

# Curriculum Vitae

**Dr. Mohammad Younus Bhat**

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## ACADEMIC DETAILS

Degree	University	Specialization	Percentage/CGPA
Ph.D.	Central University of Jammu	Wavelet Analysis	-
M.Phil.	Central University of Jammu	Wavelet Analysis	8.25
M. Sc.	University of Kashmir	Analysis	76.55
B. Ed.	University of Kashmir		74.80
B. Sc.	University of Kashmir		69.61

## TEACHING EXPERIENCE

- 26-03-2018 - till Date, Assistant Professor in Mathematical Sciences, Islamic University of Science and Technology Awantipora, Pulwama, J&k, India.
- 07-12-2016 - 25-03-2018, Assistant Professor in Mathematics, National Institute of Technology Srinagar, J&k, India.
- 29-04-2016 - 06-12-2016, Lecturer Mathematics, Govt Degree College for Women, Anantnag, J&k, India.

## COURSES TAUGHT AT UG AND PG LEVEL

- Functions of Several Variables, Wavelet Analysis, Real Analysis, Numerical Analysis, Operations Research, Differential Equations, Matrix Theory and Calculus.

## TITLE OF PHD THESIS

- MRA Based Wavelet Frames on Local Fields of Positive Characteristic

## FIELDS OF INTEREST

- Wavelet Analysis
- Signal Processing
- Numerical Analysis
- Integral Transform
- Special Functions

## TECHNICAL SKILLS

- LaTeX, Mathematica and Matlab.

## PUBLICATIONS

1. A. H. Da, M. Z. Abdalla, **M. Younus Bhat** and A. Asiri, New Quadratic Phase Wigner Distribution and Ambiguity Function with Applications to LFM Signals, *Journal of Pseudo Differential Operators and Applications*, 15(35)(2024), <https://doi.org/10.1007/s11868-024-00609-y>.
2. **M. Younus Bhat**, H. Maqbool and A. A. Bhat, q-Difference Recurrence Relations of Aleph Function with Generalization to nth Derivative, *International Journal of Applied and Computational Mathematics*, (2024), <https://doi.org/10.1007/s40819-024-01724-6>.
3. **M. Younus Bhat**, O. A. Alamari and A. H. Dar, A Novel Wavelet Transform in the Quaternion Quadratic-Phase Domain, *International Journal of Wavelets, Multiresolution and Information Process*, (2024), <https://doi.org/10.1142/S0219691324500024>.
4. A. A. Bhat, J. A. Ganie, **M. Younus Bhat** and F. A. Sulaiman, Generating Operators of  $I$ -Transform of the Mellin Convolution Type, *Journal of Applied Mathematics and Informatics*, 42(1)(2024), 65-76, <https://doi.org/10.14317/jami.2024.065>.
5. **M. Younus Bhat** and A. H. Dar, On the Continuity of linear Canonical Bessel Wavelet Transformations, *Poincare Journal of Analysis & Applications*, 10(2)(2023), 281-295, <https://doi.org/10.46753/pjaa.2023.v010i02.006>.
6. J. G. Dar, **M. Younus Bhat**, S. Tamboli, S. Sarfaraj, A. A. Rather, M. Mohiuddin, S. A. Dar, Quantile Residual Entropy for some Life Time Distributions, *Reliability: Theory & Applications*, 76(4)(2023), 372-381, <https://doi.org/10.24412/1932-2321-2023-476-372-381>.
7. **M. Younus Bhat** and A. H. Dar, Wigner-Ville Distribution and Ambiguity Function of QPFT Signals, *Annals of the university of Craiova, Mathematics and Computer science series*, 50(2)(2023), 259-276, <https://doi.org/10.52846/ami.v50i2.1640>.
8. A. A. Bhat, F. A. Sulaiman, J. A. Ganie, **M. Younus Bhat** and D. K. Jain,  $(p, q)$ -Analogue of the Natural Transform with Applications, *Nonlinear Functional Analysis and Applications*, 28(4)(2023), 1069-1086, <https://doi.org/10.22771/nfaa.2023.28.04.14>.
9. A. H. Dar and **M. Younus Bhat**, Special Affine Stockwell Transform: Theory, Uncertainty Principles and Applications, *International Journal of Wavelets, Multiresolution and Information Process*, (2023), <https://doi.org/10.1142/S0219691323500571>.
10. I. A. Shah, **M. Younus Bhat**, P. B. Ahmad, J. G. Dar and S. Pinelas, Bounded Inverse-Slashed Pareto Model: Structural Properties and Real-Life Applications, *Advances in the Theory of Nonlinear Analysis and its Applications*, 7(3)(2023), 14-29, <https://doi.org/10.17762/atnaa.v7.i3.247>.
11. A. H. Dar, M. Zayed and **M. Younus Bhat**, Short-time free metaplectic transform: Its relation to short-time Fourier transform in  $L^2(\mathbf{R}^n)$  and uncertainty principles, *AIMS Mathematics*, 8(12)(2023), 28951-28975, <https://doi.org/10.3934/math.20231483>.
12. A. H. Dar and **M. Younus Bhat**,  $N$ -dimensional wave packet transform and associated uncertainty principles in the free metaplectic transform domain, *Mathematical Methods in the Applied Sciences*, (2023), <https://doi.org/10.1002/mma.9723>.

