

## Brief Profile

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### Dr Arunangshu Mukhopadhyay [Ph D]

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**Specialization and Expertise:** (a) Technical Textiles (b) Aerosol Filtration (c) Seam characterization, (d) Fabric structure-property relationship, (e) Statistical Methods and Design of Experiment

**Professional Experience:** Total experience – 2 years Industrial, and 31 years Teaching and Research. In the last 10 years working as Professor at NIT Jalandhar.

### Summary of research output (papers, patents, technology development)

✚ Contributed more than 200 research publications in reputed academic and applied journals, conference proceedings etc. The publication also includes 12 monographs/book chapters encompassing different areas of technical textiles; Guided more than 50 Post Graduate (Ph D and M Tech) Scholar, Ph D research: 9 completed and presently guiding 7 students. Recently two patents have been granted based on the innovation of an apparatus for testing cleanable filter media in flat form and also in tubular form. Technology Transferred of the same to the industry was accomplished on December 15, 2014. Recently the patent application of 'Breathable Reusable Facemask for Community Use', has been done. The Technology Transfer of the latter one was accomplished to the M/S Singla Engravures, Ghaziabad and Meditex Industries Pvt Ltd. (date 14/08/2020). Yet another *Technology Transfer of Universal Abrasion Tester* was accomplished on 10.09.2021 to M/S Prolific Engineers, Noida, Uttar Pradesh.

### Five major recent sponsored R&D projects are ongoing/completed

Carried out several consultancy projects and many sponsored projects supported by DST, CSIR, MHRD, TIFAC and World Bank Assisted Project. Five major recent sponsored R&D projects are mentioned below;

- **PI of Project**, Optimization of pulse cleaning parameters for achieving high-level performance of filter media during industrial pollution control under India – Austria Scientific & Technological Co-Operation between Wissenschaftlich-Technische Zusammenarbeit (Wtz) and Department of Science And Technology (DST) 2018 – 2020.

- **PI of Project**, Design of Pulse Jet Filtration Apparatus under DST, Govt. of India (project cost: Rs 52.28 lacs).
- **PI of Project**, Designing of Fabric Tensile Impact Testing Instrument, DST, Govt. of India (project cost: Rs 36.02 lacs).
- **PI of Project**, *Designing of Fabric Wet Abrasion Tester*, CSIR Govt. of India (project cost: Rs 29.30 lacs).
- **PI of Project**, Designing nonwoven fabric for pulse-jet filtration, MHRD, Govt. of India (project cost: Rs 15.00 lacs).
- **Co-PI of Project**, Development of Positive thread feeding device for Sewing Machine, DST, Govt. of India (project cost: Rs 22.00 lacs).

### Other relevant information

Dr A Mukhopadhyay is a Professor in the Department of Textile Technology at National Institute of Technology, Jalandhar (India). Earlier he was in many administrative positions including Dean (Academics), and Head of the Department (Textile Technology) etc, and presently he is Chairman of Internal Quality Assurance Cell (IQAC) & Internal Audit Committee, and also, Institute Accreditation and Academic Audit.

His field of interest is quite diversified and interdisciplinary which encompasses many areas technical textiles such as filtration textiles, medical textiles, geotextiles and sports textiles etc. He has successfully carried out several consultancy projects and has been carried out many sponsored projects supported by DST, CSIR, MHRD, TIFAC and World Bank Assisted Project.

He is also involved in several outside institutes' academic work, Professional Societies, Industry / Govt. / Public/ Community Services. He is active reviewer for more than 40 International journals and presently an Editorial Member of *Journal of Natural Fibers*. He presented his research at several International Conferences held abroad at USA, UK, Germany, Austria, Slovenia, South Korea, and China etc. He had been also scientific committee member and chaired session at many International Technical Conferences.

## List of Publications of Prof A Mukhopadhyay

### Books/Monographs

1. '**Pilling**' (Textile Progress, ISBN 1 870372 15 8), Textile Institute, UK, 2009.
2. '**Sewing Threads**' (Textile Progress, ISBN 1 870372 38 7), Textile Institute, Manchester, UK, 2010.
3. A book chapter on **Compression Bandages** in, "Technical Textiles: Technology, Development and Applications", IAFL Publications, 2008 (ISBN 978 81 901033 4 3).
4. **Pulse-Jet Filtration: An Effective way to Control Industrial Pollution; Part I: Theory, Selection and Design of Pulse-jet Filter**, Textile Progress, 41 (4) ISSN: 1754-2278 (electronic), 0040-5167 (paper), Taylor & Francis, UK. 2009.
5. **Pulse-Jet Filtration: An Effective Way to Control Industrial Pollution; Part II: Process Characterization and Evaluation of Filter Media**, Textile Progress, 42 (1) ISSN: ISSN 1754-2278 (electronic), 0040-5167 (paper), Taylor & Francis, UK., 2010.
6. A book chapter on **Factors that affect sewn seam performance** in **Joining textiles: principles and applications**, Eds. I Jones and G Stylios, Woodhead Publishing Limited, Cambridge, ISBN 1 84569 627 1, ISBN-13: 978 1 84569 627 6, 2013.
7. A book chapter on **Composite nonwovens in filters: Part I Filtration Mechanism and Characteristics requirements of Nonwovens as Filter** in **Composite nonwoven materials: Design, development and applications**, Woodhead Publishing Limited, Elsevier, Cambridge, ISBN 9780857097705, 2014.
8. A book chapter on **Composite nonwovens in filters: Part II Composite Nonwovens in Filters** in **Composite nonwoven materials: Design, development and applications**, Woodhead Publishing Limited, Elsevier, Cambridge, ISBN 9780857097705, 2014.
9. A book chapter on **Waterproof Breathable Fabrics** in **Technical Textiles**, Woodhead Publishing Limited, Elsevier, Cambridge, March 2016.
10. A book chapter on **Smart breathable coatings for textiles** in **Active coatings for smart textiles**, Woodhead Publishing Limited, Elsevier, Cambridge, March 2016.
11. A book chapter on **Specialty dressings for managing difficult to heal wounds**, Arunangshu Mukhopadhyay, Monica Puri Sikka, Vinay Kumar Midha in '**Advanced Textiles for Wound Care (2nd Edition)**, Elsevier, Cambridge, ISBN 978-0-08-102192-7 (2019) P 391 - 415.

12. Mukhopadhyay A, Dutta S, Choudhary AK and Reddy CC. (2020) 'Effect of Aerosol Charging on Energy Consumption During Pulse Jet Filtration using Conductive Media' in *Recent Trends in Traditional and Technical Textiles*, Springer Nature, Chapter 2, Pg. 19-33.

## Refereed Journals

### SCI Journals

1. Development of scheme to evaluate the performance of parachute canopy fabrics under tensile impact, Gyana R Behera, Arunangshu Mukhopadhyay and Monica Sikka, *Journal of Industrial Textiles*, (2022), pp. 01-23.
2. Impact of varying lactate concentration in sweat on liquid moisture transmission behaviour of layered ensembles, Mukhopadhyay, A., Midha, V., & Preet, A, *Indian Journal of Fibre & Textile Research*, (2022) (Accepted).
3. Impact of varying lactate concentration in sweat on thermo-physiological comfort of multi-layered ensembles, Mukhopadhyay, A., Midha, V., & Preet, A., *International Journal of Clothing Science and Technology*, (2022) (Accepted).
4. Behaviour of Stretch Denim Fabric under Tensile Load, Vivek Prasad Shaw and Arunangshu Mukhopadhyay, *Fibers and Polymers*, 23 (1) 2022, pp. 295-302.
5. Energy consumption analysis of electrostatically assisted flat and tubular based filtration test rigs using polyester conductive media, Sudev Dutta, Arunangshu Mukhopadhyay, AK Choudhary & CC Reddy, *Indian Journal of Fibre & Textile Research*, 46 (3) 2021, pp. 269-274.
6. Impact of abrasion on strength, elasticity and elastic recovery properties of stretch denim fabric., Vivek Prasad Shaw and Arunangshu Mukhopadhyay, *International Journal of Clothing Science and Technology*, (2021), pp. 1-21.
7. Effect of water contamination on transmissivity behaviour of nonwoven geotextile, Arunangshu Mukhopadhyay & Yashoda Devi, *Journal of Textile Institute* (2020): DOI: 10.1080/00405000.2020.1865504, December 28.
8. Investigation of impact of seam on moisture transmission and drying behaviour of multilayered ensembles using sweat and water, Agya Preet, A. Mukhopadhyay, V. Midha, *Journal of Textile Institute*, March 2020, [https://doi.org/ 10.1080/00405000.2020.1744221](https://doi.org/10.1080/00405000.2020.1744221). 112:1, pp. 132-137.

