

ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਬਠਿੰਡਾ

**MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY**

*(A State Univ. Estd. by Govt. of Punjab vide Punjab Act No. 5 of 2015 and Approved u/s 2(f) & 12 (B) of UGC; Member AIU)*

Bathinda-151001 (Punjab), India

# ANNUAL REPORT

## 2023 & 2024

### RESEARCH PUBLICATIONS



**MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY**

Bathinda-151001 (Punjab), India

# **ANNUAL REPORT- RESEARCH PUBLICATIONS**



**2023 & 2024**

**INTERNAL QUALITY ASSURANCE CELL  
MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY  
BATHINDA 151001**

# **ANNUAL REPORT- RESEARCH PUBLICATIONS [2023 & 2024]**

## **Prepared by:**

- Prof. (Dr.) Ashish Baldi, Director, IQAC
- Prof. (Dr.) Anupam Kumar, Dean R&D
- Dr. Ankita Kataria, Department of Food Science & Technology, MRSPTU, Bathinda
- Ms. Reetu, Department of Food Science & Technology, MRSPTU, Bathinda

*All rights reserved with MRSPTU*

*Year 2024*

**INTERNAL QUALITY ASSURANCE CELL**

**ANNUAL REPORT- RESEARCH PUBLICATIONS**  
**2023 & 2024**

<b>Title of paper</b>	<b>Name of the author/s</b>	<b>Department of the teacher</b>	<b>Name of journal</b>	<b>Year of publication</b>	<b>ISSN number</b>
Understanding the Rich Traditional Craftsmanship of Punjab through the Architectural Works of Bhai Ram Singh	Ripu Daman Singh, Nisar Khan, Hina Zia	GZS School of Architecture and Planning	Journal of the Indian Institute of Architects	2023	0019-4913
Uncovering the Impacts of Land Use Change: A Case Study of Open/Green Areas Converted to Commercial Areas in Bathinda City, Punjab	Meenu Chaudhary, Dr. Bhupinder Pal Singh Dhot	GZS School of Architecture and Planning	Journal of Institute of Town Planning, India	2024	0537-9679
Traditional and Modern Marble Stone Sculptures of Rajasthan: A Comparative Study	Dr. Ratan Kanwar	GZS School of Architecture and Planning	Research Review International Journal of Multidisciplinary	2024	2455-3085
From Raw Earth To Timeless Art; The Evolution of Stone In Sculpture- A Review	Dr. Ratan Kanwar	GZS School of Architecture and Planning	International Journal of Creative Research Thoughts	2024	2320-2882
The Evolution of Indian Sculptural Traditions: Interweaving Art, Culture, and Contemporary Practices	Dr. Ratan Kanwar	GZS School of Architecture and Planning	International Journal For Multidisciplinary Research	2024	2582-2160
Influence of pozzolanic addition on strength and microstructure of metakaolin-based concrete	Dr. Manjeet Bansal, Dr. Bal Krishan	Department of Civil Engineering	PLoS ONE	2024	1932-6203
A Comparative Study on Voltammetric Behavior of Dopamine at Glassy Carbon	Anjali, KK Thakur, Kirandeep Kaur, Sudhanshu P. Singh	Department of Chemistry	Russian Journal of General Chemistry	2024	1070-3632

Electrode and PANI/MoS <sub>2</sub> -Modified Glassy Carbon Electrode					
Indole Derivatives: A Versatile Scaffold in Modern Drug Discovery—An Updated Review on Their Multifaceted Therapeutic Applications (2020–2024)	Hamada Hashem Xingyou Mo ,Devendra Pratap Rao, Kirandeep Kaur, Raket Hassan, Ahmed S. Abdel-Samea ,Sara Mahmoud Farhan ,Stefan Bräse	Department of Chemistry	Molecules	2024	1420-3049
Rational Design and Synthesis of Isatin-Chalcone Hybrids Integrated with 1H-1,2,3-Triazole: Anti-Proliferative Profiling and Molecular Docking Insights	Swati, Asif Raza, Shefali Chowdhary, Amit Anand, Shaveta, Arun K. Sharma, Kewal Kumar, Vipin Kumar	Department of Chemistry	ChemMedChem	2024	1860-7187
Fuller's Earth-immobilized FeS nanoparticles for efficient adsorption of crystal violet in aqueous solution	Hussain K.;Dahiya A.;Bhardwaj A.;Rani A.;Arora M.;Babu J.N.	Department of Chemistry	Journal of Nanoparticle Research	2024	1572-896X
Reduced and oxidized rice straw biochar for hexavalent chromium adsorption: Revisiting the mechanism of adsorption	Dahiya A.;Bhardwaj A.;Rani A.;Arora M.;Babu J.N.	Department of Chemistry	Heliyon	2023	2405-8440
Waste plastic bottles an alternate material for synthesis of metal organic frameworks (MOFs) with potential applications	Jasleen Kaur, Jonty Kathuria, J. Nagendra Babu, Meenu Arora	Department of Chemistry	Next Sustainability	2023	2949-8236