13. M. Zayed, S. A. Wani and **M. Younus Bhat**, Unveiling the Potential of Sheffer Polynomials: Exploring Approximation Features with Jakimovski-Leviatan Operators, *mathematics*, 11, 3604 (2023), <https://doi.org/10.3390/math11163604>.
14. A. H. Dar and **M. Younus Bhat**, Convolution based Quadratic-Phase Stockwell Transform: theory and uncertainty relations, *Multimedia Tools and Applications*, (2023), <https://doi.org/10.1007/s11042-023-16331-8>.
15. **M. Younus Bhat** and A. H. Dar, Linear canonical Hankel domain based Stockwell transform and associated Heisenberg's uncertainty principle, *The Journal of Analysis*, (2023) <https://doi.org/10.1007/s41478-023-00624-0>.
16. **M. Younus Bhat**, S. Rafiq and M. Zayed, Wigner–Ville Distribution Associated with Clifford Geometric Algebra  $Cl_{n,0}$ ,  $n = 3(\text{mod } 4)$  Based on Clifford–Fourier Transform, *symmetry*, 15, 1421, (2023) <https://doi.org/10.3390/sym15071421>.
17. **M. Younus Bhat**, A. H. Dar, M. Zayed and A. A. Bhat, Convolution, Correlation and Uncertainty Principle in the One-Dimensional Quaternion Quadratic-Phase Fourier Transform Domain, *mathematics*, 11, 3002, (2023) <https://doi.org/10.3390/math11133002>.
18. A. H. Dar, **M. Younus Bhat** and M. Rehman, Generalized Wave packet Transform based on Convolution Operator in the Quaternion Quadratic-Phase Fourier Domain, *Optik-International Journal for Light and Electron Optics*, 286(2023), 171029, <https://doi.org/10.1016/j.ijleo.2023.171029>.
19. **M. Younus Bhat** and A. H. Dar, Quaternion offset linear canonical transform in one-dimensional setting, *The Journal of Analysis*, (2023) <https://doi.org/10.1007/s41478-023-00585-4>.
20. **M. Younus Bhat** and A. H. Dar, Quadratic phase S-Transform: Properties and uncertainty principles, *e-Prime - Advances in Electrical Engineering, Electronics and Energy*, 4 (2023) 100162, <https://doi.org/10.1016/j.prime.2023.100162>.
21. **M. Younus Bhat**, A. H. Dar, M. Zayed and S. Araci, Octonion Special Affine Fourier Transform: Pitt's Inequality and the Uncertainty Principles, *fractal and fractional*, 356(7), (2023) <https://doi.org/10.3390/fractalfract7050356>.
22. S. A. Wani, S. Shaikh, P. Alam, S. Tamboli, M. Zayed, J. G. Dar and **M. Younus Bhat**, An Algebraic Approach to the  $\Delta_h$ -Frobenius–Genocchi–Appell Polynomials, *mathematics*, 11, 2029(2023), <https://doi.org/10.3390/math11092029>.
23. **M. Younus Bhat**, S. Rafiq, M. A. Lone and A. A. Bhat, Characterization of nonuniform wavelets associated with AB-MRA on  $L^2(\Lambda)$ , *Proyecciones Journal of Mathematics*, 43(3)(2023), 609-630.
24. **M. Younus Bhat** and A. H. Dar,  $k$ - Ambiguity function in the framework of Offset Linear Canonical Transform, *International Journal of Wavelets, Multiresolution and Information Process*, 21(5), 2350013, (2023), <https://doi.org/10.1142/s0219691322500357>.
25. **M. Younus Bhat** and A. H. Dar, Towards Quaternion Quadratic-phase Fourier Transform, *Mathematical Methods in the Applied Sciences*, (2023), <https://doi.org/10.1002/mma.9126>.

