**PRABAKAR S**

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**OBJECTIVE**

**“To be a cause of change for the betterment of Society”**

**EDUCATION**

**Examination University Institute Year CPI / %**

Postgraduate Specialization: M.Tech-Technology & Development, CTARA

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| IIT Bombay | | IIT Bombay | 2016 | 8.36 |
| Undergraduate Specialization: B.E.-Mechanical Engineering | | | | |
|  | Anna University, Chennai | EBET Group of Institutions | 2014 | 8.67 |
| Intermediate/+2 | State Board, Tamil Nadu | Vimala Matriculation Hr. Sec. School | 2010 | 89.58 |
| Matriculation | State Board of  Matriculation, Tamil Nadu | Vimala Matriculation School | 2008 | 87.00 |

**AREA OF INTEREST:**

* Machine Learning
* Data Science
* Sustainable Development

**TECHNICAL SKILLS:**

**Programming:** Python, R and Matlab.

**Tools:** SWAT, QGIS, EPANET.

**Design Software:** AutoCAD, SOLIDWORKS (Design & Flow Simulation).

**PROJECTS**

**Master’s Thesis:** *Water Quality Monitoring and Modelling for semi-urban systems* (Part of Obama-Singh

Initiative with UC Berkeley), Guided by Prof. Bakul Rao, IIT Bombay [*July’15-June’16*]

* To understand the water quality issues in the drinking water cycle as well as the sanitary cycle in semi- urban systems.
* Water distribution and sanitary cycles was analyzed and a model was created using SWAT model and a monitoring program was designed.
* Both the water quality model and the monitoring program requires modifications based on the further studies.

**Field Stay Project:** *Design of Environmental Services for Rural Areas, Guided* by Prof. Bakul Rao, IIT Bombay

[*May’15-July’15*]

* To design environmental services such as water supply scheme, sanitation, roads and solid waste management for Junoni village in Osmanabad, Maharashtra.
* Designed a water supply scheme and a drainage network along with understanding the village by analysing various sectors such as water, sanitation, energy, agriculture, etc.
* Design of roads and solid waste management need to be done and the integrity of designing the above systems and their relation with the public health can be studied.

**Course Projects:**

1. Design of Water Supply Scheme and Sanitation for village Vavoshi, Raigad, Maharashtra (TD 654).

* To design the water supply scheme and sanitation services for the village.
* Water supply scheme and sanitation for the village was designed for the design year 2025.

1. Analytic Hierarchy Process (AHP) analysis on various options for “Lighting a Room” (TD 605)

* To perform AHP to identify best option among various options for lighting a room.
* It was found that LED bulb is the best option to light a room in terms of cost of bulb, electricity consumption, luminosity and efficiency.

1. Seminar on “Energy Efficiency in Meat Processing Industry”

* To study and analyse energy utilisation and efficiency of the different types of meat industries.
* Various energy saving options was studied and analyzed for the meat processing industry.

1. Attended **Winter School** under Prof. NC Narayanan, CTARA, IIT-Bombay on the study of **Athirapally** **Hydro Electric Project** in Kerala.

* To study and understand the necessity of the additional dam in Chalakudy River when already five dams exists in the same river by conducting survey and interacting with the stakeholders.
* It was found that dependency of the farmers on dam water had been reduced, but environmental consequences would be there if that get constructed.

**B.E. Project:** *Flow Analysis on Diesel Particulate Filter*, guided by Asst. Prof. Sivaraj C. [*July’13-Mar’14*]

* To analyse the movement of Particulate Matters (PM) in the exhaust gas of a diesel engine in the Diesel
* Particulate Filter (DPF).
* The pressure drop, deposition of soot fraction, flow field trajectories, velocity field along the length of
* DPF were successfully predicted inside the DPF.

**Third Year-Mini Project:** *Solar Tracking Parabolic Reflector*, guided by Asst. Prof. Raj Kumar SM [*Jan’13-April’13*]

* To design and fabricate a parabolic sunlight reflector which can track the movement of the Sun in order to increase the heat generated due to the concentration of the sunlight.

**POSITION OF RESPONSIBILITY**

* **Teaching Assistant** for Mechanical Workshop (2014-15), CTARA and for Food Lab (2015-16), CTARA.
* **Hostel Alumni Secretary** for H12, 2014-15 and part of HDA team in SARC, IIT-B in 2014-2015
* **Vice-Secretory** for the Mechanical Engineering Association and Society of Automotive Engineers, EBET-i Collegiate Club during the academic years 2011-12 & 2012-13 respectively.

**ACHIEVEMENTS**

* Undergraduate **University rank-50** (Anna University, Chennai)
* Secured **1st place** in Paper Presentation in Kongu Engineering College on the title “Solar Powered Stirling Engine”

**EXTRA-CURRICULAR ACTIVITIES**

* First position- Group dance event, PG Cult 2015.
* Paper presented on the topic “**Solar Powered Stirling Engine**” in IIT Madras.