



## BIO-DATA

1. **Name** : **DR. MUKESH KUMAR SHARMA**
2. **Father's Name** : Sri Krishan Kant Sharma
3. **Date of Birth** : January 1, 1978
4. **Present Designation** : Professor,  
Department of Mathematics  
Chaudhary Charan Singh University, Meerut
5. **Permenant- Address** : Vill.-Shyamnagar,  
Post-Hapur  
Hapur-245101, U.P. (India)
6. **Current Address** : A-21, Lakhmi Vihar Meerut  
**E-mail** : [drmukeshsharma@gmail.com](mailto:drmukeshsharma@gmail.com)  
[mukeshkumarsharma@ccsuniversity.ac.in](mailto:mukeshkumarsharma@ccsuniversity.ac.in)  
**Phone:** +91-9412632166, +91-94573961006.

<https://orcid.org/0000-0003-3071-5931>

<https://www.scopus.com/authid/detail.uri?authorId=57220992209>

<https://scholar.google.com/citations?user=XaRIH7gAAAAJ&hl=en>

[https://www.researchgate.net/profile/Mukesh\\_Sharma20/publications?sorting=recentlyAdded&editMode=1](https://www.researchgate.net/profile/Mukesh_Sharma20/publications?sorting=recentlyAdded&editMode=1)

<https://www.mendeley.com/universal-claim/?routeTo=/profiles/me&referrer=sc%3C>

<https://publons.com/researcher/4544634/mukesh-kumar-sharma/>

<https://www.ccsuniversity.ac.in/ccsu/index.php#>

Web of Science Researcher ID: [AAS-6615-2021](#) [AAV-4077-2021](#).

Vidwan-ID: 281310

<https://vidwan.inflibnet.ac.in/profile/281310>

<http://abacus.upsdc.gov.in/FacultyLogin/Default.aspx>

<https://sciprofiles.com/profile/MukeshKumarSharma>

## 7. Academic Qualifications :

Year	Degree	Board/University	Specialization	Division	Marks Ob./M.Marks	Percentage
1991	X <sup>th</sup>	U.P. Board Allahabad	Maths, Science, Biology, Hindi, English, So.Science	I <sup>st</sup>	476/600	79.33
1993	XII <sup>th</sup>	--do--	Maths, Physics, Chemistry, Hindi, English	I <sup>st</sup>	372/500	74.40
1997	B.Sc.	C.C.S.University, Meerut	Mathematics, Physics and Chemistry	I <sup>st</sup>	1197/1450	82.64
1998	B.Ed.	C.C.S.University, Meerut	Physical Sciences & Mathematics	I <sup>st</sup>	480/600	60.00
2000	M.Sc.	--do--	Mathematics	I <sup>st</sup>	1207/1600	75.34
2002	M. Phil.	--do--	Mathematics Project: <b>Software, Hardware &amp; Fuzzy Reliability</b>	I <sup>st</sup>	451/600	71.83
2007	Ph.D.	--do--	Topic: <b>A Study of Fuzzy Aspect of System Reliability</b>	Awarded		

**8. Teaching Experience:** More than 15 years

**9. Administrative Experience:** About 4 years in Entertainment Tax Department, U.P.  
Government

**10. Guest Faculty:** Department of Mathematics C. C. S. University, Meerut, About 5 Years  
Department of Computer Applications, C.C.S. University, Meerut, about 2  
years Department of Economics, C.C.S. University, Meerut, About One Year

**11. Classes Taught :** B.Sc., M.Sc., M.C.A., M.A., and M.Phil.

**12. Courses Taught:**

- i) Operations Research/ Optimization Techniques
- ii) Queueing, Information & Reliability Theories.
- iii) Differential Equations / Integral Equations.
- iv) Numerical Analysis (v) Complex Analysis
- vi) Discrete Mathematics (vii) Lebesgue Measure and Integration
- viii) Mathematical Methods (ix) Statistical Techniques
- x) Computer Fundamentals and applications in Economic Analysis

**13. Research Specialization:** Operations Research (Reliability Theory)& Fuzzy Reliability

#### **14. Membership of Academic Bodies:**

1. Life Member, Indian Mathematical Society.
2. Life Member, International Academy of Physical Sciences, Allahabad
3. Life Member, The Research Board of Advisors, American Biographic Institute

#### **15. Administrative Experience:**

(i) Worked as Assistant Controller, Deputy Controller in the Examination Central Evaluation in Ch. Charan Singh University, Meerut.