Water remediation for pharmaceutical and personal care products (PPCPs) with metal organic frameworks: A review	Jonty Kathuria, Jasleen Kaur, J. Nagendra Babu, Meenu Arora	Department of Chemistry	Results in Chemistry	2023	2211-7156
Worddeepnet: handwritten gurmukhi word recognition using convolutional neural network	Harmandeep Kaur, Shelly Bansal, Munish Kumar, Ajay Mittal, Krishan Kumar Saluja	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Federated learning: a comprehensive review of recent advances and applications.	Harmandeep Kaur, Veenu Rani, Munish Kumar, Monika Sachdeva, Ajay Mittal, Krishan Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Sentiment analysis of Hindi language text: a critical review.	Simran Sidhu, Surinder S. Khurana, Munish Kumar, Parvinder Singh, Sukhvinder S. Bamber	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
An Empirical Study on Detection of Android Adware Using Machine Learning Techniques.	Umar Farooq, Surinder Singh Khurana, Parvinder Singh, Muish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Human gait recognition: A systematic review.	Veenu Rani, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
A comprehensive survey on state-of-the-art video forgery detection techniques.	SK Mohiuddin, Samir Malakar, Munish Kumar, Ram Sarkar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
An efficient technique for breaking of coloured Hindi CAPTCHA.	Mohinder Kumar, M.K. Jindal, Munish Kumar	Department of Computational Sciences	Soft computing	2023	1432-7643
DeepSpacy-NER: an efficient deep learning model for named entity recognition for	Navdeep Singh, Munish Kumar, Bavalpreet Singh, Jaskaran Singh	Department of Computational Sciences	Evolving Systems	2023	1868-6478

Punjabi language.					
Performance evaluation of different features and classifiers for Gurumukhi newspaper text recognition.	Rupinder Pal Kaur, Munish Kumar, Kushal Jindal	Department of Computational Sciences	Journal of Ambient Intelligence and Humanized Computing	2023	1868-5137
Bagging: An Ensemble Approach for Recognition of Handwritten Place Names in Gurumukhi Script.	Harmandeep Kaur, Munish Kumar, Aastha Gupta, Monika Sachdeva, Ajay Mittal, Krishan Kumar	Department of Computational Sciences	ACM Transactions on Asian and Low-Resource Language Information Processing	2023	2375-4699
Cattle identification system: a comparative analysis of SIFT, SURF and ORB feature descriptors.	Amanpreet Kaur, Munish Kumar, Kushal Jindal	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Gender prediction system through behavioral biometric handwriting: a comprehensive review.	Monika Sethi, M.K. Jindal, Munish Kumar	Department of Computational Sciences	Soft computing	2023	1432-7643
DeepNet-WI: A deep-net model for offline Urdu writer identification.	Syad Tufael Nabi, Paramjeet Singh, Munish Kumar	Department of Computational Sciences	Evolving Systems	2023	1868-6478
On the performance analysis of various features and classifiers for handwritten Devanagari word recognition.	Sukhjinder Singh, Munish Kumar, Naresh Kumar Garg	Department of Computational Sciences	Neural Computing and Applications	2023	0941-0643
Transfer learning for image classification using VGG19: Caltech-101 image data set.	Monika Bansal, Munish Kumar, Monika Sachdeva, Ajay Mittal	Department of Computational Sciences	Journal of Ambient Intelligence and Humanized Computing	2023	1868-5137



A comprehensive survey on machine translation for English, Hindi and Sanskrit languages.	Sitender Malik, Seema Bawa, Munish Kumar, Sangeeta Phogat	Department of Computational Sciences	Journal of Ambient Intelligence and Humanized Computing	2023	1868-5137
An empirical study to design an effective agile knowledge management framework.	Amitoj Singh, Vinay Kukreja, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Image forgery techniques: a review.	Gurpreet Kaur, Navdeep Singh, Munish Kumar	Department of Computational Sciences	Artificial Intelligence Review	2023	0269-2821
Signature identification and verification techniques: state-of-the art work.	Harmandeep Kaur, Munish Kumar	Department of Computational Sciences	Journal of Ambient Intelligence and Humanized Computing	2023	1868-5137
An Efficient Speech Enhancement Approach for Punjabi Language Using Acoustic and Tonal Features.	Jaspreet Kaur Sandhu, Amitoj Singh, Munish Kumar	Department of Computational Sciences	NeuroQuantology	2023	1303-5150
Semantic segmentation of palpebral conjunctiva using predefined deep neural architectures for anemia detection.	Sabrina Dhalla, Junaid Maqbool, Tanvir Singh Mann, Aastha Gupta, Ajay Mittal, Preeti Aggarwal, Krishan Saluja, Munish Kumar, Shiv Sajan Saini	Department of Computational Sciences	Procedia Computer Science	2023	1877-0509
Self-supervised learning: A succinct review.	Veenu Rani, Munish Kumar, Syad Tufael Nabi, Ajay Mittal, Krishan Kumar Saluja	Department of Computational Sciences	Archives of Computational Methods in Engineering	2023	1134-3060
Augmented reality: A comprehensive review.	Shaveta Dargan Nagpal, Shally Bansal, Munish Kumar, Ajay Mittal, Krishan Kumar Saluja	Department of Computational Sciences	Archives of Computational Methods in Engineering	2023	1134-3060
Unveiling digital image forgeries using Markov based quaternions in frequency domain and fusion of	Savita Walia, Krishan Kumar, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501

machine learning algorithms.					
Recognition of offline handwritten Urdu characters using RNN and LSTM models.	Muzafar Mehraj Misgar, Faisal Mushtaq, Surinder Singh Khurana, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Feature extraction and classification techniques for handwritten Devanagari text recognition: a survey.	Sukhjinder Singh, Naresh Kumar Garg, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2023	1380-7501
Gender Classification System Based on the Behavioral Biometric Modality: Application of Handwritten Text	Shaveta Dargan, Munish Kumar	Department of Computational Sciences	ACM Transactions on Asian and Low-Resource Language Information Processing	2024	2375-4699
Handwriting-based gender classification using machine learning techniques	Shaveta Dargan, Munish Kumar, Ajay Mittal, Krishan Kumar Saluja	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
An Empirical Study on Detection of Android Adware Using Machine Learning Techniques	Umar Farooq, Surinder Kumar Khurana, Parvinder Singh, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
Detection of content-based cybercrime in Roman Kashmiri using ensemble learning	Umar Farooq, Surinder Kumar Khurana, Parvinder Singh, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
Federated learning: a comprehensive review of recent advances and applications	Harmandeep Kaur, Veenu Rani, Munish Kumar, Monika Sachdeva, Ajay Mittal, K. Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501

