DESC – Cyber Security Competition

General Information:

- Undergraduate engineering, computer science, information security students within the UAE are eligible for this competition.

- Each institution can submit a maximum of two projects for judging in this competition

- Each team shall comprise a maximum of 5 members

- The contestants shall not use any unauthorized or unlicensed software

- The source code and all relevant documentation shall be made available to the competition coordinator and the judges on the day of the competition

Project Summary:

One growing area of misusing AI and signal processing technologies lies in the generation of fake videos showing people saying things that they hadn't actually said, in a very convincing manner that can't usually be detected to be fake by the bare eye (known as deep fake videos). According to Gartner report, if we don't come up with solutions for this issue, by the year 2022, the majority of individuals in developing communities will consume more fake news than real ones

Literature References:

- An interesting article on the how deep fake videos are made https://www.technologyreview.com/s/611726/the-defense-department-has-produced-the-first-tools-for-catching-deepfakes/

- An explanation of how video faking works https://medium.com/@jonathan_hui/how-deep-learning-fakes-videos-deepfakes-and-how-to-detect-it-c0b50fbf7cb9

- The research group and the professor working on tackling the issue (University of Albany, state university of New York)

http://www.cs.albany.edu/cvml/index.html

http://www.cs.albany.edu/~lsw/index.html

Evaluation Criteria:

- Functionality:

- High accuracy in detecting fake videos, minimum false positive 30%

- Can work on any type of videos 20%

-Feasibility 20%

- Innovation and uniqueness 20%

- Ease of knowledge delivery 10%

Prize:

- 1st Place - 3000AED

- 2nd Place - 2000AED

- 3rd Place – 1000AED