9. Effect of leaks on the performance of a fabric filter in pulse jet cleaning assisted filtration system, Arunangshu Mukhopadhyay & Gagan Mahawar, Indian J Fibre and Textile Research, accepted, April 2019.
10. Effect of gauge length on loop strength of sewing threads The Journal of the Textile Institute, V Midha, A Gupta, A Mukhopadhyay, *Journal of Textile Institute*, 110, 2019, pp 445-450.
11. Moisture transmission behaviour of individual component and multi-layered fabric with sweat and pure water, A. Mukhopadhyay, Agya Preet, V. Midha, *Journal of Textile Institute*, 109, 2018, pp. 383–392.
12. Degradation behavior of filter media during hot gas filtration, A Mukhopadhyay, *Filtration + Separation*, July – August 2018, pp. 28-31.
13. Reliability analysis of seam joints in square plain parachute canopy fabric, Harabansh Singh, Arunangshu Mukhopadhyay & Arbindo Chatterjee, *Journal of Textile Institute*, 108, 2017, pp. 2057-2066.
14. Impact of Abrasion on Mass Loss and Appearance of Injected Slub Yarn Fabrics, A Mukhopadhyay, V K Midha & N C Ray, *Indian Journal of Fibre and Textile Research*, 42, 2017, pp. 413-419.
15. Effect of Structural Parameters of Injected Slub Yarn on its Tensile Properties and Abrasion Resistance, A Mukhopadhyay, V K Midha, N C Ray, *Journal of Textile Institute*, 2016, 108, pp 1496-1503.
16. Influence of bias angle of stitching on tensile characteristics of lapped seam parachute canopy fabric – Part I: Mathematical modelling for determining test specimen size. Singh Harabansh, Mukhopadhyay A and Chatterjee A. *Journal of Industrial Textile*, 46, 2016, pp 292-319.
17. Influence of bias angle of stitching on tensile characteristics of lapped seam parachute canopy fabric – Part II: Study on optimised test specimen dimension. Mukhopadhyay A, Chatterjee A and Singh Harabansh. *Journal of Industrial Textile*, 46, 2016, pp 320-332.
18. Effect of high temperature on the performance of filter fabric, A Mukhopadhyay, and V Pandit and K Dhawan, *Journal of Industrial Textiles*, Published online (January 14, 2015, doi: 10.1177/1528083714567240), 45 (6) 2016 pp. 1587-1602.
19. Mathematical modeling to predict the sub bandage pressure on a conical limb for multi layer bandaging. *Medical Engineering and physics*, M P Sikka, S Ghosh and A Mukhopadhyay, 38, 2016, pp. 917-921.

20. The structural configuration and stretch property relationship of high stretch bandage fabric, M Sikka, S. Ghosh and A. Mukhopadhyay, *Fibre and Polymers*, 15 , 2014, pp 1779-1785.
21. Control of industrial air pollution through sustainable development, A Mukhopadhyay, and V Pandit, *Environment, Development and Sustainability*, 16, 2014, pp. 35-48.
22. Characterization of dust particles emitted through needle felt media during the pulse jet filtration process, A. Mukhopadhyay, and A. K. Choudhary, *Particulate Science and Technology*, Taylor and Francis, 31 (6) 2013, pp 632-642.
23. “Modelling to predict thermophysiological properties of hollow/microporous yarns fabrics”, S. M. Ishtiaque, A. Mukhopadhyay, D. Uttam, *Journal of the Textile Institute*, *104 (4) 2013*, pp. 407-413
24. Particulates: Selection of cleaning pulse pressure for pulse-jet fabric filtration, A. K. Choudhary, and A. Mukhopadhyay, *Filtration and Separation*, Elsevier, July/August 2013, pp 28-30.
25. Particulates: Media selection for pulse-jet filtration system, A. K. Choudhary, and A. Mukhopadhyay, *Filtration and Separation*, Published, July/August 2012, pp 34-35.
26. “Impact of structural variations in hollow yarn on heat and moisture transport properties of fabrics”, A. Mukhopadhyay, S. M. Ishtiaque, D. Uttam, *Journal of Textile Institute*, 102 (8), 2011, pp. 700-712.
27. “Effect of Process and Machine Parameters on Changes in Properties of Sewing Threads during High Speed Industrial Sewing”, Vinay Kumar Midha, A. Mukhopadhyay, R. Chattopadhyay and V. K. Kothari, *Textile Research Journal*, 80 (2010) pp. 491-507.
28. “A Neural Network Model for Prediction of Strength Loss in Threads during High Speed Industrial Sewing”, Vinay Kumar Midha, V. K. Kothari, R. Chattopadhyay and A. Mukhopadhyay, *International Journal of Fibers and Polymers*, 11 (2010) pp. 661-668.
29. “Impact of high speed draw frame and its preparatory on packing and its related characteristics of ring spun yarn”, S. M. Ishtiaque, A. Mukhopadhyay and A. Kumar, *Journal of Textile Institute*, 100 (2009) pp. 657-667. SCI
30. “An L<sub>9</sub> Orthogonal Design Methodology to Study the Impact of Operating Parameters on Particulate Emission and related Characteristics during Pulse-jet Filtration Process”, Arunangshu Mukhopadhyay and Kamal Dhawan, *International Journal of Powder Technology*, 195 (2009) pp. 128-134.

31. "Effect of High Speed Sewing on the Tensile Properties of Sewing Threads at Different Stages of Sewing", Vinay Kumar Midha, V. K. Kothari, R. Chatopadhyay and A. Mukhopadhyay, *International Journal of Clothing Science and Technology*, 21 (4) 2009, pp. 217-238.
32. "Studies on the changes in tensile properties of sewing thread at different sewing stages", Vinay Kumar Midha, A. Mukhopadhyay, V. K. Kothari, and R. Chatopadhyay, *Textile Research Journal*, 79 (2009) pp. 1155-1167.
33. "The impact of carding parameters and draw frame speed on fibre axial distribution in ring spun yarn", S. M. Ishtiaque, A. Mukhopadhyaya and A. kumar *Indian Journal of Fibres and Textile Research*, 34 (2009) pp. 231-238.
34. "Surgical Sutures: Performance, Development and Use", R. A. Manavalan and A. Mukhopadhyay, *Journal of Biomimetics, Biomaterials and Tissue Engineering*, 1 (2008) pp. 1-36.
35. "A review on designing of waterproof breathable fabrics, Part I: Fundamental Principles and Designing Aspects of Breathable Fabrics", A. Mukhopadhyay and V. K. Midha, *Journal of Industrial Textiles*, 37 (3) 2008, pp. 225-262.
36. "A review on designing of waterproof breathable fabrics, Part II: Construction and Suitability of Breathable Fabrics for Different Use", A. Mukhopadhyay and V. K. Midha, *Journal of Industrial Textiles*, 38 (1) 2008, pp. 17-41.
37. "Impact of Functional Finishes on the Tearing Strength of Fabrics", Arunangshu Mukhopadhyay and Garima Bhatia, *Melliand International*, 3 (2008), pp. 172-174.
38. "Influence of draw frame speed and its preparatory on ring yarn properties", S. M. Ishtiaque, A. Mukhopadhyay and A. Kumar, *Journal of Textile Institute*, 99 (2008) pp. 533 - 538.
39. "Optimization of process variables of yarn preparatory through constraining yarn quality parameters", A. Mukhopadhyay, S. M. Ishtiaque, and A. Kumar, *Melliand International*, 2 (2008) 94-95; *Melliand China*, 7 (2008) pp. 10-12.
40. "Impact of high speed draw frame and its preparatory on fibre orientation parameters at sliver", S. M. Ishtiaque, A. Mukhopadhyay and A. Kumar, *Journal of Textile Institute*, 98 (6) 2007, 501-512.
41. "Tearing and Tensile Strength behaviour of Military Khaki Fabrics from Grey to Finished Process", A. Mukhopadhyay, S. Ghosh and S Bhowmick, *Int. J. Clothing Science & Technology*, 18 (2006) pp. 247-264.

