

# Reetu Malhotra

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## Aim & Objectives

To take up a challenging Career grows with honesty, loyalty, Good relationship and best performance, and enhance my working capacities, professional skills, research to serve my organization in best possible way. To conduct workshops, orientation programs, seminars, conferences and other programs to update and upgrade the levels of knowledge of teachers and students.

## Designation

Professor & Programme Incharge (2<sup>nd</sup> Top Position in Department)

## Educational Qualification

Qualification	University/ Board	Remarks
PhD.(Mathematics)	Chitkara University, Himachal Pradesh	Thesis available on <a href="http://hdl.handle.net/10603/171863">http://hdl.handle.net/10603/171863</a>
CSIR UGC(NET)	National Council	48 <sup>th</sup> rank all over
M.Sc. (Mathematics)	Guru Nanak Dev University, Amritsar	Among university toppers
B.Sc.(Non-Medical)	Punjab University, Chandigarh	Topper of the college
Matriculation	Punjab School Education Board	Got scholarship

## Teaching Experience

- Currently working as Professor and Programme Incharge in Chitkara University, Rajpura, Punjab in department of Applied Sciences w.e.f. 1<sup>st</sup> Jan, 2022.
- Worked as an Associate Professor and Programme Incharge in Chitkara University, Rajpura, Punjab in department of Applied Sciences w.e.f. 1<sup>st</sup> Oct, 2013 to 1<sup>st</sup> Jan, 2022.
- Worked as an Assistant Professor in Chitkara University, Rajpura, Punjab in department of Applied Sciences w.e.f. 28<sup>th</sup> July, 2008 to 1<sup>st</sup> Oct, 2013.
- Worked as a lecturer in in Applied Science department at Adesh Institute of Engineering & Techonolgy, Faridkot w.e.f. 31<sup>st</sup> Aug, 2004 to 28<sup>th</sup> July, 2008

- Worked as a lecturer in R. S. D College, Ferozepur w.e.f. 26<sup>th</sup> July, 2004 to 30<sup>th</sup> August, 2004.
- Worked as lecturer in B.S.M. Sr. Sec School, Ferozepur w.e.f. 1<sup>st</sup> October, 2003 to 19<sup>th</sup> July, 2004.

**Total Experience: 21 Years**

Students under Phd. Guidance	06
Personal Profile	Date of Birth: 07 <sup>th</sup> Apr 1981 Father's Name: Sh. S.C.Malhotra Husband's Name: Dr. Rajesh kumar Sex: Female Nationality: Indian Marital Status: Married
Skills	C /C++, Matlab, Vedic Mathematics
International /National Publications	

**A) Publications in the Journals :**

**SCI INDEXED JOURNALS**

1. **Swati Arora, Mohammad Aljaidi, Mamatha Sandhu, Samar Hussni Anbarkhan, Reetu Malhotra**, Determination of yearly energy savings by CVR in combination with photovoltaic inverter control functions in distribution network, *Energy Reports*, **12**, 2024, **5507-5520**, ISSN 2352-4847, <https://doi.org/10.1016/j.egy.2024.11.001>. impact facto r=4.7
2. **Reetu Malhotra, Faten S. Alamri, and Hamiden Abd El-Wahed Khalifa**. "Novel Analysis between Two-Unit Hot and Cold Standby Redundant Systems with Varied Demand" *Symmetry* **15**, no. **6**: **1220**. 2023. <https://doi.org/10.3390/sym15061220> (SCI indexed, impact factor= 2.97)
3. **Vinay Kumar, Gittaly Dhingra, Nitin Saxena, Reetu Malhotra\*** Machine learning based analysis of learner-centric teaching of punjabi grammar with multimedia tools in rural indian environment. *Multimed Tools Appl* **81**, **40775-40792** (2022). <https://doi.org/10.1007/s11042-022-12898-w> (SCI indexed, impact factor= 3.16)
4. **Shubham Goel, Ravinder Kumar, Ashwani Kumar, and Reetu Malhotra** S<sup>3</sup>A: Smart Station Search Assistance for Electric Vehicle - a step towards smart city, *IEEE Consumer Electronics Magazine* **2162-2248 (27-32)**, 2020. (Sci Indexed Journal, impact factor =4.135)

5. **Reetu Malhotra, Gulshan Taneja.** Comparative study between a single unit system and a two-unit cold standby system with varying demand, *Springerplus*. **Volume 4:705, 2015. ISSN 2193-101 doi 10.1186/s40064-015-1484-7. Impact factor=0.982 (SCI INDEXED JOURNAL)**

### SCOPUS INDEXED JOURNALS

1. Anjuman Shaheen , Gurinder Kaur Sodhi, **Reetu Malhotra\***, Revolutionizing Covid-19 Diagnosis by Deep Learning Using X-Ray Images [Kexue Tongbao/Chinese Science Bulletin](#), Volume - 69, Issue – 05,2024 h-index 43 (**SCOPUS INDEXED**)
2. **Siwach Anujeet, Malhotra Reetu\*** Complex Roots-Finding Method of Nonlinear Equations, *Contemp. Math*, 5(3):2848-57, 2024. <https://doi.org/10.37256/cm.5320243047>  
<https://ojs.wiserpub.com/index.php/CM/article/view/3047>
3. **Rajinder Kaur, Reetu Malhotra\***, **Shivani Chopra**, Effectiveness of Community-Based Educational Package on Stress Levels Among Postmenopausal Women, *Scripta Medica*, 55 (5), 575-581, (2024). <https://doi.org/10.5937/scriptamed55-52369>
4. **Harpreet Kaur, Reetu Malhotra\*** Stochastic Analysis of a Two-Unit Standby Autoclave System with Inspection and Varying Demand. *Journal of Mechanics of Continua and Mathematical Sciences*, pp. 147-163, (2024).
5. **Harpreet Kaur, Reetu Malhotra\*** Comparative Analysis of a Redundant System Subject to Inspection of a Manufacturing Plant, *Journal of Mechanics of Continua and Mathematical Sciences*, pp. 85-105,(2024)
6. **Reetu Malhotra, Aashish Goyal\***, **Mridula Batra, Ritvik Bansal**, Preprogrammed Multiway Workbench- An experimental study using ultrasonic sensors with the help of microcontroller *Journal of Physics: Conf. Ser.* **1850** 012086(1-7), **2021** (Scopus Indexed H-index 75).
7. **Reetu Malhotra, Tanishq Dureja, Aashish Goyal**, Reliability Analysis a Two-Unit Cold Redundant System Working in a Pharmaceutical Agency with Preventive Maintenance *Journal of Physics : Conf. Ser.* **1850** 012087(1-10), **2021** (Scopus Indexed H-index ).
8. **Harvinder Singh, Anoop Kumar Singh, Yogesh Kumar Singla Kashidas Chattopadhyay, Reetu Malhotra**, Optimization of tribological behavior of AISI 4140 under nano fly ash particulates in engine lubricating oil" *Materials Today Proceedings* **45(6), 4619-4623, 2021,ISSN 2214-7853**
9. **Mamatha Sandhu, Neeraj Kumar, Reetu Malhotra**, Harmonic Minimization in DC Microgrid using Renewable Energy Sources and Modified Symmetrical Multilevel Inverter, *Journal of critical reviews*. **Volume 7(11), 1809-1820, 2020. ISSN- 2394-5125**
10. **Reetu Malhotra, Deepak Kumar, D.P.Gupta**, An Android Application for Campus Information System, *Elsevier Procedia Computer Science (Indexed in Conference Proceedings Citation Index and Scopus)* **Volume 172, 863–868, 2020 ISSN 1877-0509.**
10. **Reetu Malhotra, Neelam Verma.** An Impact of Using Multimedia Presentations on Engineering Education, *Elsevier Procedia Computer Science (Indexed in Conference Proceedings Citation Index and Scopus)* **Volume 172, 71-76, 2020. ISSN 1877-0509.**
11. **Reetu Malhotra, Bhavjot Singh** Design and Construction of Solar Shed, *AIP Conference Proceedings..* **2220, 140061, (2020); <https://doi.org/10.1063/5.0001157>** (Scopus Indexed).
12. **Deepak Kumar, Reetu Malhotra, Sita Ram.** Design and Construction of a Smart Wheelchair, *Elsevier Procedia Computer Science (Indexed in Conference Proceedings Citation Index and Scopus)* **Volume 172 302–307, 2020. ISSN 1877-0509.**

