

# Aeishwarya Baviskar

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## Education

- May. 2020 - **Ph.D. in Power systems and wind energy.**  
May 2023 Denmark Technical University, Denmark
- Oct. 2017 - **M.Sc. in Power Engineering, GPA: 1.5 (9/10 CGPA).**  
Nov 2019 Technical University of Munich, Germany
- Aug. 2012- **B.Tech. in Electrical and Electronics Engineering, CGPA: 8.13/10.**  
May. 2016 Visvesvaraya National Institute of Technology (VNIT), Nagpur, India

## Professional Experience

- May. 2020 - **Doctoral Student: Early Stage Researcher**, *Denmark Technical University*, Roskilde, Denmark.  
Present
  - Topic: **Wind power plant support for active distribution network**
  - Funding: Marie Sklodowska Curie Fellowship, Horizon 2020
- April. 2019 - **Master's Thesis Student**, *Siemens AG*, Munich.  
Feb. 2020
  - Topic: **Parameter Estimation in Li-ion batteries**
  - Developed an optimization algorithm to estimate the parameters including the OCV Vs SOC curve (without experimentation) for Li-ion battery model.
  - Implemented a capacity estimation algorithm to get a capacity within 2% of deviation from the reference value.
- Aug. 2018 - **Research Intern**, *Fraunhofer Institute for Solar Energy Systems*, Freiburg.  
Oct. 2018
  - Topic: **Adaptive Control for Power Electronic Converters**
  - Conducted a thorough literature review on the mentioned topic.
  - Found three different approaches through which the control can be applied to the system under consideration.
- Jan. 2018 - **Working Student**, *Infineon Technologies AG*, Munich.  
June 2018
  - Development, debugging and execution of system tests for application-oriented verification of DUT (device-under-test) functionality under different operation conditions such as voltage, temperature, and load profile transients.
  - Programming of test host**, evaluation boards and embedded power devices for the stimulation, control, and detection of DUT behavior.
  - Also worked on communication ICs such as CAN-Bus and SPI.
- Aug. 2016 - **Project Assistant**, *Indian Institute of Science*, Bangalore.  
June 2017
  - Developed transmission line models for a **Real-time simulator. MATLAB & C**
  - Designed a lab prototype model** of frequency dependent transmission line and validated against Simulation results.
  - Implemented a new algorithm to get line parameters through its frequency response.

## Academic Projects

Modeling and simulation	<b>Analytical modeling and fault analysis in 3×3 phase permanent magnet synchronous machines</b> , <i>Seminar on Electrical Actuators</i> .
MATLAB	<ul style="list-style-type: none"><li>Analytical model of a 3 ×3 phase machine with the power electronics and <b>dq axis control</b> was implemented in <b>Simulink</b>.</li><li>Simulated and analyzed 3 faults in the power electronic circuitry, namely, <b>open phase fault</b>, <b>1 phase short circuit</b> and <b>phase to phase short circuit</b>.</li></ul>
PSS	<b>Distribution Grid Simulation</b> , <i>Project Laboratory in Distribution Grid Simulation</i> .
SINCAL	<ul style="list-style-type: none"><li>Grid modeling based on geographical information, load flow analysis, calculation of voltage imbalances and harmonic distortions in low voltage grid.</li></ul>
FPGA	<b>Implementation of SPI protocol for Digital to Analog converter on FPGA</b> , <i>Project Course in Drive Systems and Power Electronics</i> , Group Size: 2.
Xilinx	
VIVADO	<ul style="list-style-type: none"><li>Implemented <b>SPI protocol</b> for DAC7716 on <b>ZedBoard</b> with <b>VHDL</b>.</li><li>Designed custom <b>AXI Lite</b> protocol and made an <b>IP</b> block in Vivado.</li></ul>
Design and Simulation	<b>Modeling of 250 W Stand Alone Solar Inverter for Rural Application</b> , <i>Bachelor's Thesis</i> , Group Size: 6, Project Guide: Dr. H.M.Suryawanshi.
MATLAB	<ul style="list-style-type: none"><li>Design on <b>DC-DC converter</b> and inverter for rural applications, also implemented modified <b>MPPT algorithm</b>.</li></ul>

## Publication

Published	Dr. Gurunath Guralla, Aeishwarya Baviskar, Kiran Kumar Challa, " <i>An Intuitive Approach to Fit a frequency Dependent Equivalent Circuit for Transmission Line Models</i> " National Power Systems Conference 2018
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## Technical Skills

Languages	<b>MATLAB</b> , C/C++, <b>Python</b> , Assembly Language, VHDL, L <sup>A</sup> T <sub>E</sub> X
Softwares	Plecs, PSIM, Labview, Xilinx Vivado, EMTP-RV, PSS@SINCAL, <b>Microsoft Office</b>
Links	GitHub_AeishwaryaB , LinkedIn_Aeishb

## Co-curricular Activities

Teaching	<ul style="list-style-type: none"><li>Helped first-year B.tech. students at VNIT to grasp the concepts of Basic Electrical Engineering as part of the remedial lectures initiative.</li><li>Working as <b>private tutor</b> for Mathematics and MATLAB</li></ul>
Volunteer	Working with Female Tech Leaders an organization empowering women in STEM and leadership roles and mentoring girls who are passionate about technology.
Leadership	Lead the Department of Electrical Engineering to win third Position in the Institute Gathering serving as the <b>Ladies Representative</b> .

## Soft Skills

Languages	<b>English (C1 level)</b> , <i>German (B1)</i> , <i>Marathi (Mother Tounge)</i> , <i>Hindi (Fluent)</i> .
Hobbies	<b>Swimming</b> , <i>Art and Craft</i> , <i>Cooking</i> , <i>Playing the Flute</i> .

I believe that I am an inherently creative person and truly passionate about my field of work. Persistence is one of the qualities I have gained that leads me towards successful results in all endeavors.