Course title: Computer Vision in Biometrics

Course code: 63766B

ECTS: 6

Professor: assist. prof. dr. Žiga Emeršič

<u>**Undergraduate**</u>**/ master program**

Prerequisite knowledge:

Advanced programming skills, with a focus on Python.

Short course description:

This course explores the intersection of computer vision and biometrics, focusing on techniques for object detection, recognition, and analysis. Students will learn how computer vision enables interpretation of visual data, such as images and videos, while biometrics uses biological characteristics (e.g., facial features, ears, eyes, fingerprints) for authentication and identification. Topics include image preprocessing, object detection, biometric recognition systems, deep learning models, and ethical considerations in data handling. Through hands-on assignments, students will develop skills to design and evaluate basic systems for recognizing and authenticating individuals and objects, gaining valuable knowledge in the increasingly important fields of computer vision and biometrics. Evaluation is based on five seminar assignments.