

## IIITD Latent Fingerprint Database

- The database contains 15 subjects. Each subject has all 10 fingerprints captured.
- The impressions are lifted using brush and black powder dusting process.
- The fingerprints are lifted against two different backgrounds, card and tile.
- The fingerprints are captured at semi-controlled environments at varying levels of dryness of the skin. This provides variation in the friction ridge information of the impression.
- The latent fingerprint images are then captured using a Canon EOS 500D camera at a resolution of 4752 × 3168. All images are compressed and stored in .jpg format.

**File nomenclature:** SubjectID\_FingerType\_BGType\_instance.jpg

- SubjectID: Varies from 1 to 15. It is a unique subject number.
- FingerType: It has 10 possible values denoting the finger to which the impression belongs.

|    |             |    |              |
|----|-------------|----|--------------|
| LT | Left Thumb  | RT | Right Thumb  |
| LI | Left Index  | RI | Right Index1 |
| LM | Left Middle | RM | Right Middle |
| LR | Left Ring   | RR | Right Ring   |
| LL | Left Little | RL | Right Little |

- BGType: It has two possible values and represents the background against which the fingerprint is taken.

|      |  |
|------|--|
| Card | Card background, lifted from a plate (white colored) |
| Tile | A tile background (yellowish brown in color)         |

- Instance: The number of instances of the same finger of the same subject against the same background. It varies from class to class. Each instance has some variation in the friction ridge information, obtained by varying the dryness percentage of the finger.

Please note that this database is available only for research and educational purpose and not for any commercial use. If you use the database in any publications or reports, you must refer to the following paper:

- Sankaran, T.I. Dhamecha, M. Vatsa, and R. Singh, On Matching Latent to Latent Fingerprints, *In Proceedings of International Joint Conference on Biometrics*, 2011.

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