

Training on 1: N Deduplication under IVFRT Project for Immigration Officials at ICPS in Odisha

13th March, 2025



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TRAINING ON 1: N DEDUPLICATION UNDER IVFRT PROJECT FOR IMMIGRATION OFFICIALS AT ICPS IN ODISHA

A training-cum-live demonstration on 1: N Deduplication was organized on 13th March, 2025 for Immigration officials from Integrated Check Posts (ICPs) in Odisha under the Immigration, Visa, Foreigners Registration & Tracking (IVFRT) project.

Participation Details:

- In-person: Officials and NFOs from Biju Patnaik International Airport (BPIA), led by Mrs. Samapika Pattanaik, Inspector-cum-IO attended the session physically at NIC VC Studio, Bhubaneswar.
- Virtual Mode:
 - Officials and NFOs from ICP Paradeep Seaport, led by Shri Sarojkanta Behera, Inspector-cum-IO.
 - Officials and NFOs from ICP Dhamra Seaport, led by Shri Indrajit Das, Chief Immigration Officer (Ch.IO).
- Other States: Some Immigration officials and NFOs from other states also joined virtually.



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Resource Persons

The training was inaugurated by Shri S. P. Dash, Senior Director (IT) & State Coordinator (IVFRT), at 11:00 AM and the session was conducted by:

- Shri M. Naresh Kumar, Deputy Director (IT), IVFRT ICS team, Hyderabad.
- Shri Prabhat Saurav, Deputy Director (IT), IVFRT Biometric team, NIC HQ.



Training Highlights

The session focused on the rollout of 1: N Deduplication for biometric-based passenger identification during immigration clearance. Initially implemented at ten airports, is now being extended to all airports, with a targeted completion date of 13th March, 2025. All ICPs in Odisha have successfully implemented the 1: N Deduplication setup.

The training was organized in response to a request from Shri Kamalakanta Panda, Additional S.P.-cum-Chief Immigration Officer, BPIA, Bhubaneswar. The session was highly informative, effective, and well-received by the participants.

Understanding 1: N Deduplication

Participants were given a comprehensive overview of 1: N Deduplication, which eliminates duplicate entries in a dataset by comparing one record (1) against multiple records (N). This significantly enhances the identification of individuals attempting to bypass immigration protocols by using fraudulent biometric inputs with minor modifications.

Key Differences: 1:1 vs. 1: N Verification

- **1:1 Verification:**
 - Confirms whether a passenger's biometric matches their claimed identity.
 - Compares the input against a single stored reference.
 - Faster but less effective in detecting fraudulent identities.
- **1: N Verification:**
 - Determines if the biometric matches any record in the entire database (Civil/Watch List).
 - Compares the input against all stored templates.
 - More effective in identifying individuals using false identities.

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Comparison Table:

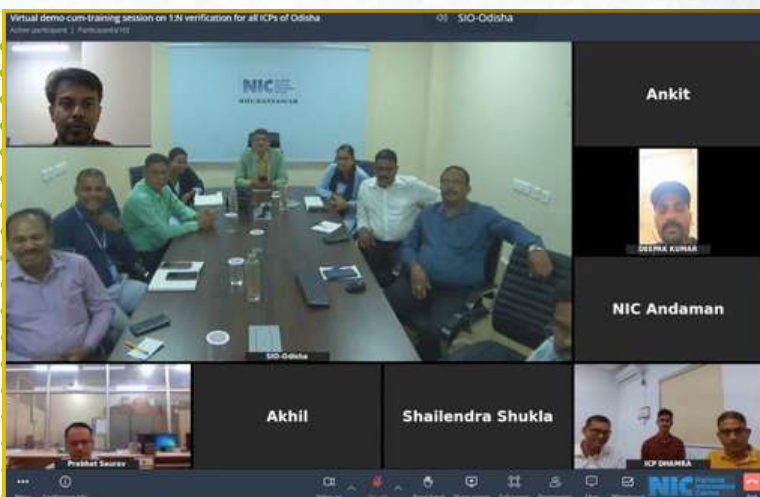
Aspect	1:1 Verification	1:N Verification
Purpose	Confirms claimed identity	Identifies person/entity
Input vs Database	One-to-one comparison	One-to-many comparisons
Speed	Faster	Slower due to more comparisons
Accuracy	Less prone to false matches	Higher chance of false positives
User Claim	User claims identity beforehand	No prior identity claim required

Acknowledgements

We extend our sincere gratitude to:

- The central team, led by Shri Anand Swarup Srivastava, DDG & HoG (NexGen IVFRT), NIC (MHA) for their invaluable support in organizing the program.
- Dr. A. K. Hota, DDG & SIO and Shri Malay Das, ASIO for their constant encouragement and support.
- The VC team, headed by Shri S.K. Das, Sr. Director (IT) for ensuring seamless virtual connectivity.
- Shri Sunil Nanda, SP, Special Branch, Odisha Police for his keen interest and support for ICP officials.
- Special thanks to Shri R. P. Koche, IPS, DGP-cum-Director, Directorate of Intelligence, and Ms. Alka Mishra, DDG & HoG (CPO & Mission), MHA for their kind guidance and leadership.

The training proved to be highly insightful, equipping the participants with practical knowledge on the 1:N Deduplication system, enhancing their capabilities in biometric-based passenger identification and strengthening immigration security measures.





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