26. **M. Younus Bhat** and A. H. Dar, Vector-valued Nonuniform Multiresolution Associated with Linear Canonical Transform, *Filomat*, 37(16)(2023), 5165-5180, <https://doi.org/10.2298/FIL2316165B>
27. A. A. Bhat, **M. Younus Bhat**, H. Maqbool and D. K. Jain, Generating Functions of  $(p, q)$ -Analogue of Aleph-Function Satisfying Truesdell's Ascending and Descending  $F_{p,q}$ -Equation, *Journal of Applied Mathematics and Informatics*, 41(2)(2023), 373-386, <https://doi.org/10.14317/jami.2023.373>
28. R. Gulzar, I. Sajjad, **M. Younus Bhat** and S. Rehman, Simple Ranked Sampling Scheme: Modification and Application in the Theory of Estimation of Erlang Distribution, *Journal of Applied Mathematics and Informatics*, 41(2)(2023), 449-468, <https://doi.org/10.14317/jami.2023.449>
29. **M. Younus Bhat**, A. H. Dar, I. Nurhidayat and S. Pinelas, An Interplay of Wigner-Ville Distribution and 2D Hyper-Complex Quadratic-Phase Fourier Transform, *fractal and fractional*, 159(7), 2650 (2023) <https://doi.org/10.3390/fractalfract7020159>.
30. A. H. Dar and **M. Younus Bhat**, Dhono-Stark's and Hardy's Uncertainty Principles for the Short-time Quaternion Linear Canonical Transform, *Filomat*, 37(14)(2023) 4467-4480, <https://doi.org/10.2298/FIL2314467D>
31. H. Maqbool and **M. Younus Bhat**, Varieties of Permutative Semigroups Closed Under Dominions, *Journal of Algebraic Systems*, 11(1)(2023), 147-170, <https://doi.org/10.22044/JAS.2022.12018.1617>
32. **M. Younus Bhat**, Generalized Inequalities for Nonuniform Wavelet Frames in Linear Canonical Transform Domain, *Filomat*, 37(12)(2023) 3725-3735, <https://doi.org/10.2298/FIL2312725B>
33. **M. Younus Bhat** and A. H. Dar, Quadratic-phase scaled Wigner distribution: convolution and correlation, *Signal, Image and Video Processing*, 17(2023) 2779-2788, <https://doi.org/10.1007/s11760-023-02495-1>.
34. **M. Younus Bhat** and A. H. Dar, The Two-Sided Short-time Quaternion Linear Canonical Transform and Associated Convolution and Correlation, *Mathematical Methods in the Applied Sciences*, 46(8)(2023) 8478-8495, <https://doi.org/10.1002/mma.8994>.
35. **M. Younus Bhat** and A. H. Dar, Quaternion Linear Canonical S-Transform and Associated Uncertainty Principles, *International Journal of Wavelets, Multiresolution and Information Process*, 21(1), 2250035 (2023), <https://doi.org/10.1142/s0219691322500357>.
36. **M. Younus Bhat**, A. H. Dar, I. Nurhidayat and S. Pinelas, Uncertainty Principles for the Two-sided Quaternion Windowed Quadratic-phase Fourier Transform, *Symmetry*, 14(7), 2650 (2022) <https://doi.org/10.3390/sym14122650>.
37. **M. Younus Bhat** and A. H. Dar, The 2-D Hyper-complex Gabor Quadratic-phase Fourier Transform and Uncertainty Principles, *The Journal of Analysis*, 31(2023) 243-260 , <https://doi.org/10.1007/s41478-022-00445-7>.

