INTRODUCTION

According to Pakistan Engineering Counsel (PEC) guidelines, every Electrical Engineering course having lab component must include Complex Engineering Problems in the form of semester projects. Therefore, this semester project is conducted to fulfil the above-mentioned requirement.

This project is about detecting splicing in an audio signal that is provided to you. **Audio splicing** is one of the most common manipulation techniques in audio forensics. It is one of the most popular and easy-to-do attack, where target audio is assembled by splicing segments from multiple audio recordings.

You are required to perform Audio splicing detection on a sample audio file based on the knowledge you have gained so far during the Signals and Systems course. Use of Fourier analysis to obtain spectrogram of the audio signal will help you in determining the location of splicing.

OUTPUT:

The output of the project is in the form of a **report** having a **minimum of 500 words** that contains at least the following information:

1- A figure obtained using Matlab showing the spectrogram of the audio signal along with discussion.
2- A Matlab code that is used to obtain the time locations of the audios being spliced.
3- Flow chart and discussion of the algorithm used to locate the spliced audios in time.
4- Mention the total number of audios being spliced and their locations in time on the spectrogram.
5- Discussion on the limitations of the spectrogram-based technique.

MARKING SCHEME:

1- Total Marks = 10
2- Each output mentioned above carries 2 marks.

GROUP MEMBERS:

- The project is to be carried out in groups of **maximum FOUR** students and **minimum THREE** students. You can choose the same groups as you have in the lab.

- Each group is also required to submit a short report of minimum 500 words related to the project. That report will be marked under the category of assignments.
- Please make sure you REGISTER the details of your group as soon as possible at the following Google sheet link: https://docs.google.com/spreadsheets/d/1-rq1MHVFY66khAausiz-3Z6lxYW93MmqUWl8TR4GZmU/edit?usp=sharing

DEADLINE:

The deadline for the assignment is: **11pm, FRIDAY 9th DECEMBER 2022.**

As mentioned earlier, you need to submit the report of the project on LMS by this deadline.

LATE SUBMISSIONS WILL NOT BE ACCEPTED.