

Computer Science and Information Systems Department
CS F407 - Artificial Intelligence
ASSIGNMENT

Review-1
Odd Semester – 2018

TEAM ID :

Project Title :

“AI Plays Flappy Bird Using Neural Networks and Genetic Algorithms”

Roll Number	Name	Department	Remarks
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Abstract :

In this program AI plays the famous video game “Flappy Bird”. AI creates the perfect bird population to ace the game by teaching birds to fly optimally through the barriers of the game.

Implementation involves neural networks for each of the units, i.e. birds, consisting of three layers namely input layer, hidden layer and output layer. These artificial neural networks are trained using genetic algorithm, by initially using a random neural network to create a new population of 10 units (birds), which then play the game simultaneously using their own neural networks. Afterwards, fitness of each bird is calculated. When all the units are killed, the current population is converted to the next one using genetic algorithm operators.

The program is written in HTLM5 using Phaser Framework and Synaptic Neural Network Library (Javascript libraries).