38. A. H. Dar and **M. Younus Bhat**, Wigner Distribution and Associated Uncertainty Principles in the Framework of Octonion Linear Canonical Transform, *Optik-International Journal for Light and Electron Optics*, 272 (2022), 170213, <https://doi.org/10.1016/j.ijleo.2022.170213>.
39. **M. Younus Bhat**, I. B. Almanjahie, A. H. Dar and J. G. Dar, Wigner-Ville Distribution and Ambiguity Function Associated with the Quaternion Offset Linear Canonical Transform, *Demonstratio Mathematica* 55(2022) 786-797, <https://doi.org/10.1515/dema-2022-0175>.
40. **M. Younus Bhat**, On the Non homogeneous Wavelet Bi-frames for Reducing subspaces of  $H^s(K)$ , *Annals of the university of Craiova, Mathematics and Computer science series*, 49(2)(2022), 401-410, <https://doi.org/10.52846/ami.v49i2.1615>
41. **M. Younus Bhat** and A. H. Dar, Wavelet Frames Associated with Linear Canonical Transform on Spectrum, *International Journal of Nonlinear Analysis and Applications*, 13 (2022), 2297-2310, <https://doi.org/10.22075/IJNAA.2021.22872.2426>
42. **M. Younus Bhat** and A. H. Dar, Nonuniform Dual Wavelets Associated with Linear Canonical Transform, *Caspian Journal of Mathematical Sciences* , 11(2)(2022), 461-479, <https://doi.org/10.22080/CJMS.2022.21790.1588>
43. B. A. Chat, H. A. Ganie, A. A. Bhat, **M. Younus Bhat** and M. A. Lone, On the Skew Laplacian Spectral Radius of a Digraph, *Discrete Mathematics, Algorithms and Applications* , 5(2022) 2150155, <https://doi.org/10.1142/S179383092150155X>.
44. **M. Younus Bhat**, B. Alnyssan, A. H. Dar and J. G. Dar, Sampling Techniques and Error Estimation for Linear Canonical S Transform using MRA Approach, *Symmetry*, 14(7), 1416 (2022), <https://doi.org/10.3390/sym14071416>.
45. A. H. Dar and **M. Younus Bhat**, Scaled Ambiguity Function and Scaled Wigner Distribution for LCT Signals, *Optik-International Journal for Light and Electron Optics*, 267 (2022), 169678, <https://doi.org/10.1016/j.ijleo.2022.169678>.
46. **M. Younus Bhat** and A. H, Dar, Scaled Wigner Distribution in the Offset Linear Canonical Domain, *Optik-International Journal for Light and Electron Optics*, 262(2022) 169286, <https://doi.org/10.1016/j.ijleo.2022.169286>.
47. **M. Younus Bhat** and A. H. Dar, Fractional vector-valued nonuniform MRA and associated wavelet packets on  $L^2(\mathbf{R}^2, C^M)$ ; *Fractional calculus and applied analysis*, 25 (2022) 687-719, <https://doi.org/10.1007/s13540-022-00035-1>
48. **M. Younus Bhat** and A. H, Dar, Octonion Spectrum of 3D Short-time LCT Signals, *Optik-International Journal for Light and Electron Optics*, 261(2022), 169156 <https://doi.org/10.1016/j.ijleo.2022.169156>.
49. **M. Younus Bhat**, A. H. Dar, D. Urynbassarova and A. Urynbassarova, Quadratic-phase wave packet transform, *Optik-International Journal for Light and Electron Optics*, 261(2022), 169120 <https://doi.org/10.1016/j.ijleo.2022.169120>.
50. **M. Younus Bhat** and A. H. Dar, Convolution and Correlation Theorems for Wigner-Ville Distribution Associated with the Quaternion Offset Linear Canonical Transform, *Signal, Image and Video Processing*, 16(2022), 1235–1242, <https://doi.org/10.1007/s11760-021-02074-2>.