1. **Sita Ram, Madhu Gupta, Reetu Malhotra** Inequalities Between First and Second Order Moments for Continuous Probability Distribution. **International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-9(4), 744-747, 2020. ISSN 2278-3075.**
2. **Reetu Malhotra, Vanshika, Neha.** Construction of a Device for Obstacle Detection, *International Journal of Recent Technology and Engineering*, **Volume 8(4), 2312-2315, 2019. ISSN 2277-3878 (Scopus Indexed Journal)**
3. **Mohit Kumar Kakkar, Jasdev Bhatti, Reetu Malhotra, Manpreet Kaur, Deepika Goyal.** Availability Analysis of an Industrial System under the Provision of Replacement of a Unit using Genetic Algorithm, *International Journal of Innovative Technology and Exploring Engineering* **Volume 9(1), 1236-1241, 2019. ISSN: 2278-3075 (Scopus Indexed Journal).**
4. **Reetu Malhotra and Gittaly.** Fundamental Approach and Applications of Laplace Transform, *Think India Journal* **Volume-22(37), ISSN: 0971-1260. November 2019. 610-616.**
5. **Reetu Malhotra and Gittaly.** Breast Cancer Predication Using Machine Learning Methodologies, *Think India Journal* **Volume-22(37), ISSN: 0971-1260. November 2019. 48-56.**
6. **Sunaina Goyal, Reetu Malhotra.** A systematical study of reliability on some models *International Journal of Advanced Search in Science and Engineering* **Volume 6(4) 864-876, 2017. ISSN 2319-8453.**
7. **Gulshan Taneja, Reetu Malhotra, Ashok Chitkara.** Comparative profit analysis of two reliability models with varying demand, *Aryabhata Journal of Mathematics & Informatics* **Volume 8(2) 305-214, 2016. ISSN 2394-9309 (UGC APPROVED JOURNAL)**
8. **Reetu Malhotra, Gulshan Taneja.** Comparative analysis of two stochastic models subjected to inspection and scheduled maintenance, *International Journal of Software Engineering and Its Applications* **Volume 9(10) 179-188, 2015. ISSN 1738-9984 (SCOPUS INDEXED JOURNAL)**
9. **Reetu Malhotra, Gulshan Taneja.** Comparative analysis of two stochastic models with varying demand, *International Journal of Applied Engineering Research* **Volume 10(17), 2015. 37453-37460 ISSN 0973-4562 (SCOPUS INDEXED JOURNAL),H index 40,**
10. **Reetu Malhotra, Gulshan Taneja.** Comparative analysis of two single unit systems with production depending on demand, *Industrial Engineering Letters*, USA. **Volume 5(2), 43-48, 2015. ISSN 2224-6096 (Paper), ISSN 2225-0581 (online)**
11. **Reetu Malhotra, Gulshan Taneja.** Stochastic analysis of a two-unit cold standby system wherein both the units may become operative depending upon the demand, *Journal of Quality and Reliability Engineering, Egypt.* **Volume 2014 (2014), Article ID 896379, 13 pages, 2014. ISSN 2314-8047 (online). doi: 10.1155/3583. (SCOPUS INDEXED JOURNAL), H-index 62, impact factor 2.63**
12. **Gulshan Taneja, Reetu Malhotra.** Cost-Benefit Analysis of a Single Unit System with Scheduled Maintenance and Variation in Demand”, *Journal of Mathematics and Statistics*, USA, **Volume 9(3), 155-160, 2013. doi:10.3844/jmssp.2013.155.160. Impact factor=0.76 (SCOPUS INDEXED JOURNAL)**

13. **Reetu Malhotra, Gulshan Taneja.** Reliability modelling of a cable manufacturing plant with variation in demand, *International Journal of Research in Mechanical Engineering and Technology*, **3(2)**, 162-165, 2013. **Global impact factor=0.352. ISSN No.(Print) 2249-5770, ISSN No.(Online) 2249-5762.**
14. **Reetu Malhotra, Gulshan Taneja.** Reliability and availability analysis of a single unit system with varying demand, *Mathematical Journal of Interdisciplinary Sciences*, **Volume 2(1)**, 77-88, 2013. **ISSN No. (Print):2278-9561, ISSN No.(Online)2278-957X. (UGC APPROVED Journal)**
15. **Reetu Malhotra, Vandana Singh, Rajesh Kumar.** Significance of Statistics in Health Sciences in Rural Area, *International Journal of Advanced Research in Computer Engineering & Technology*, **Volume 1(3)**, 2012. **ISSN 22781323.**
16. **Reetu Malhotra, J.N. Sharma.** Free Vibration Analysis of a Homogeneous Transversely Isotropic Thermoelastic Cylindrical Panel by using Frobenius Method, *Global Journal of Management & Research*. **ISSN: 22780955.**

