

Thesis Opportunity: Implementation and Application of a Digital Image Correlation (DIC) Setup

We are seeking a student of mechanical engineering, materials science, medical engineering, or a related field to work on a project that combines experimental and computational work. The project consists of the implementation and application of a Digital Image Correlation (DIC) setup to measure the deformation of soft materials during experiments. The data generated with the DIC system will be used to inform the parameter identification of constitutive models.

The thesis involves the setup of the DIC system, the design and execution of experiments, and the programming of DIC software using existing libraries. The student will gain experience in both experiments and computational work, and will have the opportunity to contribute to ongoing research in the field of soft materials.

The scope of the thesis can be adjusted to the interests and skills of the student, and can be either a Bachelor, Project, or Master thesis.

No prior experience with DIC is required, but an interest in experimental mechanics and programming is essential. The student should be comfortable working with python, and should have a basic understanding of mechanics of materials.

If you are interested, please send your curriculum vitae, current university grades, the kind of thesis (Bachelor, Project or Master) and intended starting date to Philipp Scherm (philipp.scherm@fau.de).



Prof. Budday critically inspecting the current setup without DIC. Photo: FAU/Giulia Iannicelli.