TU Delft AiTech Program seeks Postdoctoral Researchers on Meaningful Human Control of Autonomous Intelligent Systems

Delft University of Technology's research program AiTech is recruiting eight fully funded postdoctoral research positions in the field of meaningful human control of autonomous intelligent systems. Such systems include artificial intelligence (AI) in software (e.g., for recommendation, decision support and optimization), as well as embodied AI (e.g., robots, vehicles and intelligent devices). We believe human control is key to counterbalance unforeseen and undesirable potential shortcomings of AI and robotics. AI should work in synergy with people towards economic and societal prosperity and wellbeing as well as the sustainable development of our planet. The mission of AiTech is to create technologies for managing future autonomous intelligent systems so that they can adhere to principles of transparency, accountability, ethical alignment and legal compliance.

We believe this challenge demands a multidisciplinary and team approach, bringing together researchers, engineers and designers in the field of computer science (AI), systems engineering, design for interaction, and ethics and technology. AiTech at its core is an inclusive, collaborative, multi-disciplinary program. The postdoctoral researchers will collectively work in a growing team, and be jointly supervised by professors at two faculties.

AiTech solicits postdoctoral project proposal applications that emphasize any combination of these domains and contribute to the realization of the mission of AiTech. Project can be – for instance, but not limited to – in the direction of the following topics:

- *Extend machine learning methods as so to be able to incorporate contextually dependent constraints such as ethical principles (fairness, unbiased) and legal (data protection) frameworks.*
- *Develop key enabling design methodologies for unlocking the non-human forms of agency that are at work in technological practices informed by algorithmic logic, and creating more-than-human teams where human and artificial partners work together towards ethical and sustainable design outcomes.*
- *Use an engineering and societal perspective to define what constitutes human control of AI and robotics, to develop methods and metrics that quantify human control, and to provide practical guidelines to design for human control*
- *Develop theories and methods for abstracting explainable knowledge from machine learning results.*

Your application should be submitted via the 'apply now' button. It should include a motivation letter, your CV, and a three-page description of your proposed project in AiTech that clearly indicates which multidisciplinary aspect of meaningful human control of autonomous intelligent systems you propose to research, what your approach will be, and how your background enables this approach.

The AiTech program was instigated by the Executive Board of Delft University of Technology. AiTech aims to build a community of pioneers, aiming at radical interdisciplinary research and societal impact in an engineering context.

In order to make the AiTech mission happen, we seek applications with a 'can do attitude'. Applicants for the AiTech postdoctoral position have a (nearly) completed PhD degree in any (preferably combination) of the following disciplines: artificial intelligence, agent technology, data science, control engineering, interaction design, human-robot/data interaction, ethics of technology. Applicant should have a demonstrable affinity to work in an engineering context, and should have a keen interest in societal impact of autonomous intelligent systems.

Applications will be reviewed until positions are filled. For additional information, contact professor Inald Lagendijk at R.L.Lagendijk@tudelft.nl. Information about academic careers in the Netherlands and working at Delft University of Technology can be found at factcards.nl and working-at-tu-delft.

https://www.tudelft.nl/aitech/vacancies/

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