

sandheep k. surendran

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EXPERIENCE

Surya Design

Independent Consultant

San Francisco, CA

January 2009 – Present

- Offering design, engineering and operations services in the clean technology industry
- Developed standard test platform for full characterization of concentrated photovoltaic modules (dark IV, illuminated IV and acceptance angle characterization)

GreenVolts, Inc.

Director of Product Development

San Francisco, CA

August 2008 – January 2009

Senior Mechanical Engineer, Product Development

March 2007 – August 2008

- Performed and directed all aspects of high concentration photovoltaic (CPV) receiver design and development effort from concept to production, including concept generation, design, prototype creation, testing, analysis, design for manufacturability, documentation, design validation, and production/test fixture design. Receiver design exceeded performance targets by 10%.
- Created entire CPV module performance characterization setup including hardware and software
- Involved in design and analysis of primary & secondary optics, thermal management, tracker, tracker controller and balance of systems
- Developed and implemented engineering and operational protocols including wiki-based knowledge management system, document control system/protocols, IT protocols

GreenMountain Engineering, LLC.

Mechanical Engineer

San Francisco, CA

May 2005 – Feb 2007

- Performed product design, analysis, process development/improvement, equipment design, testing, and software development for a variety of clients in the photovoltaics, concentrated photovoltaics, and medical device industries

NanoMuscle, Inc.

Senior Mechanical Engineer – R&D Group

Antioch, CA

July 2003 – December 2004

Mechanical Engineer - R&D Group

July 2000 – June 2003

Business Development/Applications Engineer

March 2001 – April 2002

- Led custom actuator development project from concept to automotive-qualified production in China
- Negotiated product specifications and project scopes with customer
- Managed team, costs, and schedule to achieve project milestones on time and within budget
- Performed and directed all technical aspects of product development including concept generation, design, prototype creation, testing, analysis, design for manufacturability, documentation, design validation, and production/test fixture design
- Managed implementation of PDMWorks-based configuration control system
- Implemented and orchestrated automated product testing program including software development
- Designed and prototyped custom demonstration devices including fully autonomous walking hexapod robot and 3-axis animatronic creature
- Supported customers with implementation of NanoMuscle-based designs

PATENTS

Szilagyi, A.; Von Behrens, P.; Ghorbal, A.; Surendran, S.; Maeder, J. "A System, Method and Apparatus for Reducing Frictional Forces and for Compensating Shape Memory Alloy-actuated Valves and Valve Systems at High Temperatures," World Intellectual Property Organization WO 2005/026592, March 24, 2005.

Cart, R.; Fine, K; Surendran, S. "Reflective Secondary Optic for Concentrated Photovoltaic Systems," World Intellectual Property Organization WO 2008/153892, December 18, 2008.

EDUCATION

Rice University, Houston, Texas, May 2000: Bachelor of Science, Mechanical Engineering

MEMBERSHIP

IEC Technical Committee 82, Working Group 7 (Concentrator Modules): 2008 – Current