Artificial Intelligence
Fall 2018

Group Assignment # 2
(Same Group as in Term Project)

Max Marks: 50 **Due Date: November 5, 2018**

Q1. Implement Genetic Algorithm based Dynamic Scheduler and Route Planner for Ambulance Management System in Lahore. **Y**ou are required to design the complete system for an efficient monitoring and management of Ambulance Fleet of a hospital/organization/government. There will be two modules of the project i.e., ***1. Scheduling of Ambulance for Patient Calls*** and ***2. Dynamic route planning for ambulance optimal path***. You can use any tool for its implementation and simulate by bit-map method for 60x60 grid. (30)

Q2. **Implement ANN based solution for Emotion Classification** using the provided code. You can use facedemo [NYU] or any other website for images and benchmark data. The basic requirement is for happy and sad face classification from the images, but you can extend the emotions. First, you will train the system using neural network and then classify an unseen image. You can implement this project in Matlab or any tool. All you need to do is to run any code for this task and understand the working of ANN. (20)

Reference Material:

https://www.codeproject.com/Articles/110805/Human-Emotion-Detection-from-Image

https://ieeexplore.ieee.org/abstract/document/5276419

https://ieeexplore.ieee.org/document/8217786

https://arxiv.org/ftp/arxiv/papers/1105/1105.6014.pdf

https://dl.acm.org/citation.cfm?id=3033298

https://waset.org/publications/11358/emotion-recognition-using-neural-network-a-comparative-study

http://www.socsci.ru.nl:8180/RaFD2/RaFD?p=main

https://github.com/topics/facial-expression-recognition?l=python

https://blog.algorithmia.com/emotion-recognition-api-analyzing-facial-expressions/

GOOD LUCK☺