Biometric and Forensics Research
Database Catalog
Project Briefing
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Forensic Science Program Overview

MISSION
The Office of Special Programs’ Forensic Science Program (FSP) will be the premier resource for forensic science standards through research, development, testing, evaluation, outreach, and advocacy.

VISION
To promote and enhance the application of science to the pursuit of justice.
To achieve this mission:

- **We provide** access to research, measurement science, and standards that make the forensic science community more successful
- **We form** the best teams to develop solutions to complex forensic science problems
- **We create** opportunities for success at NIST through trusted and reliable partnerships
- **We connect** NIST scientists with forensic practitioners to better use the full range of competencies that make NIST a unique agency
Forensic Science Program Overview

Project Outputs of These Activities Include:

• Standard reference materials development
• Guidance documents development
• Design of test methods, operating procedures, measurement tools, equipment guidelines, and artifact standards
• Research to develop and validate emerging technologies and science
• Technology transfer
• Providing strategic counsel, management, technical assistance, and outreach
The Biometric and Forensic Dataset Project

NIJ has sponsored NIST to:

• Create a **comprehensive catalog** of publicly available biometric and forensic datasets for the following modalities: finger/palmprints, iris, face, person at a distance, voice, and handwriting; and

• Host a **symposium** to discuss the adequacy of existing publicly-available datasets and the future needs in these areas.
The Biometric and Forensic Database Cataloging Effort

Goals

- To provide a pointer to publicly available datasets for researchers
- To provide baseline data on existing publicly available datasets to determine gaps for future collections
- To use lessons learned to establish best practices in developing databases
The Biometric and Forensic Database Catalog Effort

*Data Collection*

Phase 1 – Collect comprehensive listing of existing databases
Phase 2 – Categorize based on taxonomy
Phase 3 – Evaluate and assess quality of datasets
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Where did we look?

1. Web searches
2. Journal articles
3. Universities with well known programs in biometrics
   - WVU, Michigan State, Notre Dame, Carnegie Mellon, etc.

So far we’ve found 362 datasets...
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Datasets by Modality

- Face: 39%
- Handwriting: 11%
- Person: 22%
- Friction Ridge: 11%
- Iris: 9%
- Other: 4%
- Voice: 4%

Total: 362

*About 5% (18) of the databases were multimodal
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Site Development

– Site created with in-house NIST Office of System Information Management (OISM) developers
– Can be used internally for data entry and externally to conduct searches
– Users are capable of conducting two types of searches: via text or via taxonomy
– 165 databases currently entered

https://tsapps.nist.gov/BDbC/
The Biometric and Forensic Research Database Catalog, developed by NIST in collaboration with National Institute of Justice (NIJ), is a compendium of publicly available biometric datasets, and is still under development.

A symposium to discuss the results of this data collection effort and future database needs in the biometric community will take place on January 26-27, 2014 at NIST in Gaithersburg, MD. Information on the event will be available at: http://www.nist.gov/forensics/conferences_and_events.cfm.

The site is currently under construction and dataset information is populated weekly. If you have any questions, feedback, or suggestions, please email us at: BDBC@nist.gov.

Disclaimer

Within this application, NIST provides links to external web sites containing information that may be of interest to you. NIST does not endorse the views expressed or the facts presented on these external sites. Further, NIST does not endorse any commercial products or services advertised or offered on or through these sites.

Search Options
- Search using a taxonomy
- Search using free text

Other Resources
- NIST Forensic Sciences
- NIST Biometrics
- NIST Biometric Standard
- Reference Databases (SRDs)

https://tsapps.nist.gov/BDbC/
# Biometric and Forensic Research Database Catalog

The search is performed against the following fields: title, description, website, special notes, subjects description, managing or contributing organization, and taxonomy title.

Total Number of Search Results: 165

<table>
<thead>
<tr>
<th>Title</th>
<th>Website</th>
<th>Organization</th>
<th>Modalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Mask Attack Database (3DMAD)</td>
<td>Link</td>
<td></td>
<td>Details</td>
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<tr>
<td>3D RMA Database</td>
<td>Link</td>
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<tr>
<td>3D Twins Expression Challenge (&quot;3D TEC&quot;) Dataset</td>
<td>Link</td>
<td>University of Notre Dame</td>
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<tr>
<td>AR Face</td>
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<tr>
<td>AT&amp;T &quot;The Database of Faces&quot;</td>
<td>Link</td>
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<td>ATVS FakeFingerprint Database (ATVS-FFp DB)</td>
<td>Link</td>
<td>Universidad Autonoma de Madrid</td>
<td>Details</td>
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<tr>
<td>ATVS On-Line Signature Long-Term Database (ATVS-SLT DB)</td>
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<td>Universidad Autonoma de Madrid</td>
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<tr>
<td>ATVS-DooDB</td>
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<td>ATVS-Fakeliris Database (ARVS-Fir DB)</td>
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<td>ATVS-Synthetic Signature Database (ATVS-Sign DB)</td>
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[https://tsapps.nist.gov/BDbC/Search](https://tsapps.nist.gov/BDbC/Search)
Search by text or taxonomy

Details about each database record are included in catalog
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Data Collection – Entry Details

- Title
- Website
- Managing Organization
- Contributing Organization
- Country
- Description
- Subjects Description
- Special Notes
- Status
- Access Requirements
- Related Publication
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_data collection_

Taxonomy Categories

- **212 categories**

- Major categories include: modality, data type, quality, method of associating mated subjects, capture, and misc. data characteristics

https://tsapps.nist.gov/BDbC/Search/SearchByTaxonomy
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We need your help...

- Please provide your feedback to the existing catalog, how it is categorized, and whether it is useful

- All the information collected will be used in road map and best practice guide for developing future databases

BDBC@nist.gov
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Questions?

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