(ii) Worked as Deputy Controller in the moderation of objective type Question paper setting in Ch. Charan Singh University, Meerut.

(iii) Worked as University Observer in different examinations conducted by C.C.S. University, Meerut.

(iv) Worked in different committees in college i.e. in admission committee, student union election committee, U.G.C. Grant committee.

#### **16. Research Supervision.**

##### **(a). Ph.D. Awarded**

- |                        |                 |   |
|------------------------|-----------------|---|
| 1. Mr.Navneet Kumar    | <b>Topic: -</b> | <b>“Role of Fuzzy Set Theoretic Approach in Reliability aspect of some complex Systems”</b> |
| 2. Km. Anita           | <b>Topic: -</b> | <b>“A vague set theoretic approach to some problem Related to Healthcare.”</b>              |
| 3. Ms. Vintesh         | <b>Topic: -</b> | <b>“Vague Set Theoretic Approach To Systems Reliability.”</b>                               |
| 4. Mr. Padmendra Singh | <b>Topic: -</b> | <b>“A Fuzzy and Vague set approach to Multiobjective Optimization Problems.”</b>            |

##### **(c). M. Phil. Projects Supervised**

1. Vague Groups and its properties (2020)
2. Reliability Analysis of Complex Systems Using Fuzzy Sets and Vague Sets (2019)
3. Vague Set Theoretic Approach to System Reliability (2010)
4. Fuzzy Goal Programming and Its Applications (2008)
5. A Study of Vague Sets and Its Applications to Medical Diagnosis (2008)
6. A Study of Optimum Runge-Kutta Methods for Initial Problems (2008)
7. Some aspects of fuzzy matrices (2007)
8. Some applications of MATLAB in Neural Networks. (2007)

9. A study of Inventory models using different approaches (2007)
10. Two approaches of handling the uncertainty in game problems (2007)
11. A study of some aspects of fuzzy programming. (2006)

## 17. RESEARCH PAPERS (Papers published)

### (A) Communicated Research Papers

1. Two Stage Fuzzy Trapezoidal Ranking Function in Optimization of Fuzzy Transportation Problems in Information Sciences, Elsevier
2. Review of fuzzy logic analysis in COVID-19 pandemic and proposed a new technique through extended hexagonal intuitionistic fuzzy number in COVID-19 analysis in International Journal of Advances in Engineering Sciences and Applied Mathematics (Springer)
3. Modified Round Robin CPU scheduling: A Fuzzy Logic Based Approach, (OPSEARCH), Springer
4. On Vague Cosets and Vague Normal Subgroups (Bulletin of the Malaysian Mathematical Society), Springer
5. Detailed Application of Computational Intelligence in Vehicle Traffic Congestion Problem in Springer (Lecture notes in Network and Systems(LNNS))
6. HYBRID SYSTEMS IN USING DISTRIBUTED INTELLIGENCE FOR 6G IOV, in Hindawi
7. Multi Objective Based Fuzzy Decision-Making Model over Entropy of Multi-Attribute, in Hindawi
8. Fermatean Fuzzy Programming with New Score Function: A New Methodology to Multi-objective Transportation Problems
9. Artificial Neural Network Dual Hesitant Fermatean Fuzzy Implementation in Transportation of COVID-19 Vaccine
10. A new ranking approach for optimization of Intuitionistic Fuzzy Transshipment Problem

### (B) Accepted Research Papers

1. Emotional Intelligence and its management in the conflicting factors in the pandemic by using meditative fuzzy logic system submitted to " Emotional Intelligence for leadership effectiveness: Management Opportunities and Challenges during Times of Crisis " Apple academic Press, CRC & Taylor Francis Hard, 2022 ISBN: 9781774911327, <https://www.appleacademicpress.com/emotional-intelligence-for-leadership-effectiveness-management-opportunities-and-challenges-during-times-of-crisis/97817749113273>.
2. Fuzzy Reliability of a Multi-State System Using Fuzzy Universal Generating Function” has been accepted for publication in AIP Proceeding: (Scopus indexed).

