

SUNEET SHARMA

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SUMMARY

Experience in leading end-to-end design and development of various electromechanical and consumer electronics products in home automation and control, switchgear, network connectivity, and rehabilitation robotics domains. Strong footing in engineering design, production design, system integration and product's certification testing. Ability to demonstrate creative problem solving by applying design thinking in individual and team based scenario.

EDUCATION

UNIVERSITY OF PENNSYLVANIA, Philadelphia, USA May 2016

Master of Science in Engineering, Integrated Product Design (GPA: 3.61/4.0)

Relevant Courses: Real time embedded system, Mechatronics, Programming language and technique, Industrial Design, Digital Fabrication, Entrepreneurship, Marketing

R.V. COLLEGE OF ENGINEERING, Bangalore, INDIA May 2006

Bachelor of Engineering in Mechanical Engineering (GPA: 3.9/4.0)

FSAE International racecar design competition: Represented India at Melbourne in Dec 2005. Specific focus on fuel system design and costing event (won the 1st prize among participating universities across the world in the cost category)

INDIAN STATISTICAL INSTITUTE, Bangalore, INDIA Dec 2011

Statistical Quality Control & Six Sigma (Green Belt)

TECHNICAL SKILLS

Engineering design (Expert): ProEngineer (Wildfire / Creo), SolidWorks, Rhinoceros, SketchUp, and Keyshot

Process (Expert): PLM/PDM tools, Manufacturing process, Problem solving, DFM, 8D, DOE

Quality Control tools (Proficient): Mini tab, AtlasTi, Six Sigma, Tolerance manager (ISO 8015), and SQC & SPC methods

Standards/testing (Proficient): Electro-mechanical design and consumer electronics standards (IEEE, UL, CPSC, & CE directives).

Adobe tools (Intermediate): Photoshop, Premiere, Illustrator, InDesign, UX and UI (Wireframe & Front end)

Programming (Intermediate): Matlab, Simulink, Web programming (HTML, CSS, JavaScript), Python, and Java

EXPERIENCE

Embedded system (M) lab, University of Pennsylvania, (Research Assistant & Interaction Designer) Jan 2016 – Present

Expertise: Web programming, UI & UX, Energy demand-response methods, ASHRAE's guidelines

- The solution provides smart power consumption predictions and control actions for meeting the required load curtailment while balancing economic reward and user comfort parameters.
- Experience design and implementation, including UI/UX and server-side communications for DR-Advisor, a revolutionary web based machine learning solution that enables smart, prescriptive responses to fluctuations in enterprise energy prices.
- DR-Advisor is the **winner of the \$50,000** top prize at the 2016 Allegheny Cleantech University Prize.

Rehabilitation Robotics Lab, Penn Medicine (Research Assistant & Design Researcher) May 2015 – Present

Expertise: Robot assistive therapy, Hepatic's system, Human centered design, Need finding, Design research,

Key Project: **Low cost stroke Rehabilitation Gym with hepatics feedback** (Provision patent filed):

- Lead engineering and industrial design of mechanical system based on human centered design (95 percentile population).
- Engineer **sensorized hepatics system** to gauge subject's effort and to provide assistive and resistive force to ensure that exercises are difficult but doable, which is important for maintaining patient's motivation.

Key Project: **Affordable and Mobile Assistive Robots for Elderly Care:**

- Lead Need finding, qualitative/ quantitative analysis of the data, design, and implementation of a robotic solution for assisting elders with the objective of reducing reliance on human caregivers.

Schneider Electric, INDIA/ DENMARK Aug 2006 – Jul 2014

Expertise: Engineering-production design, System integration, statistical quality control, leadership, mentoring, innovation

- **Led engineering development** team of various global projects for Indian, Nordic, European, and Latin American markets focused on home automation and control, wiring devices, cable management system, and network connectivity domain.
- Led design and development of Exxact (Nordic), Opale (India), IP44 Elso Joy (Germany), UNA (Latin America), and Bluelink (Nordic) ranges, which got successfully shipped to the market.
- Efficiency Flexibility Speed Initiatives (EFS) **initiatives to enhance team's productivity:** Successfully led KNOT (knowledge sharing), building expertise, design lead-time optimization, and mentor mentee initiatives. Formulated the methodology from scratch and implemented in the team, which later extended to another business unit as a successful model.

Key Project: Mozart - New Generation of Wiring Devices for Danish Market, Denmark (Technical Lead)

- Led the design and development of **300 product references** from wiring device and network connectivity line of Businesses.
- Defined system architecture, products technical specifications, validation and testing plan, and resource planning.
- Deployed 6 Sigma, DOE, DFMEA and similar analytical problem solving tools at various phases of the projects.
- Coordinated with cross-functional teams, industrialization, marketing, offer management, and sales & distribution as single point of contact from engineering team.

Key Project: EXXACT - New Generation of Wiring Devices for Nordic Market, Sweden, Norway, Finland (Technical lead)

- Led the design and development of **800 product references** from Wiring Devices, Residential Control, and Network Connectivity line of businesses (Products are in the Market).
- Defined product architecture, technical specifications, validation - testing plan, and product user manual & packaging.
- Oversaw products validation and certification testing before release for manufacturing.
- Worked with **suppliers** and manufacturing plants across **Europe and China** for quality control and product approval.

Key Project: Intelligent Home Control (Technical lead)

- Managed electro-mechanical design of smart ZigBee-based home automation product in coordination with electronics team and took care of overall system level integration.

Key Project: Strategy and Innovation (Innovation leader, Local patent correspondent)

- Led a team to support the patenting process across 120 employees. Oversaw the effort in evaluating patentability of ideas and business relevance.
- Built technology roadmap and organized innovation workshops, design challenges to promote the culture of innovation.
- Led innovation effort by example as and often organized hackathons and design challenges to bring innovation as part of company's DNA and incubate teams to realize ideas.

OTHER ACTIVITIES & AWARDS

- Filed **four patents** and a publication.
- Led "Luli", a non-profit division of Schneider electric India focused of social welfare and education.
- **Enabling Visually Impaired people:** Led the initiative at Schneider Electric with an objective to provide an opportunity to Visually Impaired People (VIP) to demonstrate their skill in Schneider electric core business, hence bringing additional value to the business unit, as well enabling them to become economically independent.
- Five times **pat on the back** and three times POSE (Representing Schneider Electric values) awards.
- **Toastmaster International:** President "Schneider Electric toastmaster" and Vice president education "Copenhagen Toastmaster". (Recognition: **Advanced communicator** bronze, **Competent leader**).