

ARKOSNATO NEOGY

Department of Electronics and Electrical Communication Engineering

EDUCATION:

Degree	Year	Institution	Scores
Dual degree in Electronics with specialization in VLSI	2006-11	Indian Institute of Technology, Kharagpur	9.55/10
Higher Secondary Examination (West Bengal Board)	2006	South Point High School (SPHS), Kolkata	92.9%
Secondary Examination (West Bengal Board)	2004	South Point High School (SPHS), Kolkata	91.5%

ACADEMIC DISTINCTIONS:

- Ranked **2nd** among **260** dual degree students of 2006-2011 batch, **1st** in Electronics department among **26** students
- Awarded **Gorelal Syngal scholarship** from IIT Kharagpur for securing **1st position among all dual degree students (2008 & 2009)**
- Awarded **M.P. Birla Smarak Kosh scholarship** from SPHS for securing **school rank 1 in HS Examination among 400 students (2006)**
- Secured **national rank of 123** in the prestigious **National Science Olympiad (2003)** for school students in **class 9**

SUMMER TRAINING:

2009 & 2010	EPFL University, Switzerland
Work and Achievements	<ul style="list-style-type: none"> • 2009: Discovered novel method of mapping compressor trees onto carry-chains of commercial FPGA's for fast adder circuits. Disproved previous belief of inefficiency of compressor trees compared to carry-chains • Demonstrated performance at up to 30% less area and 40% less delay compared to normal adder trees • 2010: Completely overhauled design of standard FPGA's to produce application-specific reconfigurable hardware. Independently developed custom CAD tools to map circuits to proposed design. Eliminated complex routing delay, which currently accounts for 50% of delay and power consumption in FPGA's.
Publications	<ul style="list-style-type: none"> • IWLS Design Automation Conference, 2010 as 2nd author of paper • Journal Paper at ACM TRETs as 2nd author of paper awaiting approval

KEY ACADEMIC PROJECTS:

2009- 2010	B.Tech Project and Dissertation: Ultra Wideband OFDM Equalization
Work and Achievements	<ul style="list-style-type: none"> • Mathematically dispelled faulty methods of equalization for concerned communication system model • Proposed and verified superiority of alternative equalizer algorithms befitting channel model at hand • Designed complex divider for equalization using CORDIC, compressing area requirement by a factor of 12
Publications	• Conference paper at ICUMT 2010 RABAN , Moscow (<i>IEEE</i>) as 1st author of paper
Spring, 2008	Topic: Spintronic Computation for Nano-electronics
Work and Achievements	<ul style="list-style-type: none"> • Conceived and designed spintronic equivalents of Fredkin gate and digital multiplexer for the first time • Mathematically verified operation of components at terahertz frequencies and zero power dissipation • Led to furthering of current research in quantum equivalents of digital components for nano-electronics
Publications	<ul style="list-style-type: none"> • Journal paper: Physica-E Low Dimensional Systems and Nanostructures, June '09 as 2nd author • Journal paper in Int. Journal of Micro and Nano Electronics Devices as 1st author

POSITIONS OF RESPONSIBILITY HELD:

Position	Place and Year	Key Achievements
General Secretary, Technology Committee	MS Hall of Residence 2008-09	<ul style="list-style-type: none"> • Initiated and systematized technology events in hall as the first general secretary • Formed new teams with secretaries, event heads and presentation team members • Won gold in Biz Quiz and Cheminnovation, bronze in Tech Quiz in first participation • Efficiently managed finances of INR 31,500 with 95% utilization and transparent audit
Web Team Coordinator	MS Hall of Residence 2009-10	<ul style="list-style-type: none"> • Formed the web team with 3-member team of coordinator, head and secretary • Successfully helped develop online mess, library and maintenance portal for hall • Software serve 450 boarders of hall and manage accounts of INR 70 lakh annually

EXTRA-CURRICULAR ACHIEVEMENTS:

Domain	Key Achievements
Technology	• Won bronze medal in inter-hall Product Design and Case Study (2009-10) as senior team member
Sports	• Won silver medal in inter-hall Chess (2008-09) and Table Tennis (2009-10) as senior team member
Kshitij	• Secured 3rd position among 100 teams in Anadigix , an inter-collegiate circuit design competition (2009)