3. Intuitionistic type-II fuzzy logic-based inference system and its realistic applications to the medical field has been accepted for publication in Springer
4. A Fuzzy Decomposable Approach to Post-Fault Reliability Evaluation of a Repairable Substation Automation System, Springer, 415, [https://doi.org/10.1007/978-981-19-0179-9\\_28](https://doi.org/10.1007/978-981-19-0179-9_28)
5. IoMT Tsukamoto Type-2 Fuzzy Expert System in Medical Diagnostic, Applied Computing e-Journal, SSRN: <https://ssrn.com/abstract=4117243>, <http://dx.doi.org/10.2139/ssrn.4117243>

(C) Published Research Papers

1. A Fermatean Fuzzy Ranking Function in Optimization of Intuitionistic Fuzzy Transportation Problems published in Advanced Mathematical Models & Applications, Vol.7, No.2, 2022, pp.191-204, <http://jomardpublishing.com/journals.aspx?lang=en&id=2&menu=8&info> (SCOPUS)
2. FURTHER ON PETROVIC'S TYPES INEQUALITIES, published in J. Appl. Math. & Informatics Vol. 40(2022), No. 5 - 6, pp. xx - xx <https://doi.org/10.14317/jami.2022.xxx>, <http://jami.or.kr/?ckattempt=1>
3. A Comprehensive Analysis of Internet of Things (IOT) Sustained Integrity System Services with Data Management Based ON Machine Learning, 2022, pp. 2636-2639, doi: <https://doi.org/10.1109/ICACITE53722.2022.9823431>, IEEE Xplore, **Electronic ISBN:978-1-6654-3789-9**, <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9823431&isnumber=9823413>
4. IoT Based Multi-Layered Security Network Authentication System Development Using Blockchain Technology Management, 2022, pp. 2234-2238, IEEE Xplore doi: <https://doi.org/10.1109/ICACITE53722.2022.9823518> **Electronic ISBN:978-1-6654-3789-9** <https://ieeexplore.ieee.org/document/9823518>
5. On Z-Intuitionistic Fuzzy Fractional Valuations for Medical Diagnosis: An Intuitionistic Fuzzy Knowledge-Based Expert System, *Fractal Fract.* **2022**, 6(3), 151; <https://doi.org/10.3390/fractalfract6030151> , (WoS & Scopus) ISSN: 2504-3110
6. Color and Psychological Functioning with LSTM: The Impact of Colors on Emotional Quotient, Journal of Positive School Psychology <http://journalppw.com>2022, Vol. 6, No. 6, 4773–4778, <https://journalppw.com/index.php/jpsp/article/view/8285>

7. Logic of Meyons: A Fuzzy Logic Based Approach, NeuroQuantology|June2022| Volume20|Issue6|Page1482-1491| doi: <http://10.14704/nq.2022.20.6.NQ22142>, [www.neuroquantology.com](http://www.neuroquantology.com) eISSN1303-550
8. An Intuitionistic Fuzzy Logarithmic Measurement for Travelling Salesman Problem, Advances in Fuzzy Sets and Systems, <http://www.pphmj.com>, <http://dx.doi.org/10.17654/0973421X22008> Volume 27, Number 1, 2022, Pages 151-167 P-ISSN: 0973-421X
9. Post-symptomatic Detection of COVID-2019 Grade based Mediative Fuzzy Projection, Computers and Electrical Engineering (2022), <https://doi.org/10.1016/j.compelec.eng.2022.108028> ISSN: 0045-7906
10. FACTOR ANALYSIS ON ISSUES OF TEACHING AND LEARNING MATHEMATICS FOR UG LEVEL STUDENTS OF KAMRUP(M) OF ASSAM, J. Math. Comput. Sci., Vol. 12-32, (2022), pp.1-19,DOI: <https://doi.org/10.28919/jmcs/6802> ISSN: 1927-5307. URL: (scopus)
11. Employee Retention and Attrition Analysis: A Novel Approach on Attrition Prediction Using Fuzzy Inference and Ensemble Machine Learning, Webology, <https://www.webology.org>, (ISSN: 1735-188X) Volume 19, Number 2, 2022 (Scopus),
12. Fixed Point Approximation for Suzuki Generalized Non expansive Mapping Using  $B(\delta, \mu)$  Condition, Crossref DOI link: <https://doi.org/10.4236/AM.2022.132017>, Applied Mathematics, 2022, 13, 215-227 <https://www.scirp.org/journal/am> ISSN Online: 2152-7393 ISSN Print: 2152-7385
13. Mediative Fuzzy Pythagorean Algorithm to Multi-Criteria Decision-Making and its Application in Medical Diagnostic, Springer Book Chapter 2022 (<https://link.springer.com/book/9789811677229#bibliographic>). ISBN 978-981-16-7722-9 ISBN 978-981-16-7723-6 (eBook) <https://doi.org/10.1007/978-981-16-7723-6>, Computational Modelling in Industry 4.0 A Sustainable Resource Management Perspective.
14. Fuzzy Reliability Analysis of a Multi-Chiller System based on Modern Analytics, Journal of International Academy of Physical Sciences, Vol. 26 No. 1 (2022), ISSN 0974 – 9373, pp.97-108, <http://www.iaps.org.in/journal/index.php/journaliaps/article/view/925/794> [https://www.researchgate.net/publication/359339696\\_Fuzzy\\_Reliability\\_Analysis\\_of\\_a\\_Multi-Chiller\\_System\\_based\\_on\\_Modern\\_Analytics](https://www.researchgate.net/publication/359339696_Fuzzy_Reliability_Analysis_of_a_Multi-Chiller_System_based_on_Modern_Analytics).