42. "Seam performance of two differently processed military Khaki fabrics", Mukhopadhyay, S. Ghosh and R Kaur, *Melliand International*, 11 (2005) No. 4, 311 -313.
43. "Creep performance of short stretch bandage", A. Mukhopadhyay and S. Ghosh, *Indian J. Fibre & Textile Res.*, 30 (2005) pp. 331-334.
44. "Bulk and physical properties of needle punched nonwoven fabrics", Review article, V. K. Midha, A. Mukhopadhyay, *Indian J. Fibre & Textile Res.*, 30 (2005) pp. 218-229.
45. "Impact of laundering on the seam tensile properties of suiting fabric", A. Mukhopadhyay, M. Sikka and A. K. Karmakar, *Int. J. Clothing Science & Technology*, 16 (2004) pp. 394-403.
46. "Extension and recovery characteristics of air-jet textured yarn woven fabrics", A. Mukhopadhyay, V. K. Kothari & R. K. Nayak, *Indian J. Fibre & Textile Res.*, 29 (2004) pp. 62-68.
47. "Impact of lycra filament on extension and recovery characteristics of plain knitted cotton fabric", A. Mukhopadhyay, I. C. Sharma & A. K. Mohanty, *Indian J. Fibre & Textile Res.*, 28 (2003) pp. 423-430.
48. "Bulk Characteristics of air-jet textured yarn knitted fabric", A. Mukhopadhyay, V. K. Kothari & R. C. D. Kaushik, *Indian J. Fibre & Textile Res.*, 28 (2003) pp. 36-40.
49. "Optical analysis of Classimat faults", A. Mukhopadhyay, I. C. Sharma, K. Dasgupta, *Textile Res. J.*, 72(2002) pp. 178-180.
50. "Thickness and compressional characteristics of air-jet textured yarn woven fabric", A. Mukhopadhyay, A. K. Dash & V. K. Kothari, *Int. J. Clothing Science & Technology*, 14 (2002) pp.88-99.
51. "Crease recovery of fabrics with air-jet textured weft yarns", A. Mukhopadhyay & V. K. Kothari, *Indian J. Fibre & Textile Res.*, 27 (2002) pp. 393-396.
52. "Evaluation of physical bulk of air-jet textured yarn", V. K. Kothari, A. Mukhopadhyay & R. C. D. Kaushik, *Indian J. Fibre & Textile Res.*, 27 (2002) pp.25-32.
53. "Low stress behaviour of jet-spun yarn", A. Mukhopadhyay, I. C. Sharma & A. Saha, *Indian J. Fibre & Textile Res.*, 27 (2002) pp. 130-134.
54. "Evaluation of comfort properties of polyester-viscose suiting fabric", A. Mukhopadhyay, I. C. Sharma & M. K. Sharma, *Indian J. Fibre & Textile Res.*, 27 (2002) pp. 72-76.



55. "Effect of process variables on textured yarn instability", V. K. Kothari, A. Mukhopadhyay & R. C. D. Kaushik, *Textile Res. J.*, 71 (2001) pp. 657-660.
56. "Effect of air-jet texturing process variables on physical bulk obtained by image analysis method ", A. Mukhopadhyay, R. C. D. Kaushik & V. K. Kothari, *Indian J. Fibre & Textile Res.*, 25 (2000) pp. 264-270.
57. "Effect of winder type and winding parameters on the measured values of physical bulk of air-jet textured yarn", V. K. Kothari, A. Mukhopadhyay & R. C. D. Kaushik, *Indian J. Fibre & Textile Res.*, 25 (2000) pp. 83-86.
58. "Bulk characteristics of air-jet textured yarn woven fabrics", V. K. Kothari, A. Mukhopadhyay & R. C. D. Kaushik, *Indian J. Fibre & Textile Res.*, 25 (2000) pp. 37-41.
59. "Design of an aerosol filtration apparatus based on pulse-jet cleaning", A. Mukhopadhyay, I. C. Sharma & S. Chowdhury, *Indian J. Fibre & Textile Res.*, 25 (2000) pp. 195-199.
60. "Comfort properties of mulberry and tassar silk fabrics", I. C. Sharma, A. Mukhopadhyay, P. K. Sinha & R. K. Baruah, *Indian J. Fibre & Textile Res.*, 25 (2000) pp. 52-58.
61. "Effect of degumming followed by sequential oxidative and reductive bleaching on mulberry & tassar silk fabric", I. C. Sharma, A. Mukhopadhyay, R. K. Baruah & Vishwanath, *Indian J. Fibre & Textile Res.*, 24 (1999) pp. 290-293.
62. "A comparative study of physical properties of mulberry and tassar silk fabrics", I. C. Sharma, A. Mukhopadhyay & P. K. Sinha, *Indian J. Fibre & Textile Res.*, 24 (1999) pp. 193-196.
63. "Blend irregularity and migratory behaviour of blend constituents in AJS polyester-viscose yarns", S. K. Punj, A. Mukhopadhyay & B. Basu, *Indian J. Fibre & Textile Res.*, 24 (1999) pp. 247-252.
64. "Some studies on dust filtration behaviour of woven filter fabrics", I. C. Sharma, K. N. Chatterjee, A. Mukhopadhyay & Vivek Kumar, *Indian J. Fibre & Textile Res.*, 23 (1998) pp. 38-43.
65. "Effect of various softeners on the performance of polyester-viscose ring and air jet spun yarn fabrics", I. C. Sharma, D. P. Chattopadhyay, K. N. Chatterjee, A. Mukhopadhyay, & A. Kumar, *Indian J. Fibre & Textile Res.*, 23 (1998) pp. 44-48.
66. "Effect of rate of extension and gauge on the tensile properties of MJS yarn", S. K. Punj, A. Mukhopadhyay & A. Chakraborty, *Indian J. Fibre & Textile Res.*, 23 (1998) pp. 19-24.

67. "Some studies on properties of wrapped jute/acrylic (Parafil) yarns", I. C. Sharma, K. N. Chatterjee, A. Mukhopadhyay & N. C. Roy, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 89-93.
68. "Effect of multiple soap wash on jute/polypropylene blended fabric", K. N. Chatterjee, A. Mukhopadhyay, B. Mitra & A. K. Samanta, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 130-133.
69. "Some studies on jute/polypropylene blended fabric characteristics", K. N. Chatterjee, A. Mukhopadhyay, B. Mitra & A. K. Samanta, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 112-118.
70. "A comparative study of ring and air-jet spun yarn woven fabrics in grey and finished state", I. C. Sharma, K. N. Chatterjee, A. Mukhopadhyay, D. P. Chattopadhyay & A. Kumar, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 176-178.
71. "Response to doubling of MJS yarns produced with varying nozzle pressure", S. K. Punj, A. Mukhopadhyay & T. K. Maiti, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 1-7.
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73. "Performance characteristics of filter fabrics in cement dust control, Part IV - Study of nonwoven filter fabrics using factorial design technique", K. N. Chatterjee, A. Mukhopadhyay, S. C. Jhalani & B. P. Mani, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 21-29.
74. "Performance characteristics of filter fabrics in cement dust control, Part III - Influence of fibre fineness and scrim on the performance of nonwoven filter fabrics", K. N. Chatterjee, A. Mukhopadhyay, S. C. Jhalani & B. P. Mani, *Indian J. Fibre & Textile Res.*, 22 (1997) pp. 13-20.
75. "Performance characteristics of filter fabrics in cement dust control, Part II - Influence of fibre cross-sectional shape and scrim on the performance of non-woven filter fabrics", K. N. Chatterjee, A. Mukhopadhyay, S. C. Jhalani & B. P. Mani, *Indian J. Fibre & Textile Res.*, 21 (1996) pp. 251-260.
76. "Performance characteristics of filter fabrics in cement dust control", Part I - Experimental set-up for dust characterization", K. N. Chatterjee, A. Mukhopadhyay, S. C. Jhalani & B. P. Mani, *Indian J. Fibre & Textile Res.*, 21 (1996) pp. 194-200.

