AMRIT DAHAL

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PROFESSIONAL PROFILE

Experienced in consumer level hybrid analog-digital electronic circuit design, with an emphasis on power electronics applications.

Current Activities

Pursuing a web-programming to expand current skills with vision of IoT applications, **2018-Present, Seattle Central College**

EXPERIENCE

Research Mentor, University of Idaho, Aug 2016- Aug 2017

- 6kW GaN Inverter for solar-generation electricity applications, Inergy Solar, Idaho GEM.

Research Assistant, University of Idaho, May, 2014-August, 2017

- "Multi-Stage, Multi-Phase, High Efficiency, Intelligent, Electrical Energy Conversion Unit for Navy and USMC." Global Technology Connections Phase 1 and 2 Navy SBIR N141-073.

Teaching Assistant, University of Idaho, 2010-2011, Spring-2014

- Capstone Senior Design, Introduction to Electromagnetics Lab, Introduction to Electronics Lab

***Electrical Engineer,* Biketronics Inc.**, Moscow, ID, **2008 - 2013**

Various roles as an engineer in a small business; experience in all levels of product design; research, development, manufacturing and quality.

Research and Development, Manufacturing and Quality

- **Coordinate multiple projects** in different stages of development, from initial conception to production and also post manufacturing revisions.
- **Lead product design**; research and development with various analog passive and active components and Atmel/Microchip microcontrollers.
- **Design board level circuitry** including analog-digital hybrid circuits, schematic and PCB layout and system integration. **Simulate, build and test** prototype designs.
- **Document, communicate, and direct** product design, engineering changes and manufacturing process upgrades. **Create and maintain** Bill of Material (BoM) and Engineering Change Orders (ECO).
- **Troubleshoot** issues relating to production processes and improve on them.
- **Upgrade hardware and software designs** already in production, coordinate with support staff to ensure in-house and field failures are analyzed and corrective action is taken.
- Monitor supplier and in-house **product quality**, research and replace obsolete and outdated parts.
- **Soldering** experience with through-hole and surface mount components.

***Intern, Supplier Quality*, Schweitzer Engineering Laboratories**, Pullman, WA **2008**

- Failure analysis of parts obtained from third parties, both in-house and field failure parts.

***Undergraduate Research Assistant*, University of Idaho**, Moscow, ID, **2004 - 2008,**

- Equipment control for anechoic chamber measurements, MRCI, University of Idaho, 2006- 2007.

EDUCATION

- M.Sc. Electrical Engineering, University of Idaho, 2010-2012. ***Thesis**: A Digitally Controlled Power Supply*
- B .Sc. Electrical Engineering, University of Idaho, 2004-2008.

Key Classes: Transients in Power Systems, Symmetrical Components (Fault Analysis), Power Electronics, Filter Design, Electromagnetic Theory and Application, Information Theory, Leadership, Engineering Management, Senior Design: Class-D audio amplifier system

SOFTWARE SKILLS

Software: Electrical Design and Simulation Tools (e.g. KiCAD, LTSpice, PowerWorld, C-based Development Tools such as Atmel/Microchip), MS Office. Basic ability with Python, and web design.