



UNIVERSITY OF CALCUTTA

PROFILE/CV OF THE ADMINISTRATIVE OFFICER

1. **Full name:** Kausik Bal
2. **Designation:** Development and Planning Officer
3. **Passport size photograph:**



4. **Contact information:** DPO, 3rd Floor, Darbhanga Building, University of Calcutta, 87/1 College Street, Kolkata 700073. Email: kbal.ucal@gmail.com Phone: +91 33 22190053
5. **Academic qualifications:**

College/university from which the degree was obtained	Abbreviation of the degree
Indian Institute of Technology Delhi	Ph.D.
Indian Institute of Technology Delhi	M. Tech.
University of Calcutta	B. Tech.
University of Calcutta	B. Sc. (Hons.)

6. **Positions held/holding:**
 - i) Assistant Professor, Department of Textile Evaluation, Faculty of Textile Technology, Technical University of Liberec, Liberec, Czech Republic (2013 – 2015)
 - ii) Visiting Scientist, Laboratory for Protection and Physiology, EMPA (Swiss Federal Labs for Material Science and Technology), St. Gallen, Switzerland (2015)
 - iii) Visiting Fellow, Dept. of Fiber Science & Apparel Design, College of Human Ecology, Cornell University, Ithaca, USA (2014 – 2015)
 - iv) Guest Lecturer, Department of Jute and Fibre Technology, University of Calcutta, India (2013, 2016)

- v) Post-doctorate Fellow, Hong Kong Polytechnic University, Hong Kong SAR (2010 - 2011)
- vi) Research Associate, Hong Kong Polytechnic University, Hong Kong SAR (2010)
- vii) Research Assistant, Hong Kong Polytechnic University, Hong Kong SAR (2009 - 2010)
- viii) Teaching Assistant, Department of Textile Technology, Indian Institute of Technology, Delhi, India (2004 – 2009)
- ix) Manager (Technical), Emdee Merchandising Pvt. Ltd., New Delhi, India (2003 – 2004)

7. **Research interests:**

Transfer properties of porous materials, Clothing comfort, Electrical and Dielectric properties of fibrous assemblies, modeling structure – property relationship in woven fabrics, Instrumentation for textile testing, non-conventional applications of fibrous materials, multi-physics simulation of textile substrates, design of textile based envelope for personnel protection, textile ropes, ancient textiles, history of textile evolution, developing multi-media multi-platform curricula and methods for textile education.

8. **Select list of publications:**

Thesis:

- i) Bal, K., Studies on dielectric properties of woven fabrics, *Ph.D. Thesis*, Indian Institute of Technology Delhi, India.
- ii) Bal, K., Thermal transmission behaviour of woven fabrics, *M. Tech. Thesis*, Indian Institute of Technology Delhi, India, 2002
- iii) Bal, K., Cost saving by inventory control in a factory by electronic processing of data, *B. Tech. Thesis*, University of Calcutta, India, 2001

Book Chapters:

- i) Bal, K. and Kothari, V. K., Ch. 9: Modelling and Simulation of Dielectric Permittivity and Electromagnetic Shielding Efficiency of Fibrous Material, in *Modelling and Simulation in Fibrous Materials: Techniques and Applications*, edited by Patanaik, A., Nova Science Publishers, Inc., New York, 2012.

Publications in Peer Reviewed Journals:

- i) Bal, K., Hes, L. and Bajzik, V., Analytical model to study a new design concept for providing comfort in hot arid climate, *Indian Journal of Fibre and Textile Research*, accepted, 2016
- ii) Diswat, J., Hes, L. and Bal, K., Thermal resistance of cut pile hand tufted carpet and its prediction, *Textile Research Journal*, doi: 10.1177/0040517515612356, 2016.
- iii) Mazari, A., Bal, K. and Havelka, A., Prediction of needle heating in an industrial sewing machine, *Textile Research Journal*, vol. 86, 3: pp. 302-310, 2016.
- iv) Bal, K. and Kothari, V. K., Dielectric behaviour of polyamide monofilament fibers containing moisture as measured in woven form, *Fibers and Polymers*, 15, 8, pp. 1745- 1751, 2014.
- v) Bal, K., Fan, J. T., Sarkar, M. K. and Ye, L., Differential spontaneous capillary flow through heterogeneous porous media, *International Journal of Heat and Mass Transfer*, 54, pp. 3096–3099, 2011.
- vi) Sarkar, M. K., Bal, K., He, F. and Fan, J. T., Design of an outstanding super-hydrophobic surface by electro-spinning, *Applied Surface Science*, 257, pp. 7003–7009, 2011.
- vii) Qing, C., Fan, J. T., Sarkar, M. K. and Bal, K., Plant Based Biomimetic Branching Structures in Knitted Fabrics for Improved Comfort Related Properties, *Textile Research Journal*, 81, 10, pp 1039 – 1048, 2011.