Facial emotion recognition: A comprehensive review	Manmeet Kaur, Munish Kumar	Department of Computational Sciences	Expert Systems	2024	e13352
Dynamic Prediction Model of Financial Asset Volatility Based on Bidirectional Recurrent Neural Networks	Ji Liu, Zheng Xu, Ying Yang, Kun Zhou, Munish Kumar	Department of Computational Sciences	Journal of Organizational and End User Computing (JOEUC)	2024	1546-2234
A convolution deep architecture for gender classification of urdu handwritten characters	Syed Tufael Nabi, Munish Kumar, Paramjeet Singh	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
Self-supervised learning for medical image analysis: a comprehensive review	Veenu Rani, Munish Kumar, Aastha Gupta, Monika Sachdeva, Ajay Mittal, Krishan Kumar Saluja	Department of Computational Sciences	Evolving Systems	2024	1868-6478
Automatic diagnosis of CoV-19 in CXR images using haar-like feature and XgBoost classifier	Kashif Shaheed, Qasiar Abbas, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
Deep learning techniques for biometric security: A systematic review of presentation attack detection systems	Kashif Shaheed, Piotr Szczuko, Munish Kumar, Imran Qureshi, Qaisar Abbas, Ihsan Ullah	Department of Computational Sciences	Engineering Applications of Artificial Intelligence	2024	0952-1976
Sentiment analysis of Hindi language text: a critical review	Simran Sidhu, Surinder S. Khurana, Munish Kumar, Parvinder Singh, Sukhvinder S. Bamber	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501
VGG16: Offline handwritten devanagari word recognition using transfer learning	Sukhjinder Singh, Naresh Kumar Garg, Munish Kumar	Department of Computational Sciences	Multimedia Tools and Applications	2024	1380-7501

Age, gender and handedness prediction using handwritten text: A comprehensive survey	Chinu Singla, Raman Maini, Munish Kumar	Department of Computational Sciences	Engineering Applications of Artificial Intelligence	2024	0952-1976
VGG16: Offline handwritten devanagari word recognition using transfer learning	Singh S.; Garg N.K.; Kumar M.	Department of Computer Science Engineering	Multimedia Tools and Applications	2024	1573-7721
Robust technique for environmental sound classification using convolutional recurrent neural network	Bansal A.; Garg N.K.	Department of Computer Science Engineering	Multimedia Tools and Applications	2023	1573-7721
A Convolution Deep Architecture for Gender Classification of Urdu Handwritten Characters	Syed Tufael Nabi, Munish Kumar, Paramjeet Singh	Department of Computer Science Engineering	Multimedia Tools and Applications	2024	1573-7721
A novel low complexity retinex-based algorithm for enhancing low-light images	Prof.(Dr.) Savina Bansal, Prof.(Dr.) R K Bansal	Department of Electronics and Comm. Engineering	Multimedia Tools and Applications	2024	1573-7721
Optimizing Fog Computing Efficiency: Exploring the Role of Heterogeneity in Resource Allocation and Task Scheduling	Prof.(Dr.) Savina Bansal, Prof.(Dr.) R K Bansal, Er Nikita Sehgal	Department of Electronics and Comm. Engineering	International Journal of Computing and Digital Systems	2024	2210-142X
Investigating performance optimization through balanced task scheduling heuristics and DVFS in hybrid fog-cloud	Prof.(Dr.) Savina Bansal	Department of Electronics and Comm. Engineering	TechRxiv	2023	CC BY-NC-SA 4.0

computing platforms					
Enhancing ALPR: a two stage YOLO model with data augmentation for improved accuracy and robustness	Dr Manoj Sharma	Department of Electronics and Comm. Engineering	Multimedia Tools and Applications	2024	1573-7721
An ensemble of deep CNNs for automatic grading of breast cancer in digital pathology images	Dr Manoj Sharma	Department of Electronics and Comm. Engineering	Neural Comput & Applic	2024	1433-3058
Medicinal plants recognition using heterogeneous leaf features: an intelligent approach	Dr Manoj Sharma & Dr Sukhjinder Singh	Department of Electronics and Comm. Engineering	Multimedia Tools and Applications	2024	1573-7721
VGG16: Offline handwritten devanagari word recognition using transfer learning	Dr Sukhjinder Singh	Department of Electronics and Comm. Engineering	Multimedia Tools and Applications	2024	1573-7721
Techno-economic investigation and empowering rural resilience through bioengineering : a case study on self sustainable village energy model	Gagandeep Kaur, Jaspreet Kaur, Ashish Sharma, Abhilasha jain, Raman Kumar, Raman Kumar, Majed Alsubih, Saiful Islam, Muhammad Imam Ammarullah	Department of Electrical Engineering	International Journal of Low Carbon Technologies	2024	1748-1325
Estimating Optimal Location of STATCOM and Minimization of Congestion Cost by Locational Marginal Price Using Flower Pollination, and Particle	Gagandeep Kaur, Akhil Gupta	Department of Electrical Engineering	Journal of Harbin Institute of Technology (new Series)	2024	1005-9113

