

Faculty Profile

Faculty Name	Dr. Harwinder Singh
Designation	Assistant Professor
Qualification	Ph.D, M.Tech, B.Tech
Email	drharwindersingh.tex@piet.co.in
Area of Interest	Textile Technology
Work Experience (Total)	12.5+ Years
<ul style="list-style-type: none">• Teaching	6+ Years
<ul style="list-style-type: none">• Research	5.5 Years
<ul style="list-style-type: none">• Industry	1 Year
<ul style="list-style-type: none">• Others	-
Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level	Yarn Manufacture, Natural Fibers, Manufactured Fiber Technology, Process Control in Spinning, Technical Textiles
Membership of Professional Bodies	-
Research Publications	
<ul style="list-style-type: none">• Research Papers UGC-CARE	1
<ul style="list-style-type: none">• Research Papers SCOPUS	3
<ul style="list-style-type: none">• Research Papers WoS/SCI/ABDC	9
<ul style="list-style-type: none">• List of Publications	<p>1. H. Singh, A. Chatterjee, Potential of alkali-treated cornhusk film as reinforcement for epoxy laminate composites, Cellulose. 9 (2020). https://doi.org/10.1007/s10570-019-02917-9. SCI (IF-6.15)</p> <p>2. A. Chatterjee, H. Singh, Development and Characterization of Peanut Shell Flour–Polypropylene Composite, J. Inst. Eng. Ser. D. 100 (2019) 147–153. https://doi.org/10.1007/s40033-019-00200-6. Scopus Indexed.</p>

3. Chatterjee Arobindo, Sachin Kumar and Harwinder Singh 2020. "Tensile Strength and Thermal Behavior of Jute Fibre Reinforced Polypropylene Laminate Composite." Composites Communications 22 (September): 100483.
<https://doi.org/10.1016/j.coco.2020.100483>.
SCI (IF-7.685)
4. Kidwai Nashrah H, Harwinder Singh, and Arobindo Chatterjee. 2020. "All -Cellulose Composites from Cotton fabric and Cellulose" Cellulose Chemistry and Technology 54: 757–64. SCIE (1.467).
5. Harwinder Singh & Arobindo, Chatterjee, Alkali treated cornhusk film reinforced epoxy laminate composite - effect of filler loading and orientation, Indian Journal of Textile & Fibre Research, vol 46, September 2021, pg 275-286 (SCI- IF0.85)
6. Harwinder Singh & Arobindo, Chatterjee, Zea Mays Husk Reinforced Polymer Composites in RTCT select proceedings of ICETT 2019 in Springer
https://doi.org/10.1007/978-981-15-9995-8_6
7. Harwinder Singh, Khushboo Chaudhary & Arobindo Chatterjee, Nonwoven viscose fabric- PVA- based flrxible composite, accepted in Journal of Vinyl & Additive Technology <https://doi.org/10.1002/vnl.21941>.
(SCI-IF-2.29)
8. Vinu Kumar & Harwinder Singh, "Wear,

Morphological, and Thermal Behavior of the Epoxy composites reinforced with chemically modified Flax fibres”, in Indian Journal of Textile & Fibre Research, (SCI- IF0.85)

9. Shaktivel Murugan E, Vinu Kumar & Harwinder Singh, “Study on Characterization of Novel Cellulosic Fiber Extracted from the Seed Pods of the Alstonia Macrophylla”, in Cellulose Chemistry & Technology SCI (IF-1.85)

10. Harwinder Singh & Arobindo, Chatterjee, Functional applications of cornhusk film reinforced epoxy laminate composites, under review in Polymer Bulletin SCI (IF-2.35)

11. Sharina Juhee K, Dinesh Kumar E and Harwinder Singh, Natural Fiber reinforced Composites, in International Journal of Recent Advances in Multidisciplinary Topics Volume 3, Issue 10, October 2022 <https://www.ijramt.com> | ISSN (Online): 2582-7839 (IF-5.086)

12. Sakthivelmurugan E, Senthilkumar G, Vinu Kumar S M, and Harwinder Singh, “Dynamic mechanical and drilling behavior of Alstonia macrophylla fiber reinforced Polypropylene composites” accepted in Journal of the Brazilian Society of Mechanical Sciences and Engineering SCI/Springer Nature, IF 2.36

