

RESUME

NAME: ADWIT KASHYAP

UNIVERSITY: IIT BOMBAY

DEPARTMENT: ENERGY SCIENCE AND ENGINEERING

CPI (Cumulative Performance Index): 8.11/10

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INTERNSHIP

Summer internship at **The Energy and Resources Institute (TERI)**, New Delhi *May-June 2011*

- Worked on **installation and performance monitoring** of a 1 kW thin-film amorphous silicon **solar photovoltaic panel** in Indian weather conditions
 - Studied and analysed different physical models of solar PV modules to select most suitable option for modelling the system.
 - Analysed stand-alone solar PV system installations.
 - Learnt and used **TRNSYS energy systems simulating software** for modelling of the solar PV array.
- Contributed to **preparation of Detailed Project Report** for **solar photovoltaic** system installations in Sierra Leone and Liberia, east Africa.
 - Gathered weather data and contributed to preparation of checklist for site investigation.
 - Estimated **solar PV plant size, load requirements and costs** for setting up of agricultural centres and a college in 5 different locations.

TECHNICAL + SOFTWARE SKILLS

Energy systems-related softwares: **TRNSYS** (a graphically-based software for simulating transient systems), **RETScreen** (a unique decision support tool for evaluating renewable energy systems)

Miscellaneous: SEQUEL (electrical simulation software developed by IIT Bombay), Scilab, MS Office, C++

PROJECTS

- ❖ **Electronic Thermometer** *Feb-April 2011*
(Under the guidance of *Prof. Rajesh Gupta*)
 - Assembled an electronic thermometer using thermistor temperature sensor microcontroller-run LED output.
 - Achieved accuracy of 0.5 deg. C.
- ❖ **Electricity from car exhaust** *Jan-March 2010*
(Under the guidance of *Prof. Rangan Banerjee*)
 - Simulated a car exhaust pipe to demonstrate waste heat saving by converting exhaust heat to electricity using thermoelectric generators.
- ❖ **Unique ID Fingerprint Matching** (using C++) *Aug-Nov 2009*
(Under the guidance of *Prof. Deepak Phatak*)
 - Worked with a team of 4 students to develop part of software to assign unique ID to people based on their fingerprints, using an innovative algorithm.
 - Software also stored the IDs in a database.

WORK VISITS

IIT Bombay Water Distribution Network Analysis

- Carried out analysis of IITB water distribution network and provided suggestions to reduce water wastage energy consumption in pumping.

IIT Bombay Electricity Network Analysis

- Report preparation on IITB power network load management.

TATA Trombay Power Plant work visit

- Gained first-hand knowledge of load management in TATA Power's 500 MW thermal power plant at Trombay.

RELEVANT COURSES UNDERTAKEN

Energy: Power Generation and System Planning, Basic Electrical Engineering, Combustion Engineering, Introduction to Renewable Energy Technologies, Heat and Mass Transfer, Fluid Mechanics, Equipment Design and Control, Electronics, Power Electronics & Machines, Thermodynamics & Energy Conversion, Material Science for Energy Applications

Mathematics: Calculus, Differential Equations, Numerical Analysis

Other: Data Analysis and Interpretation, Environmental Studies

Laboratory Courses: Fluid Engineering Lab, Energy Systems Lab, Electronics Lab, Power Electronics Lab, Basic Electronics Lab, Computer Science Lab, Instrumentation and Control Lab, Mechanical Workshop, Engineering Drawing

POSITIONS OF RESPONSIBILITY

Manager, Energy Club, IIT Bombay

Oct 2011 - Present

- Devised, organised and conducted the very first event of the Energy Club, IIT Bombay.

Sports Secretary, Hostel-4

July 2010 – April 2011

- Led the Hostel-4 team to **2nd position** in the Institute Sports General Championship 2010-11.
- As part of the Hostel Sports Council, organised and conducted a football tournament with participation from over 100 students (Four Premier League).

Co-ordinator, Events, The Entrepreneurship Cell, IIT Bombay

- Responsible for organising and conducting the **Business Mentoring Hub** event, a platform for corporate to advise start-ups on building upon new ideas, in the Entrepreneurship Summit 2011.

Class Representative, Energy Science and Systems Engineering

2009-2010

EXTRA-CURRICULAR ACTIVITIES

Organisational Skills

- Was awarded "**Best Office Bearer**" for 2010-11 out of Hostel Council of **32 members** for **outstanding work** as Sports Secretary.
- Was awarded the "**Performing Arts Festival (PAF) Colour'11**" for contribution to the Production Design team.

Sports Activities

- Was awarded the **Institute Sports Special Mention**, 2009-2010 for excellence in sports.
- Was awarded **6 medals in Swimming and Water Polo** in the 45th and 46th Inter-IIT Aquatic Sports Meets in 2009 and 2010.
- **2nd position** in the 2011 IIT Bombay **Open Triathlon**.
- Was awarded "**Sportsman of the Year**" of Hostel-4 for the year 2010-2011.

Language Proficiency

- English, Hindi, Spanish (Beginner-level)