51. **M. Younus Bhat** and A. H. Dar, The Algebra of 2D Gabor Quaternion Offset Linear Canonical Transform and Uncertainty Principles, *The Journal of Analysis*, 30(2022) 637-649, <https://doi.org/10.1007/s41478-021-00364-z>.
52. **M. Younus Bhat** and A. H. Dar, Multiresolution Analysis for Linear Canonical S Transform, *Advances in Operator Theory*, 6(68) (2021) <https://doi.org/10.1007/s43036-021-00164-z>.
53. **M. Younus Bhat**, Characterization and Wavelet Packets Associated with VN-MRA on  $L^2(K, C^N)$ , *Azerbaijan Journal of Mathematics*, 11(2)(2021), 3-24.
54. **M. Younus Bhat** and A. H. Dar, Wavelet Packets Associated with Linear Canonical Transform on Spectrum, *International Journal of Wavelets, Multiresolution and Information Process*, (2021) 2150030 22 pages, <https://doi.org/10.1142/S0219691321500302>
55. O. Ahmad, **M. Younus Bhat** and N. A. Sheikh, Construction of Parseval Framelets Associated with GMRA on Local Fields of Positive Characteristic, *Numerical functional analysis and optimization*, 42(3)(2021) 344-370 doi: 10.1080/01630563.2021.1878370 (2021) .
56. O. Ahmad, **M. Younus Bhat** and N. A. Sheikh, Characterization of Wavelets Associated with AB-MRA, *Annals of the university of Craiova, Mathematics and Computer science series*, 28(X)(2021), 293-306.
57. **M. Younus Bhat**, Multiwavelets on Local Fields of Positive Characteristic, *Annals of the university of Craiova, Mathematics and Computer science series*, 47(2)(2020), 276-284
58. **M. Younus Bhat**, A Short Note on Wavelet Frames Based on FMRA on Local Fields, *Journal of Mathematics*, (2020), Article ID 3957064, 5 pages, <https://doi.org/10.1155/2020/3957064>
59. **M. Younus Bhat**, Nonstationary Multiresolution Analysis on Local Fields of Prime Characteristic, *Acta Scientiarum Mathematicarum*, 86(2020), 303-320.
60. **M. Younus Bhat**, Nonuniform Discrete Wavelets on Local Fields of Positive Characteristic, *Complex Analysis and Operator Theory*, 13(2019), 2203-2208.
61. **M. Younus Bhat**, Dual Wavelets Associated with Nonuniform MRA, *Tamkang Journal of Mathematics*, 50(2) (2019), 119-132.
62. **M. Younus Bhat**, Pair of Dual Wavelet Frames on Local Fields, *Acta Scientiarum Mathematicarum*, 85 (2019), 271-289.
63. **M. Younus Bhat**, Tight Affine, Quasi-Affine Wavelet Frames on Local Fields of Positive Characteristic, *International Journal of Functional Analysis, Operator Theory and Applications*, 11(1) (2019), 13-31.
64. **M. Younus Bhat**, Necessary Condition and Sufficient Conditions for Nonuniform Wavelet Frames on  $L^2(K)$ , *International Journal of Wavelets, Multiresolution and Information Process*, 16(1) (2018).
65. F. A. Shah, S. Sharma and **M. Younus Bhat**, Wavelet Frame Characterization of Lebesgue Spaces on Local Fields, *Scientific Annals of the Alexandru Ioan Cuza University of Iași (New Series). Mathematics*, 64(2018), 429-445.

66. **M. Younus Bhat**, Wavelet Packets with their Fourier Properties on Local Fields of Prime Characteristic, *Neural Parallel and Scientific Computations*, 25 (2017), 313-324.
67. F. A. Shah and **M. Younus Bhat**, Nonuniform Wavelet Packets on Local Fields of Positive Characteristic, *Filomat*, 31(6) (2017), 1491-1505.
68. F. A. Shah and **M. Younus Bhat**, Polyphase Matrix Characterization of Framelets on Local Fields of Positive Characteristic, *Acta Universitatis Sapientiae Mathematica*, 9(1) (2017), 260-271.
69. F. A. Shah and **M. Younus Bhat**, Construction of Biorthogonal Wavelet Packets on Local Fields of Positive Characteristic, *Turkish Journal of Mathematics*, 40 (2016), 292-309
70. F. A. Shah and **M. Younus Bhat**, Semi-orthogonal Wavelet Frames on Local Fields, *Analysis*, 36(3) (2016), 173-181.
71. F. A. Shah and **M. Younus Bhat**, Vector-valued Wavelet Packets on Local Fields of Positive Characteristic, *New Zealand Journal of Mathematics*, 46(2016), 9-20.
72. **M. Younus Bhat** and B. A. Khandy, On the Fourier Transform of Wavelet Packets on Local Fields of Positive Characteristic, *International Journal of Innovative Research and Development*, 5(10) (2016), 394-399.
73. F. A. Shah and **M. Younus Bhat**, Vector-valued Nonuniform Multiresolution Analysis on Local Fields, *International Journal of Wavelets, Multiresolution and Information Process*, 13(4) (2015).
74. F. A. Shah and **M. Younus Bhat**, Tight Framelet Packets on Local Fields of Positive Characteristic, *Journal of Classical Analysis*, 6(1) (2015), 85-101.
75. F. A. Shah and **M. Younus Bhat**, On Framelet Kernel of M-band Wavelet Frames, *Gulf Journal of Mathematics*, 3(4) (2015), 59-66.
76. F. A. Shah and **M. Younus Bhat**, A New Splitting Trick for Wavelet Packets on Local Fields of Positive Characteristic, *Poincare Journal of Analysis and Applications*, 2 (2015), 93-103.

