

# Curriculum Vitae

**Dr. Utpal Basuli**



## Contact Information:

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## Personal Information:

<b>Father's Name</b>	: Nalini Ranjan Basuli
<b>Mother's Name</b>	: Anjali Basuli
<b>Nationality</b>	: Indian
<b>Marital status</b>	: Married
<b>Date of Birth</b>	: April 9, 1979

## Summary:

Devoted researcher on Rubber and Polymer technology, excellent in fundamental knowledge, generating novel ideas, designing experiments and handling instruments, excellent knowledge for the rubber/rubber chemicals and raw materials and their applications interested in learning and solving problems, capable to work independently as well as in a group, productive and hard worker, sober, soft spoken, popular among the friends and teachers, have excellent reading, writing, speaking and presentation skills in English, Hindi and Bengali.

## Career Objective:

- Looking for a challenging and rewarding opportunity in the field of **Polymer Science and Rubber Technology/Rubber for Defence Application/Nano Science & Technology/Polymer Science & Composite Materials** across **Research & Development** which is in line with my **Academic & Research** background and **Industrial Experience**.
- Working with Industry and Academic Institute to solve the problem for the development of quality product and Improve quality and productivity.
- Excellent knowledge on **Six-Sigma, and others Quality Tool**.
- To succeed in an environment of growth and excellence and earn a job which provides job satisfaction and self development and help me achieve personal as well as organization goals and developments.

- To enhance the knowledge and implement the same in new challenging position.

## Summary of Research and Industrial Experiences:

### Senior Research Fellow (SRF):

- **BRNS-DAE**, Mumbai, India, from September 14, 2007 to September 13, 2009. Worked with research team at Rubber Technology Centre, IIT Kharagpur
- **CSIR-SRF**, New Delhi, India, from September 14, 2009 to August 31, 2011. Worked with research team at Rubber Technology Centre, IIT Kharagpur

### Post-doctoral Research Experience:

- From September 1, 2011 to August 31, 2012 postdoctoral fellow under the **World Class University (WCU) Research Team**, Department of Polymer-Nano Science and Technology, Chonbuk National University, Jeonju, 561-756, South Korea

### Industrial Experience/ Present Position:

- **Manager R & D (Belts & Oil Seal), J.K. Fenner (India) Ltd., India (From October 29, 2012 to August 30, 2017.**
- **Head Manager Technical and R & D (Head R & D), Vinko Auto Industries Ltd, (Alaska Belts and Hoses) (From October, 2017 to May 2018.**
- **Present Position: NA**
- **Expected CTC: 10 Lac PA**
- **The job role involved:** - (i) Development/design of rubber compound for Belts, and Oil Seal applications. Find out new application and alternate source of chemicals/Rubber/polymers. (ii) To keep sustained follow up for trials & development. (iii) Extend full - fledged support to Manufactures and Customers. Develop, document & continuously improve Quality Systems, Statistically analyze the quality performance for products and compounds. (iv) Lead the elastomeric compound Team for the development of Belts and Oil Seal compound in line with customer requirements.

## Key Achievements:

- (1) Development of High Performance HNBR Timing Belts (Performance 3.0 Lac km).
- (2) Rubber for Defence Application (Trunk Pad, Bush-Pin, Road Wheel for Battle Trunk).

- (3) Knowledge for the Development of Railway Rubber Products.
- (4) Excellent Knowledge for the Rubber/Rubber Chemicals and Raw Materials and their Applications.
- (5) Belts for Nuclear Plant Application.
- (6) Developed Special Technique for the Reduction of Friction Co-efficient of Moulded Poly-V Belts.
- (7) Development of High Performance and Low Cost EPDM Based Poly-V Belts (Performance 1.0 Lac km) and NR/SBR Based V-Belts.
- (8) Development of EPDM Based Raw Edge Cogged (REC) Belts.
- (9) Development of Elastic Belt Based on EPDM for Automotive Applications
- (10) Development of Elastic Belt for Home Appliances.
- (11) Development of Oil Seal compounds by using High performance Rubber FKM, ACM.
- (12) Understand the customer requirements of Belts and Oil seals.
- (13) Selection of chemical and additive for Belt and Oil Seal application.
- (14) Use of Design of Experiment (DOE) for the development of Rubber compounds.

