Curriculum Vitae

Dr. A. K. YADAV (akyadav@cuh.ac.in, aky68@yahoo.com)

Preamble: I possess Master's and Doctorate degrees from a premier institute (IIT Delhi) of India. I have been working as a full Professor for over 16 years with a proven track record of successful teaching (UG, PG, and PhD), research and administration in various capacities for over 26 years. Having served in Govt. and private institutions, I carry a valuable experience and ability to contribute to institution building. I possess international exposure through post-doctoral research and fostering collaborations through successful exchange programs with reputed foreign universities. I have been a convener or co-convener of several National and International Conferences. I have also been a member of strategic planning team for developing comprehensive policy framework for core academic settings. During my career, I have effectively handled a variety of additional responsibilities like Alumni affairs, Admissions, Outreach and promotions, Accreditation and ranking, Curriculum development and review, and Faculty development.

Education:

PhD, 1995, Indian Institute of Technology, Delhi
(Title: "*Mathematical Modeling of Air Pollutants in Low Wind Conditions")*

MSc, 1989 (Mathematics), First Class (CGPA=7.23/10.00)
Indian Institute of Technology, Delhi

Post-doctoral Fellow, San Jose State University, San Jose, California, USA (June to August 2000)

Visiting Scholar, North Carolina State University, Raleigh, USA (April to Aug 1995)

Total Experience (research/teaching/administration): over **27** years

Present Position: *Professor*, Department of Mathematics, School of Basic Sciences,
Central University of Haryana, Mahendergarh-123031 (since Apr 2022)

Past Positions

Amity University Haryana, **Gurgaon**, **India,** June 2017- April 2022
Professor and Director, Amity School of Applied Sciences

The NorthCap University, Gurgaon (*formerly ITM University***), India**
Professor, July 2011 to June 2017
Head, Dept. of Applied Sciences, June 2013- Oct 2014
Deputy Dean (Alumni), Aug 2012- Feb 2014

Ansal Institute of Technology, Gurgaon, India
Dean (Planning & Development), Aug 2007-May 2011
Professor, Aug 2006-July 2011
Asst. & Assoc. Professor, May 2001-July 2006

Guru Jambheshwar University of Science and Technology, Hisar, India
Faculty (Lecturer and Sen. Lecturer), Dept. of Applied Mathematics, March 1996 - May 2001

Indian Institute of Technology, Delhi, India
Senior Scientific Officer, Sept 1993 - April 1995
Research Fellow, July1989 - August 1993

Fellowships:

Recipient of Research Fellowship based on *GATE* during Ph.D.
Research Fellowship of UGC through *NET*

Honors and Awards:

Received Hewlett-Packard 2009 ***Innovation in Engineering Education*** grant worth $170,000
Leadership Award (2009) for Indo-US Collaboration for Engineering Education (IUCEE)
Best Paper Award *(2015)* PARC, The NorthCap University, Gurgaon

Academic Visits Abroad (on Invitation):

Jan-Feb 2009: Visiting Prof., North Dakota State Univ, Clemson Univ, North Carolina State Univ,

Nov 2006: Visiting Professor, University of Science & Technology, Lille, France

June-Aug 2000: Post doctoral Fellow, San Jose State University, San Jose, California, USA

Nov 1999: Co-organized an International Workshop on "Air Quality Modeling & Management" at University of Brunei, Brunei Darussalam

April–July 1995: Visiting Scholar, North Carolina State University, Raleigh, USA

Invited Talks (Major ones):

- Delivered an invited talk at *NOAA research lab* in Oak Ridge, Tennessee, USA in July 1995
- Talk on "Mathematical Modeling" in Refresher Course at Kurukshetra Univ. 4 Mar 2014
- Keynote on "Optical Image Encryption based on Fractional Hartley Transform" Int. Conf. TCCE 2019, Central University of Haryana, Mahendergarh
- Invited talk on "Fractional Hartley Transform Based Cryptosystems" Seminar on Information Optics and Photonics", Optics and Photonics Center, IIT Delhi, 3 July 2021

Publications: (Total = 89) [Citations: 1556, h-index: 22, i10-index=33 as on 19 May 2022]

***Journals*:** Published in peer-reviewed journals of International Repute: **54**
Conferences: International: **28**, National: Nil
***Edited Book:* 1, *Book Chapters*: 6**

Research Interests:

Image processing, Air quality modeling, Statistical data analysis, Model evaluation, and Health impacts assessment.