Swarm Optimization Techniques					
Integrating renewable energy and plug-in electric vehicles into security constrained unit commitment for hybrid power systems	Dr. S.K. Bath	Department of Electrical Engineering	Energy Reports	2024	2352-4847
An overview of Harmonic analysis due to variable frequency drive and mitigation technique	Jagdeep Kaur Brar	Department of Electrical Engineering	International Journal of Novel Research and Development	2023	2456-4184
Harmonic sources in power system - A review	Jagdeep Kaur Brar, S K Bath	Department of Electrical Engineering	Revista Electronica de Veterinaria	2024	1695-7504
Valorization of bioactive profile and antioxidant properties of Kinnow peel, and pulp residue: a step towards utilization of Kinnow waste for biscuit preparation	Sukhvinder Singh Purewal, Pinderpal Kaur, Kawaljit Singh Sandhu	Department of Food Science and Technology	Journal of Food Measurement and Characterization	2023	2193-4126
A comparative study on proximate composition, mineral profile, bioactive compounds and antioxidant properties in diverse carrot ( <i>Daucus carota</i> L.) flour	Sukhvinder Singh Purewal, Piyush Verma, Pinderpal Kaur, Kawaljit Singh Sandhu, Ram Sarup Singh, Avneet Kaur, Raj Kumar Salar	Department of Food Science and Technology	Biocatalysis and Agricultural Biotechnology	2023	1878-8181
Physicochemical, morphological, thermal, pasting and tablet making properties along with drug releasing	Pinderpal Kaur, Kawaljit Singh Sandhu, Sukhvinder Singh Purewal, Amit Bhatia	Department of Food Science and Technology	Journal of Food Measurement and Characterization	2023	2193-4126

potential of rye (Secale cereale) starch: a report broadening its commercial uses					
Processing mediated suppression of bitterness causing compounds in ready to serve kinnow beverage	Sukhvinder Singh Purewal, Kartik Sharma, Pinderpal Kaur, Kawaljit Singh Sandhu, Rishav Kamboj	Department of Food Science and Technology	Food Chemistry Advances	2023	2772-753X
Trends of Nanobiosensors in Modern Agriculture Systems	Kumar P.; Chugh P.; Ali S.S.; Chawla W.; Sushmita S.; Kumar R.; Raval A.V.; Shamim S.; Bhatia A.; Kumar R.	Department of Food Science and Technology	Applied Biochemistry and Biotechnology	2024	0273-2289
Technological competencies attributes analysis using qualitative techniques in Indian manufacturing industry	Sharma, H., Singh, C.D., Singh, K.J.	Department of Food Science and Technology	International Journal of Process Management and Benchmarking	2024	1460-6739
Fuzzy TOPSIS and Fuzzy VIKOR for parameter selection in technological competency	Sharma, H., Singh, C.D., Singh, K.J.	Department of Food Science and Technology	International Journal of Process Management and Benchmarking	2024	1460-6739
Optimization of Surface roughness using Ultrasonic Machine of Polyvinyl Butral Glass with Taguchi and Grey Relational Analysis	Singh, J., Singh, C.D., Singh, K.J.	Department of Food Science and Technology	World Journal of Engineering	2024	1708-5284
Analysis of objective criteria weighing techniques in different MCDM methods on technological competencies factor selection	Sharma, H., Singh, C.D., Singh, K.J.	Department of Food Science and Technology	International Journal of Process Management and Benchmarking	2023	1460-6739

Rotary Ultrasonic Machining of Advance Material: A Review	Singh, J., Singh, C.D., Singh, K.J.	Department of Food Science and Technology	Materials Today	2023	1369-7021
Friction Stir Welding of Aluminium Alloy AA2219 with Tensile Load and Lowest Hardness Distribution Profile Analysis	Shrkiant, K.A., Singh, K.J.	Department of Food Science and Technology	Journal of Emerging Technologies and Innovative Research	2023	2349-5162
Short Review on Friction Stir Welding and Machining Parameters	Shrkiant, K.A., Singh, K.J.	Department of Food Science and Technology	International Journal of Emerging Technologies and Innovative Research	2023	2349-5162
Friction Stir Welding of Aluminium Alloy AA2219 and Tensile Load Analysis	Shrkiant, K.A., Singh, K.J.	Department of Food Science and Technology	International Journal of Emerging Technologies and Innovative Research	2023	2349-5162
Infinite Dimensional Symmetry Group Reductions and Conservation Laws of Lin-Reissner-Tsien Equation	Jaskiran Kaur, Manjit Singh and Mukesh	Department of Mathematics	International Journal of Applied and Computational Mathematics	2023	2199-5796
L1-Convergence of Newly defined Trigonometric Sums Under some new class of Fourier Coefficients	Priyanka and Karanvir Singh	Department of Mathematics	Journal of Computational Analysis and Applications	2023	1572-9206
L1-Convergence of Cosine Series using Cesaro means of Integral and Non-Integral Orders	Priyanka and Karanvir Singh	Department of Mathematics	AIP Conference Proceedings	2023	1551-7616
Modelling Sensitivity Analysis and Optimization	Navpreet Kaur, Karanvir Singh and Vanita Garg	Department of Mathematics	International Journal of Experimental	2023	2455-4855