## **B) Publications in the Conference Proceedings:**

1. **Shaheen, A., Sodhi, G.K. and Malhotra, R.,** 2024, October. Enhancing COVID-19 detection through advanced Deep Learning and Swarm Algorithm fusion. In AIP Conference Proceedings (Vol. 3209, No. 1). AIP Publishing.
2. **R. Kaur, R. Malhotra and N. Balasubramanian,** "Computing Knowledge and Attitude Scores on Impact of Community Based Educational Package Developed for Rural Post- Menopausal Women," 2023 International Conference on Emerging Smart Computing and Informatics (ESCI), Pune, India, 2023, pp. 1-6, doi: 10.1109/ESCI56872.2023.10099536.
3. **Mamatha Sandhu and Reetu Malhotra\*** Optimization of Topology in a Microgrid Using Modified Multilevel Inverter, " *IEEE Xlore*, 2022 10<sup>th</sup> International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO) | 978-1-6654-7433-7/22/\$31.00 ©2022 IEEE | DOI: 10.1109/ICRITO56286.2022.9965107. pp. 1-5.
4. **Mamatha Sandhu, Reetu Malhotra\*, Jaspreet Singh** IoT Enabled -Cloud based Smart Parking System for 5G Service 2022 *IEEE Xlore*, 1st IEEE International Conference on Industrial Electronics: Developments & Applications (ICIDEA) | 978-1-6654-2149-2/22/\$31.00 ©2022 IEEE | DOI: 10.1109/ICIDEA53933.2022.9970012. pp 202-207.
5. **Rajinder Kaur , Reetu Malhotra\*, N. Balasubramanian** To develop and implementation of community based educational intervention knowledge, attitude, stress and coping among postmenopausal women, *ECS TRANSACTIONS*, (VOL 107(1), 13275-13278, 2022 **DOI** 10.1149/10701.13275ecst, Scopus Indexed H-index 56).
6. **Sudesh Rani, A. Raja, N. Balasubramanian, Reetu Malhotra\*** Effectiveness of nurse-led educational package (nlep) on knowledge regarding hpv infection, hpv vaccination and cervical cancer **DOI** 10.1149/10701.6955ecst *ECS TRANSACTIONS* (107(1):6955-6961 Scopus Indexed H-index 52).
7. **Irene Sophia Joseph, Reetu Malhotra\* and Anupama Rao** Importance of Axial Length Measurement in Routine Clinical Practice *ECS TRANSACTIONS* (107(1):10373-10383 **DOI** 10.1149/10701.10373ecst Scopus Indexed, H-index 52).
8. **Hariprasath Pandurangan, Balasubramanian N, Raja A and Reetu Malhotra\*** Effectiveness of Electro Cardio Gram Interpretation Intervention (ECGII) On Knowledge and Skill Among

Nursing Students *ECS TRANSACTIONS* (107(1):6067-6073 Scopus Indexed H-index 52).  
**DOI** 10.1149/10701.6067ecst

9. **Jaspreet Mann, N Balasubramanian and Reetu Malhotra\*** A pre-experimental study to evaluate the effectiveness of structured teaching programme on knowledge regarding bird flu and its prevention *ECS TRANSACTIONS* Volume 107, Issue 1, pp.10777-10783 (Scopus Indexed H-index 52). **DOI** 10.1149/10701.10777ecst
10. **Reetu Malhotra, Shruti Soni**, Resolving Problem of Patient Perception, Patient Centric Care and Patient Satisfaction in Healthcare Industry, *AIP Conference Proceedings* 2357, 080001 (2022); <https://doi.org/10.1063/5.0080655> (Scopus Indexed H-index 75).
11. **Neelam Verma, Madhu Chitkara, Reetu Malhotra\***, Impact of Study habits in Mathematics Achievement, *AIP Conference Proceedings* 2357, 080011 (2022); <https://doi.org/10.1063/5.0080558> (Scopus Indexed, H-index 75)
12. **Reetu Malhotra, Abhishek Soni, Aashish Goyal**, Numerical Analysis of Fatigue Failure, *AIP Conference Proceedings* 2357, 100009 (2022); <https://doi.org/10.1063/5.0080979> (Scopus Indexed H-index 64).
13. **Reetu Malhotra, Isheta Bansal, Muskan, Mamatha Sandhu**, The Smart Anti COVID Cradle with Geometrical Interventions, *AIP Conference Proceedings* 2357, 100014 (2022); <https://doi.org/10.1063/5.0080637> (Scopus Indexed H-index 75).

S.No.	Book Title (Chapter Name)	Publisher	ISSN/ISBN No.
1	The Engineering Mathematics Volume-I	Chitkara University Publications	978-93-82782-06-3
2	The Engineering Mathematics Volume-II	Chitkara University Publications	978-93-82782-01-8

14. **Varinder Singh, Nitin Saluja, Chanpreet Singh, Reetu Malhotra**, Computational and Experimental Study of Microwave Processing of Susceptor with Multiple Topologies of Launcher Waveguide, *AIP Conference Proceedings* 2357, 040019 (2022); <https://doi.org/10.1063/5.0080975> (Scopus Indexed H-index 75).
15. **Reetu Malhotra, J. N. Sharma** Free Vibration Analysis of a Homogeneous Transversely Isotropic Thermoelastic Cylindrical Panel by using Matrix Frobenius Method, *Proceedings of National conference on Advanced Mathematics & Its Applications* held on 25<sup>th</sup> to 26<sup>th</sup> February, 2012 at D.A.V.College, Bathinda. (ISBN: 978-81-920674-0-7)
16. **Reetu Malhotra, Shivani Jain** Human Values and Technical Education, *Proceedings of National Conference on Recent Advances in Mechanical Engineering-Socio-Economic Issues* in Rayat institute of Engineering & technology held on 8<sup>th</sup> to 9<sup>th</sup> Sept, 2006 at Chandigarh.

### C) Book Publications:

3	The Discrete Structures,	Chitkara University Publications	978-93-82782-09-4
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**D) Publications as Book Chapters**

- [1] Veerpal Kaur, Reetu Malhotra\*, Gagandeep Kaur, V. Sindhu, and Jogannagari Saai Rajesh Neuroscience-inspired facial mask recognition using MobileNet and computer vision in real-time video streaming PRIMER TO NEUROMORPHIC COMPUTING199-209,2024 (SCOPUS INDEXED)
- [2] Malhotra R. Kaur H. Reliability of a Manufacturing Plant with Scheduled Maintenance, Inspection, and Varied Production. Manufacturing Engineering and Materials Science: Tools and Applications (1st ed.), 2023, 254-264. CRC Press. <https://doi.org/10.1201/9781003367154>.
- [3] Malhotra R., Jain A. IoT-based improved mechanical design for elevator cart Applied Intelligence in Human-Computer Interaction edited by Bansal, S., Sharma, P.C., Sharma, A., & Chang, J.-R. (Eds.). (2023). (1st ed.). CRC Press. <https://doi.org/10.1201/9781003415466>
- [4] Malhotra, R. Reliability and Availability Analysis of a Standby System with Activation time and varied demand. Engineering Reliability and Risk Assessment. 2022, 35-40. Elsevier Publisher, Doi. 10.1016/B978-0-323-91943-2.00004-6, 978-0-323-91943-2
- [5] Batra S., Malhotra, R. Reliability and Availability Analysis of a Standby System of PCB Manufacturing Unit) pp.75-87, Springer's, Scopus Indexed, 978-3-030-70151-2. <https://www.degruyter.com/document/doi/10.1515/9783110617375/html>.
- [6] Malhotra, R. Reliability Evaluation with variation in demand, Systems Reliability Engineering - Modeling and Performance Improvement, DE Gruyter, Scopus Indexed <https://doi.org/10.1515/9783110617375>, 978-3-110-617375-006  
Link: <https://www.degruyter.com/document/doi/10.1515/9783110617375/html>.