Research Guidance: 8 PhDs (3 awarded, 1 submitted, 4 ongoing), Many MSc dissertations

Research Projects (5)

1. DST-FIST (2019-2024) on "**Novel Nanomaterials for Healthcare and Environment: New Horizons"** as PI, Duration: 5 years (Funding: Rs.84 Lakhs)
2. DRDO sponsored project (2013) on Preparation of a state-of-art/status report on *"***Phase Retrieval Techniques in Optics and Their Relative Performance***"* as Co-PI, Duration: 1.5 years
3. Hewlett Packard (2009) Innovation in Education project, "**Use of Tablet PC in strengthening the foundations of Engineering Education",** Duration: 2 years (USD 170,000)
4. UGC Major Research Project Awarded (2000) "**Mathematical treatment of plume descriptors from a non-Gaussian plume model",** Duration: 3 years
5. UGC Minor Research Project (1999) "**Plume descriptors from non-Gaussian air pollution models applicable in weak winds and a Gaussian deposition model",** Duration: 1 year

Patent Filed (1)

- A System and Method for Differentiating Real and Forged Fingerprints, 08.04.2019, CRN 3415, 201911014027

Professional Affiliations:

- Life Member, Indian Society for Technical Education (ISTE)
- Life Member, Indian Meteorological Society (IMS)

References:

- *Prof. M.P.Singh*, Former Prof.& Head, CAS, IIT Delhi,E-mail: profmpsingh33@gmail.com
- *Prof. Maithili Sharan*, CAS, IIT Delhi. E-mail: mathilis@hotmail.com
- *Prof. Kehar Singh*, Former Dean, IIT Delhi, E-mail: keharsiitd@gmail.com
- *Prof. Sethu Raman*, NC State Univ., Raleigh USA. E-mail: sethu raman@ncsu.edu

Note: In my career spanning over two decades, I have worked in India and abroad, in Govt and private, newly setup and well-established institutions, took up a variety of roles and responsibilities in core academic settings. Therefore, I consider myself fortunate to have handled administrative, teaching and research work with consummate ease. I have been a convener, co-convener, member Organizing Committee of several National and International Conferences. I directed an International Conference on "Emerging Trends in Computational and Applied Mathematics" at ITM University Gurgaon, 2-4 June 2014, sponsored by National Board for Higher Mathematics (NBHM), CSIR and DST, Govt. of India.

List of Publications (*Journals only*) - A.K. Yadav

In Journals of International Repute (54) [Citations: 1556, h-index: 22, i10-index=33 as on 19 May 2022]