77. "A critical appraisal of pilling on polyester on worsted fabric", I. C. Sharma, K. N. Chatterjee, A. Mukhopadhyay & A. V. Kumar, *Indian J. Fibre & Textile Res.*, 21(1996) pp. 122-126.
78. "Filtration characteristics of layered nonwoven fabrics", V. K. Kothari, A. Mukhopadhyay & S. N. Pandey, *Melliand Textilberchte* 74 (1993) pp. 387-389.

### Scopus Journals

1. Power Consumption Analysis of Pulse Jet Filtration System Assisted with Pre-charger using Polyester Conductive Media, Sudev Dutta, Arunangshu Mukhopadhyay, AK Choudhary & CC Reddy, *Journal of The Institution of Engineers (India): Series E*, 102 (10) 2021, pp. 17-23.
2. Impact of positive thread feeding for high speed industrial lockstitch sewing machines: Part I Development of device. V. K. Midha, V. Gupta, A. Mukhopadhyay, *J. Inst. Engg.*, *Journal of the Institution of Engineers –E Series*, <https://doi.org/10.1007/s40034-019-00136-2>, April 2019.
3. Impact of positive thread feeding for high-speed industrial lockstitch sewing machines: Part II Response with cotton and spun polyester needle threads, V. K. Midha, V. Gupta, A. Mukhopadhyay, *Journal of the Institution of Engineers –E Series*, <https://doi.org/10.1007/s40034-019-00137-1>, April 2019.
4. "Filtration Behaviour of Polyester Conductive Filter Media on Pulse Jet Test Rig Assisted with Pre-Charger", S. Dutta, A. Mukhopadhyay, A. K. Choudhary and C. C. Reddy, *Journal of the Institution of Engineers -E Series*, 2019 pp 47-57.
5. Critical Appraisal of Abrasion Resistance Evaluation Techniques for Textile and other Flexible Materials, A Mukhopadhyay and A Agnihotri, *Asian Technical Textiles*, July 2019, pp 39-43.
6. Industrial Gas Filtration Solution through Sustainable Technology, A Mukhopadhyay, *Proceedings by Textile, Bioengineering and Informatics Society (TBIS 2018)* 2018, pp 69-76, Manchester, UK.
7. Response of Conductive and PTFE Coated Polyester Filters to Cold Fly Ash at Different Dust Charge Levels, S. Dutta, A. Mukhopadhyay, A. K. Choudhary and C. C. Reddy, *Journal of the Institution of Engineers –E Series (Springer Publication)*, 99(2), 2018, pp. 219-226.
8. The design of personnel protective clothing for protection against CBRN agents: a Review, V Chavhan, A Mukhopadhyay and K C Etika, *Filtration Journal, American filtration society*, 18(2), 2018, 98-117.
9. Multi Objective Optimization of Parametric Combination of Injected Slub Yarn for Producing Knitted and Woven Fabrics with Least Abrasive Damage, A Mukhopadhyay, N C Ray, V K Midha, *Research Journal of Textile and Apparels*, 21 (2), 2017, pp.111-133.

10. Sub Bandage Pressure Measurement on a Compressible Limb for Treatment of Leg Ulcer, M P Sikka, A Mukhopadhyay, *Journal of Fiber Bioengineering and Informatics*, 9 (3), 2016, pp. 155-165.
11. Response of Slub Characteristics on Tensile Properties of Injected Slub Yarn, Ray N C Ray, A Mukhopadhyay, V K Midha, *Journal of Institute of Engineers (India)*, 97(1), 2016, pp.47-53.
12. Impact of Abrasion on Mass Loss and Surface Appearance of Woven Fabrics Made with Injected Slub Yarn in Weft, N C Ray, A Mukhopadhyay and V K Midha, *Journal of Institute of Engineers (India)*, 97 (2), 2016, pp. 99-106.
13. Fibrous Filter to Protect Building Environments from Polluting Agents - A Review, Md. Vaseem Chavhan & Arunangshu Mukhopadhyay, *Journal of The Institution of Engineers (India): Series E*, 97 (1), 2016, pp. 63–73.
14. Effect of Silicon Finish on the behaviour of Regenerated Surface Filters at Different Dust Concentration, A Mukhopadhyay and S R Swain, *Filtration Journal*, American filtration society, 15 (1), 2015, pp. 40-47.
15. Emission of Fine Particles and Ageing Behavior of PTFE Finished Filter Media during Industrial Pollution Control, Arunangshu Mukhopadhyay & Harshad S. Bawane., *Environment and Pollution*; Vol. 4, No. 4; 2015, ISSN 1927-0909 E-ISSN 1927-0917, Online Published: September 28, 2015, doi:10.5539/ep.v4n4p58, URL: <http://dx.doi.org/10.5539/ep.v4n4p58>, Published by Canadian Center of Science and Education.
16. Industrial gas filtration, A Mukhopadhyay, *Asian Textile Journal*, 22 (9) 2013, pp. 57-58.
17. Geometry of the bandaging procedure and its application while wrapping bandages for treatment of leg ulcers, M Sikka, S. Ghosh and A. Mukhopadhyay, *Journal of Biomedical Science and Engineering*, 6, 2013, pp. 1186-1190.
18. An investigation into the role of factors influencing pressure drop in a pulse jet fabric filter, A. K. Choudhary, and A. Mukhopadhyay, *Filtration Journal*, *American filtration society*, 13(3), 2013, pp 160-168.
19. Analysis of dust deposition on industrial surface filter as a function of its physical properties, A. Mukhopadhyay, and A. K. Choudhary, *Filtration Journal*, *American Filtration Society, USA*, 12 (4) 2012, pp. 237 -246.

20. Impact of Structural Variations on Pre-Hollow/Micro-Porous Yarn's Tensile and Physical Properties, A. Mukhopadhyay, S. M. Ishtiaque, D. Uttam, *Journal of Engineered Fibers and Fabrics*, 7 (1), 2012, pp. 62-68.
21. An Approach to Seam Strength Prediction Using Residual Thread Strength, Vinay Kumar Midha, A. Mukhopadhyay and Ramanpreet Kaur, *Research Journal of Textile and Apparel*, 15 (3) (2011) pp. 75-85.
22. "Impact of carding parameters and draw frame speed on migration characteristics of ring spun yarn", S. M. Ishtiaque, A. Mukhopadhyay and A. Kumar, *Journal of Textile and Apparel Technology and Management*, 6 (4) (Fall 2010) pp.1-8.
23. "Effect of Workwear Fabric Characteristics on the Changes in Tensile Properties of Sewing Threads after Sewing", Vinay Kumar Midha, V. K. Kothari, R. Chatopadhyay and A. Mukhopadhyay, *Journal of Engineered Fibers and Fabrics*, 5 (1) (2010) pp. 31-38.
24. Impact of Functional Finishes on Fabric Flexural Rigidity", Garima Bhatia and Arunangshu Mukhopadhyay, *Textile Asia*, November 2010, 28-30.
25. "Pressure mapping and performance of the compression bandage/garment for venous leg ulcer treatment", S. Ghosh, A. Mukhopadhyay, M. Sikka, K.S. Nagla, *Journal of Tissue Viability*, 17 (2008) pp. 82-94.
26. "Relative performance of lockstitch and chainstitch at the seat seam of military trouser", A Mukhopadhyay, *Journal of Engineered Fibers and Fabrics*, 3 (1) 2008, pp. 21-24.
27. "Automotive textiles", S Viju and A. Mukhopadhyay, *Asian Textile Journal*, 15 (2006) No. 5, 49-55.
28. "Some studies on flexural rigidity of woven fabrics of different weave structure", S. K. Punj, A. Mukhopadhyay and A. Pattanayak, *Textile Asia*, 33, No. 6 (2002) pp. 33-36.
29. "Application of Artificial Neural Network in Textiles", A. Mukhopadhyay, *Textile Asia*, 32, No. 4 (2002) pp. 35-39.
30. "Method of selection of air-jet texturing process variables", A. Mukhopadhyay & V. K. Kothari, *Chemical Fibres International*, 51 (2001) pp. 374-376
31. "Evaluation of low stress properties of acrylic-viscose interlock knitted fabric", I. C. Sharma, A. Mukhopadhyay & B. P. Dash, *Textile Asia*, 31, No.2 (2001) pp. 34-35.

