

RITU PANDEY, Ph.D.

Assistant Professor, Department of Textiles & Clothing, Faculty of Home Science, Chandra Shekhar Azad University of Agriculture & Technology, Kanpur Ph # (0790) 544 0675, Email: ritupandey@csauk.ac.in

Academic Qualifications

M.Sc. Clothing & Textiles (G.B. Pant Univ. of Agri. & Tech., Pantnagar'1994)

Qualified I.C.A.R. NET (October' 2001)

PhD. Clothing & Textiles (CSJM University, Kanpur'2004)

I was invited as a panelist in UNESCO conference entitled International Forum of Natural Dyes, at National Textile and Craft Research Institute, Nanatou, Taiwan (14-10-2014 to 16-10-2014).

Research Coordinator of Faculty of Home Science

Research guidance of M.Sc. students as major advisor: 21

Research guidance of PhD. students as co-advisor: 5

Teaching experience of 29 years

Research project (1)

Research project entitled 'Linen from indigenous Flax Fibres for Defence Applications' as Principal Investigator (2010-2013).

Patent (3)

Pandey R. 2021. Extraction of Flax Fibers by Using Gel Retting Method. Indian Patent No. 372965.

A Method for examining the Banarasi Silk Sarees in 2023 (Patent No. 2023/00906) South Africa patent

Pandey, R. 2024. Novel device for fiber extraction from lotus stem and a method thereof. Indian Patent No. 522788.

Books

Authored books (2)

Sinha MK, Pandey R. 2024. Innovative Materials and Technologies for Non-Metallic Technical Textiles. CRC Press, Boca Raton, USA. DOI:10.1201/9781003317074

Pandey R, Dayal R, and Srivastava RSL. 2014. Flax Fibre Processing Technology University Press. Kanpur.

Edited books (2)

Jose S., Thomas, S., Pandit, P., Pandey, R., Gupta, V. 2023. Handbook of Museum Textiles: Conservation and Cultural Research (Vol I) Wiley Scrivener Publishing.

Jose S., Thomas, S., Pandit, P., Pandey, R., Gupta, V. 2023. Handbook of Museum Textiles: Scientific and Technological Research (Vol II) (Accepted and proof corrections going on; Likely to be published by August'2022) Wiley Scrivener Publishing.

Section Editor

Appointed as Section editor for International Journal of Community Science and Technology- ISSN: 2455-7536 (Online)

Research papers publications (Last 10 years)

Pandey R. 2016. Fiber extraction from dual-purpose flax. *Journal of Natural Fibers*, 13(5):565-577. <https://doi.org/10.1080/15440478.2015.1083926>

Mishra S, Pandey R, Singh MK. 2016. Development of Sanitary Napkin by Flax Carding Waste as Absorbent Core With Herbal and Antimicrobial Efficiency. *International Journal of Science Environment and Technology*, 5(2): 404-411.

Pandey R, Patel S, Pandit P, Shanmugam N, Jose S. 2018. Colouration of textiles using roasted peanut skin- an agro processing residue. *Journal of Cleaner Production* 172, 1319-1326. <https://doi.org/10.1016/j.jclepro.2017.10.268>

Seiko J, Pandit P, Pandey R. 2019. Chickpeahusk – A potential agro waste for coloration and functional finishing of textiles. *Industrial Crops & Products*, 142, 111833. <https://doi.org/10.1016/j.indcrop.2019.111833>.

Pandey R, Sinha MK, Dubey A. 2020. Cellulosic fibers from lotus (*Nelumbo nucifera*) peduncles. *Journal of Natural Fibers*, 17(2): 298-309. <https://doi.org/10.1080/15440478.2018.1492486>

Pandey R, Jose S, Basu G, Sinha MK. 2021. Novel methods of degumming and bleaching of Indian flax variety tiara. *Journal of Natural Fibers*, 18 (8): 1140-1150. <https://doi.org/10.1080/15440478.2019.1687067>

Pandit P, Jose S, Pandey R. 2020. Groundnut testa: A potential agro residue for single bath dyeing and protective finishing of cotton fabric. *Waste and biomass Valorization*. <https://doi.org/10.1007/s12649-020-01214-y>

Pandey R, Jose S, Sinha MK. 2022. Fiber Extraction and Characterization from *Typha domingensis*. *Journal of Natural Fibers*, 19(7):2648-2659. <https://doi.org/10.1080/15440478.2020.1821285>

Joshi S, Kambo N, Dubey S, Shukla P, Pandey R. 2022. Effect of Onion (*Allium cepa* L.) Peel Extract-based Nanoemulsion on Anti-microbial and UPF Properties of Cotton and Cotton Blended Fabrics. *Journal of Natural Fibers*, 19(14): 8345-8354. <https://doi.org/10.1080/15440478.2021.1964127>

Pandey HP, Kumar A, Pathak RK, Pandey R, Tiwari US, Mishra RK, Darshan D, Prakash V, Dubey SK. 2022. Biofortification effect of vermicompost, zinc and iron on yield and quality of hybrid maize (*Zea mays* L.). *Agricultural Mechanization in India*, 53 (4): 7195-7212.