1. Sameer Saharan, Bhuvnesh Yadav, **A K Yadav,** Application of Hertzberg stain in identification and differentiation of polyvinyl acetate based forged fingerprints. Accepted for publication in **Current Science.** (2022)
2. J Kumar, **A K Yadav**, P Singh, Asymmetric double-image encryption using twin decomposition in fractional Hartley domain. **Optica Applicata, Vol.** 52(1) (2022), DOI: 10.37190/oa220102
3. Savita Anjana, **A K Yadav**, Phool Singh, Hukum Singh, Audio and image encryption scheme based on QR decomposition and random decomposition in Fresnel domain. Accepted for publication in **Optica Applicata,** 52 (2021)
4. Phool Singh, **A K Yadav**, Kehar Singh, Security-analysis of a nonlinear mask-based cryptosystem in fractional Mellin domain. **Asian Journal of Physics**, Vol.30, No.8 & 9, 1397-1406.(Aug 2021)
5. Raman Yadav, Sachin, Archana, Phool Singh, **A K Yadav,** Image encryption algorithm for color images based on cascaded unequal modulus decomposition in Fourier domain. **Asian Journal of Physics**, Vol.30, No.7, pp 1071-1082. (July 2021).
6. Phool Singh, **A K Yadav**, Pankaj Rakheja, Sachin, Kehar Singh, Asymmetric image encryption algorithm based on elliptic curve cryptography and phase- truncated Fourier transform, **Asian Journal of Physics**, Vol.30, No.5, 747-758 (May 2021).
7. Phool Singh, Ravi Kumar, **A K Yadav**, Kehar Singh, Security analysis and modified attack algorithms for a nonlinear optical cryptosystem based on DRPE, **Optics & Lasers in Engineering,** Vol. 139, pp106501 (April 2021) (SCOPUS & SCI).
8. S Dhar, S Yadav, J Singh, **A K Yadav**, P Singh, Analysis of Discharge Patterns of Subthalamic Nucleus and External Globus Pallidus Coupling in Parkinson Condition Using Particle Swarm Optimization Algorithm, **Dynamics of Continuous, Discrete and Impulsive Systems- Series B,** 28(1), pp.25-40 (2021) (SCOPUS & SCI).
9. Phool Singh, **A K Yadav**, Sanjay Yadav, Kehar Singh, Security-enhanced cryptosystem in fractional Hartley domain using double random phase encoding with nonlinear mask, **Asian Journal of Physics**, Vol.30, No.1, pp.79-90 (Jan 2021).
10. S Dhar, S Yadav, P Singh, J Singh, **A K Yadav**, Optimization of Discharge Patterns in Parkinson Condition in Subthalamic Nucleus Model of Basal Ganglia using Particle Swarm Optimization Algorithm, **Adv. in Mathematics: Scientific Journal,** 9 (2020), No.5, pp.3135–3153, (SCOPUS)
11. Sameer Saharan, **A K Yadav**, Bhuvnesh Yadav, Novel C stain-based chemical method for differentiating real and forged fingerprints. **Egyptian Journal of Forensic Science,** 10:16 (June 2020). DOI: 10.1186/s41935-020-00190-7. (SCOPUS)
12. J Kumar, P Singh, **A. K. Yadav**, Asymmetric color image encryption using singular value decomposition and chaotic Tinkerbell map in fractional Fourier domain, **Proc. SPIE 11509**, Optics and Photonics for Information Processing XIV, 115090C, 2020. (SCOPUS).
13. P. Singh, **A. K. Yadav**, K. Singh, and I. Saini, Asymmetric watermarking scheme in fractional Hartley domain using modified equal modulus decomposition. **J. Optoelec. & Adv. Mat.** (SCI), Vol. 21, No.7-8, 484-491, 2019.
14. P. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, Review of Optical Image Encryption Scheme Based on Fractional Hartley Transform. **Asian Journal of Physics**, Vol.28(7-9), 701-716, 2019.
15. **A.K. Yadav**, P. Singh, I. Saini and K. Singh, Asymmetric encryption algorithm for colour images based on fractional Hartley transform. **J. Modern Optics,** (Taylor & Francis), Vol.66, No.6, 629-642, 2019**.**
16. Pankaj Rakheja, Phool Singh, A K Yadav, Akhil Arora, Asymmetric color image encryption mechanism using equal modulus and random decomposition in hybrid transform domain. **Asian Journal of Physics,** Vol.28, No.10-12, 947-960, 2019.

17. Jaideep Kumar, P. Singh, **A.K. Yadav**, A. Kumar, Asymmetric cryptosystem for phase images in fractional Fourier domain using LU-decomposition and Arnold transform, **Procedia Computer Science,** (Elsevier), 132, 1570-1577, 2018

18. **A.K. Yadav**, P. Singh and K. Singh, Cryptosystem based on devil's vortex Fresnel lens in the fractional Hartley domain, **J. Opt.**, Vol.47, No. 2, 208-219, 2018.

19. A. Savita, P. Singh, **A.K. Yadav** and K. Singh, Asymmetric audio encryption system based on Arnold transform and random decomposition, **Asian Journal of Physics,** Vol.27 (9-12), 637-645, 2018.

20. V. Popli, P. Singh and **A.K. Yadav**, Stability analysis of MHD outer velocity flow on a stretching cylinder, **Alexandria Engineering Journal** (Elsevier), Vol.57, 2077-2083, 2018.

21. Jaideep Kumar, Phool Singh, **AK Yadav**, Asymmetric cryptosystem using double random-decomposition in fractional Fourier transform domain. Proc. SPIE 10751, Optics and Photonics for Information Processing XII, 107510V, 2018. (SCOPUS)
22. Neha Sharma, Indu Saini **A.K. Yadav** and Phool Singh, Phase-Image Encryption Based on 3D-Lorenz Chaotic System and Double Random Phase Encoding, **3D Research**, (Springer) 2017 (8:39).

23. I. Saini, P. Singh and **A.K. Yadav**, Analysis of Lorenz-Chaos and exclusive-OR based image encryption scheme, **Int. J. Social Computing and Cyber-Physical Systems (**Inderscience), Vol.2, No.1, 59-71, 2017.

