Life science and mechanical engineering

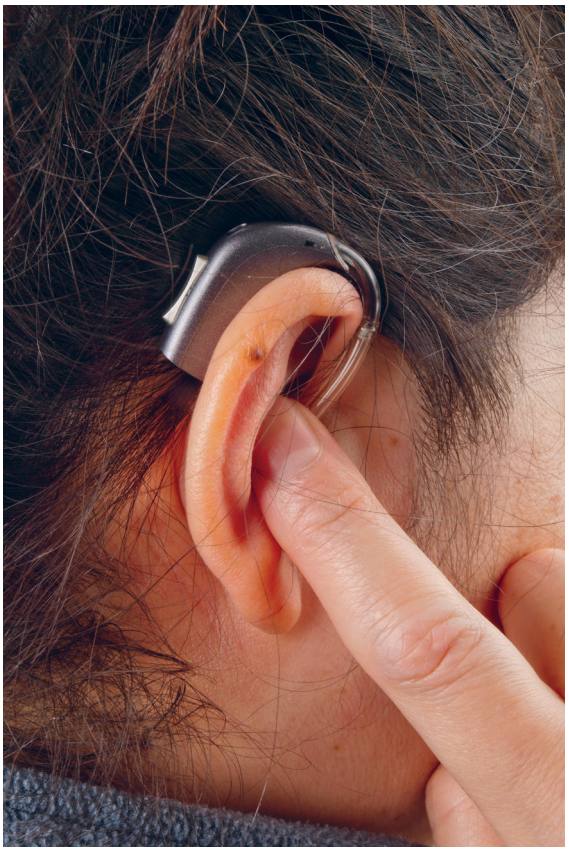
Life Science is increasingly important as a topic requiring advanced solutions based on mechanical engineering.

The involvement of DTU Mechanical Engineering in life science and health technology related research is focused on design of materials and components and their production. Research on materials exhibiting biocompatibility, metamaterials and surfaces designed to work in biological systems are examples of material related activities.

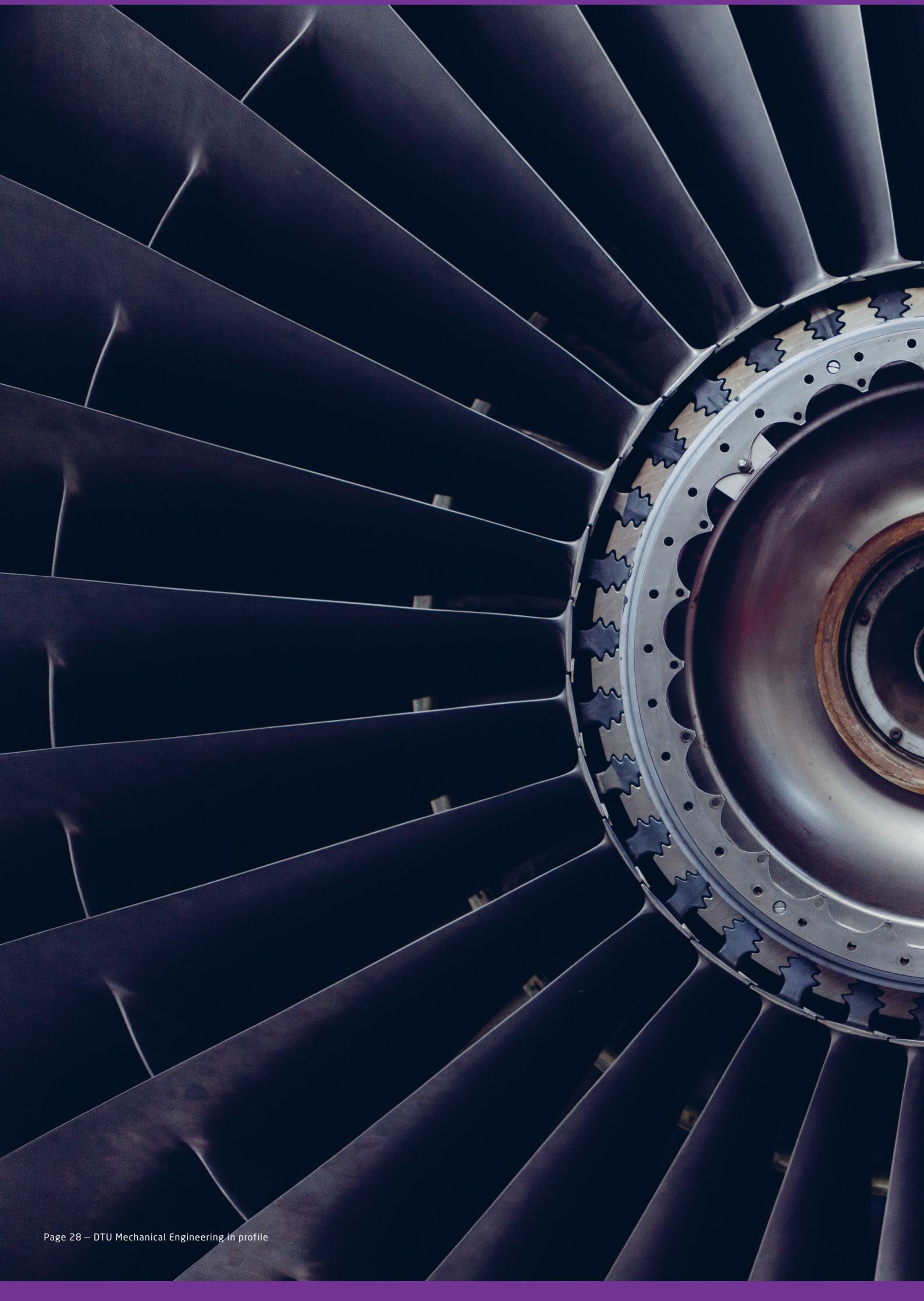
The design and fabrication of medical devices such as drug delivery systems, hearing aids and active implants is another area where high level research is meeting industrial interest. This field is being explored together with DTU Health Technology.

The competences of the department in the fields of cooling and heating as well as fluid dynamics are being brought into play in collaboration with DTU Food and DTU Aqua.

The Centre for Acoustic-Mechanical Micro Systems (CAMM) is a joint research centre with DTU Electrical Engineering. It is intended to serve as a unique platform for the development of the field of acoustic-mechanical micro systems – a new field focusing on the acoustic and mechanical parameters involved in the process of analysing and designing small audio systems and other miniaturised systems involving acoustics. The centre is sponsered by three Danish hearing-aid companies Widex, GN Resound and Oticon.



A hearing aid is a complex mechatronic system combining miniaturised mechanical components with advanced electrical signal processing based on acoustical interaction.

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