Pranav Chandran **500 Elmwood Pl Apt 16 Austin TX 78705**

CONTACT INFORMATION
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EDUCATION

University of Texas, Austin, TX 2023-2026 (expected)

- Ph.D. in Electrical Engineering - Power electronics

University of Washington, Seattle, WA 2019–2023

- Ph.D. in Electrical Engineering - Power electronics
- M.S in Electrical Engineering, GPA: **3.84/4** 2019-2021
- Advisor: Prof. Brian B. Johnson.

SRM Institute of Science and Technology, India. 2015–2019

- B.Tech., Electrical and Electronics Engineering GPA: **9.52/10**

COURSEWORK

- Linear Integrated Circuits,Circuit theory, Signals and Systems, Power electronics design, Digital control of Power electronics, Control Systems Theory,Linear Multivariable Control, Resonant power converters, Power System Analysis

TECHNICAL SKILLS

- *Design and Simulation tools*: MATLAB-Simulink, PLECS, Altium Designer, LTspice
- *Data acquisition tools*: LabVIEW, NI-Virtual bench, NI-DAQ
- *Microcontrollers*: TI - Piccolo (TMS320F280069,TMS320F28388), NI - Compact RIO (cRIO), STM32G4xx series
- *Programming Languages and Validation tools*: C, Python, FMEA,RCA

RESEARCH EXPERIENCE

- **Graduate Research Assistant – UW** Jun 2020- May 2022
  - **Controls** - Design and implementation of digital control systems of back to back coupled high-power axial flux Permanent Magnet machines.
  - **Hardware and PCB Design** - 15 kW T-Type DC-AC converter design for Variable Frequency Drives.
  - **Hardware Testing** - Functional testing of low power isolated gate driver circuitry, power stage circuitry using double pulse tests, open loop tests.
- **Research intern – ABB Corporate Research Center - Raleigh,NC** May - Dec 2022
  - **Controls** - Design and implementation of digital speed sensor-less control of low voltage, 2HP Integrated Motor Drives (IMD).
  - **PCB Design** - Control card design for low voltage IMDs.
  - **Hardware Testing** - Verification of sensor-less control design on 20HP dynamometer setup.

TEACHING EXPERIENCE

- **Graduate Teaching Assistant – UW** 2020
  - **Power electronics design** - Responsibilities include Bill of Materials (BOM), kit preparation and class instructor for transistor level analog design of low power boost converter.
  - **Power electronics controls** - Responsibilities include conducting office hours, lab class instruction for embedded control systems design and Real Time simulation of electric bike drives using TI DSP and PLECS RT box.
  - **Power electronics drives capstone** - Responsibilities include conducting office hours, lab class instruction for PCB design using Altium Designer, and experimental verification.
- **Graduate Teaching Assistant – UT Austin** Jan-May 2023
  - **Resonant power converters** - Responsibilities include course material development, holding office hours.

SELECTED PUBLICATIONS

- P. Chandran, *et.al*, "Equivalent Circuit Models for Closed-loop Multiphysics Drive Systems," 2020 IEEE 21st Workshop on Control and Modeling for Power Electronics (COMPEL), 2020.

HONORS

- Graduated as department gold medallist from Electrical Engineering department in Bachelors from a batch of 400 students. 2019