12.10.2021

BİM453 Introduction to Machine Learning

Term Project

1) Each project team can have at most 2 members.
2) The final date for the project proposal is **31/10/2021, 23:59**. After this date **-5 points** will be added to your project grade for each day.
3) Use the proposal form for your project proposal.
   a) Make a brief statement about the project. i.e., you need to give information about your project. Of course, you can add or subtract additional properties after the acceptance. Also, you need to give your full name of your project team.
   b) Proposal must not exceed 1 page.
4) When choosing your project, you need to follow the steps below:
   a) Find / describe a machine learning problem. Define a solution.
   b) Use two existing methods or propose a method to solve the problem.
   c) Use a dataset related with your problem. Implement your solution using the dataset and the selected/proposed methods.
   d) Discuss the results in the discussion and conclusion section of your report.
5) The selected project must be first approved by the teaching assistant or instructor.
6) 30% of the final grade is from the project. Your project score will be evaluated as following:
   a) Project proposal (15%) (**Deadline: 31.10.2021,23:59**) (1 page)
   b) Midway report (20%) (**Deadline: 30.11.2021, 23:59**) (2 pages)
   c) Final report (65%) (**Deadline: 17.01.2022, 23:59**)

   Note: If you don't submit final report, you will not get any credit from the project even if you submit project proposal and/or midway report. (i.e., you will not get partial credit from the project proposal and/or midway report submissions.)
7) You can use any programming language you want, but Matlab and Python are highly recommended as they contain many machine learning features and packages. You can code a method yourself or use any publicly available code. If you use someone else's code, you should properly cite its source and be familiar with the algorithms the code implements.
8) Preparing the project report in the given format is **mandatory**. The report must contain the followings:
   a) Main Part: An introduction about the project. Also add and graphical abstract (e.g. flow chart,…) which explains the proposed method. Main part should include task motivation, citation and discussion of literature, description of the approach and execution techniques, performance evaluation, and extensive discussion of the outcomes.
   b) As a group, highlight your contributions and findings.
   c) Along with your report, include source codes. Each team member should also state a written summary of their own contributions to the project.
   d) If the project team has two members, the work done by each team member on the project **must be** explained in detail.
   e) References part: Add all references you used.
   f) Before the References part you must add a title "Ethical Statement" and write the following:
   "While preparing the project, I did not take any action that could be considered as plagiarism."
   g) To prepare the report you must use the IEEE conference paper format. You can download the paper format from the following link:
   https://www.ieee.org/content/dam/ieee-org/ieee/web/org/conferences/conference-template-a4.docx

9) You can reach several dataset from http://archive.ics.uci.edu/ml//index.php.

10) The report, all **executable** source codes, and the files related with your project must be sent in a compressed file until **17/01/2022**.

11) After the deadline **-5** points will be added to your grade for **each day**.

12) Your final grade will be **0** when plagiarism is detected.

13) The files must be sent via MERGEN system.