of System Parameters of Edible Oil Refinery			Research and Review		
Hybrid particle swarm optimization for pure integer linear solid transportation problem	Bikramjit Singh and Amarinder Singh	Department of Mathematics	Mathematics and Computers in Simulation	2023	0378-4754
On L1-Convergence of Modified Complex Trigonometric Sum	Sakshi and Karanvir Singh	Department of Mathematics	AIP Conference Proceedings	2024	1551-7616
Integrability and L1-Convergence of Modified Sum Under Some Generalized Coefficient Class in L1-metric	Priyanka and Karanvir Singh	Department of Mathematics	Gulf Journal of Mathematics	2024	2309-4966
An integrated structural model for supply chain vulnerability influencing factors in manufacturing enterprises	Satyendera Sharma, Rajkumar Sharma and Anil Jindal	Department of Mechanical Engineering	Journal of Modelling in Management	2024	1746-5664
Investigations and predictions for mechanical and surface properties of FFF prints using DOE, ML and FEA	Abhishek Kumar, Kamaljit Singh Boparai, Jasgurpreet Singh Chohan, Rupinder Singh	Department of Mechanical Engineering	Advances in Materials and Processing Technologies	2024	2374-068X
On 3D printing of canine femur bone models	Rupinder Singh, Abhishek Kumar, Kamaljit Singh Boparai	Department of Mechanical Engineering	International Journal on Interactive Design and Manufacturing	2024	1955-2513
Effect of extrudate geometry on surface finish of FDM printed ABS parts	Gurmaheshinder Singh Sandhu, Kawaljit Singh Sandhu, Kamaljit Singh Boparai	Department of Mechanical Engineering	Materials Today: Proceedings	2024	2214-7853
A statistical approach for surgical planning of	Rupinder Singh, Abhishek Kumar, Kamaljit Singh Boparai, Sandeep Kumar	Department of Mechanical Engineering	AIP Conference Proceedings	2024	0094-243X

canine femur bone fracture fixation using 3D printing					
Application of artificial neural network for prediction of MRR and surface finish in milling operation	Raman Kumar, Jasgurpreet Singh Chohan, Sandeep Singh, Kamaljit Singh Boparai	Department of Mechanical Engineering	AIP Conference Proceedings	2023	0094-243X
On tribological and in-vitro analysis of meta-structure-based 3d printed horse hoof strap	Kamaljit Singh Boparai, Rupinder Singh, Abhishek Kumar, Smruti Ranjan Pradhan, Mohammad Mujahid Khan	Department of Mechanical Engineering	National Academy Science Letters	2023	0250-541X
N-methylpiperazine and piperdinylalkyl-O-chalcone derivatives as potential polyfunctional agents against Alzheimer's disease: Design, synthesis and biological evaluation	Pratibha Sharma, Varinder Singh, Manjinder Singh	Department of Pharmaceutical Sciences and Technology	Chemical Biology & Drug Design	2023	1747-0285
Scaffold Morphing and In Silico Design of Potential BACE-1 ( $\beta$ -Secretase) Inhibitors: A Hope for a Newer Dawn in Anti-Alzheimer Therapeutics	Shiveena Bhatia, Manjinder Singh, Pratibha Sharma, Somdutt Mujwar, Varinder Singh, Krishna Kumar Mishra, Thakur Gurjeet Singh, Tanveer Singh and Sheikh Fayaz Ahmad	Department of Pharmaceutical Sciences and Technology	Molecules	2023	1420-3049
Morus Alba Fruit Extract and its Fractions Ameliorate Streptozotocin Induced Cognitive Deficit in Mice via Modulating Oxidative and Cholinergic Systems	Parul Sood, Varinder Singh & Richa Shri	Department of Pharmaceutical Sciences and Technology	Neurochemical Research	2023	1573-6903

5,7-dihydroxy-3',4',5'-trimethoxyflavone mitigates lead induced neurotoxicity in rats via its chelating, antioxidant, anti-inflammatory and monoaminergic properties	Varinder Singh, Richa Shri, Parul Sood, Manjinder Singh, Thakur Gurjeet Singh, Ravinder Singh, Amit Kumar, Sheikh F. Ahmad	Department of Pharmaceutical Sciences and Technology	Food and Chemical Toxicology	2024	1873-6351
Nano-gel formulation of polyphenolic fraction of tobacco stem for wound healing and its inhibitory efficacies against the receptors of chronic wound development.	Yash Sharma, Rohit Bhardwaj, Amritpal Kaur, Gagandeep Singh, Sharvari Kulkarni, Amit Bhatia, Kumud Bala	Department of Pharmaceutical Sciences and Technology	Journal of Biomolecular Structure and Dynamics	2024	1538-0254
Systematic Designing and Optimization of Polymeric Nanoparticles Using Central Composite Design: A Novel Approach for Nose-to-Brain Delivery of Donepezil Hydrochloride	Yogesh Garg, Mohit Kumar, Gajanand Sharma, Om Prakash Katare, Shruti Chopra, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Journal of Cluster Sciences	2024	1572-8862
Physicochemical, morphological, thermal, pasting and tablet making properties along with drug releasing potential of rye (Secale cereale) starch: a report	Pinderpal Kaur, Kawaljit Singh Sandhu, Sukhwinder Singh Purewal and Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Journal of Food Measurement and Characterization	2023	2193-4134
Biocompatible phospholipid-based nanovesicular drug delivery system of ketoprofen: Systematic development,	Senha Bimbrawh, Shruti Chopra, Mohammad Javed Ansari, Majed Alrobaian, Waleed H Almalki, Khalid S Alharbi, Sattam K Alenezi, Ripandeep Kaur, Sarwar Beg and Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Biotechnology and Applied Biochemistry	2023	1470-8744