## Academic and Educational Details:

### Academic Degrees:

- 1 **Doctor of Philosophy (Ph.D)** from Indian Institute of Technology, Kharagpur in 2011 (2<sup>nd</sup> December, 2011). *Thesis title:* “Preparation and Properties of Nanocomposites Based on Poly(Ethylene-Co-Methyl Acrylate) and Multi-walled Carbon Nanotubes”.

### Education Details:

<b>Name of the Examination Passed</b>	<b>Board / Council University</b>	<b>Year of passing</b>	<b>Class / Div. Obtained</b>
<b>Postdoc</b> (Nanocomposites)	<b>Chonbuk National University, South Korea</b>	<b>Sept 1, 2011 to Aug 31, 2012</b>	<b>-</b>
<b>Ph.D</b> ( Nano-Technology in Polymer)	<b>IIT Kharagpur</b>	<b>2011</b>	<b>-</b>
<b>M.Tech</b> (Polymer Science & Rubber Technology)	<b>IIT Kharagpur</b>	<b>2006</b>	<b>1<sup>st</sup></b>
<b>M.Sc (Chemistry)</b> <b>Organic Special.</b>	<b>Ranchi University</b>	<b>2003</b>	<b>1<sup>st</sup></b>
<b>B.Sc</b>	<b>Vidyasagar University</b>	<b>2001</b>	<b>2<sup>nd</sup></b>
<b>H.S (10+2)</b>	<b>W.B.C.H.S.E</b>	<b>1997</b>	<b>2<sup>nd</sup></b>
<b>M.P (+10)</b>	<b>W.B.B.S.E</b>	<b>1995</b>	<b>1<sup>st</sup></b>

## Master Student Guided: 1

**Thesis title:** “Investigation of Cure Characteristic and Physico-Mechanical Properties of Ethylene Propylene Diene Monomer (EPDM) Based Elastomeric nanocomposites” Submitted in 2014 to Anna University, India.

## Academic Honors/Awards:

- **GATE-2004** in CY (Chemical Sciences), **All India Rank-225** (With Percentile 93.05)
- **NET -2004** June (Lectureship)
- **CSIR-SRF-2009** CSIR, New Delhi
- **Best poster award** in Research Scholar Day-2011, at Rubber Technology Centre, IIT Kharagpur
- **Best poster award** in International Rubber Conference (IRC-2012), at Jeju, Republic of Korea
- **Best paper award** in 2nd International Conference On Robust Quality Engineering (ICRQE-2014), Bangalore, India

## Relevant Courses Undertaken:

M.Tech	
<ul style="list-style-type: none"><li>• Industrial Rubber-I</li><li>• Rubber Compounding &amp; Reinforcing Materials</li><li>• Basic Rubber Science</li><li>• Physical Testing of Rubbers</li><li>• Latex and Foam Technology</li><li>• Seminar-I</li><li>• Rubber Laboratory –I</li></ul>	<ul style="list-style-type: none"><li>• Rubber Product Manufacturing Technology</li><li>• Industrial Rubber-II</li><li>• Adhesion Science &amp; Technology</li><li>• Characterization of Rubber &amp; Rubber Like Materials</li><li>• Tire Technology</li><li>• Comprehensive Viva Voce</li><li>• Seminar-II</li><li>• Rubber Laboratory –II</li></ul>
M.Sc	
<ul style="list-style-type: none"><li>• Organic Chemistry</li><li>• Inorganic Chemistry</li><li>• Physical chemistry</li><li>• Spectroscopy</li><li>• Environmental Chemistry</li><li>• Organic Laboratory-I</li><li>• Inorganic Laboratory-I</li><li>• Physical Laboratory-I</li></ul>	<ul style="list-style-type: none"><li>• Organic Chemistry</li><li>• Reagents and Synthesis</li><li>• Bio-chemistry</li><li>• Natural Product</li><li>• Industrial Chemistry</li><li>• Organic Laboratory-II</li><li>• Organic Laboratory-III</li><li>• Industrial Laboratory-1</li></ul>

