# Instruction for EARIN Laboratory

#### Summer semester 2023

#### General Information

Welcome to the Lab on Introduction to Artificial Intelligence! This lab will cover various topics related to AI, and all projects will be done using the Python programming language. You will have the opportunity to work on seven exercises in two-person groups. Labs meetings will be done on MS Teams.

### Group and Team Assignments

Your class assignment and team assignment are provided in a separate Excel file. Please check the MS Teams channel for this Lecture&Lab to access the assignment details.

### Version of Exercise Assigned to Teams

Each team has been assigned a specific version of the exercise to work on. You will use the same version for all exercises. The exercise version assigned to your team is also provided in the separate Excel file mentioned above.

### **Delivery of Solutions**

You will have two weeks to work on each exercise, and solutions must be submitted by the deadline specified in the exercise description. Late submissions will not be accepted. Each mini-project will be worth 5 points, and detailed criteria will be provided by the instructor assigned to the topic. You will need to document each project according to the detailed instructions given by the instructor in writing.

## Acceptance Criteria

To pass this LAB, you must obtain a minimum of 50% (i.e. 18 points out of 35 points) from all the exercises. You must also submit a solution for each of the seven exercises.

## **Q&A** Sessions

There will be online Q&A sessions during the LAB, according to the USOS schedule and group assignments. Please come prepared with any questions or concerns you have about the exercises.

Please, use MS Teams lab channels (separate for each exercise) as a communication medium with instructors between weekly meetings.

## LAB Topics and Schedule

The lab will start on March 13th, 2023. The topics covered by mini-projects are:

Exercise	Topics	Instructor
1	Search - Basic Approaches	Daniel Marczak
2	Two-player deterministic games	Tomasz Lehmann
3	Evolutionary and genetic algorithms	Filip Szatkowski
4	Regression and classification	Tomasz Lehmann
5	Artificial neural networks	Daniel Marczak
6	Reinforcement Learning	I Made Wangiyana
7	Propositional and predicate logic, and inference	I Made Wangiyana

## Conclusion

We hope that you enjoy this lab on Introduction to Artificial Intelligence. If you have any questions or concerns, please do not hesitate to contact instructors or the lab coordinator.