optimization, and preclinical evaluation					
Therapeutic Precision: Unveiling the Potential of 3D Printing in Drug Delivery, Tissue Engineering, and Regenerative Medicine	Shubham Singh, Mohit Kumar, Devesh Kumar, Shiv Kumar, Shruti Chopra, and Amit Bhatia	Department of Pharmaceutical Sciences and Technology	3D Printing and Additive Manufacturing	2024	2329-7670
Exploring Innovative Approaches in Type-2 Diabetes Management: A Comprehensive Review on Nano-carriers and Transdermal Drug Delivery	Nitasha Chauhan, Mohit Kumar, Karan Kumar, Shruti Chopra	Department of Pharmaceutical Sciences and Technology	Current Pharmaceutical Design	2024	1381-6128
A recent review on transungual drug delivery system	Simran Kaur, Mohit Kumar, Amit Bhatia, Shruti CHOPRA	Department of Pharmaceutical Sciences and Technology	Journal of Dispersion Science and Technology	2024	1532-2351
Therapeutic Potential of Nanocarrier Mediated Delivery of Peptides for Wound Healing: Current Status, Challenges and Future Prospective	Mohit Kumar, Dikshant Kumar, Devesh Kumar, Yogesh Garg, Shruti Chopra, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	AAPS PharmSciTech	2024	1530-9932
Biopolymer based nanoparticles and their therapeutic potential in wound healing – A review	Mohit Kumar, Syed Mahmood, Shruti Chopra, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	International Journal of Biological Macromolecules,	2024	1879-0003
Fused Deposition Modeling 3D-Printed Scaffolds for Bone Tissue Engineering	Pawan Kumar, Shamim, Mohammad Muztaba, Tarmeen Ali, Jyoti Bala, Haramritpal Singh Sidhu, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Annals of Biomedical Engineering	2024	1573-9686

Applications: A Review					
Quality by Design Perspective for Designing Foam-based Formulation: Current State of Art	Mohit Kumar, Devesh Kumar, Shubham Singh, Shruti Chopra, Syed Mahmood, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Current Pharmaceutical Design	2024	1381-6128
Micronutrients throughout the Life Cycle: Needs and Functions in Health and Disease	Mohit Kumar, Devesh Kumar, Ankita Sharma, Shivam Bhadauria	Department of Pharmaceutical Sciences and Technology	Current Nutrition & Food Science	2023	5173-4013
Marine-derived polysaccharides and their therapeutic potential in wound healing application - A review	Mohit Kumar, Devesh Kumar, Yogesh Garg, Syed Mahmood	Department of Pharmaceutical Sciences and Technology	International Journal of Biological Macromolecules	2023	1879-0003
Systematic Designing and Optimization of Polymeric Nanoparticles Using Central Composite Design: A Novel Approach for Nose-to-Brain Delivery of Donepezil Hydrochloride	Yogesh Garg, Mohit Kumar, Gajanand Sharma, Om Prakash Katare	Department of Pharmaceutical Sciences and Technology	Journal of Cluster Science	2023	1572-8862
A Comprehensive Review on Drug Therapies and Nanomaterials used in Orthodontic Treatment	Nitasha Chauhan, Mohit Kumar, Simran Chaurasia, Yogesh Garg, Shruti Chopra, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Current Pharmaceutical Design	2023	1381-6128
3D printing technology in drug delivery: Polymer properties and applications	Shubham Singh, Mohit Kumar, Deeksha Chaudhary, Shruti Chopra, Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Journal of Dispersion Science and Technology	2023	1532-2351
Micro and nano-carriers-based pulmonary drug delivery	Mohit Kumar, Ayah R. Hilles, Samah Hamed Almurisi, Amit Bhatia, Syed Mahmood	Department of Pharmaceutical Sciences and Technology	JCIS Open	2023	2666-934X

system: Their current updates, challenges, and limitations – A review					
Therapeutic Potential of Nanocarrier-Mediated Delivery of Phytoconstituents for Wound Healing: Their Current Status and Future Perspective	Mohit Kumar,Puja Keshwania,Shruti Chopra,Syed Mahmood,Amit Bhatia	Department of Pharmaceutical Sciences and Technology	AAPS PharmSciTech	2023	1530-9932
Preservatives in Pharmaceuticals: Are They Really Safe?	Mohit Kumar,Shruti Chopra,Uttam Kumar Mandal,Amit Bhatia	Department of Pharmaceutical Sciences and Technology	Current Drug Safety	2023	1574-8863
Nanotechnology-driven wound healing potential of asiaticoside: a comprehensive review	Mohit Kumar,Devesh Kumar,Syed Mahmood,Varinder Singh	Department of Pharmaceutical Sciences and Technology	RSC Pharmaceutics	2024	2976-8713
Microbubbles: Revolutionizing Biomedical Applications with Tailored Therapeutic Precision	Mohit Kumar,Devesh Kumar,Shruti Chopra, Syed Mahmood	Department of Pharmaceutical Sciences and Technology	Current Pharmaceutical Design	2023	1381-6128
Dextran-based Drug Delivery Approaches for Lung Diseases: A Review	M Kumari, S Sharma, N Kanwar, S Naman, A Baldi	Department of Pharmaceutical Sciences and Technology	Current drug delivery	2024	1567-2018
The Role of the Gut Microbiome and the Hepatic Axis in the Pathogenesis of Metabolic Syndrome and Therapeutics	KP Divya, Parneet Hari, Navjot Kanwar, Navita Aggarwal, Preeti Singh Dhoat, Lu Liu, Abhinav Kanwal, Shailendra Pratap Singh	Department of Pharmaceutical Sciences and Technology	Advanced Gut & Microbiome Research	2023	2755-1652
SIRT6 in regulation of mitochondrial damage and associated cardiac dysfunctions: a possible therapeutic	KP Divya, Navjot Kanwar, PV Anuranjana, Gautam Kumar, Fathima Beegum, Krupa Thankam George, Nitesh Kumar, K Nandakumar, Abhinav Kanwal	Department of Pharmaceutical Sciences and Technology	Cardiovascular Toxicology	2024	1530-7905

