

MAI4CAREU

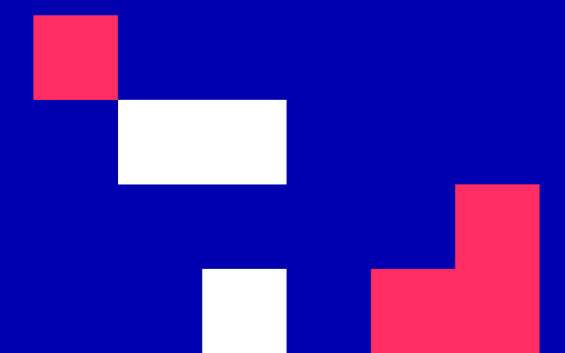
Master programmes in Artificial
Intelligence 4 Careers in Europe

University of Cyprus

HUMAN-CENTERED INTELLIGENT USER INTERFACES - MAI648

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LAB 1

Introduction to the Laboratories-Tutorials

CONTENTS

- Overview
- Assignments and Assessment
- Tools
- Tentative Topics

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Overview

- Laboratories will include both theory and practice related to IUI
- Presentations on state-of-the-art research works in IUI
- Interactive systems' prototyping
- Hands-on experience with state-of-the-art machine learning libraries on how we can solve HCI problems with AI

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Assessment

- Homework assignments: 15%
- Group project: 25%
- Midterm examination: 20%
- Final examination: 40%

Homework assignments

- Homework assignments include individual assignments and group assignments (same group as in the group project)
- Small individual assignments
- *Group assignment:* you will need to read one published scientific article in the area of IUI, write a report and present your report in class on a specific day within the semester (during mid semester)

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Group project

- Analysis, Design and Development of a Prototype Intelligent User Interface
- Follow a User-Centered Design (UCD) approach
- *Examples:*
 - Adaptive interactive system
 - Conversational interactive system
 - Explainable user interface
 - Intelligent security system, etc.

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Tools

Throughout the semester we will use the following tools and technologies:

- Interactive system prototyping
- Python scripting language
- State-of-the-art machine learning libraries
- Amazon Alexa skills' development

Tentative List of Topics

- Eye tracking research and its applications in IUI
- HCI principles, personas, use-case scenarios
- Designing interactive system prototypes
- Introduction to Python – setting up the Environment
- Emotion recognition
- Modeling human factors with machine learning

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Tentative List of Topics

- Face-based identification
- Voice-based identification
- Building skills in Amazon Alexa
- Designing explainable IUIs
- Introduction to statistics for evaluating IUIs

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Thank you.