13. Saravana Kumar R, P Rishanth, S. Nithish kumar and Dr. Harwinder Singh, Application

	of PCM in Helment Interlining, in International Journal of Recent Advances in Multidisciplinary Topics Volume 5, Issue 7, March 2022 https://www.ijramt.com ISSN
Book and Chapter Publications	
<ul style="list-style-type: none"> Books Authored published by International Publishers 	
<ul style="list-style-type: none"> Books Authored published by National Publishers 	
<ul style="list-style-type: none"> Publication of Chapter in Edited Books 	<ol style="list-style-type: none"> Lignocellulose biomass for composite Applications, by Harwinder Singh & A. Chatterjee, in “Functional & Technical Textiles”, Elsevier, Singapore. Editor- Dr S Maity, Dr. Pintu Pandit and Dr. Kunal Singha. https://doi.org/10.1016/B978-0-323-91593-9.00008-0 Characterization of Interface of Corn Husk Film Reinforced composite, Harwinder Singh A. Chatterjee, DAE SSPS, f0025 Pg129, Board of Research in Nuclear Sciences, Department of Atomic Energy, GOI. Harwinder Singh & Arobindo, Chatterjee, Zea Mays Husk Reinforced Polymer Composites in RTCT select proceedings of ICETT 2019 in Springer https://doi.org/10.1007/978-981-15-9995-8_6
<ul style="list-style-type: none"> Editor of Book by International Publishers 	
<ul style="list-style-type: none"> Editor of Book by National Publishers 	<i>Sustainability in Technical Textiles</i> , Editors- Dr M Gopalakrishnan, Dr Harwinder Singh

	and Dr Sudev Dutta, ISBN: 978-81-955592-0-6, Copyright© 2015, BIT Publishers, Gopalapuram, Sathyamangalam, Tamil Nadu, India -638401
<ul style="list-style-type: none"> • Translation Work of Book 	
<ul style="list-style-type: none"> • List of Book and Chapter Publications 	1 + 3
Patents	
<ul style="list-style-type: none"> • Published 	2
<ul style="list-style-type: none"> • List of published patent(s) 	<p>1. Covid 19 PPE Kit Disinfection Chamber For its Efficient Disposal and Reusability, Published on 03/06/2022, App. No.- 202241029410</p> <p>2. Cost Effective Filtration System for Small and Medium Scale Manufacturing Sectors. Publication Dated: 23/09/2022 Application No.202241053372 A</p>
<ul style="list-style-type: none"> • Filed 	4
<ul style="list-style-type: none"> • List of filed patent(s) 	<p>1. PVA Coated Banana Leaf Composites for Food Packaging Application, Dated: 06/10/2022 Application no. 202241057132</p> <p>2. Naturally Dyed Composite Leather from Rotten Mushroom Mycellium for Replacing Animal Skin, Dated: 02/11/2022 Application no. 202241062500</p> <p>3. Production of Conductive Core Spun Yarn Using Copper and Cotton, Dated: 23/11/2022 Application no. 202241067320</p> <p>4. Development of Recycled Polyester and Bamboo Fibres Blended Pad for Medical Applications, Dated: 03/11/2022 Application</p>

	no. 202241062773
PhD Guidance	
• Degree Awarded	
• Thesis Submitted	
M.Tech. Guidance	
• Degree Awarded	
• Thesis Submitted	
Research Project	
• List of Research project	<ol style="list-style-type: none"> 1. CHF Reinforced Epoxy Composites 2. PVA Coated Banana Leaf Composites for Food Packaging Application, 2. Naturally Dyed Composite Leather from Rotten Mushroom Mycellium for Replacing Animal Skin, 3. Production of Conductive Core Spun Yarn Using Copper and Cotton, 4. Development of Recycled Polyester and Bamboo Fibres Blended Pad for Medical Applications 5. Peanut Shell Flour Filled Polypropylene Composites
Consultancy	
• List of Consultancy	
Awards & Honours	
• List of Awards & Honours	<ol style="list-style-type: none"> 1. 4th Position in University in B.Tech 2. Consolidated Prize in Young Research Symposium at IIT Delhi in 2019 3. Qualified the NPTEL online course on Introduction to Composites from January –April 2019, conducted by IIT Kanpur in Elite class.
Invited lectures / Resource Person/ paper presentation in Seminars/ Conferences/full	Invited Lectures 1. Innovations to retain sustainability in Textile & Fashion, Guest Lecture organized by

