Antonio David Raiolo

Student - M.Sc. Process engineering

Personal data

Name Antonio David Raiolo

Website `https://antonio-david-raiolo.netlify.app/`

Education

Since 2018 **MSc.**, *Process engineering*, University of Stuttgart, Germany, Current Grade: 1.2.

2015–2018 **BSc.**, *Process engineering*, University of Stuttgart, Germany, Grade: 1.8.

2014–2015 **BSc.**, *Physics*, (1 Semester), Ruprecht-Karls-University Heidelberg.

2011–2014 **High School Certificate** , *Kerschensteinerschule Stuttgart*, Technisches Gymnasium, Grade: 1.5.

2011–2014 **Vocational training**, *Physics-Technical Assistant*, Kerschensteinerschule Stuttgart, Germany.

2008–2011 **High school**, *Liceo Scientifico Giotto Ulivi*, Borgo San Lorenzo, Florence, Italy.

Master thesis (in progress)

Phase-field simulations of crystals anisotropy and sintering using an FEM-based framework.

Bachelor thesis

Experimental and simulative investigation concerning an online-method to measure nanoparticle agglomerate stability.

Work experience

2019 July. - Oct. **Internship**, *Robert Bosch GmbH*, Renningen, Germany.
Worked as intern at the corporate research branch CR/ARF2 Contact Dynamics and Tribology at Renningen, Stuttgart.
-Investigation on the oil release behavior of lubricating greases: Parameter studies on temperature, test method, grease type and test duration.
-Characterization of the dielectric properties of greases: Conduct and evaluate parameter studies on temperature, fat type, aging and shear rate.
-Operation and process optimization of a plastic injection molding machine.

2018 Nov. - 2019 Apr. **Student Research Assistant**, *Institute of Chemical Process Engineering*, University of Stuttgart, Germany.
Worked as student assisstant on measurement of nanoparticle agglomerate stability

2018 Jan. - Juni **Student Research Assistant**, *Institute of Chemical Process Engineering*, University of Stuttgart, Germany.
Worked on improving the design of experimetal setups used by students, which helps them learn how to control and program external components using LabView software.

2015 Sep. - Oct. **Internship**, *TRUMPF GmbH + Co. KG*, Stuttgart, Germany.

2015 June - Aug. **Internship**, *Flint Group Germany GmbH*, Stuttgart, Germany.

2014 June - Sep. **Internship**, *Max-Planck-Institute for Solid State Research*, Stuttgart, Germany.
Interniship in a nanostructuring lab.
- Study the granularity of metal layers (gold, chromium) of a few nanometers thickness produced under various vapor deposition conditions, by means of a Scanning Electron Microscope (Zeiss Merlin).
- Calibration of the deposition rate for different metal layers (Fa. Leybold, Univex).
- Establishing standard processes for cleaning semiconductor samples of paint residues (For optical lithography and electron beam lithography) by means of a newly installed Plasma etching system (Fa. Servants, Pico).
- Preparing test samples by optical lithography.

Skills

- Programming languages: C, C++, MATLAB
- Tools & Softwares: MATLAB, PRISMS-PF, ANSYS Fluent/Mechanical, LabVIEW, LaTeX, MS Office
- OS: Windows, Linux

Languages

German	*mother tongue*
Italian	*mother tongue*
English	*advanced (TOEFL 100)*
French	*basic knowledge*