

# GAURAV TAGORE

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## EDUCATION:

Program	Institution	Score	Completion
Dual Degree (B.Tech + M.Tech) in ELECTRONICS & ELECTRICAL COMMUNICATION ENGINEERING (M.Tech specialization: Visual Information Processing & Embedded Systems)	INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR	7.78/10	2011
XII (CBSE)	Delhi Public School, Faridabad	85.4%	2005
X (CBSE)	D.A.V. Public School, Faridabad	90.0%	2003

## ACADEMIC ACHIEVEMENTS:

- **All India Rank 769** (top 0.26%) in **IIT-JEE 2006**, out of approx. 3,00,000 candidates.
- **State Rank 52** and **All India Rank 2197** (top 0.36%) in **AIEEE-2006**, out of approx. 6,00,000 candidates.
- **97.2 percentile** in **GATE-2010**, resulting in being awarded the MHRD scholarship.
- **All India Rank 118** in Students Talent Promotion Examination, conducted by CBSE, 2003.
- **Scholar Badge** holder for **5 consecutive years** for outstanding academic performance, 1999-2003.

## RELEVANT COURSES TAKEN:

- Design & Analysis of Algorithms
- Data Structures & Object Representation
- Probability & Stochastic Processes
- Industrial Economics

## INTERNSHIPS:

- **ELECTRONICS & RADAR DEVELOPMENT ESTABLISHMENT (LRDE), DRDO, Bangalore** (May-June, 2009)  
Description: Implementation of **Novel Mapping of a Linear QR Architecture**, which forms the core processor of a single chip Adaptive Beam-forming system.  
Achievement: The mapping technique assigns a QR triangular array of  $2m^2+3m+1$  cells down to a linear architecture of  $m+1$  processors, resulting in **100% hardware utilization**.
- **OMEGA ELECTRONICS, Jaipur** (May-June, 2008)  
Description: Design of fully printable Active, Passive and Semi-passive RFID tags, using **Chipless RFID** technology in which tags do not contain an electronic circuit.  
Achievement: The potential benefit of these Chipless tags is that eventually they could be **printed directly** on products and packaging, **replacing the barcodes**.

## PROJECTS:

<b>Human Activity Modelling</b> (M.Tech Project, Jul 10 - present)	<ul style="list-style-type: none"><li>• Successfully <b>detected Human Groups</b> on the basis of proximity, speed, direction, etc. with an <b>efficiency of 83%</b>.</li><li>• Currently working on Recognition &amp; Differentiating between various aspects of human motion using <b>Hamiltonian Energy Signatures</b>.</li></ul>
<b>Human Object Tracking</b> (B.Tech Project, Aug 09 – Apr 10)	<ul style="list-style-type: none"><li>• Successfully carried out Human Motion Tracking using a combination of <b>Colour Histogram &amp; Kalman Filter</b> tracking algorithms.</li><li>• The combination resulted in a <b>9% improvement</b> in tracking efficiency and can be used for surveillance purposes.</li></ul>
<b>Axial Stereoscopic Imaging</b> (Feb-Apr, 2010)	<ul style="list-style-type: none"><li>• Designed a technique capable of obtaining <b>3D information</b> from an image using <b>Optical Flow</b> analysis.</li><li>• It can be used to measure objects in stereoscopic image pairs.</li></ul>

## EXTRA-CURRICULAR ACTIVITIES:

- **English Dramatics:** Honorable mention for representing RP Hall in Inter-Hostel Competition, 2008.
- **Robotix:** Amongst **Top 8** teams in Kshitij-2008 (IIT-Kharagpur tech fest) in the Load-Runner event.
- **Redcross** (NSS) society member: First-Aid Awareness Campaign, 2007-08.
- **HelpAge India:** Received Certificate of Appreciation for raising funds for the poor.

## SOFTWARE SKILLS:

<b>Languages</b>	C, C++, Verilog, VHDL, ARM, 8085 & 8051 assembly
<b>Simulation Tools</b>	MATLAB, Xilinx, Cadence, PSpice, AutoCAD
<b>Platforms</b>	Windows, Linux