

The Institute of Applied Dynamics (LTD) in the Department of Mechanical Engineering of the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), is offering at the earliest possible time, positions for

doctoral researcher / postdoc

with topics related to

multibody dynamics and robotics, biomechanics, motion capture, structure preserving simulation and optimal control

subject

Research topics of the group are situated in the field of **computational mechanics**, in particular dynamics, biomechanics and applied mathematics with focus on the simulation of (flexible) multibody dynamics. These represent e.g. parts of the human body (in everyday movements and sports) or industrial and medical robots. A goal is the simulation, optimisation and optimal control of their dynamics. Thereby, the further development of corresponding numerical methods is likewise important as the modelling of the nonlinear systems. The open positions can be in the field of electro-mechanically coupled problems or in the field of using symplectic integration for optimal control simulations, but are not limited to these areas.



to learn more about LTD's infrastructure, projects, publications, structural environment and cooperation partners, please visit <https://www.ltd.tf.fau.de>.

qualifications

- highly motivated applicants with qualifications in engineering, mathematics, physics, computer science or similar fields are invited
- profound knowledge in dynamics, numerical methods and programming (python, matlab)
- good written and verbal communication skills in English (German desirable)

We offer a stimulating, interdisciplinary research environment within an enthusiastic and diverse team. The FAU emphatically invites qualified female researchers to apply. Severely disabled applicants with equal aptitude will be given preferential consideration.

Remuneration is based on the collective agreement for civil servants in Germany (TV-L). Please send your application with the usual documents (CV, degree certificates, short summary of research interests, possibly references and publications list), via e-mail in pdf-format to:

Hanna Mahmud-Munir
hanna.mahmud-munir@fau.de