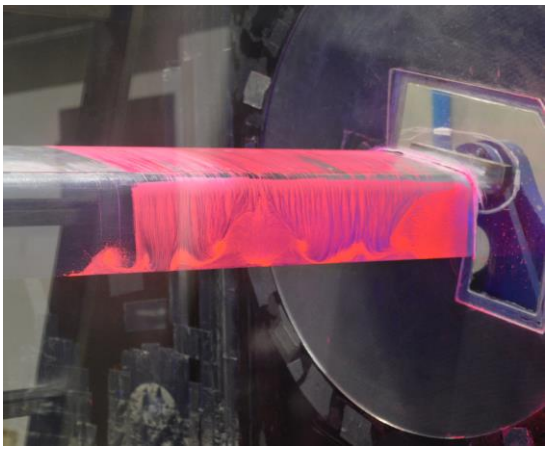
RISE (Research Internships in Science and Engineering) – Internship offer

Topic: Windtunnel experiments for noise reduction with circulation control wings

Description:

The collaborative research center 880 (SFB880, https://www.tu-braunschweig.de/sfb880) develops the fundamentals of active high-lift for environmentally friendly future transport aircraft. The research is motivated by growing demands for air travel in economic zones like Europe. Sustainable growth can only be achieved here by using new means of transport, which enable efficient point-to-point connections, short runways for take-off and landing. The performance of aircraft with short takeoff and landing capabilities can be improved by using circulation control with active blowing. A significant portion of aircraft noise at approach conditions is due to flow noise of the high-lift system. It is known that porous trailing edges are an effective means for noise reduction in clean airfoils. Therefore experiments are to be carried out in the wind tunnel for a wing with porous inserts installed on the trailing edges.



As a participant of this research project you will assist the group in various tasks, depending on your skills, interests and upcoming duties. Possible tasks are:

- Assistance in preparing and carrying out measurements in wind tunnel facilities.
- Post processing of experimental data.

For this project, you should have completed at least two years of an undergraduate degree program in the US, Canada, Irland or the UK. You should also have more than a basic knowledge of fluid mechanics and measurement techniques. Optimally, you have experience in experimental aerodynamics and a basic understanding of post processing of flow data. Being handy with tools is highly appreciated.

Duration: 12 weeks
Start: between 15th May and 4thJuly 2018
Funding: 2250 €
Further information and application: www.daad.de/rise

Technische Universität Braunschweig:

The TU Braunschweig is a technical university with a rich tradition and a proven research and teaching profile. It was founded in 1745 as Collegium Carolinum and is part of the TU9 group of leading technical universities in Germany, and for each of its core disciplines, the engineering subjects, it ranks among the top 9 universities in Germany.

Braunschweig:

Braunschweig is a city of 252,768 people in the state of Lower Saxony, Germany. A powerful and influential center of commerce in medieval Germany, and the capital of the state of Brunswick until its disestablishment in 1946. Today, Braunschweig is the second largest city in Lower Saxony and a major center of scientific research and development. In 2014 the region of Braunschweig was the most R&D-intensive area in the whole European Economic Area investing 7.7% of its GDP for research & technology.

Contact:

Pradeep Kumar.
TU Braunschweig, Institut für Strömungsmechanik
Hermann-Blenk-Str. 37, 38108 Braunschweig, Germany
Email: pradeep.kumar@tu-braunschweig.de
Fon: +49-(0)531 391 94267
https://www.tu-braunschweig.de/ism