NICHIN K. SREEKANTASWAMY
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PROFESSIONAL EXPERIENCE

Apple Inc., Cupertino, CA, USA
iPhone Hardware System Design Engineer   *Dec. 2020 - Current*
Focused on hardware design of the next generation of iPhones.

Axon Enterprise Inc., Scottsdale, AZ, USA
Electrical Engineer- Video Camera Division   *Mar. 2019 - Dec. 2020*
- Led the system architecture design around chosen mobile processor chip-set for Axon's next generation wearable point-of-view camera 'Flex3'. Designed, tested and setup early prototype manufacturing for its point-of-view camera and 6 Gbps MIPI video transportation system. Key contributor on design and implementation of radio communication audio integration.
- Successfully launched body worn camera 'AB3' by contributing to work on image sensor flex, MIPI video interface noise mitigation, PCBA design for RF noise mitigation, image sensor fixed pattern noise mitigation, USB signal integrity, mics and speaker characterization, GNSS performance characterization (GPS and GLONASS), PCBA DFM and mass production ramp and component second sourcing.

Keywords: Optical Fibers, MIPI SERDES, EMI radiated susceptibility testing, FPGA, Land Mobile Radio, PDM & PCM audio, MEMS microphone, MIPI CSI2 video interface, SLVS-200, image row noise, image black level, 4G LTE RF noise, GNSS CEP and Time-to-First-Fix, USB2.0 Eye diagram capture.

Engineering Development Program (Rotational Program)   *Jun. 2017 - Mar. 2019*
Worked in R&D: Video Camera division as an Electrical Engineer and NPI Project Manager; Conducted Electrical Weapons division as an Electrical Engineer and Firmware Engineer.
- Designed from scratch the battery charging & Ethernet data offload stations *Docks* for the 'AB3' camera. Successfully completed architecture design, component selection, circuit design, schematic capture, BOM management, PCB layout guidance and inspection, DFM with contract manufacturer during PCB fabrication and assembly, functional test and debugging of finished PCBA.
- Project management of 'AB3' *Docks* with the contract manufacturer in Mexico to setup the assembly line, chart out required post-assembly tests, provide technical guidance to test fixture manufacturers, setup supply chain networks for all the required electronics, plastics, metals, labels and packaging, consolidate the schedule and ship the completed product.
- Redesign and validation of the battery charging and data aggregators *Docks* for the latest weapon 'Taser7'. Worked on Li-Po battery charging, multi-cell balancing, battery protection circuit as well as designed and implemented the charging/balancing algorithm in Embedded C. Tested and modified the *Docks* design to pass ESD compliance IEC61000-4-2 Class IV.

Keywords: Switching DC/DC converters, linear regulators, USB 2.0 high speed, USB 3.0 super speed, USB-C port configuration, USB PD, Qualcomm Quickcharge 3.0, USB to Ethernet bridge, RJ45, MDI/MII ports, Li-Po battery charging and protection, active multi-cell balancing, Cypress PSoC4, ESD protection.

The Wharton School, University of Pennsylvania, Philadelphia, PA, USA
Student Expert-in-Residence – Wharton Entrepreneurship   *Aug. 2016 - May 2017*
Provided technical guidance to entrepreneurs in electronics design and manufacture of hardware products.

PUBLICATION

Gois P., **Sreekantaswamy N.**, Basavaraju N., Rufino M., Sebastiao L., Botelho J., Gomes J., Pascoal A. (2016). "Development and Validation of Blue Ray, an Optical Modem for the MEDUSA class AUVs", IEEE 3rd Underwater Communications and Networking Conference, La Spezia, ITALY

PAST INTERNSHIPS

Barn Owl LLC, Colorado Springs, CO, USA
Product Development Lead   *Jun. 2016 - Aug. 2016*
Instituto Superior Tecnico, Lisbon, PORTUGAL
Research Student at DSOR (Dynamical Systems and Ocean Robotics) Laboratory   *Jan. 2015 - Jun. 2015*
California Institute of Technology, Pasadena, CA, USA
Research Fellow at LIGO (Laser Interferometer Gravitational wave Observatory)   *Jun. 2014 - Aug. 2014*
Keywords: Optical Fibers, RF Photodiodes, Transimpedance transfer function, Network Analyzer, GPIB over Wi-Fi, Python.
Indira Gandhi Centre for Atomic Research, Kalpakkam, INDIA
Summer Research Intern at NDE (Non Destructive Evaluation) Laboratory   *May 2013 - Jul. 2013*

EDUCATION

University of Pennsylvania, Philadelphia, PA, USA
Master of Science in Engineering, Electrical Engineering, May 2017   GPA: 3.77 / 4.00
Birla Institute of Technology and Science, Pilani – Goa Campus, INDIA
Bachelor of Engineering (Hons.), Electrical and Electronics Engineering, May 2015   GPA: 8.89 / 10.00