

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

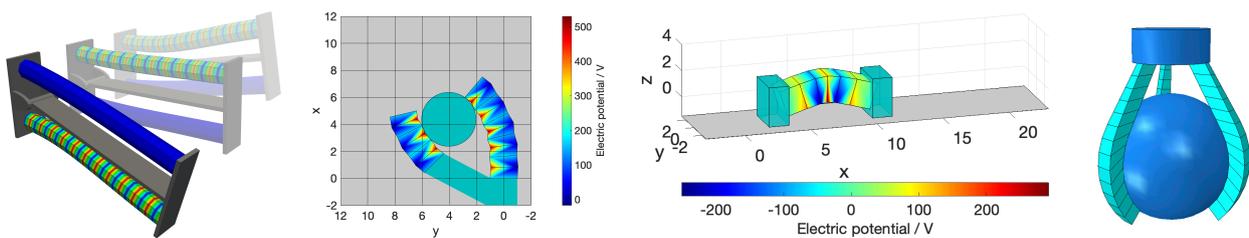
doctoral researcher

with topics related to

soft robotics and optimal control

subject

Due to superior performances in completing complex tasks and safe interaction with the environment, soft robotics (e.g. the soft robotic grasper as shown in the figure) are highly demanded in industry and daily life. The movement and action of soft robotics rely on soft actuators (e.g. dielectric elastomer actuators) inserted in flexible multibody systems. Computational simulation of the dielectric elastomer actuated flexible multibody systems plays a key role in the design of soft robotics. Based on our in-house developed platforms for forward dynamics simulation and optimal control simulation, this position will focus on the development of more efficient and intelligent models via model reduction and possibly machine learning approaches.



qualifications

- highly motivated applicants with qualifications in engineering, mathematics, physics, computer science or similar fields are invited
- knowledge in dynamics, programming (Matlab, Python, C++) and finite element method
- experiences in model order reduction and machine learning are desirable
- 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:

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