**E) Patents Filed/Published**

(<https://iprsearch.ipindia.gov.in/PublicSearch/PublicationSearch/ApplicationStatus>)

Sno.	Name of the Patenter	Patent Number	Title of the patent	Year of Filing/Published/Granted
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1.	Reetu Malhotra, Aashish Goyal, Mridula Batra, Ritvik Bansal	201911031812	AN AUTOMATIC HEIGHT ADJUSTABLE WORKBENCH”	9 <sup>th</sup> August, 2019/ 12 Feb,2021 <b>Granted on 30/08/2022</b> <b>Application, Patent Number</b> <b>:405241</b>
2.	Reetu Malhotra, Deepak Kumar	202011037714	SYSTEM FOR ACTUATING IGNITION UNIT OF A VEHICLE	01 <sup>st</sup> September, 2020/4 march,2022 <b>Granted on 19/2/24</b>
3.	Reetu Malhotra, Deepak Kumar	334282-001	AUTOMATIC SHOE POLISHING MACHINE	15 <sup>th</sup> October, 2020, <b>Granted 14/1/22</b>
4.	Reetu Malhotra, Armaan Jain	202011043916	SYSTEM AND METHOD FOR ENERGY MANAGEMENT OF ELEVATORS	8 <sup>th</sup> October, 2020/15 <sup>th</sup> April, 2022/ <b>Granted Feb 09, 2024</b>
5.	Deepak Kumar, Reetu Malhotra, Sita Ram	202011048007	SYSTEM AND DEVICE TO FACILITATE CLEANING OF SURFACE	3 <sup>rd</sup> November, 2020/6/5/22
6.	Reetu Malhotra, Isheta Bansal	202011049517	SMART CRADLE FOR MONITORING INFANT	12 <sup>th</sup> November, 2020/13 May, 22 <b>Granted on 17/10/2023</b> <b>Application Patent Number</b> <b>459921</b>
7.	Reetu Malhotra, Gurdyal Singh	342777-001	VEGETABLE CLEANSER	27 <sup>th</sup> May, 2021/ <b>Granted 22<sup>nd</sup> dec, 2022</b>
8.	Bhanu Sharma, Archana Mantri, Reetu Malhotra and 7 others	353317-001	AERIAL SYSTEM FOR EXTINGUISHING FIRE	17 <sup>th</sup> Nov, 2021/ <b>Granted Feb 1,2023</b>
9.	Reetu Malhotra, Deepak Kumar, Naveen Kumar, Bhanu Sharma	353408-001	SMART BOOKS READING STAND	19 <sup>th</sup> Nov, 2021 <b>Granted 22<sup>nd</sup> dec, 2022</b>
10.	Reetu Malhotra, Deepak Kumar	354081-001	DISINFECTANT DUSTER	1 <sup>st</sup> Dec, 2021/ <b>Granted 22<sup>nd</sup> dec, 2022</b>
11.	Reetu Malhotra, Aashish Goyal, Gurdyal Singh	354249-001	MULTILEVEL TABLE	3 <sup>rd</sup> Dec, 2021/ <b>Granted 04/01/2023</b>
12.	Reetu Malhotra, Deepak Kumar, Gurdyal Singh	354250-001	ACCESSORIES FOR TOILET SEATS	3 <sup>rd</sup> Dec, 2021 <b>Granted 29/12/2022</b>
13.	Reetu Malhotra, Isheta Bansal, Gurdyal Singh	354547-001	SHUTTLECOCK	8 <sup>th</sup> Dec, 2021/ <b>Granted:24/3/2023</b>
14.	Reetu Malhotra, Isheta Bansal, Gurdyal Singh	355657-001	SPILL COVER	28 <sup>th</sup> Dec, 2021 <b>Granted</b> 04/01/2023
15.	Nidhi Bansal, Atul Garg, Mohit kumar	359360-001	MULTIPURPOSE SERVICE PLATE	25 <sup>th</sup> February, 2022/ <b>Granted</b> 16/05/2023



	Kakkar, Mohit Bansal, Reetu Malhotra			
16.	Reetu Malhotra, Aman	202211020289	APPARATUS TO COVER OBJECT TO PROTECT FROM RAIN AND SUNLIGHT	4 <sup>th</sup> April, 2022 <b>Published</b> 25/11/2022
17.	Reetu Malhotra, Deepak Kumar, Rubina Dutta	202211028081	SYSTEM TO CONTROL LIQUID OVERFLOW AND OVERHEAT	16 <sup>th</sup> May, 2022 <b>Published</b> 09/12/2022
18.	Reetu Malhotra, Aman, Harshit Bhargave	202211033542	BACKPACK WITH SELF ADJUSTED STRAP TO HOLD BOTTLE	10 <sup>th</sup> June, 2022 / <b>published</b> 23/12/2022
19.	Reetu Malhotra, Aman, Aadish Parashar, Abhishek Partap Singh, And Shouzaf Zafar	365975-001	LAPTOP FLAP SUPPORTER	13 <sup>th</sup> June, 2022 <b>Granted</b> 19 june,2023
20.	Kakkar Kumar Mohit, Bhatti Jasdev, Malhotra Reetu, And Singh Pal Narinder	365078-001	PEDESTAL FAN WITH SOUND BAR AND LED LIGHT	30 <sup>th</sup> May, 2022 <b>Granted</b> 07/02/2023
21.	Nidhi Bansal, Atul Garg, Mohit Bansal, Reetu Malhotra	370446-001	Easy Wash Cloth Brush	6 <sup>th</sup> September, 2022/ <b>Granted</b> 18/05/2023
22.	Reetu Malhotra, Aman	202211051422	AUTOMATIC WICK RAISING SYSTEM FOR A LAMP WITH LIQUID FUEL	8 <sup>th</sup> September, 2022/10/02/2023
23.	Reetu Malhotra, Aman, Aadish Parashar, Abhishek Partap Singh,	202211051659	DEVICE TO SECURE, CONTROL, AND LOCATE A PET ANIMAL	9 <sup>th</sup> September, 2022/17/02/2023
24.	Reetu Malhotra, Aman, Gourav Singh, Gurdyal Singh	371693-001	LAMP WITH FAN AND BOOKMARK	29 <sup>th</sup> September, 2022/ <b>Granted</b> 12/10/2023
25.	Reetu Malhotra ,Sameep Rohilla, Bhanshu Singla	202211058127	SYSTEM FOR DATA EXCHANGE	12th October, 2022/06/01/2023
26.	Reetu Malhotra, Aman,	202211059670	SHEET PRODUCT DISPENSER	19th October, 2022/ 06/01/2023
27.	Reetu Malhotra, Aman Mohit kumar	372647-001	Brush with Integrated Tongue Cleaner	15th October, 2022 <b>Granted</b> 8/4/24