15. A Fuzzy Optimization Technique for Multi-Objective Aspirational Level Fractional Transportation Problem, Symmetry 2021, 13, 1465. <https://doi.org/10.3390/sym13081465> , pp. 1-17. ISSN: 2073-8994
16. Mediative Fuzzy Extension Technique and Its Consistent Measurement in the Decision Making of Medical Application, Hindawi Mathematical Problems in Engineering Volume 2021, Article ID 5530681, 1-9 pages <https://doi.org/10.1155/2021/5530681>, 2021(Scopus & WoS)
17. Intuitionistic Neuro-Fuzzy Optimization in the Management of Medical Diagnosis, Applied Mathematics, 2021, 12, 993-1020, ISSN-2152-7393, DOI: [10.4236/am.2021.1211065](https://doi.org/10.4236/am.2021.1211065) (WoS), [Intuitionistic Neuro-Fuzzy Optimization in the Management of Medical Diagnosis \(scirp.org\)](https://www.scirp.org/journal/intuitionistic-neuro-fuzzy-optimization-in-the-management-of-medical-diagnosis)
18. Fuzzy mathematical inference system and its application in the diagnosis of lung cancer (ref. no. 6016)" Int. J. Agricult. Stat. Sci. Vol. 17, No. 2, 2021 [www.connectjournals.com/ijass](http://www.connectjournals.com/ijass) DocID: <https://connectjournals.com/03899.2021.17> . ISSN : 0973-1903, e-ISSN : 0976-3392.
19. A Genetic Algorithm Approach for Multi-Objective Transportation Problem with Hexagonal Fuzzy Number, in Aligarh Journal of Statistics, Vol. 41(2021) 133-148, ISSN 0971-0388, <http://www.amu.ac.in/ajs>., [https://www.researchgate.net/publication/359339784\\_A\\_Genetic\\_Algorithm\\_Approach\\_f\\_or\\_Multi-Objective\\_Transportation\\_Problem\\_with\\_Hexagonal\\_Fuzzy\\_Number](https://www.researchgate.net/publication/359339784_A_Genetic_Algorithm_Approach_f_or_Multi-Objective_Transportation_Problem_with_Hexagonal_Fuzzy_Number)
20. On a Couple Stress Rivlin-Ericksen Ferromagnetic Fluid Heating From Below with Varying Gravity and Suspended Particles Through a Porous Medium, in Journal of International Academy of Physical sciences, Vol. No. 25 (2) (2021), ISSN: 0974-9373, pp. 279-295. <http://www.iaps.org.in/journal/index.php/journaliaps/article/view/78>
21. A Note on the Numbers Constructed by Fibonacci Numbers, Turkish Journal of Computer and Mathematics, Vol. 12 (14), 2021, 1678-1682. (Scopus) <https://turcomat.org/index.php/turkbilmat/article/view/10507/7907>
22. Fuzzy Logic and its Implication to Conventional Artificial Intelligence to Computational Artificial Intelligence in the context of Machine Learning, Book chapter in edited book, published by Akhand Publishing House Delhi(India) ISBN: 978-93-90870-65-3, 2021, pp. 155-173 <https://www.akhandbooks.com/index.php>

