**Project from Artificial Intelligence Fundamentals**

1. **Create some teams of 3-4 members.**
2. **Prepare and present till 16 June:**

* **A short documentation of project (Word format, an electronic version)**

1. **a description of problem,**
2. **an analysis,**
3. **some existing solutions,**
4. **the description of preferred solution,**
5. **some implementation of the AI part,**
6. **simulation results from application;**

* **An acting application (~~implemented in a laboratory~~);**
* **A presentation (PowerPoint format, 5-7 slides per student, 2-3 minutes per student).**

**Topics**

1. **Project of an application for Covid-19 diagnosis by a classification of X-ray images.**
2. **Project of an application for face recognition.**
3. **Project of an application for emotion recognition.**
4. **Project of an application for road signs recognition.**
5. **Project of an application for determination an intelligence quotient IQ.**
6. **Project of the Internet bot from the ALICE software or an agar.io bot.**
7. **Project of an evolutionary algorithm for Travelling Salesman Problem.**
8. **Project of harmonic algorithm for Travelling Salesman Problem.**
9. **Project of evolutionary algorithm for solving the Knapsack Problem.**
10. **Project of harmony search algorithm for solving the Knapsack Problem.**
11. **Project of the PSO algorithm for solving any NP – hard problem.**
12. **Project of ANN classifiers (machine learning).**
13. **Project of the SVM method as classifier.**
14. **Project of an artificial neural network for prediction stock trends.**
15. **Project of an application to inference in ahead.**
16. **Project of an application to inference backwards.**
17. **Project of genetic programming for planning a path of an artificial ant in the Santa Fe Trail chessboard.**
18. **Project of an application to play chess with the Min-Max algorithm.**
19. **Project of a computer game *the Tower Defence* with the ant colony algorithm.**
20. **Project of an application to training a radial neuronal net.**
21. **Project of an application to relaxation of the Hopfield neuronal net.**
22. **Project of an application for a comparison some classifiers in Matlab/Python/R/Java/C# with the selected datasets (Irys, wine, faces, handwritten digits, etc.).**
23. **Project of an application for classification, prediction or clustering in Matlab/Python/R/Java/C# with some benchmarks.**
24. **Project of an application for air ticket booking in Prolog/LISP.**
25. **Genetic programming: Travelling Salesman Problem or Knapsack Problem.**
26. **Genetic programming for finding a strategy in Tetris game.**
27. **Project of the classifier in medicine like cancer diagnosis…**

**and many others…**