SUPER – Stuttgart University Program for Experiencing Research

Project Information

Institute's Information

Name of Institute: Institute for Chemical Process Engineering
Contact Person: Andrej Grabowski
Phone: +49 711 685 85234
E-mail: andrej.grabowski@icvt.uni-stuttgart.de

Duration of Project/Number of Students

June/July
June/July/August: both possible
Number of Students: 1

Name of Project: Development of conductivity sensor

Beneficial Skills & Knowledge: Electrical engineering
Knowledge of Physical Chemistry; Chemical Engineering; Electrochemistry or similar are of advantage

Description of Work

Membrane processes are intensively used in water treatment, live science, treatment of process solutions, etc.
For operation of membrane processes in the context of industry 4.0 we are developing new process monitoring sensors which will be integrated inside the membrane apparatuses.
At Institute for Chemical Process Engineering we collaborate with other institutes and work together with industrial partners for effective implementation of innovative technologies into products useful for people.
As a part of our development team you’ll be involved in on-going R&D project. The work is dedicated to the development of new sensors for measuring electrical conductivity of liquids and its integration in the membrane device. Implementation of pressure and temperature sensors extends the project scope. The tasks include designing of sensor; prototype manufacturing; validation of functioning; integration in the apparatus; test and reporting.