Pandey R, Prasad GK, Dubey A, Arputhraj A, Raja ASM, Sinha MK, Jose S. 2022. Tellicherry Bark Microfiber: Characterization and Processing. *Journal of Natural Fibers*, 19(16):13288-13299. <http://dx.doi.org/10.1080/15440478.2022.2089432>

Pandey, R., Tiwari, N., Dubey, A., Jose, S., Kambo, N., Joshi, S., Chauhan, V.K. and Basu, G., 2022. A Comparative Study of Phenotypic Variability and Physico-Mechanical Properties of Dual-Purpose Flax Fiber Varieties in India. *Journal of Natural Fibers*, 19(17):15680-15689. <https://doi.org/10.1080/15440478.2022.2133048>

Chauhan VK, Dubey R, Pandey R, Thennarasu P, Dubey SK. 2024. MXene on textile substrates–A Review. *Advanced Engineering Materials*. <https://doi.org/10.1002/adem.202301962>

Pandey R, Dubey A, Mishra GP, Ahuja A, Kambo N, Joshi S, Sinha MK, Dubey R, Shrivastava S. 2024. Cellulosic crystallinity and antimicrobial activity of cactus cilia. *Physica Scripta*. DOI10.1088/1402-4896/ad4016

Pandey R, Dubey A, Krishna Prasad G, Arputharaj A, Raja ASM, Dubey R, Sinha MK, Jose S. 2024. Physico-Chemical Characterization of Lignocellulosic Seed Microfibers. *Journal of Natural Fibers*, 21(1), p.2360493. <https://doi.org/10.1080/15440478.2024.2360493>

Joshi S, Kambo N, Dubey S, Pandey R, Kowshiga AT, Nandhini E, Deepadharushini D. 2024. Banana leaf extract-based emulsions for multifunctional healthcare textiles. *Indian Journal of Fibre & Textile Research (IJFTR)*, 49(2):173-180.

Book chapters

Pandey R, Dixit S, Dubey R. 2023. Luxurious Sustainable Fibers. In: Muthu, S.S. (eds) *Novel Sustainable Raw Material Alternatives for the Textiles and Fashion Industry*. Sustainable Textiles: Production, Processing, Manufacturing & Chemistry. Springer, Cham. https://doi.org/10.1007/978-3-031-37323-7_4

Pandey R, Dubey A, Sinha MK. 2023. Lotus fibre drawing and characterization. In R. Nayak (Ed) *Sustainable Fibres for Fashion and Textile Manufacturing*, Woodhead Publishing, United Kingdom, 95-108. <https://doi.org/10.1016/B978-0-12-824052-6.00001-9>

Pandey R, Sinha MK, Dubey A. 2023. Macrophyte and wetland plant fibres. In Nayak, R. (Ed) *Sustainable Fibres for Fashion and Textile Manufacturing*, Woodhead Publishing, United Kingdom 109-127. <https://doi.org/10.1016/B978-0-12-824052-6.00006-8>

Pandey R, Dubey R, Pandit P, Pandey S, Sinha MK, Dubey A. 2023. Armours: Ancient Metallic Textiles. In *Handbook of Museum Textiles (Vol I)*. CRC Publications. <https://doi.org/10.1002/9781119983903.ch11>

Pandey R, Gupta V, Pandit P, Kumar R, Pandey S. 2023. Textile Intangible Cultural Heritage of the World. In *Handbook of Museum Textiles (Vol I)*. CRC Publications. <https://doi.org/10.1002/9781119983903.ch2>

Badanayak P, Jose S, Dubey R, Pandey R. 2023. Tools and methods for handling and storage of museum textiles. In *Handbook of Museum Textiles (Vol I)*. CRC Publications. <https://doi.org/10.1002/9781119983903.ch8>

Sethuraman M, Pandey S, Pandey R. 2023. Career in Textile Museum. In Handbook of Museum Textiles (Vol I). CRC Publications. <https://doi.org/10.1002/9781119983903.ch19>

Pandit P, Pandey R, Singha K, Shrivastava S, Gupta V, Jose S. 2020. Pineapple Leaf Fibre: Cultivation and Production © Springer Nature Singapore Pte Ltd. 2020 M. Jawaid et al. (eds.), *Pineapple Leaf Fibers*, Green Energy and Technology, (1-20) https://doi.org/10.1007/978-981-15-1416-6_1