	Kakkar, Nidhi Bansal, Garg,			
28.	Reetu Malhotra, Deepanshi Kathpal, Gurdyal Singh	373230-001	AN ATTACHABLE ACCESSORY FOR EYEGLASSES TO USE WHILE RAINING	29th October, 2022/ <b>Granted</b> 12/09/2023
29.	Reetu Malhotra, Aman, Satvik Jangra	373229-001	SOUND REFLECTING PHONE CASE	29th October, 2022 <b>Granted</b> 12/06/23
30.	Reetu Malhotra, Aman, Chaitanya Sapra	373320-001	TOOTHBRUSH WITH INTEGRATED TORCH	31th October, 2022/ <b>Granted</b> 25/05/23
31.	Reetu Malhotra, Vansh Chanana, Mannat Kaushal	202311004152	BATTERY- OPERATED LIQUID HEATING VESSEL	20th January, 2023/ 27/01/2023
32.	Reetu Malhotra, Smriti Jamwal,Gurdyal Singh	378104-001	GLASSES FOR SIKHS	27th January, 2023/ <b>Granted</b> 01/02/2024
33.	Reetu Malhotra, Deepanshi Kathpal, Tarush Arya, Gurdyal Singh	378932-001	BLUETOOTH MOBILE APPLICATION BASEDLOCKING S YSTEM FOR EAR T IPS	08th February, 2023/ <b>Granted</b> 30/11/2023
34.	Reetu Malhotra, Pranjal Pandey	202311013035	SYSTEM FOR RECORDING A DIGITAL CONTENT USING AN UNMANNED AIR VEHICLE AND METHOD THEREOF	27-Feb-2023
35.	Reetu Malhotra, Smriti Jamwal,Gurdyal Singh	381473-001	HEAT PROTECTIVE COVER ON HAIR STRAIGHTENERS	14th March, 2023 Granted- 22/02/2024
36.	Reetu Malhotra, Smriti Jamwal,	384758-001	RETRACTABLE CHARGER	April 26,2023, granted-26/4/24
37.	Reetu Malhotra, Pranjal Pandey, Harvinder Shera	385055-001	A SYSTEM FOR RECORDING A DIGITAL CONTENT USING AN UNMANNED AIR VEHICLE (Artificial Drone)	April 24,2023 Granted: Jan 19,2024

38.	Reetu Malhotra, Deepanshi Kathpal, Tarush Arya	202311037840	LOCKING MECHANISM FOR EARTIP	1 <sup>st</sup> June, 2023
39.	Reetu Malhotra	388315-001	TOOTHBRUSH WITH SLIDING CAP COVER	14th June, 2023/ Granted-12/02/2024
39.	Reetu Malhotra, Aadish Parashar	202311036376	INTERCHANGEABLE LE SPORTS SHOES SOLE WITH LOCKING MECHANISM AND A METHOD FOR MANUFACTURING THE SAME	May 25,2023/30/06/2023
40.	Reetu Malhotra, Aadish Parashar, Dr. Gurdyal Singh	387814-001	INTERCHANGEABLE LE SPORTS SHOES SOLE	June 6, 2023, Granted-Feb23,2024.
41.	Reetu Malhotra, Ishaan Malhotra	387870-001	SMART STUDY TABLE	7th June, 2023 granted-26/4/24
42.	Reetu Malhotra, Aman, Chetan Kandpal, Himanshu Agrawal,	202311034947	RETRACTABLE RAIN COVER FOR SHOES	18 May, 2023/ 30/06/2023
43.	Reetu Malhotra, Krish Chaudhary, Gurdyal Singh	392604-001	AN INNOVATIVE EXPANDABLE BOOK COVER	12 Aug, 2023/granted-7 March 2024
44.	Reetu Malhotra, Krish Chaudhary, Gurdyal Singh	397048-001	Chalk Duster Holder	09th October, 2023
45.	Reetu Malhotra, Ranbir Juneja	202311051251	A Dual Functionality Handheld Device and A Method Thereof	31 <sup>st</sup> July, 2023/01/09/2023
46.	Reetu Malhotra, Krish Chaudhary	202311055738	A Smart Fan And A Method Of Using The smart Fan	20-Aug-2023/ 15/09/2023
47.	Reetu Malhotra, Shubham Singla	202311057332	Portable Cloth Washing Apparatus	26-Aug-2023/29/09/2023
48.	Reetu Malhotra Shail Sharma Pratham Gupta Gurdyal Singh	404661-001	Innovative Multifunctional Cooling Pad: Enhancing Laptop Usage	16-01-24/

49	Reetu Malhotra Shail Sharma Sonali Gurdial Singh	404662-001	Integrated Touch Screen Phone Case with Connector- Powered Technology	16-01-24/ Granted 30-8-24
50	Reetu Malhotra Shail Sharma Pratham Gupta	202411034697	MULTIFUNCTION AL COOLING PAD	01 May, 2024
51	Reetu Malhotra Vrinda	432317-001	Smart Thermal Belt	30 Sept,2024
52	Reetu Malhotra Shail Sharma, Vrinda Pratham Gupta Gurdial Singh	425479-001	Protective Headgear For Visually Impaired Individuals	31/07/2024 Granted- 20/09/2024
53	Reetu Malhotra Shail Sharma, Vrinda Pratham Gupta,	202411018321	A Protective Headgear for A Visually Impaired User	March 13,2024
54	Reetu Malhotra Shail Sharma, Vrinda Pratham Gupta,	428972-001	Smart Camera For Bus Conductor	30 Aug, 2024/
55	Shubham Goel Amit Kumar Dibya Ranjan Das Adhikary Dharmveer Kumar Yadav Geetanjali Goyal Reetu Malhotra	419919-001	<b>CERVICAL CANCER DETECTION DEVICE</b>	13/6/2024 GRANTED: 8/10/2024
56	Reetu Malhotra, Mohit Bajaj,Ghansham Ghansham, Raj Kumar Singh Rathore, Manish Singla, Zhuopeng Wu	202024105713	IoT- based Gesture- Controlled Adjustable Workbench with Smart Lighting <b>German Patent</b>	Filed:3.10.24 Granted 29.10.24

### Papers Presented in the Conferences:

1. Paper entitled "Comparative Analysis of two stochastic models with varying demand" presented in **International Conference** on recent trends in computer science and electronics (RTCSE) 2<sup>nd</sup> to 3<sup>rd</sup> January, 2016. Park Royal Hotel, Jalan Sultan Ismail, **Kuala Lumpur, Malaysia**.
2. Paper entitled "Comparative Analysis of Two Single Unit Systems with Production Depending on Demand" presented in **International Conference** on Modeling, Simulation and Optimizing Techniques (ICMSOT-2015) held on Feb 12<sup>th</sup> -14<sup>th</sup> February, 2015 at **D.A.V.COLLEGE**, Jalandhar, Punjab.

