

JEPPE HINRICHSEN

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📁 Employment History

2024 – now	Electrical Engineer , Research & Development, Sensata Technologies
2021 – 2023	Graduate Researcher , Brain/Biomedical Microsystems Laboratory
2015 – 2017	Electrical Engineer , Development & Engineering, Welltec
2014 – 2015	Intern , Development & Engineering, Welltec

🎓 Education

2021 – 2023	Master of Science in Electrical Engineering , Korea Advanced Institute of Science & Technology
2021 – 2023	Master of Science in Electrical Engineering , Technical University of Denmark
2020	Research Student (Exchange) , Tokyo Institute of Technology
2018 – 2020	Bachelor of Electrical Engineering , Technical University of Denmark
2013 – 2015	Associate in IT-Technology , Aarhus Business Academy

☰ Selected Projects

2023	Master Thesis LTspice, Altium Designer, MATLAB, Xilinx Vivado, Python <ul style="list-style-type: none">– Title: <i>Portable ultrasound system for blood velocity estimation</i>– Analysed research in devices for estimating the velocity of blood– Designed system architecture of portable pulsed-wave Doppler ultrasound imaging device– Designed and synthesised HV protection transmit/receive switch PCB– Built and assembled analog RF front-end and quadrature demodulation circuits– Validated complex circuit parameters of RF PCBs with network analyzer
2020	Bachelor Thesis LTspice, Altium Designer, MATLAB, Simulink <ul style="list-style-type: none">– Title: <i>Influence of the output filter parasitic elements on a switch-mode audio amplifier</i>– Led a study into hitherto unexplored control theory of parasitic elements in electronic components– Performed state-of-the-art modeling of control loop using current injection transformers– Synthesised A.I.M. Class-D audio amplifier and parametrised testing methodology– Devised proposal of compensation strategy to improve control loops affected by parasitic elements
2017	Well Depth Acquisition C++, Fusion 360, OrCAD <ul style="list-style-type: none">– Project lead on solution to enable universal telemetry capability during intervention and logging– Managed a team of engineers in implementing an integration with existing flagship products– Engineered CAD models of hardware prototype and panel casing
2016	Flex Well E LabVIEW <ul style="list-style-type: none">– Project lead of a testing solution to analyse effects of vertical shifts of high-power transformers in completions– Implemented an actuation platform with motor control system using variable speed drives– Designed automatic data collection and system modeling with NI-cDAQ and LabVIEW– Assembled a hardware testing control panel with built-in HV protection circuits and safety mechanisms

★ Skills

Languages	🗣️ Danish, English, German, Japanese, Korean
Coding	📄 C/C++, Python, Bash, LabVIEW, Assembly, Make
CAE/CAD	🔧 Altium Designer, KiCAD, OrCAD, LTspice, Qspice, Simulink, Fusion 360
Technologies	📡 Linux, Git, RTOS, Xilinx Vivado, MATLAB, NI-DAQ
Misc.	👤 Academic research, teaching, training, microcontrollers, computer hardware, exercise, music

🏆 Miscellaneous Experience

2023	🏆 Scholarship Award , from Siemens Foundation for research project funding at KAIST in South Korea
2020	🏆 Scholarship Award , from Scandinavia-Sasakawa Foundation for research project at Tokyo Institute of Technology in Japan