Pandey R, Pandit P, Pandey S, Mishra S. 2020. Solutions for Sustainable Fashion and Textile Industry. Pintu Pandit et al. (eds.), *Recycling from Waste in Fashion and Textiles: A Sustainable & Circular Economic Approach*, (33–72) © 2020 Scrivener Publishing LLC. <https://doi.org/10.1002/9781119620532.ch3>

Pandey S, Pandit P, Pandey R, Pandey S. 2020. Marketing Strategy for Upcycling and Recycling of Textile and Fashion. Pintu Pandit et al. (eds.), *Recycling from Waste in Fashion and Textiles: A Sustainable & Circular Economic Approach*, (341–373) © 2020 Scrivener Publishing LLC. <https://doi.org/10.1002/9781119620532.ch12>

Dubey A, Chauhan VK, Pandey R, Dubey MM, Debnath S. 2020. Golden Fiber Jute: A Treasurable Sustainable Material. Pintu Pandit et al. (eds.), *Recycling from Waste in Fashion and Textiles: A Sustainable & Circular Economic Approach*, (33–73) © 2020 Scrivener Publishing LLC. <https://doi.org/10.1002/9781119620532.ch16>

Research paper presentations

Pandey R. 2020. Lotus fibre extraction and characterization. International Conference on Functional Textiles & Clothing (FTC) held at IIT, New Delhi, Feb. 7- 9, 2020: P 338.

Pandey R. 2018. An innovative cellulosic fibre- *Typha domingensis* naturally growing on swampy lands. Conference on Integrating Design with Sustainable Technology at University of Leeds, July 23-26, 2018: P6.

Research paper on Analysis of the Physical Properties of Dual Purpose Flax Fibre Extracted using Different Methods presented in International Forum of Natural Dyes, at National Textile and Craft Research Institute, Nanatou, Taiwan (14-16-10-2014).

Research paper on Silk Dyeing with *Ficus religiosa* and *Moringa pterygosperma* Leaves' presented in an international workshop on 'Value Chain for Natural Dyes' at ANGRAU, Hyderabad from 5th to 8th March'2014.

Research paper entitled "Eco-friendly and Sustainable Products" presented in 'Workshop on Eco-design', at Taipei, Taiwan from 1st to 5th November'2010.

Research paper entitled "Environmental Management in India" presented in a conference on 'Eco-friendly Wet Processing in Textile Industry' at U.P. Textile Technology Institute, Kanpur, India from 24th to 26th November' 2008

Research paper entitled “Textile Effluents: A Source of Environmental Pollution” presented in a conference on Environmental Management in Hawaii’ at University of Hawaii, Honolulu, U.S.A. from 10th to 15th February’ 2008.

Conducted workshop as a panelist in a National Convention on Coloration and Recent Trends on the Topic of Sustainability in Textiles & Fashion, UPTTI, Kanpur (8-9-2023)

Teaching manuals prepared:

1. Textile Science & Care
2. Indian Textile & costumes
3. Dyeing Technology for Textiles
4. Fundamentals of Clothing construction
5. Garment Construction and Planning
6. Knitting Technology
7. Textile Finishing
8. Textile & Apparel Quality Analysis

Member of societies:

- Life member of Indian Society of Agricultural Biochemists
- Life member of society of Agricultural Professionals
- Life member of Hind Agri Horticultural Society
- Executive committee member of Asian Journal of Home Science
- Life member of Society of Agriculture Extension

Awards

- Awarded best researcher at university level (CSAUAT Kanpur) in the year 2018, 2020, 2021, and 2022
- Shakti Swaroopa Award (2022) by SarvoSarth NGO on 24-04-2022.
- Aparajita Award (2022) for outstanding research work by Amar Ujala on the occasion om Women’s Day (8-03-2022).
- Fellow of Indian Society of Agricultural Biochemists.
- Won **IInd prize in the Poster Competition** in international conference on "Post Harvest Technology & Value Addition in Cereals, Pulses and Oilseeds" held at C.S.A. Univ. of Agri. & Tech., Kanpur from 27th to 30th Nov'2006
- Adjudged **outstanding participant** in a short course on Fibre Crop Production, Seed Production and Quality Evaluation organized at Central Research Institute for Jute & Allied Fibres, Kolkata (03-08-2011 to 12-08-2011)
- Value Addition in Jute & Allied Fibers through Product Diversification & Waste Utilization
- Recipient of **Indo-Soviet Friendship Award** in the year 1988
- **Yoga Champion** of the G.B. Pant University of Agric. & Tech., Pantnagar (1993)

(Ritu Pandey)