target for CVDs					
The interplay of rheumatoid arthritis and osteoporosis: exploring the pathogenesis and pharmacological approaches	Nikhil Gupta, Navjot Kanwar, Anchal Arora, Kavin Khatri, Abhinav Kanwal	Department of Pharmaceutical Sciences and Technology	Clinical Rheumatology	2024	1434-9949
Irreversibility of Al <sub>2</sub> O <sub>3</sub> -Ag hybrid nanoparticles in mixture base fluid on microchannel with variable viscosity, buoyancy forces, and suction/injection effects: An analytical study	Ameur Gabli, Mohamed Kezzar, Hamza Berrehal, Ravinder Kumar, Pawan Kumar, Lilia Zighed, Mohamed. Rafik. Sari	Department of Pharmaceutical Sciences and Technology	International Journal of Heat and Fluid Flow	2024	1879-2278
Implication of colloidal therapeutics in the treatment of vitiligo: Portray of signaling cascade, current drug-targets and preclinical and clinical evidences	Priti Paul, Harithasree Veerabomma, Ujala Gupta, Divya Atram, Pankaj Kumar Singh, Neelesh Kumar Mehra, Chandraiah Godugu, Ashish Baldi, Jitender Madan	Department of Pharmaceutical Sciences and Technology	Journal of Drug Delivery Science and Technology	2024	1773-2247
Formulation development and assessment of solid dispersion and hydrotropy for BCS class II drug solubility enhancement.	Neha Bajwa, Mela Singh, Srisrith Naryal, Shipra Mahal, Sumit Mehta, Jitender Madan, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Letters in Drug Design and Discovery	2024	1570-1808
Development and characterization of enteric polymer-based solid dispersion for cholecalciferol delivery.	Neha Rawat, Shashank K Singh, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Letters in Drug Design and Discovery	2024	1570-1808

Implementation of analytical quality by design methodology to develop a UV-spectrometric technique for arteether quantification.	Neha Bajwa, Pallavi Saroch, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Indian Journal of Pharmaceutical Education and Research	2023	0019-5464
Implementation of the QbD approach to the development and validation of an analytical method for alpha-beta arteether.	Neha Bajwa, Shipra Mahal, Jitender Madan, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Letters in Drug Design and Discovery	2023	1570-1808
Quality risk assessment on traditional immunity booster plants cultivators in Punjab, India.	Preet Anmol Singh, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Indian Journal of Traditional Knowledge	2023	0975-1068
Revolutionizing Neurological Disorder Treatment: Integrating Innovations in Pharmaceutical Interventions and Advanced Therapeutic Technologies	Rimpi Arora, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Current Pharmaceutical Design	2024	1381-6128
Pullulan based polymeric novel drug delivery systems: A review on current state of art and prospects	Ashish Thakur, Sanyam Sharma, Subh Naman, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Journal of Drug Delivery Science and Technology	2023	1773-2247
Identification of Spices and their Adulterants by Integrating Machine Learning and Analytical Techniques: A Representative Study	Subh Naman, Sayam Sharma, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	International Journal of Pharmaceutical Sciences and Drug Research	2024	0975-248X



Neuroprotective effect of aurothioglucose-loaded PLGA nanoparticles in an aluminum chloride-induced rat model of Alzheimer's disease	Shiv Kumar Kushawaha , Mahendra Singh Ashawat, Ashish Baldi	Department of Pharmaceutical Sciences and Technology	Research Journal of Pharmacy and Technology	2024	0974-3618
Size-segregated aerosol measurements during Diwali festival in an elevated background location. Atmospheric Environment.	Buwaniwal A, Joshi M, Sharma V, Gupta G, Khan A, Kansal S, Sapra BK.	Department of Physics	Atmospheric Environment	2023	Online ISSN: 1878-2442 Print ISSN: 1352-2310
Electrocaloric, thermal and structural properties of $Ba_{1-x}Li_xTi_{0.975}V_{0.025}O_{3+d}$ ( $0 < x < 0.05$ ) ceramics	Arpan Sethi, Savidh Khan, K. Singh, Satnam Singh Bhamra	Department of Physics	Materials Science and Engineering: B	2023	Online ISSN: 1873-4944 Print ISSN: 0921-5107
Small-field Dosimetry of 6- and 10-MV Flattening Filter-free and Flattening Filter Photon Beams for Therapeutic use.	Jooli Shukla, Shekhar Dwivedi, Vinod Kumar Dangwal, K P Tiwari, Amit Kumar Singla, Supriya Rani	Department of Physics	Indian Journal of Pure and Applied Physics	2023	p-ISSN No. : 0970-8480 e-ISSN No. : 2582-4228
Estimation of Exhalation Rates of Radon/Thoron in Soil in Hanumangarh District of Northern Rajasthan	Amit Kumar Singla, Supriya Rani, Salik Nazir, Rohit Mehra	Department of Physics	Indian Journal of Pure and Applied Physics	2023	p-ISSN No. : 0970-8480 e-ISSN No. : 2582-4228
Estimation of Annual Effective Dose Due to Radon Concentration in Water Samples of Moga District of Northern Punjab, India.	Supriya Rani, Amit Kumar Singla, Salik Nazir, Rohit Mehra	Department of Physics	Indian Journal of Pure and Applied Physics	2023	p-ISSN No. : 0970-8480 e-ISSN No. : 2582-4228

