

RICHA BHUSAN | 12CH30025

Third Year Undergraduate, Department of Chemical Engineering

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ACADEMIC PROFILE

Degree	Year	Institute	Score
Dual Degree, Chemical Engineering	2012-Present	Indian Institute of Technology, Kharagpur	8.59/10 (Upto Sem 5)
All India Senior School Certificate Examination	2012	D.A.V. Public School, Hehal, Ranchi	94%
All India Secondary School Examination	2010	D.A.V. Public School, Hehal, Ranchi	10/10

SCHOLASTIC ACHIEVEMENTS

- Co-authored and presented a conference paper in the field of Nanotechnology in **CHEMCON 2014**
- Qualified for the second level of **Jagdish Bose National Science Talent Search 2012**
- Awardee under **SBI Incentive Program** for Meritorious Students 2012-2017
- Second Runner Up (State Level) in **National Science Seminar 2010** on Chandrayaan

POSITIONS OF RESPONSIBILITY

Student Head : Technology Transfer Group

2014- Present

- Student Initiative under Sponsored Research and Industrial Consultancy (SRIC), IIT Kharagpur
- Responsible for organising **TEDxIITKharagpur 2015** to bring together inspiring personalities on a common platform
- Ideated, Structured and Executed IIT Kharagpur's exhibits at **India-US Technology Summit 2014**
- Launched TTG's official blog and Responsible for restructuring TTG's website
- Compiled details of 1354 Research and 482 Consultancy on-going projects in IIT Kharagpur
- Successfully organized **Patent Drive 2014**, which has already seen a submission of 100 abstracts
- Conducted 4 Department IP Seminars and Patent Drive Review Workshops
- Correspondent of the official newsletter of SRIC, **TechInsight 2013**

Student Mentor : Student Welfare Group

August 2014- Present

- Providing able guidance and support to First Year UG Students to get them easily acquainted with the new campus life

GES Intern: Entrepreneurship Cell

2012-2013

- Publicised Global Entrepreneurship Summit 2013 in Delhi
- Managed event logistics. GES includes various case studies, workshops, knowledge camps and lectures from eminent entrepreneurs

RESEARCH PROJECTS & INDUSTRIAL EXPERIENCE

Electrically Tuned Oscillation of a Micro-droplet [Present] Guide: Prof. Sunando DasGupta, Department of Chemical Engineering, IIT Kharagpur	<ul style="list-style-type: none">Experimentally analysed wetting phenomenon of droplet under the application of electric fieldReviewed previous researches on droplet spreadingCurrently investigating the Particle Mesh Ewald Method in GROMACS
Droplet Motion on Wettability Surface Gradient [May, 2014- July, 2014] Guide: Prof. Sunando DasGupta, Department of Chemical Engineering, IIT Kharagpur	<ul style="list-style-type: none">Simulated the motion of self-propelled water droplets on wettability-gradient surfaces using molecular dynamicsDerived MATLAB algorithms to study contact line friction coefficientChakraborty, M.; Bhusan, R.; DasGupta, S., Physics of Dynamic Spreading Using Molecular Dynamic Simulation, presented at Chemcon 2014Chakraborty, M.; Choudhary, A.; Bhusan, R.; DasGupta, S., Molecular Dynamic Simulation of Self-Propelled Droplets on Wettability Gradient Surfaces, manuscript under preparation
TATA Chemicals Limited [October 2013]	<ul style="list-style-type: none">Attended the industrial trip to TCL organised by the department of Chemical Engineering, IIT Kharagpur and TCL, Haldia
Robotics Winter Workshop [December 2012] Kharagpur Robotics & Artificial Intelligence Group	<ul style="list-style-type: none">IEEE Certified Robotics WorkshopSuccessfully constructed an autonomous robot which can function as a wall follower and can take sharp turns

SKILLS

Engineering	MATLAB, GROMACS (Molecular Dynamics) , VMD
Programming Languages	C, HTML, CSS, PHP
Operating Systems	Windows, Linux
Languages	Hindi, English, Sanskrit
Miscellaneous	MS-Office, Adobe Photoshop

CO-CURRICULAR ACTIVITIES AND ACHIEVEMENTS

- Secured 2nd position in **SRISTI Ideation Contest 2012**, IIT Kharagpur
- Secured 2nd position in **English Innovative Writing 2012**, MT Hall, IIT Kharagpur
- Member of Ad Design, Case Study and Chemical-Innovation Group, SN Hall & member, **Gopali Youth Welfare Society**
- Miscellaneous: Web Coding, Debating, Dancing, Badminton