<p>paper in Conference</p>	<p>Department of Fashion Technology, BIT Sathyamangalam on 6th February 2023.</p> <p>2. Recent Advancements in Medical Textiles, IIC event held at Department of Textile & Apparel Technology, Bharathiar University, Coimbatore on 11.11.2022</p> <p>3. Utilization of Agrowaste as reinforcement for epoxy composites, in International Conference on Material Science & Nanotechnology ICMSN 2021 16-17 August 2021 at Lisbon Portugal.</p> <p>4. Dynamic & Thermal Characterization of Polymers, organized by the Department of Mechanical Engineering, NIT Jalandhar, 15 September 2020.</p> <p>Sessions Chaired</p> <p>1. International Conference on Emerging Technology Versus Sustainability in Fashion and Textile Industry, held from 17th to 18th, April 2023, hosted by the Department of Fashion Technology, Bannari Amman Institute of Technology, Sathyamangalam, TN.</p> <p>2. International Conference on Sustainable Textiles Fashion and Crafts (STFC-2023), held on 30th March 2023, hosted by the Department of Textile Technology, Bannari Amman Institute of Technology, Sathyamangalam, TN.</p> <p>3. National Conference on Non-Wovens in Technical Textiles, held on 12th May 2022, hosted by the Department of Textile Technology, Bannari Amman Institute of Technology, Sathyamangalam, TN.</p> <p>4. International conference on Sustainability in Technical Textiles (ICSTT- 2021), held from 28th-29th December 2021 at BIT Sathyamangalam.</p>
<ul style="list-style-type: none"> • International (Abroad) 	<p>Utilization of Agrowaste as reinforcement for epoxy composites, in International Conference on Material Science & Nanotechnology</p>

	<p>ICMSN 2021 16-17 August 2021 at Lisbon Portugal</p>
<ul style="list-style-type: none"> • International (Within Country) 	<ol style="list-style-type: none"> 1. Harwinder Singh, “Sustainable Reinforcements for composite Applications”, in international conference on Susatrainability in Technical Textiles ICSTT- 2021 28-29 December 2021 at BIT Sathyamangalam. 2. Harwinder Singh & Arobindo Chatterjee, “Cornhusk film reinforced green composites”, in international conference on Susatrainable Growth in Textiles SGT 2021 19-21 August 2021 at UPTTI Kanpur 4. Harwinder Singh & Arobindo, Chatterjee, “Innovation for Sustainable development of Textile Industry”, in international conference on Advances in Textiles Fashion & Craft, 22-24 March 2021 at NIFT Jodhpur. 5. Harwinder Singh & Arobindo, Chatterjee, “Effect of alkali treatment on the properties of Corn Husk Film reinforced polymer composites, in 5th International conference on INDUTECH-2020, 21-23 August 2020, PSGTech Coimbatore. 6. Harwinder Singh & Arobindo Chatterjee, “Zea mays husk reinforced epoxy composites’ 2nd International Conference on Emerging Trends in Traditional & Technical Textiles ICETT 2019 Nov 1-3, 2019 held at Department of Textile Technology, NIT Jalandhar. ISBN 13: 978-93-5382-111-1 7. Harwinder Singh & Arobindo Chatterjee, “Characterization of Jute Fibre Reinforced Polypropylene Composites, 1st International Conference on Materials Science & Engineering, June 11-12, 2019 held At Department of Mechanical Engineering, NIT Jalandhar 8. Harwinder Singh & M D Roy “Evaluation of Mechanical Properties of Peanut Shell Flour – Polypropylene Composites” at International Conference On “Redefining Textiles- Cutting Edge Technology of The Future” April 8-10 2016. ISBN 13: 978-93-525498-0-1 9. Harwinder Singh, “Structural modification of PNSF-PP Composites”, International Conference on Technical Textiles &