3. Paper entitled “Reliability and Availability Analysis of a Cable Manufacturing Plant with Scheduled Maintenance, Inspection and Variation in Demand” **International Conference on Mathematics & Engineering Sciences – 2014, Chitkara University & IMRF Collaborated Conference, Baddi** on 20<sup>th</sup> -22<sup>th</sup> March, 2014.
4. Presented a poster on “Mean Time to System Failure of a Two-Unit Cold Standby System Working in a Pharmaceutical Company with Variation in Demand” in the **Punjab Science Congress** held at **Punjab Technical University**, Jalandhar-Kapurthala Highway, Kapurthala, Punjab (India) on 14<sup>th</sup> -16<sup>th</sup> February, 2014.
5. Paper entitled “Reliability Modelling of a Cable Manufacturing Plant with Inspection and Variation in Demand” presented in **International Conference** on Information and Mathematical Sciences (IMS-2013) sponsored/collaborated with Punjab Technical University (PTU), Indian Society for Technical Education (ISTE), Indian Society Information Theory and its Applications (ISITA) and Elsevier held on 24<sup>th</sup> -26<sup>th</sup> October, 2013 at **Baba Farid College of Engineering and Technology**, Bathinda, Punjab.
6. Paper entitled “Reliability Modelling of a Cable Manufacturing Plant with Variation in Demand” presented in 3<sup>rd</sup> **International Conference** on Advances in Materials and Manufacturing Technology (AMMT -2013) held on 20<sup>th</sup> September, 2013 at **Chitkara University**, Punjab.
7. Paper entitled “Mean Time to System Failure and Availability Analysis of a Single Unit System with inspection and Variation in Demand” presented in Twenty First **International Conference of Forum for Interdisciplinary Mathematics(IMSCT 2012 - FIM XXI)** held on 15th to 17th Dec, 2012 at **Punjab University, Chandigarh**.
8. Paper entitled “Cost-Benefit Analysis of a Single Unit System with Variation in Demand” presented in **International Conference** on History and Development of Mathematical Sciences and Symposium on Nonlinear Analysis (ICHDMS 2012) held on 21<sup>st</sup> to 24<sup>th</sup> November, 2012 at **Maharshi Dayanand University, Rohtak**.
9. Paper entitled “Reliability and Availability Analysis of a Single Unit System with Varying Demand” presented in **National Conference** on Mathematical Modeling, Simulation and Optimization (MMSO-2012) held on 20<sup>th</sup> July, 2012 at **Chitkara University, Punjab**.
10. Paper entitled “Significance of Statistics in Health Sciences” presented in **First National conference** on Applied Mathematics on 30<sup>th</sup> November-1<sup>st</sup> December, 2007 at Ludhiana.
11. National Conference on Advances and Applications in *Statistics* on 23<sup>th</sup>-24<sup>th</sup> February, 2012 at Punjab University, Chandigarh.

#### Delivered Expert Talk/FDPs/Invited Talk/Resource Person

1. Invited for the expert talk “Reliability Modelling & Analysis in Industrial Systems with Varying Demand” by **Amity University, Mohali** India on 26.11.2024.
2. Resource person in an International Workshop on Mathematical Modelling, Cosmology and Data Science - 2024 from October 25 to 29, 2024 organized by **School of Technology, Woxsen University, Hyderabad, India**
3. Resource person in a workshop titled "Statistical Tools in the World of Artificial Intelligence and Research 1.0," scheduled from 23rd – 27th, 2024 organised by **D Y Patil University, Pune, Ambi**.

4. Invited as a Guest of Honour in an International Conclave on Intellectual Property Rights organized by **KMBB college of Engineering and Technology, Bhubaneswar and WEGROW PVT. LIMITED.**
5. Resource person in Seven Days National Workshop on “Innovative Statistical Tools in the World of Artificial Intelligence and Research 1.0” to be conducted from 12<sup>th</sup>- 21<sup>st</sup> August, 2024 organised by **Department of Applied Sciences, CUIET, Chitkara University, Punjab.**
6. Resource person in the 5 days National Workshop on “Innovative Advancements in Models and Methods for Optimization in Artificial Intelligence” held from 5<sup>th</sup>-9<sup>th</sup> February, 2024 organised by Department of Applied Sciences, CUIET, Chitkara University, Punjab
7. Invited as Eminent Speaker SHE (Startup Handholding & Empowerment) in collaboration with Punjab State Council for Science and Technology (PSCST), leading Incubators, Accelerators and Ecosystem Enablers of Punjab to nurture tech-led women entrepreneurs & startups of the State at **Desh Bhagat University Mandi Gobindgarh (Pb)** on 30th January 2024.
8. Invited to deliver an invited talk in “International Conference on Mathematical Sciences and Its Applications to Artificial Intelligence (ICMSAAI – 24)” going to be held in Department of Mathematics, **SRM University Delhi – NCR, Sonapat, Haryana** during January 17–19, 2024.
9. Resource person in the 5 days National SDP on Innovative Techniques for Business Mathematics held from 18th-22th December, 2023 organised by Department of Applied Sciences and Chitkara Business School in Chitkara University, Punjab
10. Resource person in the Three day workshop on “Exploring Fundamental Statistical Distribution through Practical Applications” held from Nov 28th, 2023 to Nov 30th, 2023 in Chitkara University, Punjab
11. Resource person in the 6-days transformative Journey into the world of statistics and research “Statistical Insights: Unveiling Research Potential” held from August 21st to August 26th ,2023 in Chitkara University, Punjab
12. Delivered a Webinar on Applications of Optimization Tehniques in Real Life on 26th October, 2023 organised by Postgraduate Department of Mathematics in **Dev Samaj College for Women, Ferozepur City.**
13. Delivered an Expert talk “Innovative Techniques for Future Seafarers” on 21th Jan, 2023 for students of BSc. Nautical Science (Maritimes Studies-CUSMS) in Chitkara University, Punjab.
14. Delivered an Expert talk “Innovative Techniques for Aspiring Entrepreneurs” on 21th Dec, 2022 on occasion of National Mathematics Day in Chitkara University, Punjab.
15. Resource Person in the seminar on “What are the benefits of learning science and maths and how students can be inclined toward this subject?” at **Adharshila Foundation the International School, Rajpura** on August 4th, 2022.
16. Resource Person in the seminar on “Applications of Mathematics-Probability” at **Angels Valley School, Rajpura** on July 25th, 2022.
17. Invited as a Speaker in Global Learning Program, **Institut Teknologi Sepuluh Nopember (ITS), Sukolilo Surabaya Indonesia** on March 2nd, 2022
18. Resource person in Three days National workshop on “Recent Trends & Tools in Journal Publishing and Research Integrity in Chitkara University, Punjab from 1st - 3rd June, 2022

