# **Dev Sharma**

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## Seeking a challenging position in RENEWABLE ENERGY SECTOR

### **EXPERTISE**

PV Sizing
Product Development
CSP Modelling &
Simulation
Feasibility Analysis
Design Engineering
ThermoEconomic Analysis
Thermal Analysis
Cross Functional
Coordination
Client Interaction
Leadership Acumen

### **PROFILE**

- A competent individual with 2+ years of expertise in Design Engineering, Modelling & Simulation, Product Analysis, Project Co-ordination & System Design
- Currently pursuing Masters in Sustainable Energy from KTH, Stockholm & UPC, Barcelona
- Skilled in conducting Solar/Thermal/Gas power plant sensitivity analysis using Transient System Simulation Tool (TRNSYS) & Mat Lab
- Demonstrated abilities in technology feasibility analysis, aligning strategies with organizations' business objectives and developing specific success metrics and analytic approaches tailored to the unique needs
- Conducted design engineering for various mechanical systems in an energy company
- Ability to use sound judgment & decision-making skills and effectively perform in a self-directed environment
- An articulate communicator with proven interpersonal and negotiation skills, honed with a high degree of flexibility, creativity, commitment and optimism

### PROFESSIONAL HIGHLIGHTS

- Executed feasibility study for utilization of discarded coal fines at crushers, screeners in coal mine facility
- Designed a PVT system for SURYOJAL, a solar based water distillation product
- Conducted technical and economic feasibility analysis for Solar Based Absorption Cooling in India
- Successfully analysed the idea of cooling the cooling water in power plants for efficiency increase
- Received letter of appreciation from Indian Space Research Organization (ISRO) for efficiently leading the team
- Received Erasmus Mundus Scholarship for Masters in Sustainable Energy (SELECT Program) and SAE India Southern Section Scholarship for the year 2007-08.
- Founder of "Rocket Club" and conducted several workshops on "Fundamentals of Rocketry".

### PROFESSIONAL EXPERIENCE

# SIEMENS CORPORATE RESEARCH, BANGALORE, INDIA

FEB 2013 – JUN 2013

Intern (As part of Masters in Sustainable Energy)

- Conducted technical and economic feasibility study, calculations of carbon footprint reduction on Solar Based Air-Conditioning (SBAC) in industries & Indian conditions
- Modelled & simulated a solar cooling system using transient system stimulation tool (TRNSYS) & Mat Lab
- Optimized the SBAC system by iterative simulations, with collector type, size, slope, storage tank size and thermostat settings as the key variables for different Indian cities
- Validated the simulated components of model through literature/experimental data/datasheets available after literature review
- Estimation of cooling demand of an office building through simulation in TRNBuild

### RELIANCE POWER LIMITED, MUMBAI, INDIA

OCT 2009 - AUG 2011

Assistant Manager - Engineering Services

- Responsible for evaluating technical drawings, layouts, plans, P&IDs in AutoCAD for mechanical packages conveyor system, fire protection, water supply system, EOT cranes, heating ventilation & air conditioning
- Responsible for coordinating with other internal departments for smooth package operation & execution
- Liable to operate various mechanical packages & executed feasibility study for utilization of discarded coal fines at crushers, screeners in coal mine facility for power generation with pelletizer
- Prepare technical evaluation report (TER) against bids submitted for mechanical packages, notice inviting tender (NIT) document for mechanical packages
- Reviewed the design of conveyor system, water intake supply system by Indian Standard & CEMA

#### **EDUCATION / CERTIFICATIONS**

- Masters in Sustainable Energy, KTH, Stockholm & UPC, Barcelona, Jul 2013
   Solar Thermal, Photovoltaic Systems, Photovoltaic Devices, Sustainable Energy Utilization, Sustainable Power Generation, Thermo-economic Optimization of Solar Plants, Integration of Renewable Energy Systems to the Grid, Advanced Renewable Energy Technologies, Energy Management
- Crash Course in Entrepreneurship, ESADE Business School, Feb 2012
- Bachelor of Technology in Mechanical Engineering, Vellore Institute of Technology, Vellore, India, May 2009

#### **PROJECTS**

### Product Development Projects

SURYOJAL:	Designed the PVT system
Solar Membrane Water Distillation Unit	<ul> <li>Conducted analysis on SWOT to market &amp; competitor research</li> </ul>
UPC Barcelona & KTH Sweden,	<ul> <li>Devise Solid Works model for the designed system</li> </ul>
Oct 2012 – Jun 2013	<ul> <li>Finalist for Philips Innovation Award</li> </ul>
Low Cost Sustainable Energy Solution:	An integrated cooking system to utilize both biogas & wood as fuel
Low Cost Housing, KTH, Sweden, Oct	♦ 3D model design system using Solid Works
2011 – Apr 2012	Involved in Market research and analysis in low cost housing sector

### Academic Projects

- ThermoEconomic Analysis of Storage Tanks in Air Cooled CSP Plants, KTH Sweden, May 2012 Jul 2012
- Payload construction of RH200 Sounding Rocket, Indian Research & Space Organization, Sep 2008 May 2009
- VIT-SAE Supermileage, Michigan U.S.A, May, 2006 Apr, 2008
- Tabletop Thermoacoustic Refrigerator for Demonstration, VIT University, Sep 2007 Dec 2007

IT SKILLS: AutoCAD, SolidWorks, MATLAB, TRNSYS, EES, Office, C / C++ , FORTRAN, PVSOL

Languages known: English, Hindi, Spanish (Beginner), Swedish (Beginner)

References and verifying documentation furnished upon request