Start

Generate image sequence blocks of facial image regions from the videos of faces

Generate features from the blocks and assign class labels to training input samples using experiment survey data

Generate the initial population of chromosomes encoding features by randomly allocating bit values to indices in each chromosome

Select chromosomes using a stochastic uniform strategy to generate a new population for the next generation

Calculate the fitness for each chromosome using the feature subset it represents to obtain the SVM classifier’s performance value for stress classification

Calculate the fitness for the offspring chromosomes using the features represented by the chromosome to obtain the classifier’s performance value for stress classification

Has the generation limit of 1000 generations been reached or has the search converged where the change in fitness of the chromosomes in the populations after each of the last 10 consecutive generations is bounded by $10^{-6}$?

yes

Select the chromosome with the highest fitness

End

no

Apply mutation to the offspring chromosomes

Select parent chromosomes and apply recombination using scattered crossover