19. Resource person in workshop on Design thinking, Critical thinking and innovative design conducted by Chitkara University, Punjab on Feb 8, 2022.
20. Delivered A Radio talk on National Mathematics Day on 22 Dec, 2021
21. Resource person in Faculty Development Programme on “Programming Tools for Higher Engineering Mathematics conducted by Chitkara University, Punjab from 2nd to 7th July,2021
22. Resource person in Workshop on “Mathematics Research” conducted by Chitkara University, Punjab June 14 - June 26, 2021
23. Invited as a Speaker International conference on **"Present Scenario of Technology and Sciences"** (PSTS-2020) 8th-9th August 2020
24. Resource person in Fifteen-days' Workshop on “Journey from Research to Publication” (JRP-20) 13<sup>th</sup> - 27<sup>th</sup> July, 2020 (online)
25. Resource person in Two days Workshop on Optimization Techniques: An Introduction with Applications on 12th-13th June, 2020.
26. Delivered an Expert talk on Numerical Techniques: An Introduction With Applications on 9th June, 2020
27. Delivered an Expert talk for the students on "A Concise Talk on Vedic Mathematics and Logical Reasoning"-Pierre Hall 30th January, 2020
28. Delivered an Expert talk on “Calendar Awareness through Vedic Mathematics” on 27th Feb, 2020.
29. Session Chair on 7th HSCA International Conference on "Chemical, Physical and Biological Sciences" on 20 -21 October 2019, at Chitkara University, **Himachal Pradesh**, India
30. Resource person in Social Awareness Campaign on “Self-Awareness and Personal Hygiene” Govt School, Jhansla organized in collaboration with NSS on 26 Nov, 2019.
31. Resource person in workshop on MALTBAB in research on 8th April, 2019
32. Delivered an Expert talk on Optimization Techniques in Faculty Enrichment Program on “Current Developments in Applied Sciences: An Interdisciplinary Approach” from 14th-16th July, 2014
33. Resource person in Industry Oriented Hands On Course on “IOHC - Application of Matrices in Operations Research” from 28th Jan, 2014 -30th Jan, 2014, Chitkara University, Punjab campus

### Workshops/FDPs/Training Programs Organized

- Organizing Secretary in ISTE Student Convention 2024, organized by the Department of Applied Sciences, in collaboration with the Indian Society for Technical Education (ISTE), on October 17, 2024. This North Section convention included participants from Punjab, Chandigarh, Himachal Pradesh, and Jammu and Kashmir.
- Organizer in Three Days Student Development Program on “Innovative Advancements in Reliability and Random Processes: An Industrial View” held from 27-29 March, 2024 organized by Department of Applied Sciences.
- Organizing Secretary in the National Symposium on “Greentech Innovate: Navigating Waste Challenges Towards a Sustainable Future” on 11-12 December, 2023, Chitkara University, Punjab
- Organizer a session Expert Talk On Pre-Incubation Funding And Related Aspects on 14<sup>th</sup> June 2023, Chitkara University, Punjab
- Organizer in National Science Day celebrated from 28 Feb-01 March 2023 to enlighten students about the role of science in our lives organized by Department of Applied Sciences in collaboration with Indian Society for Technical Education (ISTE) and Institution Innovation Council (IIC).
- Organizer a session “Innovation to Intellectual Property Protection” on 22<sup>nd</sup> November 2022, Chitkara University,Punjab.

- Organizer in Two Days Faculty Development Programme on “Generate Innovative ideas that Change the World” held on February 1st-2nd, 2022. Chitkara University,Punjab.
- Organizer in Awareness Session on How to Win Project Funding from NewGen IEDC on 23 Sept, 2021, Chitkara University,Punjab.
- Organizer in Expert talk on "IPR Ecosystem at Chitkara University" in Maker Lab on 18 Sept, 2021
- Organizer in National Science Day on February 26.02.2021
- Organizer in Expert Talk on 4 Steps To Start Thinking Innovative by Dr. Nitin Saluja on 30.01.2021
- Organizer in Expert Talk on India Innovation Championship (IIC), Dr. Adarsh Aggarwal on February 10, 2021
- Organizer in National Science Day on February 28, 2020.
- National Workshop on “Characterization Techniques And Nano-materials Applications” on January, 20th -25th, 2020
- Five Days National Workshop on Art of Writing (AWTRP-19) on December 18<sup>th</sup> to 22<sup>nd</sup>, 2019
- Expert Talk On Role Of AR/VR In Science Education by Mr. Parthasarathy on January 10,2020
- Organizer in National Science Day (SBST'19) on 15th February, 2019
- Organizer in National workshop on Innovative Techniques of Characterization, Optimization & Data analysis (ITCOD) on 8<sup>th</sup> -12<sup>th</sup> July, 2019
- Organizer in 26 National Conference on Liquid Crystals (26 NCLC-2019) on October 21-23, 2019

## Workshops Attended

- Attended STC on Professional Development for IQAC Coordinators organized by Punjabi University Patiala in collaboration with University Grants Commission Malaviya Mission Teacher Training Centre from 1st August 2024 till 8th August 2024 and obtained A+ Grade.
- Attended Faculty Development Program on "Empowering Educators: Exploring Indian Knowledge System and Vedic Mathematics" 6th - 10th August, 2024, Chitkara University, Punjab.
- Attended the 3-Day Online National Level Faculty Development Program on “Foundational Sciences: The Cornerstones of Engineering” organized from 8th August 2024 to 10 August 2024 by Department of Freshman Engineering at Sphoorthy Engineering College, Hyderabad.
- Attended a Two-Day Hybrid FDP cum Workshop on "Bridging the Gap: Computational Math and AI" to be organized by the Department of Computational Science and Humanities, IIIT Kottayam during 27-28 June 2024.
- Attended a Workshop “Research Techniques and Tools” from 5th- 9th May, 2023 organized by Chitkara University, Punjab campus

