**Task 1. Intelligent agent design (11.10.2022, 18.10.2022)**

1. Write 5 functions in pseudocode to demonstrate the algorithm of the agent’s actions. Each function shows the steps and decisions an agent has to take to perform a certain task that is typical for the agent.
2. Summarize the PEAS description for the agent’s task environment.
3. Describe the properties of the task environment for the agent.

Variants:

1. AI assistant (Siri, Cortana, Alexa, etc.)
2. Disaster Response Robot (Packbot, EMILY etc.)
3. Air traffic control system (directs aircraft on the ground and through a given section of controlled airspace, and can provide advisory services to aircraft in non-controlled airspace)
4. Patient monitoring system (monitors patients through various vital signs and warning systems to detect and record changes in patient wellbeing)
5. Recommender system for entertainment (Spotify, YouTube, Netflix, etc.)
6. E-learning agent (learning is personalized based on person’s prior knowledge, social features and learning styles, agents should easily admit an exploration of new learning objects and materials)
7. Submarine robot (Snakebot, Aquanaut etc)
8. Route recommendation system (provides users with the routes of best traveling experience according to criteria, such as traveling distance, traveling time, traffic condition, etc)
9. Exploration rover (on Mars or the moon)
10. Medical diagnostic system (consists of modules that provide independent numerical data to the system from the clinical examination of a patient, and from various laboratory tests that are performed)
11. Drones for long-duration surveillance
12. Antivirus application
13. Articulated Robot (industrial uses)
14. Fraud detection software (detects and prevents fraudulent activities related to accounts, payments, and purchases by reviewing transactions, and events in real time)
15. Smart home system (allows homeowners to control appliances, lights, and other devices remotely)