32. “Software for selecting the process variables for air-jet texturing”, A. Mukhopadhyay, R. C. D. Kaushik, & V. K. Kothari, *Asian Textile J.*, June (2000) pp. 33-37.
33. “Plain knitted fabric properties”, S. K. Punj, A. Mukhopadhyay & P. Chatterjee, *Textile Asia*, 31, No. 1 (2000) pp. 33-38.
34. “Measuring bulk of air-jet textured yarn”, A. Mukhopadhyay, R. C. D. Kaushik, & V. K. Kothari, *Textile Asia*, 30, No. 2 (1999) pp. 23-25.
35. “Feasibility of single jersey and double jersey fabric from air-jet spun 100% acrylic yarn”, I. C. Sharma, A. Mukhopadhyay & D. Bhadra, *Textile Asia*, 29, No. 2 (1998) pp. 49-51.
36. “Polyester Worsted SIRO yarns”, A. Mukhopadhyay, S. K. Punj, & Rupa Das, *Textile Asia*, 28, No. 11 (1997) pp. 68-71
37. “Air-jet spinning of acrylic”, S. K. Punj, A. Mukhopadhyay & R. N. Saha, *Textile Asia*, 27, No. 5 (1996) pp. 53-56.

#### Trade Journals

1. Hybrid Aerosol Filtration Systems – A Review, S. Dutta, A. Mukhopadhyay, A.K. Choudhary and C.C. Reddy, *International Journal of Engineering Technology Science and Research*, 5, 2018, pp. 535 – 555.
2. Performance of filter media during hot gas filtration, A Mukhopadhyay, *Asian Technical Textiles*, 12 (1) 2018, pp. 42-47.
3. Issues and challenges in industrial gas filtration through filter media, A Mukhopadhyay, Consulting Ahead Journal, Invited Publication from Consultancy Development Centre, Department of Scientific & Industrial Research (DSIR), Ministry of Science and Technology, Government of India, 20 (2) 2016, pp. 1-16.
4. Neural Network Model for Predicting Sub Bandage Pressure of High Compression Bandages. MP Sikka, A Mukhopadhyay, *J Fashion Technol Textile Eng.*, 2016, pp 1-6
5. Seam Performance of the Inseam of a Military Trouser in Relation to Garment Fit, A. Mukhopadhyay, A. Chatterjee and Taranjot Ahuja, *Textiles and Light Industrial Science and Technology (TLIST)*, Volume 3, 2014 pp 29-36
6. Effective control of industrial air pollution through pulse jet filtration”, A. K. Choudhary and A. Mukhopadhyay, *Asian Technical Textiles*, April-June, 2013, pp 39-45.

7. Dynamics of lockstitch sewing process, V K Midha, A. Mukhopadhyay, R. Chattopadhyay and V. K. Kothari, *The Research Journal of the Costume Culture*, 21, 2013, pp.967-973.
8. Performance of filter media as function of fibre fineness in pulse jet filtration system, A. Mukhopadhyay, and A. K. Choudhary, *Textiles and Light Industrial Science and Tech. (TLIST Singapore)*, Volume 2, Issue 1, 2013, pp 13-26.
9. "Intelligent textiles: an environment responsive approach", A K Patra, A Mukhopadhyay, *Journal of Technical Textiles*, 50 (4) 2007, E 256-258.
10. "Optical measurement of yarn faults", A. Mukhopadhyay, V. K. Kothari & M. Poddar, *Indian Textile J.*, 113, No. 3 (2002) pp. 13-19.
11. "Methods of measuring instability of air-jet textured yarns", A. Mukhopadhyay, R. C. D. Kaushik, & V. K. Kothari, *Indian Textile J.*, 111, No. 1 (2000) pp. 21-26.
12. "Methods of measuring bulk of air-jet textured yarn", A. Mukhopadhyay, R. C. D. Kaushik, & V. K. Kothari, *Indian Textile J.*, 110, No. 8 (2000) pp. 9-14.
13. "Effect of tensile loading on loop configuration of air-jet textured yarn", A. Mukhopadhyay, S. K. Punj & P. S. Chandra, *Indian Textile J.*, 109, No. 9 (1999) pp. 56-58.
14. "A review on pulse jet cleaning using filter fabrics", I. C. Sharma, A. Mukhopadhyay & S. Chaudhury, *Indian Textile J.*, 109, No. 11 (1999) pp. 28-34.
15. "A statistical approach to study some characteristics of MJS yarn using central composite design", A. Mukhopadhyay, S. K. Punj, S. Goel & B. Majumder, *Indian Textile J.*, 109, No. 10 (1999) pp. 60-65.
16. "Pore Structure of Textile Material", V. K. Kothari & A. Mukhopadhyay, *Indian Textile J.*, 109, No. 11 (1999) pp. 8-23.
17. "Some studies on thickness and compressional behaviour of ring, rotor and air-jet spun yarn woven fabrics", S. K. Punj, A. Mukhopadhyay & A. K. Karmakar, *Indian Textile J.*, 108, No. 9 (1998) pp. 12-21.
18. "Effect of caustic soda treatment on the mechanical properties of ring and air jet spun yarn fabrics", A. Mukhopadhyay & D. P. Chattopadhyay, *Man Made Textiles in India*, 40 (1997) pp. 401-405.

19. "Comparative study of air-jet and ring spun yarn fabrics", K. N. Chatterjee, I. C. Sharma & A. Mukhopadhyay, *Indian Textile J.*, 107, No. 1 (1996) pp. 54-55.
20. "Textile material, fancy yarn and properties", K. N. Chatterjee, A. Mukhopadhyay, S. Kadian & A. Shrivastava, *Clothesline*, 9, No 9 (1996) pp. 107-109.
21. "Assessment of fibre performance in apparel; Effect of fibre type and blend composition", K. N. Chatterjee, A. Mukhopadhyay & J. O. Ukponmwan, *Clothesline*, 9, No. 10 (1996) pp. 78-81.
22. "Handle properties of jute blended suiting fabric", K. N. Chatterjee, A. Mukhopadhyay & J. O. Ukponmwan, *Indian Textile J.*, 106, No. 2 (1996) pp. 90-100.
23. "Effect of machine variables on MJS p/v yarn properties", S. K. Punj, A. Mukhopadhyay & J. Biswas, *Indian Textile J.*, 106, No. 11 (1996) pp. 34-36.
24. "Effect of fibre length and fineness on MJS polyester yarn", S. K. Punj, A. Mukhopadhyay & R. Chakraborty, *Indian Textile J.*, 106, No. 8 (1996) pp. 54-56.
25. "Effect of machine variables on MJS viscose yarn", S. K. Punj, A. Mukhopadhyay & S. K. Chattopadhyay, *Indian Textile J.*, 106, No. 9 (1996) pp. 22-24.
26. "A Study on polyester - wool fabric", K. N. Chatterjee, I. C. Sharma, N. Sil & A. Mukhopadhyay, *Indian Textile J.*, 105, No. 8 (1995) pp. 82-88.
27. "Influence of blend ratio and linear density on polyester wool yarn", K. N. Chatterjee, I. C. Sharma, N. Sil & A. Mukhopadhyay, *Indian Textile J.*, 105, No. 7 (1995) pp. 26-32.
28. "The effect of various chemical and wet Processing on fabric appearance and durability", K. N. Chatterjee, A. Mukhopadhyay, D. P. Chattopadhyay & J. O. Upkonmwan, *Colourage*, 42, No. 7 (1995) pp. 21-26.
29. "Effect of sheath blend and core variation on DREF - 2 Core Spun Yarn", K. N. Chatterjee, A. Mukhopadhyay, T. Adhikari, S. K. Manuja & S. K. Sett, *Indian Textile J.*, 106, No. 1 (1995) pp. 56-58.
30. "Effect of angora/acrylic and wool/acrylic blends on yarns and fabric characteristics", K. N. Chatterjee, A. Mukhopadhyay, S. Sengupta & R. K. Singh, *Indian Textile J.*, 106, No. 2 (1995) pp. 60-63.



