Research Environment: The advertised PhD studentships involve both TU Kaiserslautern and Max-Planck Institute for Software Systems as part of the Max-Planck Fellow Program.

Kaiserslautern is one of the largest computer science hubs in Germany. The department combines the teaching of basic training with excellent applications and regularly ranks among the top universities in relevant German rankings. The department enjoys a unique location – just a short-walk away from affiliated research institutes including the Fraunhofer Institute for Experimental Software Engineering (IESE), the Fraunhofer Institute for Industrial Mathematics (ITWM), the German Research Centre for Artificial Intelligence (DFKI), and the Max-Planck Institute for Software Systems (MPI-SWS) – enabling close collaborations with the aforementioned institutes.

The Max Planck Institute for Software System (MPI-SWS) is an internationally renowned research institution in all areas related to software systems. MPI-SWS offers a vibrant, dynamic, multi-cultural environment for research and graduate education. The institute maintains an English-speaking, multicultural and open working environment. In addition to TU Kaiserslautern, MPI-SWS enjoys close collaborations with Saarland University, Max Planck Institute for Informatics (MPI-INF), Center for IT-Security, Privacy and Accountability (CISPA), German Research Center for Artificial Intelligence (DFKI), among others.

Joint TUK– MPI-SWS PhD Studentships

Successful applicants will have the opportunity to conduct highly visible research as members of both the Automated Reasoning Group of the TUK and the Automated Reasoning Group of MPI-SWS, led by Anthony W. Lin (a professor at TU Kaiserslautern's Department of Computer Science and Max-Planck Fellow). The students will also be co-supervised by Prof. Rupak Majumdar (Scientific Director at MPI-SWS, and Honorary Professor at TUK).

Type of employment: Doctoral position – fully funded, including social benefits.

Starting date: Preferably around October 2020 (negotiable).

Job description: Successful applicants will conduct research at the highest possible level at ARGs of TUK and MPI-SWS. Topics are flexible, but should be in line with the general research directions of the groups. These currently include (but are not limited to) automated theorem proving, software verification, verification of parameterized systems, applications to web security optimization, automata theory and database theory.

Qualifications: Ideally, applicants should have strong backgrounds in computer science (or related areas like mathematics) with experience in at least one of the following areas: logic, algorithms, complexity theory, database theory/ systems, programming language theory/implementation, formal language theory, concurrency theory and formal verification. Masters in computer science (or related areas like mathematics) are desirable. There will

be extra coursework requirements at TUK, if only Bachelor degrees are held.

Contact: Prof. Dr. Anthony Lin (anthony.lin@cs.uni-kl.de, awlin@mpi-sws.org)

To apply, please send a CV and a research statement in an email to Prof. Dr. Lin. Please do not hesitate to contact us should you have further questions.