CALL FOR PROJECT SUBMISSIONS for Master students of ZHdK

for a

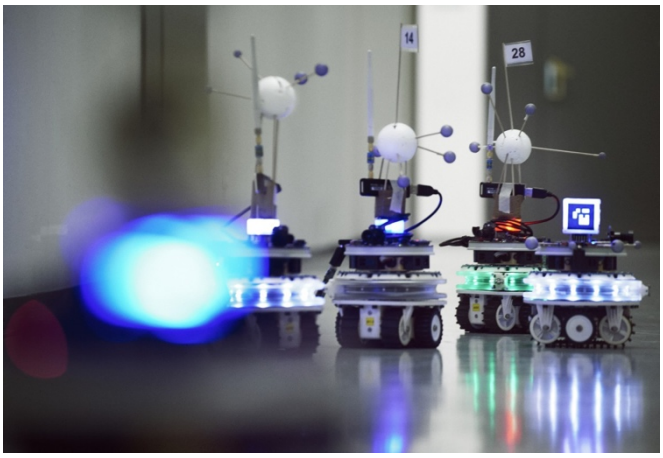
artists-in-labs residency

MASTER SERIES 2020

on the topic:

ARTIFICIAL INTELLIGENCE & ROBOTICS

at the *Dalle Molle Institute for Artificial Intelligence IDSIA*



The artists-in-labs program (AIL) offers a 3 -months artists-in-labs residency at the intersection of art/ design, artificial intelligence and robotics in cooperation with the Master Transdisciplinary Studies (MTR).

Applications for this Residency are open for:

- Master students of all departments and degree programmes of ZHdK.

Start of the Residency: Spring 2020
The exact dates will be defined in consultation with the project management.

APPLICATION DEADLINE: 24th of November 2019

PLEASE SEND YOUR APPLICATIONS INCL. PORTFOLIO IN ONE PDF-FILE (MAX. 8 MB) TO: ail.program@zhdk.ch (if the PDF is larger than 8 MB, include a wetransfer.com – download-link in your e-mail). The application may be written in German or English.

If you have any questions, you are welcome to contact the AIL-team via ail.program@zhdk.ch

The artists-in-labs residency *Master Series 2020 – Artificial Intelligence & Robotics* is a new format, that offers the unique opportunity to a MA-student of ZHdK to exchange and work during his/her studies for 3 months with researchers of the *Dalle Molle Institute for Artificial Intelligence IDSIA* in Lugano and to develop an artistic project.

About the residency:

- The residency's unique setting opens up the possibility for a transdisciplinary dialogue that is brought about by juxtaposing concepts and procedures, cultural knowledge and backgrounds
- The residency offers the student significant time and space to develop a project and to critically reflect as well as to explore a range of scientific topics, methods and technologies in the fields of Artificial Intelligence & Robotics
- During the residency the student will be immersed in the research and developing his/her project alongside scientists from the IDSIA
- It will be possible to further develop the project into the master thesis in consultation with the head of the Master degree programme or the director of specialisation
- There will also be a coordinator at IDSIA available to the artist for more general issues
- Mentoring will be provided by the project management to reflect and facilitate the process.

On the subject of the residency

In recent decades, the relevance of AI-supported applications and robotics has steadily increased; from global economic, political and media processes to everyday activities, our lives are closely interwoven with these technologies. They make a lot of things simpler, but they also awaken uncertainty and hold potential dangers - for the immediate present and the future.

Topics such as artificial intelligence and robotics are also relevant for the ZHdK. They invite us to reflect critically and to be imaginatively integrated into student projects - be it in an artistic installation, a piece of music or a design object.

MA students from all disciplines are now invited to research, develop ideas and submit their application as part of the Master Series 2020.

The **Dalle Molle Institute for Artificial Intelligence Research IDSIA** in Lugano was founded in 1988 on the initiative of the Italian philanthropist Angelo Dalle Molle. Its research focuses on artificial intelligence and robotics (machine learning, deep neural networks, reinforcement learning, operations research, data mining, imprecise probabilities, operations research, approximation algorithms, intelligent decision support systems, bio-inspired systems and swarm robotics).

