

E-mail: [mou.bera14@gmail.com](mailto:mou.bera14@gmail.com)

Add:- Moumita Bera; Room number-B9, Indian Institute of Carpet Technology,  
Chauri Road, Bhadohi, Uttar Pradesh 221401



# Dr. Moumita Bera

## Area of Interest

Structure and properties of fibrous material

Functional textile

Medical textiles

Textile testing

Structure and properties of floor covering material

## Education

Sl. no.	Examination	Organization	Year of passing
1	Madhyamik	WBBSE	May, 1999
2	Higher Secondary	WBCHSE	May, 2001
3	B.Tech	Calcutta University	May, 2006
4	M.Tech	IIT Delhi	May, 2008
5	Ph.D	IIT Delhi	Nov, 2013

## Orientation and Refresher course

1. 82<sup>nd</sup> orientation course at Banaras Hindu University from 5<sup>th</sup> Aug to 24<sup>th</sup> Aug., 2019 (21 days).
2. Refresher course in Advances in Textile Engineering from SWAYAM Nov 2019 to Mar, 2020 (3 months).
3. Faculty Development Programme in Mathematical Modelling & its Applications in Engineering 06<sup>th</sup> to 10<sup>th</sup> July 2020 by Joint AKTU-AICTE Short Term Training Programme. (5 days)
4. Faculty Development Programme in “Advances in Apparel Manufacturing Technology” 17<sup>th</sup> August to 22<sup>nd</sup> August, 2020 by Sona college of Technology AICTE sponsored Short Term Training Programme. (6 days)
5. FDP on “Green Technology and Sustainability Engineering (GTSE)” sponsored by AICTE Training and Learning (ATAL) Academy organised by NIT Jamshedpur from 14<sup>th</sup> September to 18<sup>th</sup> September (5 Days).

6. FDP on Intellectual Property Rights Emphasis on Patent Drafting and Research Innovation organized by Sri Venkateshwaraa College of Engineering & Technology, Ariyur, Puducherry from 23<sup>rd</sup> September to 25<sup>th</sup> September. (3 days)
7. AICTE sponsored virtual Short Term Training Programme (STTP) on “Fashion Forecasting and trend Analysis” organized by Department of Fashion Technology, Bannari Amman Institute of Technology from 28<sup>th</sup> September to 3<sup>rd</sup> October 2020. (6 Days)

### Sponsored projects

1. **“Awareness programme in Carpet making craft among school children”** funded by O/o DC(HC), MOT under design and technical upgradation scheme. Rs. 1 lakh. Vide sanction no J-12012/115/2014-15/DS/CR(Genl.), dated 30/12/2014. Held on 23-24 January 2015.
2. **“Seminar on carpet making craft for SC section of the society”** funded by O/o DC(HC), MOT under Research and Development scheme Rs. 4.8 lakh. Held 15-17 July, 2015.
3. **“Base woven textiles used for handicrafts at Bhadohi for SC category artisans”** Under the integrated Design and Technical development scheme of office of development commissioner (Handicrafts) New Delhi. Rs. 8.45 lakh. Held 30<sup>th</sup> Oct, 2015 to 8<sup>th</sup> Feb 2016.
4. **Development of woven carpet in terry pile structure in loom in hand made carpet** funded by O/o DC(HC), MOT under Research and Development scheme sanction letter No. K-12014/4/75/2014-15/R&D dated 12.03.15. Rs. 5 lakh. 12.03.15 to 21.04.17.
5. **Backing cloth for tufted carpet”** for SC section of the society from 17<sup>th</sup> to 18<sup>th</sup> March 2017 sponsored by office of development commissioner (Handicrafts) New Delhi, Rs. 1 Lakh, Held 17-18.03.2017.
6. Design and Technology Development workshop in **Backing cloth for tufted carpet** for 2 months duration, sponsored by office of Development Commissioner (Handicrafts) New Delhi, Rs. 4.8 Lakh. Yet to be started (fund not received).

