

## 2<sup>nd</sup> International Conference on **Big Data Analysis and Data Mining**

November 30-December 01, 2015 San Antonio, USA

### Mining of facial features for gender and expression classification

**Mallikarjuna Rao G**

Gokaraju Rangaraju Institute of Engineering and Technology, India

Facial features if properly analyzed /mined are capable of providing information about the gender classification, expression classification and age approximation. Each one of the task is challenging for the researchers due to the involved computational effort and dynamism associated with environmental conditions of capturing domain. The recent trends in machine based human facial image processing are concerned with the topics about predicting age, classifying gender, race and expressions from facial images and so on. However, machine based approaches have not yet captured intelligence of mining process involved in human brain. More over researchers attempted each one as a separate problem and suggested data dependent solutions. Further the algorithms have not exploring available parallel computational power existing machines multi-core machines. Hence, in this paper we would like to propose unified scalable approach based on artificial neural network with a new pre-processing feature extraction technique, local active pixel pattern, LAPP. Intelligence extracted from pixel level mining is induced in the machine so that after training it is capable of classifying the mood of the person. Heterogeneity of excremental data sets has truly demonstrated the significance of our approach. FERET facial database has been used for gender classification, YALE, JAFFE, Face expression and CMU AMP Face Expression Databases have been used for expression classification and FGNET AGE data set has been used for age approximation. Results are encouraging with more the 90% accuracy.

### Biography

Mallikarjuna Rao G attained BTech degree from Nagarjuna University in Electronics and Communication in 1988. He got his first Post-graduation degree, ME from Osmania University in 1992 in Digital Systems. His second Post-graduate, MTech obtained from Jawaharlal Nehru Technological University, Hyderabad in Computer Science and Engineering in 2002. He is pursuing PhD from JNTUH. His research interests are pattern recognition, parallel computing and artificial neural networks. He has 12 publications in various international journals and conferences. He has established "Parallel Computing and Operating Systems Lab" at GRIET under MODROB scheme. He proposed salable and portable feature extraction technique Local Active Pixel Pattern, LAPP.

[gmr\\_333@yahoo.com](mailto:gmr_333@yahoo.com)

### Notes: