

Indian Institute of Technology, Kharagpur

KOLLOL AGUAN

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Date of Birth: 28th June 1989

ACADEMIC QUALIFICATIONS

*A Final Year Student at Indian Institute of Technology, Kharagpur, India pursuing B. Tech.
degree in Electronics and Electrical Communication Engineering.*

<u>DEGREE/CERTIFICATE</u>	<u>INSTITUTE/SCHOOL/CITY</u>	<u>CGPA / PERCENTAGE</u>
B.Tech , Electronics and electrical communications engineering.	Indian Institute of Technology, Kharagpur	7.24/10 (till 6 th semester)
XII: Central Board of Secondary Education	St. Johns Senior Secondary High School,Kota	84.80%
X: West Bengal Board of Secondary Education.	Ramakrishna Mission ,Narendrapur	91.00%

SCHOLASTIC ACHIEVEMENTS

- Cleared the IIT-JEE examination 2007 with an All India Rank of among top 1 % of all the students who sat for the exam .
- Qualified the written test entrance examination for the ISI(Indian Statistical Institute),2007.
- Acquired an All India Rank of 480 among 2 lakh students in WBJEE 2007(Joint Entrance Exam of West Bengal).
- Won special prize in Inter-School Essay writing competition in 2005.
- Received merit certificate for extraordinary performance in the All India Children's Excellence Search examination,2000.
- Received merit certificate for Achievement-cum Diagnostic test in Mathematics,2002.
- Was awarded the MCM(Merit-cum means) scholarship for the academic year 2009-10.

KEY ACADEMIC PROJECTS

- **July, 2010 - now :** I am working on a project which involves building a series specific bio-sensor by integrating carbon nanotubes with micro-mechanical structures .The idea is to deposit aligned CNT's on a cantilever/quad beam micro-structure which can be used to sense the preferred biological species by detecting the deflection in the beam . This project constitutes of my Bachelor's thesis and shall be completed by March 2011 .

Supervisor: Prof. T.K Bhattacharya,(Dept. of Electronics and Electrical Communication) and
Co-supervisor : Prof. Chacko Jacob(Dept, of Material Science) , Indian Institute of Technology, Kharagpur .

- **Dec, 2009 - Feb, 2010:** I worked on the fabrication of a CdS(cadmium sulphide) nanowire FET(field-effect transistor) using CdS nanowires synthesized by aqueous chemical growth with Si as the substrate. The characteristics of the device are yet to be investigated .

Supervisor : Prof. Samit Kumar Ray , Dept. of Physics , Indian Institute of Technology , Kharagpur .

- **Dec, 2009 :** I worked on the design of a wireless DQPSK (Differential Quadrature Phase Shift Keying) modem . The code and the simulation was done using MATLAB .

Supervisor: Prof. S.S Pathak , Dept. of Electronics and Elec. Comm Indian Institute of Technology, Kharagpur.

- **Dec,2008 :** I worked on the measurement of the transport characteristics of the two dimensional electron gas(2DEG) in an AlGaAs (Aluminium Gallium Arsenide) HEMT(high electron mobility transistor).

Supervisor : Prof. Dhrubes Biswas, Dept. of Electronics and Elec. Comm Indian Institute of Technology, Kharagpur .

SUMMER INTERSHIPS

- ❖ SUMMER PROJECT WORK at Saha Institute of Nuclear Physics, Kolkata (From May, 2009-July, 2009)

I worked on the synthesis of Co nanowires and the low temperature transport properties measurement of the Co nanodots formed by magnetron sputtering on Au electrodes. Also , I was involved in the ongoing project on the incorporation of Pd nanoparticles into polypyrrole nanowires which can be used for hydrogen storage . This work was done as a summer fellow during my summer internship '09 in the Surface Physics division at the Saha Institute of Nuclear Physics , Kolkata , India .

Supervisor : Prof. Milan K. Sanyal , Head of Surface Physics Division and Director , Saha Institute of Nuclear Physics , Kolkata , India .

- ❖ SUMMER INTERNSHIP AT TU-DELFT,NETHERLANDS(From May,2010 to July,2010)

I worked on the fabrication of a Hydrogen gas sensor using Pd nanoparticles . The Pd nanoparticles were formed by a spark discharge generator and were impacted on the substrate after passing them through a differential mobility analyser . The change in resistance due to gas absorption was used to measure sensitivity. The sensor showed an excellent response, even with different concentrations of hydrogen .This work was done as a summer intern during my summer internship '10 in the Nanostructured Materials Group of the Dept. of Chemical Engineering at TU-Delft , The Netherlands.

Supervisors : Prof. Andreas Schmidt-Ott , and Dr. George Biskos , Dept of Chemical Engg , TU-Delft , Netherlands.

POSITIONS OF RESPONSIBILITY

- Sub-head of Spring-Fest 2009 , the annual cultural fest of IIT Kharagpur
- I am an active member of the ETDS(English Technology Dramatics Society) at IIT Kharagpur
- I am also a member of the Electronics Innovation Society (EIG) at IIT Kharagpur. (2008-09), meant for introducing the basics of electronics to first-year students to involve them in projects.

SKILLS

Operating Systems: Windows (XP/98/2000), Linux

Packages: MS Office, Autodesk.

Programming languages: C, HTML, Verilog, VHDL.

Software: MATLAB, CADENCE, COVENTOR, ORIGIN, AutoCAD

Languages Known: English, Hindi and Bengali.

KEY EXTRA-CURRICULAR ACTIVITIES

TECHNICAL AND SPORTS

- Won 1st prize in 'Nukkad' , street-play competition during Spring Fest 2008 , Annual cultural fest of I.I.T Kharagpur.
- Won Silver (2nd prize) representing RK Hall of Residence in Inter Hall Bengali dramatics competition 2009.
- Qualified NCC "Certificate A level" examination in 2002.
- I was the captain of my school cricket team(2003-05).

SOCIAL AND ENVIRONMENTAL WORK

- I am a member of the Gopali Youth Welfare Society (GYWS) aimed at ensuring socio-economic welfare for underprivileged and weaker sections of the society at Gopali, a village 5 km from IIT Kharagpur. Its main motto is "not to make the children literate, but to make them educated".
- I also took part in a survey in some specific households of the village Gopali , regarding the problems faced by the inhabitants and the measures that could be taken for remedial of those problems.
- I am also an active Volunteer of the Environmental awareness program under National Service Scheme. We worked as a group to study the various factors responsible for low yield in a nearby village. Main focus of our work was on the practices employed by the locals in agriculture, the quality of soil and underground water and to enlighten them about it.

ABOUT MYSELF

➤ Hard work, inter-personal skills and self motivation are my fortes that have helped me taste success in all my endeavors. My team spirit, enthusiasm, unwavering stamina to work under stressful situations, taking initiatives has always given new dimensions and higher heights to my projects. I am Energetic, Focused, Friendly and Result-oriented.