

**EDUCATION**

| Year | Degree | University/School | CGPA/% |
|---------|--|----------------------------|---|
| 2007-11 | B.Tech in Manufacturing Sc. & Eng. | IIT Kharagpur | 7.17/ 10 (Best SGPA= 9.08 , 4 th Sem) |
| 2006 | C.B.S.E. (Science, 12 th Board) | Chinmaya Vidyalaya, Bokaro | 90.0% |
| 2004 | C.B.S.E. (10 th Board) | Chinmaya Vidyalaya, Bokaro | 90.8% |

ACADEMIC ACHIEVEMENTS

| | |
|--|--|
| Examinations & Scholarships | <ul style="list-style-type: none"> • Qualified Regional Mathematics Olympiad-2005, State Rank 03 (out of 500 selected students) • Qualified Chhotanagpur Mathematical Society Olympiad (CMS)-2003 • Among top 0.42% in IIT JEE, 2007 (out of 400,000 candidates) • Qualified National Science Olympiad twice: AIR= 41 (2003) and 129 (2005) 20,000 applicants • Topped in CBSE 12th board in my school (out of 300 candidates) • Chinmaya Award holder (100% scholarship in 11th & 12th standards) |
| Research Papers | <ul style="list-style-type: none"> • Designed Small scale Bio-mass Briquetting machine, used to get cooking fuel and generate electricity. Reduced installation cost by 1/10 times. (P.K.Sinha Bio-Energy Centre, IIT Kharagpur) • Qualified General Electric Edison Challenge twice (2009 & 2010): Group leader in both Case Study + Innovative Solⁿ challenge |

INTERNSHIP/ PROJECTS

| | | |
|---------------------------------|---------------------------------|--------------------------|
| <i>B.Tech Summer Internship</i> | TEGA Industries, Kolkata | <i>May to July, 2010</i> |
|---------------------------------|---------------------------------|--------------------------|

- **Pre Placement Offer** from Tega Industries for the post of **Engineer-R&D** (among **2 out of 7 IIT-Interns**)
- **Best Product Design** of a bicycle in the selection test attended by **80 Mechanical students**, IIT Kgp
- Provided two designs with proper **experimental proof and site testing**. Both designs have been **implemented by TEGA**
- **Increased the life of scrapers by 80%, efficiency by 15% and reduced labour cost by more than 50%**
- Designed automatic uplifting of scraper blades, used to scrap conveyers, without increasing pressure on it

| | | |
|------------------------------|--------------------------------|--------------------------------------|
| <i>Edison Challenge 2009</i> | G.E. (General Electric) | <i>(Group leader of a team of 4)</i> |
|------------------------------|--------------------------------|--------------------------------------|

- Submitted to **P.K. Sinha Bio-Energy Centre** and is being considered by **Z.S. Associates** for implementation
- Selected among the **top 15 (out of 180)** and appreciated at The *John F. Welch* Technology Centre, Bangalore, GE, India
- Provided energy solⁿ to an entire rural community of 1000 population. Model can be replicated to almost every village
- Being the group leader, **supervised both the technical and the commercial** model of the designed machine

| | | |
|------------------------------|--------------------------------|--------------------------------------|
| <i>Edison Challenge 2010</i> | G.E. (General Electric) | <i>(Group leader of a team of 5)</i> |
|------------------------------|--------------------------------|--------------------------------------|

- Presently among **top 10 national finalists**, to be presented to GE, India in Dec, 2010
- Case study + Innovative technical solⁿ + Commercial/Implementation model (aimed to reduce Infant mortality in India)

RELEVANT COURSES UNDERTAKEN** italicized subjects are non-departmental*

| | | |
|---|--|--|
| <ul style="list-style-type: none"> • Machine Tools and Machining* • Manufacturing Processes (I, II) * • Computer Integrated Manufacturing* • Non-traditional Manufacturing Processes* • Robots and Computer Controlled Machines* | <ul style="list-style-type: none"> • Heat Transfer • Thermo-Fluid Science • Systems and Control • Mechanics of Solids* • Mechanisms and Machines* | <ul style="list-style-type: none"> • <i>Transform Calculus</i> • <i>Operations Research</i> • <i>Probability and Statistics</i> • <i>Total Quality Management</i> • <i>Soft Computing (Genetic Algorithm)</i> |
|---|--|--|

POSITIONS OF RESPONSIBILITY

| Position, Organization | Year | Key Achievements |
|---|--|--|
| Founding member of Dream IIT (Now known as IITians for Youth) <ul style="list-style-type: none"> • Event manager & Sponsorship Head, 2008 • Selector & Mentor, 2009-2010 | Founded in July, 2008 by 7 students from IITKgp & IITB | <ul style="list-style-type: none"> • Conducted two days (6 hours each) workshop cum motivational cum counselling sessions in Bokaro (more than a 1000 participants), 2008. • Managed Sponsorship of ₹2.5 lakhs & contributed equally in event execution • Event followed by All India Telephonic Counselling conducted by Hindustan Times. Got token of appreciation from S.P. & D.C. (Bokaro) • Successive years: -Provide online counselling for youngsters <ul style="list-style-type: none"> -Event has been spread to Patna & Jamshedpur by selected members -At present 27 members (recruited 10/year for 2 years) |
| Member of Kharagpur Robotics & Artificial Intelligence group- KRAIG | Since Oct, 2007 | <ul style="list-style-type: none"> • Organised Workshop, Dec-2008 on robot making (total 120 participants) • Supervised a group of 6 to make a Wedged Robot, Winter Workshop, 2008 • Made three autonomous robots in 1st year. One was a grid follower cum obstacle detector and other two were Robo-Relay Bots. |
| Group Leader- National Science Congress | 2003 | <ul style="list-style-type: none"> • Supervised a group of 4 students • The project was selected to the state level |

EXTRA CURRICULAR ACTIVITIES

Sports

- Basketball: Represented my Hall in **Silver Winning** Inter-Hall Championship, 2009.
- Been a member of National Sports Organization, Basketball for 2 years.

Community Engagement

- Conducted extensive surveys in the near by Villages, under P.K.Sinha Bio-energy Centre:
 - designed cheap incubators for **medical care of infants**
 - designed & implemented a model of smooth information flow using mobile phones, basically for medical help. Also helpful to the NGOs for easy technology transfer
- **Taught a batch of 45** underprivileged students to prepare for competitive exams, as the member of Dream IIT, May-June, 2008.