Die Professur für Künstliche Intelligenz für Dynamische Systeme bietet im Bereich Angewandte KI eine softwaretechnische HiWi / Masterarbeit zu folgendem Thema an:

Using AI-Planning and Game Theory for Biodiversity

Description:

The Master's thesis will focus on building an AI-planning platform to coordinate patrolling teams (consisting of patrolling drones and rangers) in view of fighting illegal poaching. The planning platform will interface with a game-theoretical module, with which executable plans will be derived and tested on a validation platform.

The expected outcomes are to combine AI and robotics, as well as to exploit the goods in these field for promoting biodiversity.

The topic is part of a PhD research topic funded by the DFG. The research work is in collaboration with the French research institutes INRAE and ISAE-SUPAERO. During the Master's thesis, the student will have a working student contract that mounts up to about 1000€/month.

It is possible to continue working on the topic in a more in-depth manner as a research assistant (100% TVöD E13).

More concretely, your tasks during the Master's thesis are:
- Implement an AI-planning system
- Design and develop a validation platform using GIS (Geographic Information System) data of a conservation area
- Include basic illegal poaching scenarios into the validation platform
- Understand and implement game theoretical methods and AI-planning methods

Pre-requisites:
- Programming experience (e.g. Python)
- Interest in AI-methods for decision making, e.g. Markov Decision Process, automated planning, reinforcement learning, etc.

Organisational details:
- Start date: to be discussed
- Place: Universität der Bundeswehr München

Scientific supervision:
Jun.-Prof. Dr.-Ing. Jane Jean Kiam • 089/6004-3683 • jane.kiam@unibw.de

We are looking forward to your application!