	Nonwovens at IIT Delhi, 6-8 November 2014
<ul style="list-style-type: none"> National 	<ol style="list-style-type: none"> 1. Harwinder Singh, “Technical Education- Opportunities & Challenges” National Conference on Innovation and Best Practices in Educational System towards Nation Building organized by Dr. B R Ambedkar National Institute of Jalandhar from 30th Nov- 1st December 2019. ISBN 13: 978-81-92087-405 2. Harwinder Singh & A. Chatterjee, “Dynamic Mechanical properties of Peanut Shell Flour Polypropylene Composites, 2nd National Conference on Advances in Chemical & Environmental Engineering- ACEE 2019, March 23-24 2019, CH-272 pg-134. 3. Harwinder Singh & A. Chatterjee, “Potential of Peanut-shell flour as filler for polymer composites” on 19th ISME Conference on Advances in Mechanical Engineering, held at Department of Mechanical Engineering, NIT Jalandhar, December 20-22, 2018 Manuscript ID-155, pg-57 4. Harwinder Singh “Polymer Composites Based on Agro-Waste” at 1st Textile Academia Conference held at IIT Delhi 17-18th Feb 2016 5. Harwinder Singh “Quality Bench Marking in Higher Education”, National Seminar on Sustainability of Engineering Education held from 26th-27th march 2015 at NIT Jalandhar 6. “Geosynthetics Sustaining the Environment” in National Conference on, ‘Futuristic & Emerging Areas in Technology-2013’ held at PTU GZS Campus Bathinda from 14-15 Feb 2013. ISBN 13:978-93-83083-00-8 pg 50-55 7. “Versatile applications of Composites” in ‘National Conference on Nonwovens & Technical Textiles’ held on 5-6 October 2012 at NIT Jalandhar, ISBN: 978-93-78237-21-5 8. “Geocomposites – Contribution in Building Environment” in ‘National Conference on Nonwovens & Technical Textiles’ held on 5-6 October 2012 at NIT Jalandhar ISBN: 978-93-78237-21-5.
Organized National Conference/ International Conference/ FDP/STTP	26
<ul style="list-style-type: none"> List of Conference/FDP/STTP 	1.Coordinator of One Day workshop on