- viii) Kothari, V. K. and Bal, K., An Infra-red based fast method of moisture content measurement and its application to measure blend proportion of polyester-viscose woven fabrics, *Journal of Engineered Fibers and Fabrics*, Vol. 5, No. 2, pp 22-26, 2010.
- ix) Bal, K. and Kothari, V. K., Permittivity of Woven Fabrics: A Comparison of Dielectric Formulas for Air-Fiber Mixture, *IEEE Transactions on Dielectric and Electrical Insulations*, Vol. 17, No. 3, pp. 887-895, 2010.
- x) Bal, K. and Kothari, V. K., Study of dielectric behaviour of woven fabric based on a two phase model, *Journal of Electrostatics*, 67, 5, pp 751-758, 2009.
- xi) Bal, K. and Kothari, V. K., Measurement of dielectric properties of textile materials and their application, *Indian Journal of Fibre and Textile Research*, 34, 2, pp 191-199, 2009.
- xii) Kothari, V. K. and Bal, K., Development of an instrument to study thermal resistance of fabrics, *Indian Journal of Fibre and Textile Research*, 30, pp 357-362, 2005.

Papers published in Conference Proceedings:

- i) Bal, K., Diswat, J. and Hes, L., Anisotropy of thermal conductivity of yarns, *RTCT International Conference*, Jalandhar, **India**, 2016.
- ii) Hes, L., Bal K. and Dolezal, I., A new device to evaluate thermal resistance of fabrics, *RTCT International Conference*, Jalandhar, **India**, 2016.
- iii) Bal, K. and Hes, L., A new design concept to provide comfort in hot dry desert, *15th Autex World Textile Conference*, Bucharest, **Romania**, 2015.
- iv) Hes, L., Bal, K. and Boguslawska-Bajzek, M., The contribution of individual fabrics on sensorial and thermal comfort of man's casual jacket made of sandwiched textile layers, *CLOTECH International Conference*, Lodz, **Poland**, 2015.
- v) Diswat, J., Bal, K. and Hes, L., Influence of pressure on thermal comfort properties of cut pile hand tufted carpets, *CEC 2015*, Zagreb, **Croatia**, 2015.
- vi) Bal, K., Maros, T., Hes, L. and Matusiak, M., Investigation of the role of surface roughness on the thermal absorptivity of cotton woven fabrics, *14th Autex World Textile Conference*, Bursa, **Turkey**, 2014.
- vii) Hes, L., Bal, K. and Boguslawska-Bajzek, M., Why black clothes can provide better thermal comfort in hot climate than white clothes, *Fiber Society Spring Conference*, Liberec, **Czech Republic**, 2014.
- viii) Bal, K., Learning from Nature: Bio-inspired Engineering of Textiles, *All India Seminar on Innovation and Emerging Trends of Jute, Textile and Garment Products*, Institute of Engineers, Kolkata, **India**, 2012.
- ix) Bal, K., Governance of Academic Administration in a Pervasive Learning Environment – Ethical Issues and Challenges Ahead, *National seminar on Ethics and Values in Governance of Academic Administration*, Vidyasagar University, Midnapore, **India** 2011.
- x) Sarkar, M. K., Fan, J. T., Bal, K., Wu, Y. S., Tang, K. P. And Chan, H. F., Plant-structure fabrics for super comfort and easy care dress materials, *Autex World Textile Conference*, Vilnius, **Lithuania**, 2010.
- xi) Bal, K. and Kothari, V. K., Innovative ways to measure blend proportion in woven fabrics, *23rd Annual National Convention of Textile Engineers*, Institute of Engineers, New Delhi, **India**, 2010.

9. Membership of Learned Societies:

Life Member of Textile Association of India, New Delhi Chapter

10. Invited lectures delivered:

- i) Bal, K., Current Trends of Research on Fibrous Materials and Structures, **National Institute for Research in Jute and Allied Fibre technologies**, Kolkata, India 2012.

- ii) Bal, K. and Kothari, V. K., Textile materials for ballistic protection, **Bureau of Police Research**, New Delhi, India, 2006.

11. Awards:

- i) Dr. Amrik Singh Gold Medal, Topper in Post-graduate Programme in Textile Engineering, Indian Institute of Technology Delhi, India (2003)
- ii) Third Prize Winner, All India Technical Paper Presentation Competition in TRYST, Indian Institute of Technology Delhi, India (2002)
- iii) All India Second, Graduate Aptitude Test in Engineering, Indian Institute of Technology Kanpur, India (2001)
- iv) University Topper, Bachelor of Technology Programme in Fibre Technology, University of Calcutta, India (2000 -01)
- v) Precitex Award, Best Student in Spinning, Precitex Rubber Industries Pvt. Ltd., India (2000)
- vi) Medal, Outstanding Contribution towards Board for Hostel Management, Indian Institute of Technology Delhi, India (2005)
- vii) Medal, 'Freedom of House', Satpura House, Indian Institute of Technology Delhi, India (2005)

12. Other notable activities:

- i) Officer-in-charge, WB SET, December 2015, College Street Campus, University of Calcutta, Kolkata, India (2015)
- ii) Centre Co-ordinator, UGC National Eligibility Test, December 2012 Exam, University of Calcutta, Kolkata, India (2012)
- iii) Centre Co-ordinator, UGC National Eligibility Test, June 2012 Exam, University of Calcutta, Kolkata, India (2012)
- iv) Centre Co-ordinator, UGC National Eligibility Test, December 2011 Exam, University of Calcutta, Kolkata, India (2011)



Signature of the Administrative Officer