V.KEDAR NATH REDDY (07EE1025)

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EDUCATION

Degree/Board	Year	Institution	Percentage Marks/CGPA
B Tech(Electrical Engineering)	2011	IIT Kharagpur	8.65/10 (Department Rank:8)
XII (H S C), BIE, A P	2007	Sri Sai Cooperative Junior College,Vijayawada.	96.1%
X (S S C), BSE, A P	2005	Bhashyam high school, Guntur	90.5%

ACADEMIC ACHIEVEMENTS

- Awarded **CBSE merit scholarship** for achieved All India rank **70** in All India Engineering Entrance Examination 2007(350 out of 6,00,000 students were awarded).
- Achieved All India rank **620** (on approx. 300,000) in IIT-Joint Entrance Examination (JEE) 2007**.**
- **Ranked first in State (AP)** in Birla Institute of Technology & Science Admission Test -2007. (Out of approx. 1,50,000)
- Achieved All India rank **76** (on approx. 200,000)(B.Arch) in All India Engineering Entrance Examination 2007.
- Obtained NSE's Certification in Financial Markets (**NCFM**) in Financial Markets Module with **93%.**
- Awarded certificate of merit as top **1%** in **NSEP-2006**(Nations standard examination in Physics)(out of 42,245).
- Awarded certificate of merit as top **1%** in **NSEA-2006**(Nations standard examination in Astronomy)(out of 5,832).
- One among the **20** students from IIT Kharagpur selected for **BOSCH** exhibition 2009, Bangalore.
- Stood first in Kennedy maths Olympiad and Bhashyam talent test (out of approx. 10,000 students) at school level.

INTERNSHIPS

General Motors R&D(Indian Science Lab): GM-IIT Kharagpur CRL ECS (May to July 2010)

- Developed data-driven methods for **fault diagnosis and prognosis** using operating parameters (PIDs).
- Formulated an **algorithm** to distinguish intermittent firing (false firing) and non-intermittent firing of DTC.
- **Automated** the process to determine the PIDs which have greater mutual information with respect to intermittent and non-intermittent firing and fit a Gaussian Mixture Model (GMM) for the given set of PIDs.
- Developed a data-driven model which could distinguish **98%** of intermittent firings.
- Developed a data-driven model using Markov chains to **predict** the next possible firing (fault) of DTC.

Quetzal Online Private Ltd (QOPL), Mumbai: **A start-up in online education** (May to July 2009)

- **Led** a team of 4 people in content development for **Tenaday.in**, an online MBA entrance test preparation portal.
- Developed a total of **3660 questions**, which satisfied the quality check criteria for MBA entrance test.
- Member of a team of 3 people in content development for **Qcert** , an initiative by **Global Innov** to assist job seekers in vocational fields through certification in vocational training.
- Designed **16** sets of question papers for Qcert.

PROJECTS

B.tech Project: MPPT Integration for a photovoltaic battery charger system. (July 2010 – On going)
Objective – To design a system specific Maximum Power Point Tracker (MPPT) for a PV battery charger system of 48V and 125 Ah.

- **Designed** a system specific MPPT using Perturb and Observe (P&O) algorithm.
- Simulated P&O MPPT algorithm on AVR micro controller and achieved a **efficiency** of **91.4 %.**

Stand-alone Photovoltaic system design: (Nov 2009 – April 2010)
Objective – To design a stand-alone Photovoltaic system to meet the power demand of 2 Kw Mobile phone tower and to validate the economic viability of the system.

- **Designed** the schematics of the Stand-alone system for the Load requirement.
- **System sizing** of various components used: PV arrays, Electrolyser, Fuel cell, H2 tank, Battery, DC-DC converters and Inverters based on the solar insolation and Load requirement.
- **Cost benefit analysis** of the system based on system sizing index developed.
- Simulated the various combinations possible and achieved the best possible **payback period: 15.5 years**.

RELEVANT COURSES

Industrial Economics, Transform Calculus, Probability and stochastic processes, Real Analysis, Mathematics – I&II, Programming and Data structures, Computer Software, Estimation of signals and systems.

EXTRA CURRICULAR ACHIEVEMENTS

- **Silver medal**, out of 11 competing Hall in Inter Hall **Maths Olympiad** 2009. (Team of 4 out 534 students)
- Pursued YOGA as EAA (Extra Academic Activity).