## BOOKS & BOOK CHAPTERS

1. **M. Younus Bhat**, *Time Frequency Analysis of Some Generalized Fourier Transforms*. IntechOpen, 2023, ISBN: 978-1-83768-460-1
2. **M. Younus Bhat**, The Generalizations of the Fourier Transform, *Bhat, M. Y. (eds) Time Frequency Analysis of Some Generalized Fourier Transforms*. IntechOpen (2023) <http://dx.doi.org/10.5772/intechopen.112175>.
3. **M. Younus Bhat**, A Look at Inequalities for Wavelet Frames Associated with the Linear Canonical Transform, *In: Pulickakunel, S., Rangaswamy, M., Sebastian, J. (eds) Mathematical Analysis*. Narosa Publishing House. (2023). ISBN: 978-81-8487-760-1.
4. **M. Younus Bhat**, O. Ahmad, A.A. Bhat and D. K. Jain, Vector-Valued Affine Bi-Frames on Local Fields, *In: Singh, S., Sarigöl, M.A., Munjal, A. (eds) Algebra, Analysis, and Associated Topics. Trends in Mathematics*. Birkhäuser, Cham. (2022). [https://doi.org/10.1007/978-3-031-19082-7\\_11](https://doi.org/10.1007/978-3-031-19082-7_11).
5. **M. Younus Bhat**, A. H. Dar, A.A. Bhat and D. K. Jain, Scaled Ambiguity Function Associated with Quadratic-Phase Fourier Transform, *Bhat, M. Y. (eds) Time Frequency Analysis of Some Generalized Fourier Transforms*. IntechOpen (2022) <https://doi.org/10.5772/intechopen.108668>.



## RESEARCH PROJECTS

1. A Study of Basic Hyper-geometric Functions and Their Applications with Special Reference in Integral Transforms, JKSTIC, J& K, Rs 7.5 lac, Completed.
2. A Study of Wavelets on Local Fields, START-UP BSR Grant, Govt of India, UGC, Rs 10 lac, Completed.
3. Laplacian Energy of Graphs and Digraphs (with Dr. Bilal Chat), TEQIP-III, Rs 4.45 lac, Completed.

**PHD & POSTDOCTORAL FELLOWS**

<b>S. No.</b>	<b>Name (Degree)</b>	<b>Title of Thesis</b>	<b>Status</b>
1.	Aamir Hamid Dar; PhD	The Linear Canonical Transform and its Generalizations	Awarded
2.	Huzaifa Qadri; PhD		Ongoing
3.	Shahbaz Rafiq; PhD		Ongoing
4.	Humaira Maqbool; PhD		Ongoing

