

# SHRUTI SAGAR MOHANTA

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## ACADEMIC QUALIFICATION

Degree	Institute/College	Year	Performance
B. Tech in Mechanical Engineering	Indian Institute of Technology, Kharagpur	2007-present	C.G.P.A. 8.17/10
Orissa state Board (Class XII)	Dharanidhar Junior College, Keonjhar, Orissa	2006	91.67%
Orissa State Board (Class X)	N S Police High School, Keonjhar, Orissa	2004	90%

## ACADEMIC ACHEIVEMENTS

- Ranked **946** all over India among over 2,50,000 students in IIT Joint Entrance Examination 2007
- 3<sup>rd</sup>** in college out of 256 students in 12<sup>th</sup> board examination
- Awarded MSS/NRTS scholarship by Board of Secondary Education, Orissa

## RELEVANT COURSES

- Economics
- Operation Research
- Numerical Solution to Ordinary and Partial Differential Equation
- Advanced Numerical Technique

## ACADEMIC PROJECTS AND TERM PAPERS

- B. Tech Project (ongoing): "Bond graph analysis and design of active vehicle suspension system based on fast load levellers" (2010-present)  
Advisor: Dr. A K Samantaray, Associate Professor, Mechanical Engineering Department, IIT Kharagpur.
- "Dynamic Stability Control of Vehicle" - A method for successful and safe manoeuvring of a vehicle at high velocity using a fuzzy logic controller (2009-10)  
Advisor: Dr. S K Barai, Associate Professor, Civil Engineering Department, IIT Kharagpur.  
Under the course of soft-computing tools in engineering
- Term Papers :
  - "Fuzzy-Logic Application in Selection of Machining Process Parameters"
  - "Synthesis Optimization of Four-Bar Mechanism Using Genetic Algorithm"Under the course of soft-computing tools in engineering

## SUMMER INTERNSHIPS

Tata Steel Ltd., Jharia Division, Jamadoba	Duration: May-July 2010
<ul style="list-style-type: none"><li>Project Title: <u>"Study and Suggest for improvement in Condition Monitoring at Power Plant, Jamadoba, Jharia Division, Tata Steel"</u> Advisor: Mr Bappa Bole, Sr. Manager Power plant, Jamadoba.</li><li>I studied about the condition monitoring at 10 MW power plant at Jamadoba. To improve the condition monitoring of the plant I studied about Wear Debris Analysis and its applicability in relation to the plant. Final conclusion and suggestion was to use DR ferrograph instrument for WDA.</li></ul>	
Bhabha Atomic Research Centre, Mumbai	Duration: May-Jun 2009

- Project Title: “Rheology based performance analysis of Sensor-instrumented Intelligent Robotic Jaw Gripper”  
*Advisor:* Dr. Debanik Roy, scientist and program officer, Bhaba Atomic Research Centre, Mumbai.
- The project work involved building of CAD model of the robotic jaw in Solidworks software and subsequent Finite Element Analysis in Ansys software. The simulation results showed the gripper jaw to be capable of withstanding the standard load to be imposed on it.

#### COMPUTER SKILLS

- **Languages** : C , C++(Intermediate knowledge),HTML
- **CAD** : Autocad 2005, Solidworks2009, CATIA V5  
Certified by Solidworks Corporation for clearing **CSWA (Certified SolidWorks Associate)**
- **Design** : Autodesk 3d studio max
- **Mathematical/Scientific Tool** : Matlab & Simulink
- **Engineering Software** :Ansys, Adams(Aview only), SYMBOLS Shakti

#### POSITIONS OF RESPONSIBILITY

- Member of FSAE(Formula Society of Automotive Engineer) IIT Kharagpur.  
Major contribution to the CAD and simulations in designing of the car.
- Major Responsibility in CAD of a team finalist in GE Edison Challenge 2009.
- Library Undersecretary of the Hall Library.
- Department Counsellor of juniors in hall.
- Volunteer of Corporate Management and banner in Kshitij 2008,the annual techno-management festival of IIT Kharagpur.

#### EXTRA ACADEMIC ACTIVITY

- Finalist in “Nirmaan” : On spot Mechanical Designing competition in Kshitij 2010(Annual Techno-Management Festival of IIT Kharagpur)
- Worked as a NCC and NSS volunteer
- Attended a summer NCC camp