

Curriculum Vitae

Personal

Name Kapil Faliya
Birthday 25.03.1988
Birthplace Jamnagar
Nationality Indian
Marital status Single
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66111 Saarbrücken
Germany
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Education

Nov. 2013 - on going PhD / Research associate
Material Science (Dr. -Ing)
Saarland University
Institute of Electrical Engineering Physics

- Research and development for solid state batteries
- Development and characterization of solid polymer electrolytes, composite-solid-state polymer electrolytes and electrode materials
- Material modeling and simulation

Oct. 2010 - Feb. 2014 Master degree
Material Science and Engineering (M.Sc.)
Master thesis: “Advanced Supercapacitor based on Microscale Carbon Structure”
Christian Albrecht Universität (CAU-Kiel)
Grade 2.4 (Good)

Sept. 2005 - June 2009 Bachelor degree
Aeronautical Engineering (B.Eng.)
Bachelor thesis “Primary Flight Controls of Boeing 777”
Gujarat University
Grade GPA=3.57 (1st Class with Distinction)

School Education

Sept. 1993 - March 2005 Elementary school and high school to university entrance qualification in India

Work experience and internships

Nov. 2013 - on-going Research associate

Saarland University
Institute of Electrical Engineering Physics

- Responsible for the implementation of a research project and its management
- Sample preparation with spin coating technique and vacuumed-thermal-evaporation technique
- Surface potential measurements with the Kelvin probe force microscopy
- Transient current and voltage measurements
- Impedance spectroscopy
- Structural characterization of the sample with AFM, optical and electron microscopes
- Material modeling and simulation with Matlab and COMSOL Multiphysics
- Data analysis with Origin
- Documentation and publication of research
- Preparing research proposals for the acquisition of research funds
- Supervision of bachelor/master students for bachelor/master thesis
- Research talks and presentations at international conferences

June 2012 - Nov. 2013 Research associate

German Aerospace Center
Institute of Composite Structures and Adaptive Systems
Lilienthalplatz 7, Braunschweig 38108, Germany

- Sample preparation with vacuumed-filter technique
- Electrical characterization of liquid electrolytes and carbon based electrode materials using Cyclic Voltammetry
- Data analysis with Origin
- Development of prototypes of supercapacitors
- Documentation and publication of research
- Research talks and presentations

Aug. 2009 - Jan. 2010 Lecturer for presentation and development of technical plans

Shri Kankeshvari devi Institute of Technology
Jamnagar, India

Nov. 2011 - March 2012 Experimental internship

German Aerospace Center
Institute of Composite Structures and Adaptive Systems
Lilienthalplatz 7, Braunschweig 38108, Germany

- Literature review
- Development of an experimental setup for cyclic voltammetry
- Writing project reports
- Research talks and presentations

Jan. 2009 - Feb. 2009

Internship
“The practical understanding of the primary flight controls of Boeing 777“
Air India Limited
Major Maintenance of Engineering Department
Mumbai, India

Software and programming skills

2D and 3D designing software	Auto-CAD, Pro-E
Programming tool	Matlab
FEM tool	COMSOL multiphysics, ABAQUS
Data analysis software	Origin
Document-writing software	Latex, Microsoft office
Computer operating system	Windows, Linux

Linguistic proficiency

German	B2-C1
English	Fluent
Hindi	Fluent
Gujarati	Mother tongue

Publications

Charge distributions in poly(ethylene oxide)-based electrolytes for lithium-ion batteries

K. Faliya, H. Kliem, Electrochimica Acta 2018, 290, 211-219

Space charges in Metal-Solid Electrolyte-Metal structures

K. Faliya, H. Kliem, IEEE International conference on Dielectrics (ICD) 2018

Space Charge measurements with Kelvin probe force microscopy

K. Faliya, H. Kliem, C. J. Dias, IEEE Transactions on Dielectrics and Electrical Insulation 2017, 24(3), 1913-1922

Investigation of space charge distribution by atomic force microscope

K. Faliya, H. Kliem and C. J. Dias, IEEE International conference on Dielectrics (ICD) 2016, 1, 219-222