The study of Correlated Barrier Hopping (CBH) conduction mechanism and modulus spectroscopy of $YFe_{0.5}Co_{0.5}O_3$ compound	Priya Dhuria, Satnam Singh Bhamra, Jasbir Singh Hundal	Department of Physics	Physica B: Condensed Matter	2023	Print ISSN: 0921-4526 Online ISSN: 1873-2135
Evolution of conduction mechanism in Ca-doped $YFe_{0.5}Co_{0.5}O_3$ compound by complex impedance spectroscopy	Priya Dhuria, Satnam Singh Bhamra, Jasbir Singh Hundal	Department of Physics	Ceramics International	2024	Print ISSN: 0272-8842 Online ISSN: 1873-3956
Long term measurements of aerosol mass concentration with optical particle counters: Discrepancies with plausible reasons	Buwaniwal A, Joshi M, Sharma V, Gupta G, Khan A, Kansal S, Sapra BK.	Department of Physics	Chemosphere	2024	Online ISSN: 1879-1298 Linking ISSN: 0045-6535
Long term analysis of air quality parameters for Ludhiana, India: sources, trends and health impact.	Buwaniwal A, Sharma V, Gupta G, Rohj S, Kansal S.	Department of Physics	Environmental Geochemistry and Health	2024	Electronic ISSN 1573-2983 Print ISSN 0269-4042
Acoustic behavior of three-dimensional woven fabrics and their composites: role of fiber type and weave architecture	Parikshit Paul, Meenakshi Ahirwar, BK Behera	Department of Textile Engineering	The Journal of The Textile Institute	2023	1754-2340
To study the PET/bamboo and PET/cotton blend yarn to made for the knitted fabric on comfort properties behavior : Part-I	Anupam Kumar, Ramratan, Jatinder Kumar	Department of Textile Engineering	Journal of the Textile Association	2023	0040-5000

To study the PET/bamboo and PET/cotton blend yarn to made for the knitted fabric on comfort properties behavior : Part-II	Anupam Kumar, Ramratan, Jatinder Kumar	Department of Textile Engineering	Journal of the Textile Association	2023	0040-5000
To study the cotton yarn to make for the Knitted Fabric on handle properties	Anupam Kumar, Ramratan, Sabdeep Bherwan	Department of Textile Engineering	Journal of the Textile Association	2023	0040-5000
Social Expenditure, Business Responsibility Reporting Score and Firm Performance: Empirical Evidence from India	Chandra Shekhar Bhatnagar, Dyal Bhatnagar, Pritpal Singh Bhullar	University Business School	Corporate Governance	2023	1472-0701
Sin versus Green Investment: A retrospective study on investor choice during pre and through COVID regime	Bhatnagar, C., Bhatnagar, D, Kumari, V., and Bhullar, P.	University Business School	Managerial Finance	2023	0307-4358
Exploring the Determinants of Investment Behavior: Evidence from Agrarian Investor Class of India	Manocha S., Bhullar, P.S. and Gupta. P	University Business School	Business Perspectives and Research	2023	2394-9937
Impact of Board Gender Diversity on Priority Sector Lending and Insolvency Risk: Evidence from Indian Banking Industry	Bhatia M., Bhullar P. S., Roy D and Gupta, P.	University Business School	International Journal of Electronic Finance	2023	1746-0077
Identifying barriers to early diagnosis of breast cancer and perception of women in	Kaur, K., R. Jajoo, S. Naman, Kandwal, T., Brar, G.S., Garg, P., Bhullar. P, and Baldi. A.,	University Business School	Global Health Journal	2023	2414-6447

Malwa region of Punjab, India					
Factors determining the investment behavior of farmers - The moderating role of socioeconomic demographics.	Manocha S., Bhullar, P.S. and Sachdeva, T	University Business School	Journal of Indian Business Research	2023	1755-4195
Board gender diversity and financial performance of Banks – Evidence from India	Bhatia M., Bhullar P. S., and Roy D.	University Business School	International Journal of Business Performance Management	2023	1741-5039
Macroeconomic Variables and IPO Activities: An Empirical investigation in Indian Market	Bhullar P.S. and Sahoo, S.	University Business School	International Journal of Sustainable Economy	2023	1756-5812
Interdependence between Energy Commodities and Global Stock Indices: A Volatility Transmission Approach using Dynamic Conditional Correlation (DCC)-GARCH Model	Bhullar, P.S., Gupta, P., Kiranmai, J. and Tandon, D,	University Business School	FIIB Business Review	2024	2455-2658
IPO Underpricing: A Comparative Analysis of Risk Factor Disclosures in Financial and Non-financial Sectors	Bhullar, P., Grover, K. L. and Tiwari, R.	University Business School	Bottom Line	2024	0888-045X
ChatGPT in Higher education: A synthesis of the literature and a future research agenda	Bhullar, P. S., Joshi, M. and Chugh, R.	University Business School	Education and Information Technologies	2024	1360-2357

What Enhances e-loyalty of Bank Customers Comprehend the Moderating Role of Customers Demographics	Mandowra, P., Bhullar, P.S. and Kaushal, R.	University Business School	International Journal of Internet Marketing and Advertising	2024	1741-8100
Reported risk categories in the prospectus and IPO valuation in Indian stock market: an empirical	Grover, K. L., Bhullar, P. and Seshadev, S.	University Business School	Afro-Asian Journal of Finance and Accounting	2024	1751-6455

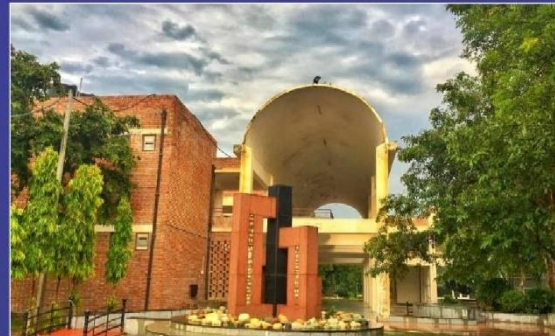


# MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY

Dabwali Road, Bathinda (Pb.)- 151001

(Estd. by Govt. of Punjab Yide Punjab ActNo. 5 of 2015) ONLY TECHNICAL UNIVERSITY OF PUNJAB HAVING UGC APPROVAL UNDER 2(1) AND 12 B OF UGC ACT, MEMBER AIU.

Think Excellence, Live Excellence



**INTERNAL QUALITY ASSURANCE CELL**  
**MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY**  
(DABWALI ROAD, BATHINDA (PB.)- 151001)