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1. Name of Workshop: **Faculty Development Workshop**  
 Dates (from – to) : 31<sup>st</sup> JAN-1<sup>st</sup> FEB, 2009  
 Venue : Chitkara University, Himachal campus
2. Name of Workshop: **Workshop on Matlab “LOGMAT 2010”  
 (logistics with MATLAB)**  
 Dates (from – to) : 24<sup>th</sup> - 25<sup>th</sup> JULY, 2010.  
 Venue : Chitkara University, Himachal campus
3. Name of Workshop: **Workshop on Advanced Numerical Analysis  
 using MATLAB**  
 Dates (from – to): 13<sup>th</sup> -14<sup>th</sup> NOV, 2010.  
 Venue : Chitkara University, Punjab campus
4. Name of Workshop: **Mission10X Learning Approach Workshop**  
 Dates (from – to) : 20-24<sup>th</sup> JUNE 2011(**five days**)  
 Venue : Chitkara University, Himachal campus



5. Name of Workshop: **FDW on Graphs of functions and Inequalities.**  
 Dates (from – to) : 29<sup>th</sup> JULY 2012  
 Venue : Chitkara University, Himachal campus
6. Name of Workshop: **FDW ON Operational Research**  
 Dates (from – to) : 18<sup>th</sup> -22<sup>nd</sup> JUNE 2012(**five days**)  
 Venue : Chitkara University, Punjab campus
7. Name of Workshop: **FDW ON Designing Multiple Choice Questions for Higher Mathematics (DMCQHM)**  
 Dates (from – to): 25<sup>th</sup> -29<sup>th</sup> JUNE 2012(**five days**)  
 Venue : Chitkara University, Punjab campus
8. Name of Workshop: **National Workshop on Numerical Analysis using C++**  
 Dates (from – to) : 2<sup>nd</sup> -6<sup>th</sup> JULY 2012(**five days**)  
 Venue : Chitkara University, Punjab campus
9. Name of Workshop: **National Workshop on LATEX**  
 Dates (from – to) : 8<sup>th</sup> - 10<sup>th</sup> JULY, 2013. (**THREE days**)  
 Venue : Chitkara University, Punjab campus
10. Name of Workshop: **Patent Hands-on-Training cum Workshop**  
 Dates (from – to) : 25<sup>th</sup> Jan, 2014.  
 Venue : Chitkara University, Punjab campus
11. Name of Workshop: **Current Developments in Applied Sciences: An Interdisciplinary Approach**  
 Dates (from – to) : 14<sup>th</sup> - 16<sup>th</sup> JULY, 2014. (**THREE days**)  
 Venue : Chitkara University, Punjab campus
12. Name of Workshop: **Refresher Course on Learning Technologies**  
 Dates (from – to) : 6<sup>th</sup> - 8<sup>th</sup> JULY, 2015. (**THREE days**)  
 Venue : Chitkara University, Punjab campus
13. Name of Workshop: **IEEE Xplore Digital Library Awareness Workshop**  
 Dates (from – to) : 26<sup>th</sup> August, 2015.  
 Venue : Chitkara University, Punjab campus
14. Name of Workshop: **Substance Use Disorders among Adolescents- a wakeup call**  
 Dates (from – to): 20<sup>th</sup> February, 2016.  
 Venue : Chitkara University, Punjab campus
15. Attended Five-Days Faculty Development Program on "ETHICS AND QUALITATIVE METHODS IN RESEARCH, A MULTIDISCIPLINARY APPROACH" from 7th to 11th March 2022
16. Two-Days Faculty Development Program on "Carbon Capture and Sequestration" on May 23-24, 2022
17. Name of Workshop: **Vocational Training for In-Service Teachers**  
 Dates (from – to): 3<sup>rd</sup>- 5<sup>th</sup> May, 2023.  
 Venue : Chitkara University, Punjab campus
18. Name of Workshop: **EDUREFORM EXPO: The Pedagogical Workshop and Exhibition**  
 Dates (from – to): 6<sup>th</sup> May, 2023.  
 Venue : Chitkara University, Punjab campus
19. Name of Workshop: **Research Techniques and Tools**  
 Dates (from – to): 5<sup>th</sup>-9<sup>th</sup> May, 2023.  
 Venue : Chitkara University, Punjab campus

Mathematics-II, Numerical Analysis, Optimization Techniques,  
Probability and Statistics for Applications, Statistical tools for  
Artificial Intelligence (Classes taught: UG, PG)

### Other Achievements

1. She has got funding for her projects from New Generation Innovation and Entrepreneurship Development Centre, Sponsored by; NSTEDB, Department of Science & Technology Government of India in 2023, 2024(NEWGEN IEDC).
2. Got Best Research Excellence Award 2024 (for patent) in the International Conclave on Intellectual Property Rights organized by KMBB college of Engineering and Technology, Bhubaneswar and WEGROW PVT. LIMITED.
3. Adjudged 'Super Star' in Excellence Awards - Dec 2023 for highest Patents, Publications, Best Mentor, Best Supervisor in Chitkara University, Punjab.
4. Appreciated for Resource Person in STEM Project (for giving Expert talks in different schools) during STEMM Project - Final Exhibition 6 Dec, 2023.
5. Got Star Excellence Award for highest patents in 2022 in the Chitkara University in 2023
6. Got many Appreciation letters for the Best Teaching, Outstanding Result of various classes
7. Certificate of Appreciation “UDDEEPAN” Intra-College Teaching Competition  
Dates : 11<sup>th</sup> Dec, 2009  
Venue : Chitkara University, Punjab campus
8. Appreciation letter from Honorable V.C. Sir ( Brig.R.S Grewal)  
Venue : Chitkara University, Himachal campus
9. Got Research Excellence Award for good publication.

### Co-curricular & other Activities

1. Overall Academic Incharge of the Department
2. Programme Incharge
3. Examination Incharge
4. Panel Member in Doctoral Research, Interviewing the Faculty/staff
5. Institute Innovation Council (IIC)
6. NSS coordinator
7. Observer in Govt. Exams
8. Time Table Incharge
9. Industrial Oriented Handout Course(IOHC) incharge
10. Member of Examination Cell
11. Member of Antiragging Squad
12. End Term Paper Setter

13. Member of Academic Scheduling Team
14. Course Coordinator
15. Mentorship incharge
16. Advisor of group
17. Member of Organizing Committee
18. Participated in poems
19. Incharge of Fine Art Club
20. Member of Scatoos Club
21. External Viva Voce Incharge and many more
22. Editor of International Journal of Recent Research in Mathematics
23. Editor of Sumerianz Journal of Scientific Research
24. Editor of Life Cycle Reliability and Safety Engineering
25. Editor of *Artificial Intelligence and Applications*

(Reetu Malhotra)

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