



E3-109, Meghnad Saha Hall of Residence, IIT Kharagpur, Kharagpur, India Contact – debajit89.iit@gmail.com, +919432291041

## ACADEMIC QUALIFICATIONS

Examination	Year	Board/University	%/CGPA
B.Tech(Hons) Electrical Engineering	2011	IIT Kharagpur	9.11/10
Class XII	2007	West Bengal Council of Higher Secondary Education	97.00 (Science)
Class X	2005	West Bengal Board of Secondary Education	91.75(Overall)

#### ACADEMIC DISTINCTIONS

- Ranked 3<sup>rd</sup> in the Batch of 2007 (79 students), Department of Electrical Engineering, IIT Kharagpur
- Prova Basu Memorial Scholarship for Academic Year 2009-10 from IIT Kharagpur
- Topper of the Department of Electrical Engineering, IIT Kharagpur for Academic Year 2009-10
- Amul Vidya Bhushan Award 2007 for Securing First Position in the School in Standard XII Examination

## UNDERGRADUATE PROJECT

## A Novel High Speed Hybrid Mode Sense Amplifier

IIT Kharagpur

September'10 - Present

- Proposed a novel Hybrid Mode Sense Amplifier (for Read operations from Memory Cells) whose Speed Performance is improved than existing topologies.
- The operation of the Amplifier is tested in 180 nm technology using a standard 6T SRAM cell.

## SEMESTER PROJECTS

- An Intelligent Laptop Power Supply Module Design
- Modeling of a Turbojet Engine and Control System
- Microcontroller and FPGA Based Implementation of Pattern Recognition Application of Hopfield Neural Network

#### **ELECTIVE COURSES**

- Industrial Economics (Department of Humanities and Social Sciences)
- Operations Research (Department of Mathematics)
- Computer Software (Department of Mathematics)

## INTERNSHIP

# University of Waterloo, Ontario, Canada CMOS Design and Reliability Group May'10 – July'10 Responsibilities To design a Six Transistor Static RAM Cell (6T SRAM) in the device level. To perform Device Simulations to examine the effect of external radiations (alpha particles) on the

• To perform Device Simulations to examine the effect of external radiations (alpha particles) on the stability (data retention capability) of the SRAM cell.

Achievements A non-linear relationship between the Critical Energy required to flip the Data and the Location of Radiation Strike was obtained which is awaiting a Journal publication.

## POSITIONS OF RESPONSIBILITY

Governor – Technology Literary Soceity, IIT Kharagpur, Academic Year 2009-10 – Compiled and Published Gymkhana's annual magazine "Alankar". Responsibility of Bengali Committee and subcommittee.

Captain – Inter Hall Bridge Team – MS Hall of Residence, Academic year 2009-10. Organized workshops for freshers practice and won Gold in the inter Hall Tournament to asist the Hall reaching 3<sup>rd</sup> Position in the Sports GC.

Director of Lights – Inter Hall Dramatics, MS Hall of Residence, Academic Year 2008-09. Head of the Lights team of MS Hall in Hindi and English Dramatics. Organized freshers workshops for Lights Practice. Won Gold in Bengali Dramatics.

#### EXTRA CURRICULAR ACTIVITY

- Member of Bengali Technology Dramatics Society and Technology Literary Society for Academic year 2008-2010.
- Won Gold Medal in Inter Hall Bridge Tournament for Academic year 2009-10.
- Won Gold Medal in Inter Hall Bengali Dramatics for Academic year 2009-10.
- Member of Inter Hall Ad-Design and Case Study teams.
- Favourite hobbies Playing Guitar, Playing Table Tennis and bridge.