Research abstract of the Dalle Molle Institute for Artificial Intelligence Research IDSIA

IDSIA, www.idsia.ch, **Istituto Dalle Molle di studi sull'intelligenza artificiale** USI-SUPSI was founded in Lugano in 1988 by the Italian philanthropist Angelo Dalle Molle and is a common research institute between USI (Università della Svizzera Italiana) and SUPSI (University of Applied Sciences and Art of Southern Switzerland, DTI). IDSIA activities span from fundamental to applied research. IDSIA forms and employs an outstanding team of qualified researchers with strong theoretical background active in both basic research projects (FNS, EU, USA, ERC) and challenging applied projects (KTI, EU, Private).

The selected student from ZHdK will have the opportunity to meet and interact to meet and interact with different fields of research within IDSIA (the links provide basic insights into the areas of research of IDSIA and are not necessarily connected to the institution itself):

Deep Machine Learning for image classification and understanding – Link 1
Deep Machine Learning for image classification and understanding – Link 2

Deep Machine Learning for self-tuning machine and artifacts

Human-robot interaction with autonomous drones and mobile robots

Gamification for environmental scarce resources optimization

Currently we are about 80 people, including eight professors, about twenty PhD students and forty data scientists. We study autonomous systems able to learn and to modify their behaviors in unknown environments using artificial neuronal networks and other machine learning tools and we apply these methods to various problems in industry, finance, medicine and critical environmental resource management.

IDSIA won the 2016 NVIDIA Pioneers of AI Research award (with MIT, CMU, Berkeley, NYU, Oxford, Stanford, Toronto, University of Montreal and Honk Kong) and one of the 3 founders of Deepmind (sold to Google for 500M in 2014) was our PhD students and IDSIA was partner of AIL in the past.

We are members of "NCCR Robotics Intelligent Robots for Improving the Quality" the National Centre of Competence in Research (NCCR) in Robotics of the Swiss National Science Foundation. In this project, we study human-machine interaction https://idsia-robotics.github.io/ and recently we have developed a new system able to control a drone (or a robot) only by using a bracelet or a smartphone without the need of any drone's camera, any GPS connections or other ICT external infrastructure.

Project management ZHdK

The *MASTER SERIES 2020* Residencies are curated and supervised by **the artists-in-labs program in cooperation with the Master Transdisciplinary Studies.**

About the artists-in-labs program

- Since 2003, the artists-in-labs program (AIL) has been facilitating artistic research by way of long-term residencies for 56 artists in 22 scientific laboratories and research institutes in Switzerland and worldwide (as of 2019)
- It is part of the Zurich University of the Arts (ZHdK) and promotes sustainable transdisciplinary and cross-border collaborations as well as the development of new knowledge by providing artists with an opportunity to critically engage with the sciences and their experimental and aesthetic dimensions
- This includes explorations of the site of the laboratory, as well as a range of scientific topics, methods and technologies. Publications and short documentary films record the processes and results of these collaborations and offer reflections on them
- All the collaborations the AIL produces are presented at various national and international exhibitions, symposia and workshops, making it possible to share findings and ideas, and to provide accessible discussions and aesthetic experiences to our students, peers and to the public.
- Since AIL's beginning the integration of its projects into the ZHdK and at the same time the integration of the ZHdK into its projects has been an important part of the work of the artists-in-labs program: Artists present their projects at the university or invite students to visit the labs, students take part in exhibitions, debate with the artists in seminars or develop ideas in workshops.

  www.artistsinlabs.ch/en / vimeo / instagram / facebook

About the Master Transdisciplinary Studies:

1. Since 2007, the Master Transdisciplinary Studies (MTR) has been offering students with an artistic, creative and/or academic practice the opportunity analyse and utilize the potential of artistic and aesthetic strategies for their own interests and planned projects.
2. The programme acts as a hinge between different disciplines in art and design, science and society.
3. It enables students to position themselves in cooperative constellations, to critically and reflectively encounter different questions and problems, and to develop new methods and formats for dealing with them that go beyond disciplinary constrictions.
4. The profile of the programme is based on the teaching and research focus of the ZHdK, the competence profiles and work perspectives of the students as well as the possible connections in the professional field.

mtr.zhdk.ch