## International Conferences/Symposium/GIAN Course

1. Keynote speaker on topic, Inefficacies of Evaluation Techniques in Characterizing Textile Materials, International Conference on Sustainable Growth in Textile (SGT-2021), August 19-21, 2021. Venue: Zoom App/ UPTTI, Kanpur.
2. Delivered an Expert talk on topic, Design and Development of Sportswear, International Online Conference on Advances in Textile, Fashion and Crafts [ATFC-2021], National Institute of Fashion Technology (NIFT), Jodhpur, 22-24 March 2021.
3. Testing of wear performance of textiles in wet condition: Evolving Techniques and analysis, *Vivek Prasad Shaw and Arunangshu Mukhopadhyay*, International Conference on Innovative Textiles, M.L.V Textile & Engineering College, Bhilwara, 2020, pp 83-86, ISBN. 978-93-5391-812-5.
4. Impact of sweat on liquid moisture transmission behaviour of cold weather clothing, International E- Conference on “Recent Trends in Textiles – A Paradigm for Innovative and Sustainable Fibers, Yarns, Fabrics and Garments Production, Processing & Designing Aspects Preet, A., Midha, V. & Mukhopadhyay, A. (2020).
5. Vapour moisture transmission behaviour of individual component and multi-layered fabric with sweat and pure water, International Conference on Emerging Trends in Traditional and Technical Textiles, NIT Jalandhar Preet, A., Midha, V. & Mukhopadhyay, A., (2019),
6. Invited Keynote Speaker for deliberation of research paper on *Enhancing filter media performance during Industrial Gas Filtration* at FILTECH 2019 Conference at Cologne Germany during October 22-24, 2019. FILTECH is the largest and most important filtration event world-wide devoted entirely to Filtration and Separation technology.
7. V. Gupta, V.K. Midha, A. Mukhopadhyay, Dynamic forces and thread tension measurement in high speed industrial sewing machines. 5<sup>th</sup> International Conference on Production and Industrial Engineering (CPIE-2018), 26-29<sup>th</sup> June 2018, Bangkok, Thailand.
8. Industrial Gas Filtration Solution through Sustainable Technology, A Mukhopadhyay, Organized by Textile, Bioengineering and Informatics Society (TBIS 2018) July 25-28, 2018, Manchester, UK.
9. Heat transport properties of hollow/micro-porous yarn fabrics’, D Uttam, A Mukhopadhyay and S M Istiaque, *The 91<sup>st</sup> Textile Institute World Conference* on 23<sup>rd</sup>-26<sup>th</sup> July 2018 at the University of Leeds, United Kingdom. p 48.

10. Industrial and Atmospheric air filtration: Mechanism and design parameters, A Mukhopadhyay, Air Pollution Control Techniques: Design and Development, September 11 –15, 2017 under Global Initiative of Academic Networks (GIAN) MHRD, Govt. of India.
11. Fabric Filters: System design with filter media, A Mukhopadhyay, Air Pollution Control Techniques: Design and Development, September 11 –15, 2017 under Global Initiative of Academic Networks (GIAN) MHRD, Govt. of India.
12. Challenges to Industrial Gas Filtration, A Mukhopadhyay, Air Pollution Control Techniques: Design and Development, September 11 –15, 2017 under Global Initiative of Academic Networks (GIAN) MHRD, Govt. of India.
13. Hot gas filtration, A Mukhopadhyay, Air Pollution Control Techniques: Design and Development, September 11 –15, 2017 under Global Initiative of Academic Networks (GIAN) MHRD, Govt. of India.
14. Case Studies on Air Pollution Control, A Mukhopadhyay, Air Pollution Control Techniques: Design and Development, September 11 –15, 2017 under Global Initiative of Academic Networks (GIAN) MHRD, Govt. of India.
15. Emission of Fine Particles and Ageing Behaviour of PTFE Finished Filter Media during Industrial Pollution Control, Arunangshu Mukhopadhyay and Harshad S. Bawane, 16<sup>th</sup> World Conference AUTEX 2016 Conference at Ljubljana, Slovenia, 08<sup>th</sup> to 10<sup>th</sup> June 2016. ISBN 978-961-6900-16-4 (PP 107-108).
16. Effect of high temperature on the performance of filter fabric during industrial gas filtration, Symposium on High Temperature Bag Filter Technology, China Textile Academy Beijing, held at Shanghai, October 11-12, 2016. PP 23-66.
17. Case studies: Crepe Bandages, at Summer Course on Medical Textiles and Tissue Engineering, Under MHRD Scheme on Global Initiative on Academic Network (GIAN) at NIT Jalandhar during 20<sup>th</sup> to 30<sup>th</sup> July, 2016.
18. Effect of Fabric Type and Dust Concentration on Filtration Performance, Arunangshu Mukhopadhyay and Soumya Ranjan Swain, February 24-26, 2015, *Filtech -2015, Cologne, Germany*. ISBN 13: 978-3-941655-09-6 (P37).
19. Study and characterization of the emitted particles in pulse jet filtration, A K Choudhary and A Mukhopadhyay, February 24-26, *Filtech -2015, Cologne, Germany* ISBN 13: 978-3-941655-09-6 (P 1-3).
20. New test rigs for characterizing filter media, A Mukhopadhyay and A K Choudhary, February 24-26, *Filtech -2015, Cologne, Germany*. ISBN 13: 978-3-941655-09-6 (P 32).

21. Structural Configuration and Stretch Property of High Stretch Bandages, M P Sikka, S. Ghosh, A. Mukhopadhyay, International Conference on Technical Textiles and Nonwovens 2014, Indian Institute of Technology Delhi, India, 6-8<sup>th</sup> November, 2014, p 42.
22. Issues and challenges in industrial filtration, A Mukhopadhyay, International conference on emerging trends in traditional & technical textiles, ISBN: 978-93-5156-700-4, April 11<sup>th</sup> - 12<sup>th</sup> 2014, NIT Jalandhar (India) (P 25).
23. Impact of hollow/micro-porous yarns on air permeability of single jersey knitted fabrics, Devanand Uttam, A. Mukhopadhyay, S.M. Ishtiaque, International conference on emerging trends in traditional & technical textiles, ISBN: 978-93-5156-700-4, April 11<sup>th</sup> - 12<sup>th</sup> 2014, NIT Jalandhar (India) (P 13).
24. Impact of seam orientation on seam strength and fatigue behaviour of military fabrics, Agya Preet, A. Mukhopadhyay, International conference on emerging trends in traditional & technical textiles, ISBN: 978-93-5156-700-4, April 11<sup>th</sup> - 12<sup>th</sup> 2014, NIT Jalandhar (India) (P 34).
25. Functional requirement of lead acid battery separator, A. Mukhopadhyay, A Chatterjee and Harbansh Singh, International conference on emerging trends in traditional & technical textiles, ISBN: 978-93-5156-700-4, April 11<sup>th</sup> - 12<sup>th</sup> 2014, NIT Jalandhar (India) (P 8).
26. Sewing thread tension measurement in high speed industrial sewing machine, V K Midha, V Gupta, A. Mukhopadhyay and Anurag Kumar, International conference on emerging trends in traditional & technical textiles, ISBN: 978-93-5156-700-4, April 11<sup>th</sup> - 12<sup>th</sup> 2014, NIT Jalandhar (India) (P 5).
27. Industrial Gas Filtration: Issues and Challenges, Plenary Speaker, A Mukhopadhyay, International Conference on Technical Textiles and Nonwovens 2014, Indian Institute of Technology Delhi, India, 6-8<sup>th</sup> November, 2014. Also acted as session chair.
28. Impact of structural variations in hollow yarn on thermo-physiological comfort of sportswear, A Mukhopadhyay, D Uttam and S M Ishtiaque, The 2nd International Textile and Costume Congress, Kasetsart University, bit Bangkok, 2013.P 167-178.
29. Characterization of industrial surface filter in pulse-jet filtration, A. Mukhopadhyay & A. K Choudhary, *Filtech -2013*, Wiesbaden, Germany ISBN 978-3-941655-06-5 (P40).
30. Effect of inlet dust concentration and pulse cleaning pressure on pulse jet filtration performances, A. K. Choudhary, A. Mukhopadhyay, *Filtech -2013*, Wiesbaden, Germany, ISBN 978-3-941655-06-5 (P66).

