NAME: DIPEN DEKA

(Ph.D. under QIP Scheme)

ROLL NO: ECP18103

DATE OF JOINING: 23rd July 2018

SUPERVISOR: Prof. Bhabesh Deka

LABORATORY: Intelligent Imaging and Vision Research Laboratory

AREA OF RESEARCH: Biomedical Signal Analysis

TITLE: Development of a Machine Learning Approach for the Analysis of Heart Rate Variability Signal Dynamics and its Applications

SUMMARY: The aim of the research work is to develop robust time, frequency and nonlinear feature-based classification techniques on heart rate variability dynamics. To this end, preprocessing tasks such as ectopic beat correction, data augmentation are to be carried out to transform the signal into desired form. From the corrected HRV signal, discriminative features are to be extracted followed by selection of robust features. Finally, they will be used for classification of diseased states and different mind-body states using different machine learning algorithms.

EXPERIMENTAL SETUP: Not Applicable