

ISSN: 2320-9186
 Requirement of every system and hence the steps are left optional and can be implemented as when there is a requirement.

Eigenfaces are the set of features in the form of vector that denotes the variation between faces. The basic idea behind eigenface is that think of the face as a weighted combination of some component or base faces. These components are the principal components of the face image. The training face images and the new face image can be represented as linear combination of eigenfaces. Each image in the training set has its own contribution on making the eigenfaces. So the eigenface represents the significant variation between all the faces.

IV. CONCLUSION:

Principal Component Analysis(PCA) is statistics approach used for large dataset. One of the is face recognition. The system receives the input face and it is recognized from the training set. Recognition is done by finding the Euclidean distance between the input face and our training set. By using eigenfaces approach, we try to reduce this dimensionality. PCA is one of the concept which require more time for execution. MPI and OpenMP are the techniques which can be used for making application parallel and reduce the execution time. The problem statement can be implemented with the help of OpenMP and MPI.

V. REFERENCES

- [1] Liton Chandra Paul: Face Recognition Using Principal Component Analysis Method, International Journal of Advanced Research in Computer Engineering & Technology, Volume 1, Issue 9, November 2012.
- [2] Rajib Saha Et.al: Face Recognition Using Eigen faces, International Journal of Advanced Research in Computer Engineering & Technology, Volume 3, Issue 5, May 2013
- [3] Abin Abraham Oommen: Design of Face Recognition System Using Principal Component Analysis, IJRET:International Journal of Research in Engineering and Technology, EISSN: 2319-1163 | PISSN:2321-7308.
- [4] Siddharth Gautam: Face Recognition Using Eigen Faces and Dimensionality Reduction by PCA, International Journal of Emerging Research in Management &Technology, ISSN: 2278-9359 (Volume-2, Issue-5), May 2013.
- [5] Farooq Ahmad Bhat: Improved Face Recognition Algorithm Using Eigen Faces, International Journal of Research in Engineering and Technology, Volume 3, Issue 12, December 2013.
- [6] Manik R. Kawale: Parallel Implementation of Eigenfaces for Face Recognition on CUDA
- [7] L. Sirovich and M. Kirby, "Low-Dimensional procedure for the characterisation of human faces," J. Optical Soc. of Am., vol. 4, pp. 519-524, 1987.
- [8] M. Kirby and L. Sirovich, "Application of the Karhunen- Loève procedure for the characterisation of human faces," IEEE Trans. Pattern Analysis and Machine Intelligence, vol. 12, pp. 831-835, Dec. 1990.
- [9] M. Turk and A. Pentland, "Eigenfaces for recognition," J. Cognitive Neuroscience, vol. 3, pp. 71-86, 1991.
- [10] Kshirsagar, V.P.; Baviskar, M.R.; Gaikwad, M.E, "Face Recognition using Eigenfaces" ICCRD, International Confrence on Digital object identifier, pp. 302-306, 2011.
- [11] Frank Y. Shih, "Image processing and pattern recognition fundamentals and techniques," IEEE Press 2010.
- [12] R.F. Gonzalez, and R. E. Wood, Digital Image Processing, Singapore, Pearson Education, 2001.
- [13] AL Bovik, "The essential guide to image processing," 2009.