## Research Fellowships/Scholarships:

- **GATE**, MHRD, India, from July 2004 to June 2006
- **BRNS-DAE**, Mumbai, India, from September 14, 2007 to September 13, 2009.
- **CSIR-SRF**, New Delhi, India, from September 14, 2009 to August 31, 2011
- **Post-doc, World Class University (WCU)** Republic of Korea, from September, 2011 to August, 2012.

## Instrumental Expertise/Skills:

Scanning electron microscope (SEM), Transmission electron microscope (TEM), X-ray photoelectron spectroscopy (XPS), X-ray diffractometry (XRD), Hall effect measurement, LCR meter, Multimeter, Infrared (IR) spectroscopy, Ultraviolet visible (UV) spectroscopy, Rubber process analyzer (RPA), Zwick/Roell Z005, Hounsfield, Universal Tensile testing machine (UTM) (Zwick, Hounsfield), Differential scanning calorimetry (DSC) (TA Q100), Thermogravimetric analysis (TGA) (TA Q50), Dynamic mechanical analysis (DMA), Dielectric analyzer (DEA), Monsanto processability tester (MPT), Rheometer, Viscometer, Durometer Hardness, duPont and DIN Abrader, Processing Machines-Two roll mixing mill, Molding Press (Moore), HAAKE Rheomix, Brabender, Banbury and K-4 Intermix. **Having knowledge on Rubber compounding/ Compound Development and Application of Specialty Elastomers/ DOE, Six-Sigma, Minitab 17, QMS etc.**

## Experience/Industrial Skills:

- Good knowledge & experience on Manufacturing Process (Rubber Mixing, Rubber compression, Rubber Molding, Strong planning knowledge) Expertise in rubber domain.
- Compounding knowledge on NR, SBR, EPDM, NBR, HNBR, ACM AEM, FKM and CSM Rubbers.
- To carry out trials for development of new products as well as existing products.
- Adequate knowledge of business and management principles (budgeting, strategic planning, resource allocation).
- Should be involved in product mixing, compounding, & testing activity.
- Facing system audits and customer audits for system compliance.
- Conducting Cost-Reduction Trial by coordinating with Technical & Purchase departments.
- Overall Responsible with Value Engineering Project in Plant.
- Coordinate with all department of the organization for improving productivity.
- Monitor & control Production related tasks including planning, procurement, control & Trouble shooting for achieving the planned periodic Schedules.
- Installation of cost saving measures and modifications to achieve substantial reduction in terms of man- days, production cost, raw material.
- To organize and carry out Inspection and Testing of the raw-materials and finished products as per the Quality plans.
- To issue Test Certificates for the dispatches to the Customers.
- Maintain close coordination with Design, Tool Room, Purchase, Quality, Logistics & sales team. Skills And Abilities: Leadership Skills, Man management skills, Great communication, organization skills, must be proactive

## List of publications:

**Book chapter:1**

**International Journals: 17**

**International conferences: 15**

**National conferences: 4**

## Other Relevant Information:

**Hobbies/Interests**

a) Drawing and Painting,

b) Recitation

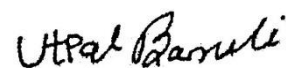
**Language Known**

(a) English (b) Bengali (c) Hindi

**Mother Tongue**

a) Bengali

All the above information given by me is in all respect



Signature of the candidate