## WORKSHOPS AND CONFERENCES

1. Presented a paper entitled " $k$ - ambiguity function in the framework of offset linear canonical transform" in the *29th International Conference on Finite or Infinite Dimensional Complex Analysis and Applications* organised by the the Ramanujan School of Mathematical Sciences, Pondicherry University, from August 21-25, 2023.
2. Presented a paper entitled "On the Continuity of Linear Canonical Bessel Wavelet Transformations" in the *International Conference on Evolution in Pure & Applied Mathematics* organised by the Department of Mathematics, Akal University, Talwandi sabo, Bathinda from November 16-18, 2022.
3. Presented a paper entitled "UNCERTAINTY PRINCIPLES FOR THE SHORT-TIME NON-SEPARABLE LINEAR CANONICAL TRANSFORM" in the *6th International Conference on Computational Mathematics and Engineering Sciences, (CMES-2022)*, 20-22 May. 2022, Ordu – Turkey.
4. Presented a paper entitled "Wigner-Ville Distribution and Ambugity Function Associated with the Quaternion Offset Linear Canonical Transform" in the *COMPUTATIONAL METHODS IN SCIENCES AND ENGINEERING (CMSE-2022)* via online mode during APRIL 22-24, 2022, organized by Department of Mathematics, BITS-Pilani, Hyderabad Campus.
5. Presented a paper entitled "Wigner-Ville Distribution and Ambugity Function Associated with the Quaternion Offset Linear Canonical Transform" in the *5th International E-Conference on Mathematical Advances and Applications* held on May 11-14, 2022, Istanbul, Turkey.
6. Participated in "*National Mathematics Day*", organised by Anand international College of Engineering, Jaipur on December 22, 2021.
7. Participated in the International Workshop on "*Wavelets and its Applications: Image Processing, Data Science and PDEs*", organised by Department of Mathematics, Manav Rachna University, Faridabad, India in collaboration with Department of Mathematics, IIT Indore from December 06-10, 2021.
8. Presented a paper entitled "The 2-D Hyper-complex Gabor Quadratic-Phase Fourier Transform and Uncertainty Principles" in the *5th International online Conference on Mathematics An Istanbul Meeting for World Mathematicians* December 01-03, 2021.
9. Participated in the Training Workshop on "*Computing Differential Equations with MATLAB*", organised by MTTF-Society of Computing Intelligence on November 24-30, 2021.
10. Participated in the International Workshop on "*Modern Mathematical Methods and High-Performance Computing in Science and Engineering*", on November 23-24, 2021.
11. Presented a paper entitled "The Two-sided Short-time Quaternionic Offset Linear Canonical Transform and Associated Convolution and Correlation" in the *27th International Conference of CONIAPS XXVII on Fuzzy and Computational Mathematical* organised by the Department of Mathematics, NIT Agartala during October 26-28, 2021.

12. Presented a paper entitled "Uncertainty Principles for Quaternion Linear Canonical S-Transform" in the *National Webinar on Recent Advances in Mathematical Sciences* organised by the Department of Mathematics, Maharaja Bir Bikram University during September 29-30, 2021.
13. Delivered a talk entitled "Wavelet Frames Associated with Linear Canonical Transform on Spectrum", in "*International E-Conference on Mathematical Advances and Applications*" organised by Department of Mathematical Sciences, Istanbul Turkey , May 26-29, 2021.
14. Participated in "*Data Science and information Security-boot camp*", organised by Department of CSE and ECE, IUST, Awantipora in collaboration with MAKAUT, West Bengal under TEQIP-III , June 11-15, 2019.
15. Participated in "*National Workshop-Nanoscience – Opportunities and Challenges*" organised by Department of Physics and Chemistry, IUST, Awantipora, September 4-5, 2018.
16. Delivered a talk entitled "Necessary and Sufficient Condition for Nonuniform Wavelet Frames for  $L^2(K)$ ", in "*International Workshop on Wavelets, Frames and Applications-III (IWWFA-III)*" organised by Department of Mathematics, Kirori Mal College, University of Delhi, Delhi, December 14- 20, 2017
17. Presented a paper entitled "Vector-valued Wavelet Packets on Local Fields of Positive Characteristic", in "*Role of Mathematics and Computer Science in Advancement of Physics*" organised by Department of Physics, Govt Degree College Katua, November 10-11, 2017
18. Presented a paper entitled "Fourier Transform of Wavelet Packets on Local Fields", in "*2nd Advanced Conference on Computing, Communication and Electronics*" organised by Department of Computer Science and Engineering, National Institute of Technology, Srinagar, May 17-18, 2017.
19. Delivered a talk entitled "Nonuniform Wavelet Packets on Local Fields of Positive Characteristic", in "*National Conference on Analysis, Wavelets and Their Applications*" organised by Department of Mathematical Sciences, BGSB University Rajouri, April 23-24, 2016.
20. Participated in "*Workshop in Computational Mathematics on Sage Math-An Open Source Mathematics Software*" organised by Department of Mathematics, Central University of Jammu, March 25-26, 2016.
21. Presented a paper entitled "On Framelet Kernels of M-band Wavelet Frames", in "*National Conference on Complex Analysis and Applications*" organised by Department of Mathematics, National Institute of Technology, Srinagar, March 17, 2016.
22. Delivered a talk entitled "A New Splitting Trick for Wavelet Packets on Local Fields of Positive Characteristic", in "*National Conference on Topological Algebra and Analysis*" organised by Department of Mathematics, Govt. Gandhi Memorial College, Jammu, February 18-19, 2016.
23. Delivered a talk entitled "Vector-valued Nonuniform Multiresolution Analysis on Local Fields", in "*International Conference on Function Spaces and Inequalities*" organised by Department of Mathematics, Faculty of Mathematics and Computer Sciences, South Asian University, Akbar Bhawan, New Delhi, December 8-12, 2015.