committee	<p>Technical Fibers vis a Vis TProduct development & Testing on 18th October 2023 at PIET, Samalkha Haryana.</p> <p>2. Coordinator of National Handloom Day Celebrations on 7th August 2023 at PIET, Samalkha Haryana.</p> <p>3. Organizing Secretary of the International Conference on Sustainability in Textiles Fashion & Craft STFC- 2023, held on 30 March 2023 at BIT Sathyamangalam.</p> <p>4. Organized a Webinar on Fabric Costing Practice in Textile Industry, by Mr. Ashok Balaji, Managing Director at Shri Mayawan Sizing Ltd. Erode, on 23rd Feb, 2023 held at BIT Sathyamangalam.</p> <p>5. Organized a Webinar on Fabric Costing Practice in Textile Industry, by Mr. Ashok Balaji, Managing Director at Shri Mayawan Sizing Ltd. Erode, on 23rd Feb, 2023 held at BIT Sathyamangalam.</p> <p>6. Organized a Webinar on Quality Control in Spinning, by Dr. Veeresh Mudnoor C, Asst Manager (Technical) NTC Ltd GOI, held at BIT Sathyamangalam on 1st December 2022</p> <p>7. Organized a workshop in collaboration with BIT-IIC on Garment Costing Practices & its Opportunities in Garment Industry, from 28-29 October 2023 at BIT Sathyamangalam.</p> <p>8. Faculty coordinator of the Webinar on A Way to Journal Publication, by Dr. Prakash C, Director IIHT Fulia, West Bengal, held at BIT Sathyamangalam on 24th September 2022</p> <p>9. Faculty coordinator of the Webinar on Development in Quality Assurance Policies in Textile & Apparels, by Mr. Rahul Kumar Garg, Technical Advisor, Bakson India Ltd. Gurgaon held at BIT Sathyamangalam on 17th September 2022.</p> <p>10. Faculty coordinator of the Seminar on Sustainable Fashion, by Mr. Chandra Mohan, Sustainable, Manager at INDOCHINA Intl. Hongzhou, held at BIT Sathyamangalam on 14th September 2022.</p> <p>11. Organized a Seminar on Elements of Quality Management in Spinning Mills, by Dr.</p>
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	<p>A Sivaramakrishnan, Chartered Engineer (Textile) held at BIT Sathyamangalam on 26th July 2022</p> <p>12. Organized National e-conference on Nonwovens in Technical Textiles, 12 May 2022 at BIT Sathyamangalam.</p> <p>13. Faculty coordinator of the Webinar on Role of Merchandiser in Garment Industry, held at BIT Sathyamangalam on 1st April, 2022</p> <p>14. Faculty coordinator of the Workshop on Implementation of Continuous Improvement in Apparel Industry, held at BIT Sathyamangalam on 23rd March 2022</p> <p>15. Faculty coordinator of the National Seminar on Sustainable Textiles & Fashions, held at BIT Sathyamangalam on 29th January 2022.</p> <p>16. Organizing Secretary of the International conference on Sustainability in Technical Textiles ICSTT- 2021, 28-29 December 2021 at BIT Sathyamangalam.</p> <p>17. Faculty coordinator of the Technical Event on Making a Product Using Tie & Die Technique in a Eco-Friendly Way, held at BIT Sathyamangalam on 23/11/2021.</p> <p>18. Faculty coordinator of the workshop on New Product Development in Woven Fabrics, held at BIT Sathyamangalam on 12/12/2021. Resource Person- Mr. Ajay Sharma, Senior Executive, Central Product Development Cell, at Vardhman Textiles Ltd. Baddi, H.P.</p> <p>19. Organized webinar on How to start up a Garment Industry in collaboration with IIC (Ministry of HRD, GOI) on 10-11-2021 at BIT Sathyamangalam. Resource person Mrs. Saraswathi, Director –Tiara Garments, Tirupur.</p> <p>20. Faculty coordinator for the webinar on Natural dyes trending Eco-Fashion, held at BIT Sathyamangalam on 29-09-2021, Resource person Mrs. Sapna Kushwaha, NIIFT-Mohali.</p> <p>21. Member of Refreshment Committee for 2nd International Conference on Emerging Trends in Traditional & Technical Textiles ICETT 2019 Nov 1-3, 2019 held at Department of Textile Technology, NIT Jalandhar</p>
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	<p>22. Member of Organizing Committee for venue/event management of STC on Advancements in Garment Technology, held at NIT Jalandhar May 22-26, 2019.</p> <p>23. Member of Organizing Committee and Treasurer of GIAN course on Textile Product Design, which was held at NIT Jalandhar, from January 14-18, 2019.</p> <p>24. Member of Organizing Committee (Reception and Registration) of International Conference on “Redefining Textiles- cutting edge technology of the future” held at NIT Jalandhar from 04/2016</p> <p>25. Accommodation Co-ordinator of International Conference ICETT’2014 held at NIT Jalandhar from 11-12 April 2014.</p> <p>26. Volunteer in organizing STC on Garment Technology’ under TEQIO-II held from 10-14 June 2013 at NIT Jalandhar</p> <p>27. Voluntarily organized National Seminar on ‘Nonwovens & Technical Textiles’ held on 5-6 October 2012.</p>
<p>Social Contributions and Sports</p>	
<p>• List of Social Contributions and Sports</p>	<p>1. Won 3rd position in the Folk Dance Competition held at Utkansh’2013 at NIT Jalandhar</p> <p>2. Executive Member of NSS at GZSCET Bathinda during B.Tech. 2006-2009. Actively Participated in tree plantation, Blood Donation and Clean Campus Drives.</p> <p>3. Organizing Member of Info-Hut Committee for the 16th Annual Athletic Meet held on 26th- 27th February 2009 at GZSCET Bathinda</p> <p>4. Won 1st Runner-up Prize in Duet Song Competition in ‘Trannum-2008’ at GZSCET.</p> <p>5. Organized 1st centenary birth celebration of Shaheed-E-Azam S. Bhagat Singh- ‘Inquilaab Ek Vichar Ki Yatra’ on 4th October, 2007 at GZSCET Bathinda.</p> <p>6. Organizing Member of Track-Judgement</p>

	<p>Committee for the 13th Annual Athletic Meet held on 22nd- 23rd February 2006 at GZSCET Bathinda.</p> <p>7. Actively participated in various religious activities like- Naitik Sikhya Imtihaan on 15th November, 2007</p> <p>8. Qualified the SGPC test for Dharmik Sikhya in November 2000.</p> <p>9. Awarded with a Special grade in Sikhi Da Maan Contest held at Moga on 25th September 2004.</p>
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