



**CALAM_{NN}- HANDWRITTEN DEVANAGARI
CHARACTERS {with MODIFIERS} DATABASE
Application Form and Agreement of Use**

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CALAM_{NN}-Handwritten Devanagari Characters (with modifiers) Database

Handwritten Devanagari Characters {with Modifiers} Devanagari database is developed at the Department of Computer Science and Engineering, Malaviya National Institute of Technology Jaipur as part of research project grant P.7.S.T/RD/2013/4400 — Urdu Corpus Development and HTR sanctioned by DST, Government of Rajasthan.

The dataset consists of several items which include:

- (i) Handwritten characters and texts of Devnagari script
- (ii) basic vowels and consonants with matras (modifiers) of Devnagari script
- (iii) The databases are available for research purposes and academic use only according to the conditions of use as described below. Please send the facsimile to the Email Address given above.

Application for Copies of Handwritten Devanagari Characters (with modifiers) Database

Name (First)_____ (Family)_____ Date _____

Organization and Department : _____ Employee-Id / Student-Id _____

Email(official)_____

Street _____ Town _____

City _____ State _____ ZipCode _____ Country : _____

Telephone no: _____

I wish to use the following *Handwritten Devanagari Characters {with modifiers} database* for research purpose.
(Please specify the database item.) Handwritten Characters (with modifiers)
Devanagari database

I have read and agreed to the conditions of use which are described below.
(This section must be filled in by the **Supervisor** of the applicant's research group.)

Name _____ Signature _____

Date _____ Position : _____

Upon receipt of this request, Malaviya National Institute of Technology Jaipur, **India** will send you an email attaching a ZIP file containing the requested *Handwritten Devanagari Characters {with modifiers} database*. For more information mail to the address nnain.cse@mnit.ac.in

Conditions of Use

1. All character image data supplied by Malaviya National Institute of Technology Jaipur under this agreement can only be used by the named applicants and

can only be used for research purposes. No character image data can be used for any

commercial purposes whatsoever.

2. If this usage of the dataset results in any publications or reports, we kindly ask that you acknowledge “**CALAM_{NN} - Handwritten Devanagari Characters with Modifiers Database**” and cite the following papers. This is one way we track and justify our research.
3. All applicants must submit to Malaviya National Institute of Technology Jaipur a signed statement agreeing to these conditions of use.
4. Malaviya National Institute of Technology, Jaipur, India at all times retain the copyright of all data distributed under this agreement.

Citations and References:

1. Prakash Choudhary and Neeta Nain , "CALAM: Linguistic Structure to Annotate Handwritten Text Image Corpus" Computational Intelligence in Data Mining by Springer at Orissa / 449-460 / 2014
 2. Prakash Choudhary, Neeta Nain , "CALAM: Model-Based Compilation and Linguistic Statistical Analysis of Urdu Corpus" , Sadhana Volume :45 / 20 / 2020 ISBN: 0256-2499
 3. Deepti Khanduja, Neeta Nain, Subhash Panwar, ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Volume 15 Issue 1, Article No. 2, pp. 1- 10, November 2015.
 4. Prakash Choudhary, Neeta Nain, A Four-Tier Annotated Urdu Handwritten Text Image Dataset for Multidisciplinary Research on Urdu Script, ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Volume 15 Issue 4, Article No. 26, pp. 1-23, June 2016.
 5. Deepa Modi, Neeta Nain, Maninder Nehra, Part-of-speech Tagging for Hindi Corpus in Poor Resource Scenario, Journal of Multimedia Information Systems Volume 5(3):, pp.147-154
 6. Maninder Singh Nehra, Neeta Nain and Mushtaq Ahmed, Handwritten Devnagari Script Database Development for Off-Line Hindi Character with Matra (Modifiers)”, Proceedings of the International Conference on Recent Cognizance in Wireless Communication & Image Processing, pp. 233-240, Springer 2016
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