24. P. Singh, **A.K. Yadav** and K. Singh, Color image encryption using affine transform in fractional Hartley domain, **Optica Applicata,** Vol. 47, issue 3, 421-433, 2017.

25. P. Singh, **A.K. Yadav** and K. Singh, Phase image encryption in the fractional Hartley domain, using Arnold transform and singular value decomposition, **Optics and Lasers in Engineering** (Elsevier), 91, 187-195, 2017.

26. P. Singh, **A.K. Yadav**, Kehar Singh, and Indu Saini, Optical image encryption in the fractional Hartley domain, using Arnold transform and singular value decomposition, **AIP Publishing**, 1802, 020017-1–020017-7, 2017.

27. V. Poply, P. Singh and **A.K. Yadav**, A Study of Temperature-dependent Fluid Properties on MHD Free Stream Flow and Heat Transfer over a Non-Linearly Stretching Sheet, **Procedia Engineering** (Elsevier), Vol. 127, 391-397, 2015.

28. A.K. Yadav, S. Vashisth, H. Singh and K. Singh, An asymmetric cryptography system for watermarking of phase-images using gyrator transform, **Asian Journal of Physics**, Vol 24, No.12, 1611-1624, 2015.

29. H. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, Optical image encryption using devil's vortex toroidal lens in the Fresnel transform domain, **International Journal of Optics**, Vol. 2015. Article ID 926135, 13 pages, 2015.

30. H. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, Double phase-image encryption using gyrator-, and fractional Fourier transforms with structured phase mask in the frequency plane followed by a gyrator transform, **Asian Journal of Physics**, Vol 24, No.1, 1-16, 2015.

31. A.K. Yadav, S. Vashisth, H. Singh and K. Singh, A phase-image watermarking scheme in gyrator domain using devil's vortex Fresnel lens as a phase mask. **Optics Commun.** Vol.344, 172-180, 2015.

32. H. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, Double phase-image encryption using gyrator transforms, and structured phase mask in the frequency plane, **Optics and Lasers in Engineering**, Vol.67, 145-156, 2015.

33. H. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, Fully-phase image encryption using double random-structured phase masks in gyrator domain, **Applied Optics,** Vol.53 (28), 6472-6481, 2014.

34. S. Vashisth, H. Singh, **A.K. Yadav**, K. Singh, Image encryption using fractional Mellin transform, structured phase filters, and phase retrieval. **Optik**, Vol.125, 5309–5315. 2014.

35. S. Vashisth, **A.K. Yadav**, H. Singh and K. Singh, **"Watermarking in gyrator domain using an asymmetric cryptosystem",** Proc. of SPIE. Vol. 9654 96542E-1/8, 2015. (SCOPUS)

36. H. Singh, **A.K. Yadav**, S. Vashisth and K. Singh, A cryptosystem for watermarking based on fractional Fourier transform using a random phase mask in the input plane and a structured phase mask in the frequency plane, **Asian Journal of Physics**, Vol.23, No.4, 597-612, 2014.
37. S. Vashisth, H Singh, **A.K. Yadav**, K Singh, Devil's Vortex Phase Structure as Frequency Plane Mask for Image Encryption Using the Fractional Mellin Transform, **International Journal of Optics**, Vol. 2014. Article ID 728056, 9 pages, 2014.

38. J. Biswas, E. Upadhyay, M.Nayak and **A.K. Yadav,** An Analysis of ambient air quality conditions over Delhi, India from 2004 to 2009, **Atmospheric and Climate Sciences**, Vol.1, 214-224, 2011**.**

39. Krishan Kumar, **A.K. Yadav**, H. Hassan, M. P. Singh and V. K. Jain, Forecasting Daily Maximum Surface Ozone Concentrations in Brunei Darussalam - an ARIMA Modeling Approach, **Journal of Air and Waste Management Association**, Vol. 54, No.7, 809-814, 2004.

40. Maithili Sharan, Manish Modani and **A.K. Yadav,** Atmospheric dispersion: an overview of mathematical modeling framework. **Journal of the Proceeding of Indian National Science Academy**, Vol. 69, A, No. 6, 725-744, 2003.