24. Presented a paper in "*11th JK Science Congress*" organised by University of Kashmir, Srinagar, October 12-14, 2015.
25. Presented a paper entitled "*Construction of Biorthogonal Wavelet Packets on Local Fields of Positive Characteristic*", in "*International Conference on Emerging Areas of Mathematics for Sciences and Technology (ICEAMST)*" organised by Department of Mathematics, Punjabi University, Patiala, January 30- February 01, 2015.
26. Delivered a talk entitled "*Tight Framelet Packets on Local Fields of Positive Characteristic*", in "*International Workshop on Wavelets, Frames and Applications-II (IWWFA-II)*" organised by Department of Mathematics, Kirori Mal College, University of Delhi, Delhi, December 30- January 05, 2015.
27. Participated in "*National Seminar on Recent Trends in Mathematical Sciences*" organised by SMVD University, Katra-Jammu, March 22, 2013.
28. Participated in "*Scholarly Writing and Case Analysis*" organised by Central University of Jammu, November 18-20, 2012.

## ORIENTATION PROGRAMS, REFRESHER COURSES, SHORT TERM COURSES AND FDPS

1. Participated in capacity building workshop for teachers on **Implementation of NEP through Innovative Curriculum in Higher Education** organised by *CIC University of Delhi, Delhi* in collaboration with *J & K Higher Education* from *September 11, 2023 to September 14, 2023*.
2. Participated in two week Refresher Course in **Mathematics/ Operational Research/ Statistics and Computer Science** organised by *CPDHE (UGC-HRDC) University of Delhi, Delhi* from *September 04, 2022 to September 15, 2022*.
3. Participated in short-term course titled **Sampling theory and its Applications: Signal, Image processing and Data Science** conducted as a part of quality improvement program, organized by the *Department of Mathematics , IIT Indore* from *24 to 29 January 2022*.
4. Participated in one Week Faculty Development Program on **Computing with Matlab and Latex Software: Indispensable tools for Researchers** held from *5th to 11th January, 2012*, organised by *Departments of Mathematics, Baba Farid College, Bathinda, India and Departments of Mathematics, Mizon-Tepi University, Ethiopia* in collaboration with *Math-Tech Thinking Foundation(MTTF), India* .
5. Participated in Short term Course on "**Implementation of Numerical Methods using MATLAB**" organised by *Discipline of Mathematics, IIT Indore* from *January 03, 2022 to January 08, 2022*.
6. Attended a two week **General Refresher Course in Mathematics** organised by *UGC-Human Resource Development Centre University of Jammu* from *January 04, 2021 to January 17, 2021*.
7. Participated in Short term Course on "**Mathematics without Boundaries**" organised by *Department of Mathematics, NIT Srinagar* from *November 23, 2020 to November 27, 2020*.
8. Participated in Short term Course on "**Wavelets via Matrices and its Applications in Signal and Image Processing**" organised by *Discipline of Mathematics, IIT Indore* from *November 11, 2020 to November 21, 2020*.
9. Participated in **One Week Faculty Development Program on Emerging Trends in Physical, Chemical and Mathematical Sciences** held from *14th to 20th February, 2019*, jointly organised by *Departments of Physics, Chemistry and Mathematical Sciences, IUST, Awantipora , J and K*.
10. Participated in four week 80<sup>th</sup> **General Orientation Course** organised by *UGC-Human Resource Development Centre University of Kashmir* from *September 28, 2018 to November 01, 2018*.

## ACHIEVEMENTS

1. Life time member of MathTech Thinking Foundation (MTTF10955828).
2. Life time member of International Association of Engineers (IAENG-170169).
3. Editorial Member of American Journal of Applied Mathematics(AJAM).

## PERSONAL DETAILS

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## DECLARATION

- I consider myself familiar with various aspects of Mathematics as well as Computer Science, and have a passion towards their applications. I am also aware of my ability to work in a team. And furthermore, I hereby declare that the information furnished above is true to the best of my knowledge.

**Place: Awantipora**  
Date :

**Mohammad Younus Bhat**