

Education

University of South-Eastern Norway

Horten, Norway

Joint International Master of Science (Technology), Smart Systems Integrated Solutions (SSIs)

Relevant Coursework: Microfabrication Technology,

Jan 2024 - Jul 2025(Exp.)

Measurement and Characterization, Multiphysics Modelling.

Aalto University

Helsinki, Finland

Joint International Master of Science (Technology), Smart Systems Integrated Solutions (SSIs)

Relevant Coursework: Design and Analysis of MEMS,

Aug 2023 – Jul 2025(Exp.)

Materials and Microsystem Integration, Design for Reliability, Sustainable Electronics.

Indian Institute of Information Technology Design and Manufacturing (IIITD&M), Kurnool

Andhra Pradesh, India

Bachelor of Technology (Honors), Electronics and Communication Engineering

June 2021

9.08/10

Relevant Coursework: Analog Circuits, Engineering Electromagnetics, Signals and Systems, Digital Logic Design, Control Systems, Digital Signal Processing, Digital IC Design, Solid State Devices, Embedded System Design, Circuits for Electronic System Design.

Experience

Mindtree

Bengaluru, India

Software Developer

Jun 2021 – Apr 2021

Building windows desktop application as per the requirements using C++ & MFC.

VLSI System Design Corporation

Bengaluru, India

Analog IP Research Intern

Jul 2020 – Sep 2020

- Designed a *10-bit potentiometric digital-to-analog converter* as per the specifications given by VSD Corporation using open-source EDA tools and osu180nm PDK.
Gained solid experience with tools required during the process such as eSim, ngspice, and Magic

Projects

- Design of an Accelerometer* Oct 2023
 - Utilized COMSOL simulations to design an accelerometer and analyze the spring constant and resonant frequency, enabling a thorough comparison with analytical results.
 - Presented clear and insightful explanations for the observed differences in analytical and simulation results, highlighting a meticulous approach to result interpretation and refinement of dynamic system predictions.
- Pressure Sensor Teardown* Oct 2023 - Nov 2023
 - Conducted an advanced teardown analysis of the LPS22HD pressure sensor in the Samsung S20 smartphone, employing optical, X-ray, and electron microscopy to dissect and analyze its internal structure, including piezoresistive elements, materials, and the integrated ASIC.
 - Gained insights into manufacturing processes and advancements in electronic packaging & integration technologies.
- Klein / a Physiological Parameter Monitoring System* Jan 2021 – May 2021
 - Developed a PCB for the device which monitors and transmits blood oxygen saturation (SpO₂), ECG waveform, body temperature, and heart rate.
 - Included the feature to continuously display the current date, time, day, and month along with the vital body parameters.
 - Exploited the features of the microcontroller, such as ADC, interrupts, scheduling, to achieve the required functionality.

- *Audio and Image Compression*

May 2020– June 2020

- Extensively researched integer DCT and related transforms for efficient design.
- Implemented audio compressing techniques - integer DCT transformation technique using MATLAB.
- Implemented image compression using jpeg image compression using MATLAB.

Skills & Interests

Technical: Verilog HDL, C, C++, Python, shell scripting.

Software & Tools: Comsol Multiphysics, LabVIEW, MATLAB, eSim, ngspice, Magic, Autodesk Eagle, LTspice, Git, VS Code.

Interests: Analog Design, MEMS, Microfabrication, Mixed Signal Design, Circuit Design.

Hardware: TIVA (TM4C123GH6PM), ATmega-16, ESP32.

Honours & Awards

- *Awarded* the **Erasmus Mundus Scholarship** to pursue EMJMD SSIs. Apr 2023
- *Top 5%* among **~46K** students appeared in **GATE Exam, 2023** - Electronics and Communication Engineering. Mar 2023
- *Selected to present* the open-source Analog IP – “10-bit potentiometric DAC 3.3V analog voltage, 1.8V digital voltage and 1 off-chip external voltage reference” at the **VSDOpen2020 conference**. Oct 2020
- Selected for *participation* in **MIT-India Initiative** in housing and energy track held at Welingkar School Mumbai, India. Jan 2020
- *One* of the 747 teams selected in the semifinals of the **Indian Innovation Challenge Design Contest (IICDC)** out of 31,000 teams conducted by DST and **Texas Instruments**, India. Jan 2020