# CSC 2301 Project Requirements and Guidelines
# Sem 2 20/21

## Development of an Intelligent System Project

## Proposal (1-2 pages):

**Due: Thursday, 13 April 2021, 11.59 pm**

**Content:**

1. Proposed title, group name, list of group members
2. Introduction
3. Problem Statement
4. Objectives
5. Proposed Methodology / Technique

## Project Guidelines

Your class project will study an approach to solve an Intelligent Systems problem and will include empirical experiments that involve:

Data/Information Extraction
Data Mining & Knowledge Acquisition Process
Planning and selection of Intelligent/Statistical/Mathematical Methods/Techniques
Construction of Models and implementation of Techniques
Module Integration
Validation of Models/Techniques
Comparison of Techniques
Proposed Solution

### Some examples of feasible small research

State Space Searching Problem (e.g, bus scheduling)
Machine Learning Experiments:
- Classification model/system (spam filtering, heart disease diagnosis, smoking)
- Prediction model (weather, flood, mental health, addiction to gadgets)
- Clustering model (customer interest, fake news, criminal activities)

Internet of Things for Intelligent Systems (Intelligent Agents)
Data Science Experiments
Recommendation system
Chatbot , Answering Machine (Question Answering)
Intelligent Systems Game
An application of your choice (discuss it with the instructor first)

## Datasets (also contains sample project):

https://archive.ics.uci.edu/ml/datasets.php

https://www.kaggle.com/datasets

https://www.kdnuggets.com/datasets/index.html

## Project Presentations

**Date : 10-11 June 2021 (According to schedule/available slots)**

**Venue : Online**

Please describe your project and defend it. Each group will be allocated a maximum of 12 minutes, followed by an additional 3 minutes of Q&A session. I will stop you are after 13 minutes. Each group will be randomly assigned a presentation slot and need only to attend their own slot. All groups are required to arrive at least 10 minutes before the presentation time to conduct the necessary setup for your project presentation. Please respect the time of others by starting and finishing your presentation on time.

It is recommended that you use examples and figures to illustrate the problem and your approach. Please present your approach, experiments and analysis of results. You may dedicate less time to the related work.

## Rules of Group

No more than 4 members on a group

Each team member is expected to contribute to all aspects of the project: including conception of the initial idea, planning, implementation (including design and analysis of algorithms, design, implementation, and testing of code, experimental evaluation) and reporting (including organization and writing of the report).

Each individual brings unique abilities to a team, and one of the goals of working in a team is to take advantage of the unique abilities of the team members, it is not unusual for the contributions of individual team members to vary across tasks.

To ensure that each team member gets credit for his or her contributions, the final report should include a statement of contributions that explicitly identifies the contributions of each team member and a statement that every team member concurs with the contents of the report.

Each member MUST present some parts pf the project during the presentation day.

## Project Report Submission

**Due: 13 June 2021, 11.59 pm**

The report is limited to a maximum of **10 pages** (including references). . A sample report has been uploaded in google classroom. Please include your slides in PDF form together with your source codes/models and upload them together as a zip file. The report shall contain:

Introduction and motivation

Problem statement
Objectives (2-3)
Related work/Literature Review (minimal)
Technical background (plenty)
Description of your approach/Methodology
Experimental setup & implementation example
Results & Analysis
Error analysis