide cases showed clear ridge detail on different surfaces in the results, as opposed to rigides 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.

Keyword: forensic science, ninhydrin methods, non-conventional powder, fingerprintDevelopment.

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 flow.

Methode and material:-

I had taken corn powder from local market near my hometown then the research was conducted at PIAS Parul university of applied science and forensic science . The total 6 fingerprint surface were taken where are usually available at our home like we had taken glass , metal , plastic , wooden , marble , Mobile surface . But there are also some surfaces like Porus in which can not properly extract fingerprint. I had taken corn powder from local market near my hometown.



Latent fingerprint of wooden surface



after crushing

Cornseed and powder



Corn seed powder



fingerprint on glass surface

Result and discussion :-

In this research , these result reported here shows that we had taken 6 surface glass , wood , steel , plastic , marble for detection of fingerprint . Like it was better works on porous and non pour as 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.

Conclusion :-

In this research , this result report here extraction of lantern fingerprint using cone seed powder that usually available near our home so we just grinded up everything by grinder and taken a 6 surfaces like plastic , glass , marble , mobile surface , and we get clear out fingerprint on porous as well as non porous substance. Corn seed powder, however, has the potential to be a workable substitute for conventional fingerprint development methods, according to research studies and articles.

References :-

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