



OSAC RESEARCH NEEDS ASSESSMENT FORM

Title of research need:

Keyword(s):

Submitting subcommittee(s): **Date Approved:**

(If SAC review identifies additional subcommittees, add them to the box above.)

Background Information:

1. Description of research need:

A compilation of data regarding the various databases of handwritings. Separate projects would be to further the databases currently being developed, to include the frequency of occurrence of handwriting characteristics. Current research efforts could be furthered by a resurgence of funding opportunities.

2. Key bibliographic references relating to this research need:

1. Hecker, M., Eisermann, H.W., Forensic Identification System of Handwriting (FISH), paper presented at the 44th meeting of the ASQDE, Savannah GA, 1986.
2. Johnson, Mark E., Vastrick, Thomas W., Boulanger, Michele, Schuetzner, Ellen, Measuring The Frequency Occurrence of Handwriting and Hand-Printing Characteristics, Final Report - NIJ Award 2010-DN-BX-K273
3. Maquire, K., Moran, T.L., Identification of Written Text Writings by the Forensic Information System of Handwriting, paper presented at the 54th meeting of the ASQDE, Washington, DC, 1996.
4. Srihari, Sargur, Cha, Sung-Hyuk, Arora, Hina, Lee, Sangjik, Individuality of Handwriting, Journal of Forensic Sciences Vol. 47, No. 4, 2002.
5. Srihari, Sargur, Huang, Chen, Srinivasan, Harish, On the Discriminability of the Handwriting of Twins, Journal of Forensic Sciences, Vol. 53, No. 2, 2008.
6. Sargur N. Srihari, Kirsten Singer, Role of automation in the examination of handwritten items, Pattern Recognition, 2014, 47, 3, 1083
7. Wooton, Elaine X., A Preliminary Discussion of Research and Reference Materials Using the U.S. INS Collection of Handwriting from Other Countries, paper presented at the annual meeting of the ASQDE, Long Beach, CA 1994.
8. <http://www.nist.gov/oles/forensics/forensic-database-questioned-documents-table.cfm>

3a. In what ways would the research results improve current laboratory capabilities?

Current laboratory capabilities would be affected by having further research regarding the statistical approach to handwriting comparisons. There would not be an immediate effect on work within the laboratory. There would be an application at the level of testimony in courts through the providing of support for the individuality of handwriting.

3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

-It would allow examiners to utilize data that correlate with their examination opinions.
 - Databases in general provide a pool of potential writings for researchers. Development of a national database is a daunting task, and would require both the digital hardware and software to process the data, and the workers to gather and input the data.

3c. In what ways would the research results improve services to the criminal justice system?

Please see 3a and 3b.

4. Status assessment (I, II, III, or IV):

II

	Major gap in current knowledge	Minor gap in current knowledge
No or limited current research is being conducted	I	III
Existing current research is being conducted	II	IV

This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.

Approvals:

Subcommittee

Approval date:

(Approval is by majority vote of subcommittee. Once approved, forward to SAC.)

SAC

1. Does the SAC agree with the research need? Yes No
2. Does the SAC agree with the status assessment? Yes No

If no, what is the status assessment of the SAC:

Approval date: 17-Mar-2016

(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)