### Professional society membership

Life membership of **The Indian Natural Fibre Society**

### Research experience

#### 1. **Doctorate of Philosophy (Ph.D), Indian Institute of Technology (IIT), Delhi**

**Duration:** 2008 -2013

**Title of the thesis:** Studies on the characteristics of elastic knitted fabric tubes and their influence on pressure generation

**2. Masters of Technology in Textile Engineering, Indian Institute of Technology (IIT), Delhi**

**Duration:** 2006 -2008

**Title of the thesis:** Influence of coupling agents on Jute –PP composites

**3. Bachelor of Technology in Jute and Fibre Technology, Institute of Jute Technology, Calcutta University**

**Duration:** 2002 -2006

**Title of the thesis:** Formaldehyde free finishes on Linen fabric

### Publications

1. M. Bera, R. Alagirusamy and A. Das, “A study on interfacial properties of Jute-PP composites”, Journal of Reinforced Plastics and Composites, 29(20), 2010, 3155-3161, (Impact factor = 1.786), ISSN0731-6844. SAGE Publications
2. D. Gupta, R. Chattopadhyay and M. Bera, “Comfort properties of pressure garments in extended state”, Indian Journal of Fibre & Textile Research, 36, December, 2011, 415-421, (Impact factor = 0.486), ISSN 0971-0426.
3. D. Gupta, R. Chattopadhyay and M. Bera, “Compression stockings-Structure Property analysis”, Asian Textile Journal, 29(1), 2011, 39-45, ISSN 0974-0589.
4. P. Paul, D. Gon and M. Bera, “Effect of weft yarn type and pick density on tearing strength of woven fabric”, Man Made Textiles in India, February, 2011, 44-48, ISSN 0377-7537.
5. R. Chattopadhyay, D. Gupta and M. Bera, “Effect of Input Tension of Inlay Yarn on the Characteristics of Knitted Circular Stretch Fabrics and Pressure Generation”, The Journal of Textile Institute, 103 (6), 2012, 636-642, (Impact factor = 0.725), ISSN 0040-5000. Taylor & Francis.
6. M. Bera, R. Chattopadhyay, D.Gupta, “The effect of fibre blend on comfort characteristics of elastic knitted fabrics used for pressure garments”, Journal of The Institute of Engineers (India): Series E, 95(1) 2014, 41-47, ISSN: 2250-2483. Springer Publications.
7. M. Bera, R. Chattopadhyay, and D. Gupta, “Effect of linear density of inlay yarns on structural characteristics of knitted fabric tube and pressure generation on cylinder”, The Journal of Textile Institute, 106, 2015, 39-46, (Impact factor = 0.725), ISSN 0040-5000.

8. M. Bera, R. Chattopadhyay, D. Gupta, "Influence of linear density of inlay yarn on pressure generation on human body" *Journal of Industrial Textile*, 46(4), 2016, 1053–1066. (Impact factor=1.120), ISSN 1528-0837
9. R. Chattopadhyay, Moumita Bera, "Prediction of pressure due to elastic fabric tube following energy principle", *Journal of Textile Engineering & Fashion Technology*, 2(5), 2017, 499-504. eISSN: 2574-8114
10. M. Bera, P. Paul, "Influence of weave design on the properties of fabric", *Milliand International*, March, 2017, Vol.23, Page 27-29.
11. M. Bera, "Study on Tuft Withdrawal Force and Compressibility of Hand-Tufted Carpet", *Journal of The Institute of Engineers (India): Series E*, 100, 2019, 175–181, ISSN 2250-2483, SPRINGER

### **Paper presentations**

1. M. Bera, R. Alagirusamy and A. Das, "Influence of Coupling Agents on Jute Fibre Composites", International conference of PPS-25 (Polymer Processing Society- 25<sup>th</sup> annual meeting) Goa, India, 4<sup>th</sup> March, 2009.
2. M. Bera, D. Gupta and R. Chattopadhyay, "Studies on Pressure Stockings", 23<sup>rd</sup> national convention of textile engineers, New Delhi, India, 26-27<sup>th</sup> March, 2010.
3. M. Bera, D. Gupta and R. Chattopadhyay, "Studies on Pressure Stockings", I<sup>2</sup>Tech, IIT Delhi, New Delhi, India, 24<sup>th</sup> April, 2010.
4. M. Bera, D. Gupta and R. Chattopadhyay, "Studies on Pressure Stockings", International conference of healthcare and hygiene textiles and clothing, HEAT 2010, Coimbatore, India, 30-31<sup>st</sup> July, 2010.
5. M. Bera, D. Gupta and R. Chattopadhyay, "Studies on Pressure Stockings", The 39<sup>th</sup> textile research symposium, IIT Delhi, New Delhi, India, 15-16<sup>th</sup> December, 2010.
6. M. Bera, R. Chattopadhyay and D. Gupta, "Influence of Inlay Yarn Pretension on the Characteristics of Knitted Elastic Fabric Used in Pressure Garment", The 11<sup>th</sup> Asian Textile Conference, Daegu, South Korea, 1-4<sup>th</sup> Nov, 2011.
7. R. Chattopadhyay, M. Bera and D. Gupta, "Deformation behaviour of power net and weft knitted elastic fabrics", The 41<sup>st</sup> Textile Research Symposium, Guimaraes, Portugal, 12-14<sup>th</sup> Sept, 2012.
8. R. Alagirusamy, A. Das and M. Bera, "Interfacial properties of jute-pp composites- influence of coupling agents", 1<sup>st</sup> International conference on natural fibres, Guimaraes, Portugal, 9-11<sup>th</sup> June, 2013.