41. **A.K. Yadav**, S. Raman and D.D.S. Niyogi, A note on the estimation of eddy diffusivity and dissipation length in low winds over a tropical urban terrain, **PAGEOPH**, Vol. 160**,** 395-404, 2003.
42. K.N. Mehta and **A.K. Yadav,** A non-Gaussian two-dimensional dispersion model with concentration dependent wind and diffusivity profiles. **Indian Journal of Pure and Applied Mathematics**, Vol. 34(6), 963-972, 2003.
43. **A.K. Yadav**, Krishan Kumar, Awg Makarimi bin Hj Awg Kasim, M.P. Singh, S.K. Parida and Maithili Sharan, Visibility and incidence of respiratory diseases during the 1998 have episode in Brunei Darussalam. **PAGEOPH**, Vol. 160, 265-277, 2003.
44. Maithili Sharan, **Anil Kumar Yadav** and Manish Modani, Simulation of short-range diffusion experiments in low wind convective conditions. **Atmos. Environ**, Vol. 36, 1901-1906, 2002.
45. **A.K. Yadav** and K.N. Mehta, Sensitivity of plume descriptors of a Gaussian plume model to deposition and source elevation, **II Nuovo Cimento**, Vol 023C, issue 03, 251-262, 2000.
46. Maithili Sharan, **Anil Kumar Yadav** Accounting for the source strength in the solution of the diffusion equation: Alternative Mathematical Formulations. **Atmos. Environ**, Vol. 33, No. 8, 1327-1330, 1999.
47. Maithili Sharan and **Anil Kumar Yadav** Simulation of diffusion experiments under light wind, stable conditions by a variable K-theory model**, Atmos. Environ.**, Vol. 32, No. 20, 3481-3492, 1998.
48. Maithili Sharan, **Anil Kumar Yadav** and M.P. Singh, Plume dispersion simulation using a mathematical model based on coupled plume segment and Gaussian puff approaches. **J. Appl. Meteoro.**, Vol. 35, No. 10, 1625-1631, 1996.
49. **Anil Kumar Yadav**, Sethu Raman and Maithili Sharan, Surface layer turbulence spectra and eddy dissipation during low winds in tropics. **Bound.- Layer Meteoro.**, Vol. 79, 205-224, 1996.
50. Maithili Sharan, M.P. Singh and **Anil Kumar Yadav,** Mathematical model for atmospheric dispersion in low winds with eddy diffusivities as linear functions of downwind distance. **Atmos. Environ.**, Vol. 30, 1137-1145, 1996.
51. Maithili Sharan, **Anil Kumar Yadav**, M.P. Singh, P. Agarwal and S. Nigam, A mathematical model for the dispersion of air pollutants in low wind conditions. **Atmos. Environ.**, Vol. 30, 1209-1220, 1996.
52. **Anil Kumar Yadav** and Maithili Sharan, Statistical evaluation of sigma schemes for estimating dispersion in low wind conditions. **Atmos. Environ.**, Vol. 30, 2595-2606, 1996.

53. Maithili Sharan, **Anil Kumar Yadav** and M.P. Singh, Comparison of sigma schemes for estimation of air pollutant dispersion in low winds. **Atmos. Environ.**, Vol. 29, 2051-2059, 1995.

54. P. Agarwal, **Anil Kumar Yadav**, Amita Gulati, Sethu Raman, Suman Rao, M.P. Singh, S. Nigam and Neerja Reddy, Surface layer turbulence processes in low windspeeds over land. **Atmos. Environ.**, Vol. 29, 2089-2098, 1995.

List of Conferences Publications (28)

