

## **Guru Ghasidas Vishwavidyalaya**

(A Central University)

Centre/School: Mathematical & Computational Science

**Department: Mathematics** 

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Name: **Dr. A. K. Thakur Designation: Professor**Oualification: M.Sc., Ph.D.

Area of Interest/Specialization: Integral Transforms, Integral Equations and Fractional Calculus

Experience: 15+ Years

## \* Research Supervision

M. Phil: Awarded (19)

## **Ph .D:** Awarded (04) & Submitted (03)

### **❖** Patent

- 1. Method for Water pollutant concentration estimation in water reservoir using Laplace Transform, Australian Govt., Patent Number:2020102450.,2020
- 2. Green Building Environment Management module for real time Air quality monitoring, Australian Govt., Patent Number:2020102451., 2020
- 3. Effect of B-site disorder on the ferroelectric properties of BZT ceramics ,Indian ,Govt., Patent Number:202221022529.2022

### **\*** Books Publication

- 1. A. K. Thakur, "Fundamental concepts of Partial Differential Calculas" LAP Lambert Academic Publishing Germany (ISBN :978-3-659-17751-4)
- 2. A. K. Thakur, "Applied Engineering Mathematics-I" Sahani Pub., Delhi, (ISBN:978-81-7564-558-5)
- 3. A. K. Thakur, "Fundamental Concept of Algebra for JEE Mains + Advanced", Evincepub Publishing, Mumbai, (ISBN:978-93-5673-526-2)

# ❖ Editor/Associate Editor/Editorial Advisory Board Member

- 1. International Conference on Mathematical Techniques in Application of Sci. and Tech.(ISBN:978-93-5673-251-3)
- 2. Bharat Journal of Science Technology and Humanities
- 3. International Journal of Research in Mathematics & Computation (IJRMC), Malaysia
- **4.** Journal of computer and Mathematical sciences
- **5.** IAENG international Association of engineers
- 6. Applied Science Periodical

### **❖** Invited Talk

- 1. New Characterization theorem of Stieltjes transforms for Distribution,68<sup>th</sup> Annual Conference of Bharat Ganit Parisad ,Conference on Analysis and Applications-An International Meet(CAAIM-21) ,Jointly organized by Faculty of Mathematical and Statistical Sciences ,Shri Ramswaroop Memorial University, Barabanki (U.P.), Nov. 17-18,2021,India
- 2. Application and utilization of integral transform, National Conference on Advance approaches in pure and applied Mathematics(NCAAPAM,2022-23), Organized by Faculty of Technology & Department of Mathematics, Kalinga University ,Naya Raipur(C.G) ,Sponsored by AICTE, Dated 02/09/2022 , India.
- **❖** Publications: More than 60 papers in reputed International/ National Journals

## Latest 15 papers published in National / Inter National journals:

- 1. **A.K.Thakur**, Kamalmani Baral, G. K. Singh and S.K.Sahu, Estimation of Error of Approximation in Lip  $(\alpha,r)$ ,  $(r\geq 1)$  Class by almost Riesz Transform, Aegaeum Journal, 0776-3808, Vol. 8, Issue 11, 255-263,2020.
- 2. **A.K.Thakur**, Gopi Sao and Hetram Suryavanshi, Generalized Properties of Mellin Weierstrass Transforms A Journal of Composition Theory ,0731-6755, Vol. XIII(IX),98-107,2020.
- 3. G.K.Singh and **A.K.Thakur**, Matrix Summability of the conjugate series of derived fourier series, Ganita, Vol.70(2), 293-301,2020.
- 4. **A.K.Thakur**,G.K.Singh and Anjali Dubey, Riesz Summability of Factored Infinite Series Including Sequence and Fourier series, Turkish Journal of Computer and Mathematical Education, 4087-4093, Vol. 12(14), 2021.
- 5. S.K.Sahani, A. K. Thakur & J.K.Kushwaha ,On a new application of Fourier series by Borel's method , NeuroQuantology , Vol. 19(12) , 81-85 ,2021.
- 6. **A.K.Thakur**,G.K.Singh and Anjali Dubey,Approximation of conjugate function related to Lipschitz and weighted class  $(L_r,\xi(t))$  by product summability, Turkish Journal of Computer and Mathematical Education ,346-353 Vol. 13(2),2022 .
- 7. S.K. Sahani , **A. K. Thakur** and A.Dubey, Degree of Approximation of Conjugate of a Function Belonging to (N,p,q) Class by Matrix Summability Means of Conjugate Fourier Series, Mathematical Statistician and Engineering Applications ,2094-0343 ,2326-9865, 321 331, Vol 71 No. 4 ,2022.
- 8. **A. K. Thakur** and S.K.Sahu, Extension of Srivastava Hyper Geometric Function, Stochastic Modeling & Applications, 0972-3641, Vol. 26(3),729 735,2022.
- 9. S.K.Sahani, A. K. Thakur and S.K.Sahu, On a new application of summation of Jacobi Series by B-Method, Journal of Algebraic Statistics, 3261 3268 Vol. 13(3),2022.
- 10. **A.K.Thakur**,S.K.Sahani and J.K.Kushwaha,Some applications of Quadraple Hypergeometric functions in functions Spaces,The Seybold Report,1533- 9211,Vol.17,894-903,2022.