9. M. Bera, R. Chattopadhyay, D. Gupta, “A field study on use of pressure garments in local hospital”, International Conference On Emerging Trends In Traditional & Technical Textiles, NIT Jalandhar (India), April 11<sup>th</sup> - 12<sup>th</sup> 2014.
10. M. Bera, R. Chattopadhyay, D. Gupta, “Effect of covering on spandex yarn”, International Conference On Technical Textiles and nonwovens, IIT Delhi (India), November 6<sup>th</sup> - 8<sup>th</sup> Dec 2014.
11. M . Bera, “Study on tuft withdrawal force and compressibility of hand tufted carpet”, International Conference On Technical Textiles and nonwovens ICTN 2018, IIT Delhi. New Delhi, (India), December 6<sup>th</sup> - 8<sup>th</sup> 2018.

## Webinar

1. Webinar on “Reverse Migration of Workers and its impact on the textile industry and the way forward” Organized by Textile Association of India and Indian Textile Journal on 15<sup>th</sup> May, 2020.
2. Webinar on “New Horizons of Technical Textiles” Organized by UPTTI, Kanpur on 29<sup>th</sup> May, 2020.
3. Webinar on “Career Opportunities and stress management” Organized by UPTTI, Kanpur on 14<sup>th</sup> June, 2020.
4. Webinar on “New Dimensions of Future Textiles & Career Opportunities” Organized by UPTTI, Kanpur on 5<sup>th</sup> July, 2020.
5. National webinar on “Industry 4.0-Approach towards smart factory operations” organized by MLV Textile & Engineering College, Bhilwara on 29<sup>th</sup> July 2020.
6. Webinar on “Sustainability & Diverse Aspects of Textile Manufacturing” Organized by UPTTI, Kanpur on 9<sup>th</sup> Aug., 2020.
7. Webinar on “Steps for building Institutional Innovation System for Atmanirbhar Bharat Abhiyan” held on 9<sup>th</sup> September 2020 organized by AKTU, Lucknow.
8. International Webinar on "Applications of Textiles in Advanced Material Research" held on 12th September and 14th September 2020 organized by MLV Textile & Engineering College, Bhilwara.
9. Webinar on “Technology and Application of nonwoven” held on 26<sup>th</sup> September, 2020 organized by Alumni Association of Department of Jute and Fibre Technology (University of Calcutta).

## Student Guidance

### B.Tech Projects

Sl. No.	Year	Tittle
1	2014-15	Study on the compressional behaviour of hand tufted carpet
2	2014-15	Influence of weave design on the characteristics of woven fabric
3	2015-16	Study on primary backing fabric of hand tufted carpet
4	2015-16	Study on dimensional property of single jersey fabric

5	2016-17	Recycling and Reusing of fibrous waste into composite material
6	2016-17	Development of handloom carpet in terry-leno structure
7	2016-17	Preparation of acoustic board by carpet waste (bhujbun)
8	2017-18	Study on Acoustic Material from Carpet Waste and Its Analysis
9	2018-19	Study of woolen dhurry
10	2018-19	Quality control in carpet manufacturing
11	2018-19	Effect of weave design on various properties of woven fabric
12	2019-20	Study on Mosquito Repellent Finish On Fabric

### Scholarship and awards

- Scholarship from MHRD during M.Tech studies 2006-2008
- Scholarship from MHRD during Ph.D studies
- 29<sup>th</sup> rank (score 406) in GATE 2006 Examination.
- 3<sup>rd</sup> rank in poster presentation at 23<sup>rd</sup> national convention of textile engineers, New Delhi, India, 26-27<sup>th</sup> March, 2010.
- Bronze medalist at Calcutta University in the year of 2003 for 3<sup>rd</sup> rank in “Jute and Fibre Technology”.
- Post Doctoral Fellowship to Women Candidates from UGC