1. **A.K. Yadav**, P. Singh, "**Double image encryption using equal modulus decomposition and random modulus decomposition in fractional Hartley domain"**, presented at MTMI conference (20-22 Dec 2019) hosted by AIHE, Mauritius.
2. P. Singh, **A.K Yadav**, Savita Anjana, **"Encryption cum compression of a double image using orthogonal-triangular decomposition (QR decomposition) with column pivoting"**, presented at MTMI conference (20-22 Dec 2019) hosted by AIHE, Mauritius.
3. S. Dhar, J. Singh, P. Singh and A K Yadav. *Stability and Bifurcation Analysis of Delayed Neural Network Using Harmonic Balance Approach;* Int. Conf. on Signal Processing and Integrated Networks (SPIN)**,** Amity Univ., Uttar Pradesh NOIDA. 8th Mar 2019. *1053-1057*. (SCOPUS).
4. A. Savita, P. Singh, **A.K. Yadav** and K. Singh, **"Asymmetric audio encryption system based on Arnold transform and random decomposition"**, presented at IACC 2018 conference (14-15 Dec 2018) hosted by **Bennett University, Noida**.
5. Jaideep Kumar, **AK Yadav**, Phool Singh. **"Asymmetric color image encryption using singular value decomposition and affine transform in fractional Fourier domain"**. Proc. of the 12th INDIACom; INDIACom-2018; IEEE Conference ID: 42835, 5th Int. Conf. on "Computing for Sustainable Global Development", 14-16 March, 2018, **Bharti Vidyapeeth Delhi,** ISBN 978-93-80544-28-1. pp.2680-2686.
6. Jaideep Kumar, Phool Singh, **AK Yadav**, Anoop Kumar. "**Asymmetric image encryption using gyrator transform with singular value decomposition".** 1st Int. Conf. on Engineering Vibration, Communication and Information Processing (ICoEVCI-2018), 9-10 March, 2018, **Manipal University Jaipur**
7. Phool Singh, **AK Yadav**, Kehar Singh. "**Known Plaintext Attack on Cryptosystem based on Fractional Hartley Transform using Particle Swarm Optimization Algorithm"**. 1st Int. Conf. on Engineering Vibration, Communication and Information Processing (ICoEVCI-2018), 9-10 March, 2018, **Manipal Univ. Jaipur**
8. **AK Yadav**, Phool Singh, Kehar Singh. "**Known Plaintext Attack using Particle Swarm Optimization"**. Proc. of Int. Conf. on Advances in Optics and Photonics (ICAOP-2017), pp.140-146, ISBN:978-93-84871-109, 23-26 Nov 2017, **Guru Jambheshwar University, Hisar**
9. Garima Sharma, Akansha Singh, **A.K. Yadav**, K.K. Singh, "**Face detection from digital images: A comparative Study**", *International Conference on Communication and Computing Systems (ICCCS-2016), DCE, Gurgaon, 9-11 Sept 2016*, Published by CRC Press (Taylor and Francis).
10. P. Singh, **A.K. Yadav** and K. Singh, **Optoelectronic image encryption in the fractional Hartley domain, using Arnold transform and singular value decomposition**, *International Conference on Engineering Physics, Materials & Ultrasonics (ICEPMU-2016)*, 3-4 June 2016, NCU Gurgaon, India.
11. V. Poply, P. Singh and **A.K. Yadav**, **A Study of Temperature-dependent Fluid Properties on MHD Free Stream Flow and Heat Transfer over a Non-Linearly Stretching Sheet**, *International Conf. on Heat and Mass Transfer*, 30 Nov to 2 Dec 2015, Dept. of Mathematics, NIT Warangal.
12. H. Singh, S. Vashisth, **A.K. Yadav**, and K. Singh, **"Multiple-image encryption based on structured phase masks in spatial and frequency planes in the Fresnel domain"** Accepted for presentation in *International Conference on Optics & Optoelectronics (ICOP), Kolkata*, *20*-22 Feb 2015.
13. H. Singh, S. Vashisth, **A.K. Yadav**, and K. Singh,"**Fully-phase image encryption with random phase mask and devil's vortex Fresnel lens using gyrator transform**", in *Int. Conference on Emerging Trends in Computational and Applied Mathematics -2014, ITM University Gurgaon, 2-4 June 2014, pp217-222.*
14. S. Vashisth, **A.K. Yadav**, H. Singh and K. Singh,"**A watermarking scheme for phase images using random phase masks in fractional Fourier and gyrator domains**", in *Int. Conference on Emerging Trends in Computational and Applied Mathematics -2014, ITM Univ Gurgaon, 2-4 June 2014, pp244-248.*

