SSN College of Engineering
Department of Computer Science and Engineering
CS1504—Artificial Intelligence
2020 – 2021
Session— 01

August 17, 2020

1. Give a PEAS description of the task environment for each of the following activities. Include detailed write-up on each aspect of the task environment.

   (a) SSN wants to develop and deploy a face-recognition based smart attendance system for its employees and students. Provide a detailed PEAS description for the same.

   (b) SSN wants to develop and deploy an online autonomous proctoring system that can monitor n students through a video communication channel. Provide a detailed PEAS description for the same.

   (c) SSN wants to develop a team of robotic agents to participate in Robocup soccer competition (https://2021.robocup.org/. Provide a detailed PEAS description for such a robotic agent.

2. Give a complete problem formulation for the following problems. Choose a formulation that is precise enough to be implemented.

You start with the sequence ABABAECCEC, or in general any sequence made from A, B, C, and E. You can transform this sequence using the following equalities: $AC = E$, $AB = BC$, $BB = E$, and $Ex = x$ for any x. . For example, ABBC can be transformed into AEC, and then AC, and then E. Your goal is to produce the sequence E.