31. Role and factors influencing filtration in microelectronics, A. K. Choudhary & A. Mukhopadhyay, International conference - ICIEM, February. 2013, *BIT Meshra campus, Patna*.
32. Control of Industrial Air Pollution through Sustainable Development, A Mukhopadhyay, International Conference, *Chemical Constellation Cheminar – 2012 (CCC-2012)* on the theme *Chemistry for Sustainable Development and Innovations*, NITJ on September 12, 2012.
33. Media selection as function of fiber fineness for pulse jet fabric filtration system, A. K. Choudhary & A. Mukhopadhyay, International conference- *Chemcon, 2012, NIT Jalandhar*.
34. Study of dust deposition on industrial surface filter, A. K. Choudhary & A. Mukhopadhyay, International conference- *Chemcon, 2012, NIT Jalandhar*.
35. Impact of operating parameters on industrial pulse-jet filtration process, A Mukhopadhyay, World Filtration Congress 11, April 16-20, 2012 in Graz, Austria, ISBN 978-3-941655-04-1, P 69.
36. An L9 orthogonal design methodology to study the impact of operating parameters on pulse-jet filtration process, A Mukhopadhyay, FILTECH 2011 at Wiesbaden Germany, March 22-24, 2011 (Page II 208-211) ISBN 978-3-941655-037-9.
37. Material for high temperature gas filtration, A.K. Choudhary, A. Mukhopadhyay, FILTECH 2011 at Wiesbaden Germany, March 22-24, 2011 (Page II 413-422) ISBN 978-3-941655-037-9.
38. Impact of operating parameters on particulate emission and related characteristics during pulse-jet filtration process, A Mukhopadhyay, Textile Institute World Conference at Manchester, UK, November 2-4, 2010.
39. Effect of high speed sewing on tensile properties of threads at different sewing stages, V K Midha, A Mukhopadhyay, R Chattopadhyay and V K Kothari, Textile Institute World Conference at Manchester, UK, November 2-4, 2010.
40. Improved performance of bag filter through surface modification, A K Choudhary & A Mukhopadhyay, FILTECH – 2009 at Wiesbaden Germany, October 13 – 15, 2009.
41. A Mukhopadhyay, “Seam performance of two differently processed military Khaki fabrics”, at International Fibre Conference 2006, University of Seoul, South Korea, May 28 – June 3, 2006.

42. A Mukhopadhyay, Study of Pulse-jet Filtration Process using Factorial Two Level Design, INTC07, The International Nonwovens Technical Conference, September 24-27, 2007, Atlanta, Georgia. USA.
43. A Mukhopadhyay, and R. A. Manavalan, Enhancement of Surface Filtration for Improving Performance of Industrial Bag Filters”, Fiber Society Spring Conference, May 23-25, 2007, Greenville, South Carolina, USA.
44. A Mukhopadhyay, Development of Industrial Filter to meet PM<sub>2.5</sub> Standard, International conference on Futuristic Trends in Textiles, December 10-12, 2007, National Institute of Technology, Jalandhar, Punjab, India.
45. A Mukhopadhyay, Experimental Design Methodology in Textile Manufacturing, International Conference on Present Practices and Future Trends in Quality and Reliability - ICONQR08, January 22-25, 2008, Indian Statistical Institute, Kolkata, India,
46. “Characterization of Hollow Polyester Needle-Punched Nonwoven Blankets by their Physical bulk”, Vinay Kumar Midha, A Mukhopadhyay & V K Kothari, 3<sup>rd</sup> international textile, clothing & design conference - Magic World of Textiles, October 08<sup>th</sup> to 11<sup>th</sup> 2006, Dubrovnik, Croatia.
47. A study on the pressure profile of compression bandage and compression garment for treatment of venous leg ulcers, M. Sikka, S. Ghosh, A. Mukhopadhyay MEDTEX 07, Fourth International Conference and Exhibition on Healthcare and Medical Textiles, July 16 – 18, 2007, Bolton, UK
48. Pressure performance of compression bandages in the treatment of venous leg ulcers, M. Sikka, S. Ghosh, A. Mukhopadhyay, The Fiber Society Technical Conference, October 9-11, 2007, University of California, Davis, CA.

#### National Conferences/Seminar/Workshop/Short Term Course

1. Designing of Sports Garments, on Online One Day Webinar on ‘Garment Product Design’, Department of Textile Technology, Dr. B.R. Ambedkar National Institute of Technology Jalandhar, Punjab (India), 7<sup>th</sup> December, 2021.
2. Delivered an Expert talk, on the topic, “Application of Statistics for Engineering Textile Materials: Fundamentals”, AICTE ATAL FDP II on, “Statistical Tools for Textile Research”, Department of Textile Engineering, (A), Osmania University, Hyderabad, 20<sup>th</sup> to 24<sup>th</sup> September 2021.

3. Delivered an Expert talk, on the topic, “Application of Statistics for Engineering Textile Materials: Case Studies”, AICTE ATAL FDP II on “Statistical Tools for Textile Research”, Department of Textile Engineering, (A), Osmania University, Hyderabad, 20<sup>th</sup> to 24<sup>th</sup> September 2021.
4. Expert Lecture on Designing of Sportswear, ATAL ACADEMY Online Faculty Development Program on Textile Design, August 9 -13 2021, Department of Textile Technology, National Institute of Technology Jalandhar.
5. Invited speaker, Sustainable Technologies and Our Environment, On Teachers’ Day, September 5, 2021.
6. Delivered an Expert talk on topic, “*Characterization of Textile Materials: Fallacies and Appropriateness*”, Online Short Term Course on, “Textile Testing and Analytical Techniques in Textiles and Fashion”, (Nov 27th - Dec 01st, 2020) Department of Textile Technology, National Institute of Technology Jalandhar.
7. Delivered an Expert talk on topic, “*Appropriateness of evaluation Techniques in Characterization of Textile Materials*”, STTP on “*Emerging Areas in Engineering Technology*”, Department of Textile Engineering, GZSCCET, MRSPTU, Bathinda-151001, 15th March to 20th March, 2021.
8. Challenges for Air Pollution Control – Solution towards Sustainability, National Conference on Sustainable Growth in Textiles (NCSGT-2020) at UPTTI Kanpur, 12 - 14 August 2020.
9. Issue and Challenges in Industrial Gas Filtration, A Mukhopadhyay, One-week Short Term Course On “Occupational Safety and Environmental Management in Process Industries”, Under TEQIP-III, National Institute of Technology, Jalandhar, June 03-07, 2019.
10. Designing of Sportswear - Fundamentals, A Mukhopadhyay, Short Term Course on Garment Technology, Under TEQIP-III, National Institute of Technology, Jalandhar, May 22-26, 2019.
11. Designing of Sportswear – Approaches towards Enhance Comfort, A Mukhopadhyay, Short Term Course on Garment Technology, Under TEQIP-III, National Institute of Technology, Jalandhar, May 22-26, 2019.

