

Sattriya_Dance_Single_Hand_Gestures Dataset

The sample dataset is a subset of the *Sattriya_Dance_Single_Hand_Gestures* dataset containing 174 images of Sattriya dance single-hand gestures (mudras or hastas) comprising one sample image from each individual dancers for each hasta.

The *Sattriya_Dance_Single_Hand_Gestures* dataset contains 1450 images of 29 Sattriya dance single-hand gestures consisting 50 samples from each hasta. This dataset was collected from 6 dancers. Out of six dancers, four dancers contributed 1160 ($29 \times 10 \times 4$) samples comprising 10 samples from each dancer for each hasta. The remaining two dancers contributed 290 ($29 \times 5 \times 2$) samples comprising five samples from each dancer for each hasta.

Nomenclature: The naming of the files of the hand gesture images are done in the following format:

File name: Pn_N_T_R.jpg where

Pn : Dancer ID (like P1, P2 etc))

N : Name of the hasta, like pataka, padmokosha

T : Captured on day or night, for day=d and night= n

R : Repetition ranging from 1,2, ..10.

Jpg : Image format.

Example : P1_Alpadma_d_1.jpg is a sample (repetition 1) of *Alpadma* hasta of dancer *P1* captured on day time (*d*).

P5_Dhanu_n_5.jpg. is a sample (*repetition 5*) of *Dhanu* hasta of dancer *P5* captured on night time (*n*).

The images were cropped keeping the minimum bounding rectangle containing the hand gestures. These cropped images were resized to 200 x 200 pixel resolutions. The background of the resized images were subtracted using Gaussian Mixture models and then converted to gray, binary and boundary images.