- 11. S.K.Sahani, Gyan Prasad Paudel & **A. K. Thakur**, On a new application of positive and Decreasing Sequences to Double Fourier series associated with  $(N, p_m^{(1)}, p_n^{(2)})$ ., Journal of Nepal Mathematical Society (JNMS), Vol.5, Issue 2, 2022.
- 12. **A. K.Thakur**, S.K.Sahani and Surekha Dewangan, Development of Mittag-Leffler function of fractional differential operators, Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition) 1671-5497, Vol.-41(12),2022.
- 13. J.K.Kushwaha, A.K.Thakur, S.K.Sahani and H. Suryawanshi, Existence and Convergence of Gamma Matrices and their application to infinite series, The Mathematics Education, 0047-6269, 16-30, Vol. LVII, No. 2, 2023.
- A.K. Thakur, G. Das , S. K. Sahani, H. Suryawanshi, Generalization of Fractional kinetic equation of Mittag-Leffler function using Laplace transform technique, Applied Science Periodical, 0972-5504, Vol. XXV, No. 3, 2023.
- 15. S. K. Sahani, **A. K. Thakur** and P.Chandra, Recent Applications of Multiple Hypergeometric Transformations in Function Spaces and Associated Reduction Formulas, Tuijin Jishu/Journal of Propulsion Technology ,1001-4055,1522-1535, Vol. 44 No. 3 ,2023.

## **\*** Training Courses

- 1. Thakur, A.K., Sparklab Engineering System(P)Ltd. One week training on Matlab, Dr.C. V.Raman University, Bilaspur(C.G.). 2015.
- 2. Thakur, A.K ,Short term Advanced Training Programme on Integral Transforms, Distributions and Wavelet Analysis, Indian School of Mines, Dhanbad, Dec. 14-18, 2015.
- 3. Thakur, A.K, Teaching Learning Evaluation, Faculty development program, 'One week (2-7 Jan), IQAC Cell, Dr.C. V.Raman University, Bilaspur(C.G.). 2017.
- 4. Thakur, A.K, Entrepreneurship Development Program '' 3days training Program (7-9 May), Dept. of Skill development, Dr.C. V.Raman University, Bilaspur(C.G.). 2015.
- 5. Thakur, A.K ,Saksham-Teaching with Technology Training (Microsoft) dated 29/12/2017 to 30/12/2017, Dr.C. V.Raman University , Bilaspur(C.G.).
- 6. Thakur, A.K, UGC-Sponsored 27<sup>th</sup> Orientation Programme dated 06/01/2020 to 25/01/2020 with obtained Grade 'A' at Guru Ghasidas Vishwavidyalaya(A Centre University) Human Resource Development Centre .
- 7. Thakur, A.K, Inculcating Universal Human Values in Technical Education ,AICTE ,Participation,Participation ,26-30 April,2020.
- 8. Thakur, A.K, Virtual Teaching, Teaching Learning Centre (Under PMMMNMTT, Department of Higher Education, MHRD, GoI) Coimbatore Institute of Technology (Government Aided Autonomous Institution), Participation, April 20 & 21, 2020.

9. Thakur, A.K,Role of Latex in Scienctific Writing, BBDNITT,Laucknow,19-21 June,2020.

## **\*** Conferences /Seminars/Workshops

- 1. A.K.Thakur, S.Panda, G .Sao, H.Suryavanshi, The associated results of Fourier- Weierstrass Transforms, ICMSA, GGV, Bilaspur-2018.
- 2. Thakur, A.K, et al The Solution of integral equation of Triple Laplace Transforms, Presentated, International Conference at LNCT, Bhopal, 13 June, 2020.
- 3. Thakur, A.K., Bhattacharya Sonali, Some theorem on bilateral Laplace Mellin integral transform, ISMAMS, National Conference, 2012.
- 4. Thakur, A.K., Kakker K.K., A mutual relationship between two integral transforms by using Laplace transforms, B.I.T, National Seminar., Raipur, 2013.
- 5. Thakur, A.K, The Fuzzy sets and fuzzy logic' Fuzzy-set, Govt. E. Raghvendra Rao P.G.Science college, National Workshop in mathematics, Bilaspur(Participated),2013.
- 6. Thakur, A.K., Gupta A., The modified Fourier Bessel function theorem, CEC, National Conf. Bilaspur, 2013.
- 7. Thakur, A.K., Matlab Workshop for two days, Dr.C. V.Raman University, Bilaspur(C.G.). 2014.
- 8. Thakur, A.K , Mathematical Models in Agriculture ; Quantities method for ecological Sciences, Organized by B.R.D Government P.G. college , Duddhi Sonbhadra (U.P.) Sponsored by Dept. of Higher Education , National Seminar 21-22 Feb. 2015 .
- 9. Thakur, A.K, Generalized Recurrence relation and integral of Mittage Leffler function, National conference on recent Advances in Physical Sciences, Govt. Kamladevi Rathi Girls P.G. College ,Rajnandgaon(C.G), dated 18-19 Nov.2019.

Date: 30/10/2023 Place: Bilaspur(C.G.)

Dr. A.K.Thakur