15. **A.K. Yadav**, Hukum Singh, Sunanda Vashisth and Kehar Singh, "**Image Encryption Based on Devil's Vortex Fresnel Lens in Gyrator Transform Domain**", in *International Conference on Optics and Optoelectronics-2014, IRDE Dehradun, 5-8 March 2014***.**
16. Sunanda Vashisth, Hukum Singh, **A.K. Yadav**, and Kehar Singh, "**Devil's Vortex Phase Structure as Frequency Plane Mask for Image Encryption Using Fractional Mellin Transform**", in *International Conference on Optics and Optoelectronics-2014, IRDE Dehradun, 5-8 March 2014.*
17. Hukum Singh, Sunanda Vashisth, **A.K. Yadav**, and Kehar Singh,"**Image watermarking based on fractional Mellin transform**", in *International Conference on Optics and Optoelectronics-2014, IRDE Dehradun, 5-8 March 2014.*
18. Sunanda Vashisth, Hukum Singh, **A.K. Yadav** and Kehar Singh. "**Image encryption using fractional Mellin transform, structured phase filters, and phase retrieval",** in *International Conference on Mathematical Modeling and Numerical Simulation", BBA Univ. Lucknow, 1-3 July 2013.*
19. H Singh, Sunanda Vashisth, **A.K. Yadav** and Kehar Singh. "**A cryptosystem for color images, based on fractional Mellin transform with structured phase illumination in the frequency domain",** in *Int. Conf. on Mathematical Modeling and Numerical Simulation", BBA Univ Lucknow, 1-3 July 2013.*
20. Era Upadhaya, M. Nayak, J. Biswas and **A.K. Yadav**: "**Analysis of surface ozone data from two monitoring sites in Delhi, 2010".** *Indo-US Conference on Air Quality and Climate Research, ASCI Hyderabad, Mar 14-16, 2011.*
21. Archana Mantri and **A.K. Yadav**: **"Transforming Engineering Education Globally- the IUCEE way - IUCEE success stories in Chandigarh and Haryana in the Northern Region of India"** *Global Colloquium for Engineering Education in Budapest* Oct 12-15, 2009
22. **A.K. Yadav**, Krishan Kumar, Makarimi Hj Kasim, M.P. Singh, S.K. Parida, Hj Sidup Hj Bin Sirabaha and M.Sharan: "**Study of Impact of PM10 on visibility and health in Brunei during haze period**". *Int. Conference on Air Quality Management, University of Brunei, Brunei Darussalam, Nov 15-17, 1999.*
23. **A.K. Yadav**, Azahar Latif, M.P. Singh, and Makarimi Hj Kasim: "**Evaluation of Roadway Model to study the concentration of Ozone due to vehicular traffic in BSB, Brunei"**. *International Conference on Air Quality Management, University of Brunei, Brunei Darussalam, Nov 15-17, 1999.*
24. M.P.Singh, **A.K. Yadav**, R.T. McNider, R. Meyers, M. Sharan and Azahar Latif: "**Nocturnal dispersion of plumes – effect of Baroclinicity and Geostrophoc wind varying with time".** *International Conference on Air Quality Management, University of Brunei, Brunei Darussalam, Nov 15-17, 1999.*
25. Azahar Latif, M.P. Singh, M.H. Kasim and **A.K. Yadav**: "**Development of a line source air quality model to study dispersion of traffic CO in Brunei Darussalam".** *International Conference on Air Quality Management, University of Brunei, Brunei Darussalam, Nov 15-17, 1999.*
26. **Anil Kumar Yadav** and Sethu Raman: "**Eddy diffusivity in low winds".** *International conference on Asian Monsoon and Pollution over the Monsoon Environment. Dec 2-5, 1997, IIT Delhi.*
27. **Anil Kumar Yadav**, Maithili Sharan and M.P. Singh, Atmospheric dispersion in low wind conditions. Proceedings of the ***First World Congress of Nonlinear Analysts,*** p.3567-3593, Tampa, Florida, August 19-26, 1992; Editor V. Lashmikantham, Walter de Gruyter, Berlin, New York. (1996). (SCOPUS).
28. Sethu Raman, **Anil Kumar Yadav** and Maithili Sharan: "**Surface layer turbulence during low winds in tropics".** *11th AMS Symp. on Boundary Layer and Turbulence, March 27-31, 1995, Charlotte, NC, USA.*

Edited Book (1)

A.K. Yadav, P. Singh and G. Gupta (Eds), Proceedings of the International Conference on Emerging Trends in Computational and Applied Mathematics -2014, ITM University Gurgaon, 2-4 June 2014, 353 pages. Bharti Publications, New Delhi, ISBN 978-93-81212-76-9.

Book Chapters (6)

1. Sachin, Phool Singh, Ravi Kumar, and **A. K. Yadav** (2022) "**Asymmetric Cryptosystem for Color Images Based on Unequal Modulus Decomposition in Chirp-Z Domain"**, Springer Nature Singapore Pte Ltd. 2022, G. Gupta et al. (eds.), Proceedings of Academia-Industry Consortium for Data Science, Advances in Intelligent Systems and Computing 1411, https://doi.org/10.1007/978-981-16-6887-6_27
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