PhD Position in Safe Human-Robot Interaction, Technical University of Munich, Chair of Robotics Science and Systems Intelligence, Germany.

We are looking for a PhD student as new member for our group. A PhD position is being established at the chair of Robotics and System Intelligence (RSI) as a part of Munich School of Robotics and Machine Intelligence (MSRM). We wish to fill the position with highly qualified and motivated student with expertise/intensest in safe human-robot interaction.

About us
The Chair of Robotics Science and Systems Intelligence is a member of the newly founded TUM Munich School of Robotics and Machine Intelligence. The research focus of RSI is the development of control algorithms, mechatronics, intelligent robotics and prosthetics, robot learning algorithms, foundations of machine intelligence, as well as nonlinear control and systems theory. Furthermore, we offer unified teaching in terms of lectures, laboratories and student projects with a tight connection to cutting-edge research.

Description
Safety issues during physical human-robot interaction has attracted increasing attention from researchers in various fields of robotics. This is motivated by the fact that human and robot will work intensively and closely together. In order to ensure human safety for various human-robot contact scenarios, potential threats should be studied and safe human–robot interaction strategies should be developed. This can include:

• Design and analysis of collision experiments and/or testing devices
• Development and verification of collision simulations
• Survey of biomechanics and forensics literature
• Motion planning and/or control schemes for ensuring human safety
• Prediction and control for optimal safety and performance trade-off
• Adaption to the sensor field of view

How to Apply?
We are looking for individuals with experience in the following areas and strong interest to further develop their skills:

• Masters-level degree in Robotics, Mechatronics, Computer Science or closely related
• Strong background in robotics and control
• Proficient programming experience (e.g. C++, MATLAB/Simulink, ROS)
• Strong communication skills, including fluency in written and spoken English
• Enthusiastic and highly motivated to complete a PhD
• Prior experience in human-robot interaction/safety is a plus

Applications should include the following documents:
• A motivation letter describing your research interests, your qualifications, and why you would be a suitable candidate
• A detailed CV
• Academic transcripts from your Bachelor's and Master's degrees
• Email addresses of at least two references

Interested applicants should send us the necessary documents via email to: applications@msrm.tum.de quoting "PhD Application, Safe Human-Robot Interaction" in the e-mail

subject. Applications will be considered until the positions have been filled. Preference will be given to applications received before July 1st, 2019. Only shortlisted candidates will be notified.

TUM has been pursuing the strategic goal of substantially increasing the diversity of its staff. As an equal opportunity and affirmative action employer, TUM explicitly encourages nominations of and applications from women as well as from all others who would bring additional diversity dimensions to the university's research and teaching strategies. Preference will be given to disabled candidates with equal qualifications. International candidates are highly encouraged to apply.

Data Protection Information:
When you apply for a position with the Technical University of Munich (TUM), you are submitting personal information. With regard to personal information, please take note of the Datenschutzhinweise gemäß Art. 13 Datenschutz-Grundverordnung (DSGVO) zur Erhebung und Verarbeitung von personenbezogenen Daten im Rahmen Ihrer Bewerbung. (data protection information on collecting and processing personal data contained in your application in accordance with Art. 13 of the General Data Protection Regulation (GDPR)). By submitting your application, you confirm that you have acknowledged the above data protection information of TUM.

Kontakt: applications@msrm.tum.de