12. Expert talk on “Innovation and Patent “on 04.03.2019 during One week short term course on “Intellectual Property Rights and Innovative Entrepreneurship”, 01st-05th March 2019, funded by TEQIP-III, organized by Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab.
13. Expert talk on "Design and Analysis of Experiments" on 20.01.19 during Short Term Course (TEQIP-III Sponsored – Twinning Programme) on “Research Methods and Data Analysis Using SPSS”, from January 20-24, 2019 organized by Dr B R Ambedkar National Institute of Technology, Jalandhar, Punjab.
14. Sportswear, A Mukhopadhyay, Faculty Development Programme on Apparel Product Design & Development, National Institute of Technology, Jalandhar, February 11-13, 2016.
15. Industrial Gas Filtration: Issues and Challenges, A Mukhopadhyay and A K Choudhary, in One Day Workshop on Filter Media Characterization, National Institute of Technology, Jalandhar, December 15, 2014.
16. “Sportswear”, A Mukhopadhyay, Short Term Course on Garment Technology, National Institute of Technology, Jalandhar, June 10-14, 2013.
17. “Experimental Strategies in Textile Industry”, A Mukhopadhyay, Workshop on ‘Statistical Quality Control in Textile Industry’, National Institute of Technology, Jalandhar, from April 30 - May 01, 2013.
18. Organized one-day workshop on “Industry Needs and Academia” under Technical Education Quality Improvement Programme (TEQIP) –II on February 08, 2013.
19. “Industrial gas filtration”, A Mukhopadhyay, National Seminar on Nonwovens and Technical Textiles, National Institute of Technology, Jalandhar, October 5-6, 2012, P8-10.
20. “Sportswear”, A Mukhopadhyay, National Seminar on Nonwovens and Technical Textiles, National Institute of Technology, Jalandhar, October 5-6, 2012, P66-68.
21. Workshop thematic lecture, “Control of Air pollution in Industries”, in the workshop on *Air Pollution Control in Industry* jointly organized by National Institute of Technology and Punjab Pollution Control Board, held at National Institute of Technology, Jalandhar, Punjab, India, February 24, 2012.

22. “Creep performance in Short Stretch Bandages” in “Biomaterials, tissue engineering and medical diagnostics”, M Sikka, A Mukhopadhyay, S Ghosh, XVI Conference of Society for Biomaterials and Artificial Organs – India, Indian Institute of Technology Delhi, February 24-26, 2006, p 29.
23. A. Mukhopadhyay, “Statistical Quality Control in Textile Industry”, National Conference on “Tools and Techniques for Quality and Productivity Improvement”, Indian Statistical Institute, New Delhi, February 8 – 9, 2005.
24. “Effect of fibre shape, fabric weight and needling density on the filtration properties of non woven fabrics”, K. N. Chatterjee, A. Mukhopadhyay, S. C. Jhalani & B. P. Mani, *49th All India Textile Conference*, The Textile Association, Coimbatore, 16th and 17th Dec. (1993) P 148-165.
25. “Impact of high speed draw frame on ring yarn quality and productivity”, S. M. Ishtiaque, A. Mukhopadhyay and A. Kumar, All India Seminar on Energy & Environmental Issues related to Chemical Industry 2007, Conference organized by Institution of Engineers (India) U. P centre, Lucknow.

### Invited Lecture

1. Sustainable Technologies and Our Environment (Role of Teacher), GJS Campus, Bathinda, Punjab, June 5, 2021.
2. Performance of Filter Media during Hot Gas Filtration, Key note speaker, Technology and Innovations in Technical Textiles, PSG College of Technology, April 27, 2019.
3. Filtration Performance of Conductive Filter Media during Industrial Pulse Jet Filtration Assisted with Static Charge, TEXCON-2019, Textile Industry and Research in 2030: Challenges and Opportunities, supported by DRDO at Shri Vaishnav Institute of Textile Technology, SVVV Campus Indore on 4th & 5th April 2019.  
Plenary Lecture
4. Conducted Workshop on Design and Analysis of Experiments on 31/03/2017 for all Engineering Branches at Gujarat Technological University.
5. Presented research paper, “Effect of high temperature on the performance of filter fabric during industrial gas filtration”, at Symposium organized by China Textile Academy Beijing, held at Shanghai, October 11-12, 2016, pp. 23-66.



6. Conducted full day research workshop on, "Filtration by Textile Media", under Technical Education Quality Improvement Programme (TEQIP- II – World Bank Assisted) for academic and industrial participants organized by PSG College of Technology, Coimbatore, India on October 21, 2016.
7. Presented research paper, "*Emission of Fine Particles and Ageing Behaviour of Filters Media with Silicon Finish*", at 3rd National Conference on Emerging Trend in Textile Fibre and Apparel Engineering, Government College of Engineering & Textile Technology, Berhampore, *West Bengal*, 19-21 February, 2016. ISBN 978-1-5136-0951-5, 41-51. Acted as session chair.
8. Presented invited lecture, "*Industrial Gas Filtration for Pollution Control: Issues and Challenges*", at Gujarat Technological University during Research Week, March 28-29, 2016.
9. Presented invited lecture, "*Industrial Gas Filtration for Pollution Control: Issues and Challenges*", at Gujarat Technological University during Research Week, April 17-18, 2015.
10. Plenary Speaker, Industrial Gas Filtration: Issues and Challenges, International Conference on Technical Textiles and Nonwovens 2014, Indian Institute of Technology Delhi, India, 6-8<sup>th</sup> November, 2014. Also acted as session chair.
11. Lecture on Functions and Properties of Geo-textiles at Short Term Course on Recent Trends in Civil Engineering during 26 - 30 May 2014 under TEQIP-II at Department of Civil Engineering, National Institute of Technology Jalandhar, Punjab.
12. Understanding of Basic Parameters used in Characterizing Textile Materials, PTU GJS Campus, Bathinda, Punjab, Under TEQIP, October 16, 2014.
13. Presented invited lecture, "Prospect and Innovation in Technical Textiles", in TEQIP Technical fest, PTU GJS Campus, Bathinda, Punjab, February 14-15, 2014.
14. Textiles in Filtration, Textile Engineering Department, J N Govt Engineering College, Sundernagar, HP on February 22, 2014.
15. Invited lecture on Experimental Strategies and Statistical Analysis in CEP Course on Recent Trends in Technical Textiles for Decelerators & Inflatables in Aerial Delivery Research and Development Establishment, Defense Research and Development Organization, Agra Cantt, November 29, 2013.
16. Presented invited lecture, "Industrial Gas Filtration", in Gujarat Technological University during Research Week, April 2, 2013.

17. Presented invited lecture, “Industrial Gas Filtration”, in National Conference on Futuristic and Emerging Areas in Technology, Issues and Challenges (FEAT’13), PTU GJS Campus, Bathinda, Punjab, February 14-15, 2013. Acted as session Chair.
  18. Invited lecture on, “Control of Industrial Air Pollution through Sustainable Development”, at International Conference, *Chemical Constellation Cheminar – 2012* (CCC-2012) on the theme *Chemistry for Sustainable Development and Innovations*, NITJ on September 12, 2012.
  19. Invited lecture on, “Industrial Textiles”, and “Geotextiles”, Seminar conducted by Punjab Agricultural University, Ludhiana on August 27, 2012, under ICAR sponsored summer school on, “Technical Textiles and Functional Clothing”.
  20. Invited lecture on, “Military garments at high altitude”, Seminar conducted by Northern India Textile Research Association, India, Jalandhar, Punjab, March 30, 2011.
  21. Presented invited lecture, “Technical Textiles: Fabric filter for controlling industrial Pollution”, Seminar conducted by Ministry of Textiles, Regional office of the Textile Commissioner, Amritsar, March 22, 2010.
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