23. Single-trait, multi-locus and multi-trait GWAS using four different models for yield traits in bread wheat. *Mol Breeding* **41**, 46 (2021). <https://doi.org/10.1007/s11032-021-01240-1> (IF2.589),
24. Mediative fuzzy logic mathematical model: A contradictory management prediction in COVID-19 pandemic, *Applied Soft Computing* Volume 105, July 2021, 107285, <https://doi.org/10.1016/j.asoc.2021.107285>. (IF 5.431) <https://www.sciencedirect.com/science/article/pii/S1568494621002088#>
25. Parameters influencing the attitude of students towards learning mathematics and of teachers towards teaching mathematics, *J. Math. Comput. Sci.*, Vol. 11, No. 4, (2021), pp. 4332-4350. DOI: <https://doi.org/10.28919/jmcs/5770>. ISSN: 1927-5307. URL: (i) <http://scik.org/index.php/jmcs/article/view/5770> (ii) <http://scik.org/index.php/jmcs/article/download/5770/2900> (scopus)
26. Mediative Fuzzy Logic of Sugeno-TSK Model for the Diagnosis of Diabetes, *Journal of Physics: Conference Series* 1724 (2021) 012028 IOP Publishing doi:10.1088/1742-6596/1724/1/012028. <https://iopscience.iop.org/article/10.1088/1742-6596/1724/1/012028/pdf> (Scopus)
27. A Mediative Fuzzy Logic Based Approach to the Goal Programming Problem: In the Context of Multi-Objective Solid Transportation Problem, *Soft Computing Techniques in Engineering, Health, Mathematical and Social Sciences*, CRC Press-2021 (Scopus), ISBN 9780367750688 July 16, 2021 <https://www.routledge.com/Soft-Computing-Techniques-in-Engineering-Health-Mathematical-and-Social/Debnath-Mohiuddine/p/book/9780367750688>, <https://books.google.co.in/books?hl=en&lr=&id=408zEAAAQBAJ&oi=fnd&pg=PA47&dq=info:NcDt-V9X2EJ:scholar.google.com/&ots=S5bHJ7m7DQ&sig=m1ndQDfU8We-13ESm7YHb0nCVC4#v=onepage&q&f=false>
28. Mediative Neuro fuzzy inference and expert system for the identification of severity diagnosis in dengue patients” in the AIP Conference Proceedings (Scopus & WoS indexed)-2021, 2364, 020029(2021); <https://doi.org/10.1063/5.0062862> pp. 1-17
29. Fuzzy Reliability Evaluation of Complex Systems with Monte Carlo Simulation in the AIP Conference Proceedings (Scopus & WoS indexed)-2021, 2364, 020025 (2021); <https://doi.org/10.1063/5.00628621> pp. 1-8.
30. Meditative Fuzzy Logic and Agricultural Production Planning: State Level Investigation of Wheat Crop in India, *Int. J. Agricult. Stat. Eci.* Vol. 16 No. 2 pp 889-900



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[http://50.62.115.31/toc.php?aid=%20M.K.%20Sharma&&bookmark=CJ-033252&&volume=16&&issue\\_id=02&&month=December&year=2020](http://50.62.115.31/toc.php?aid=%20M.K.%20Sharma&&bookmark=CJ-033252&&volume=16&&issue_id=02&&month=December&year=2020)
31. VAGUE GROUPS REDEFINED WITH RESPECT TO t-NORM” **Advances in Mathematics**: Scientific Journal 9 (2020), no.10, 8475–8483 ISSN: 1857-8365 (printed); 1857-8438 (electronic) <https://doi.org/10.37418/amsj.9.10.76> (Scopus)
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  33. Calculus of new intuitionistic fuzzy generator: In generated intuitionistic fuzzy sets and its applications in medical diagnosis” in **International Journal of Advanced and Applied Sciences**, 7(10) 2020, Pages: 125-130, (Web of science). <http://science-gate.com/IJAAS/Articles/2020/2020-7-10/1021833ijaas202010014.pdf>  
<https://doi.org/10.21833/ijaas.2020.10.014>
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<https://www.springerprofessional.de/en/vague-reliability-analysis-of-standby-systems-with-an-n-1-units/18102968>.
  36. Round Robin CPU Scheduling with Dynamic Quantum using Vague Sets”, **International Journal of Advanced Sciences and Technology** ISSN: 2005-4238, Volume-29 Issue-3, 2020, pp.9940-9950.(Scopus).  
<http://serisc.org/journals/index.php/IJAST/article/view/26969>
  37. Fuzzy Logic Inference System for Identification and Prevention of Coronavirus (COVID-19)”, **International Journal of Innovative Technology and Exploring Engineering (IJITEE)** ISSN: 2278-3075, Volume-9 Issue-6, 2020, pp.1575-1580.(Scopus).  
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38. A New Goal Programming Approach for Multi-objective Solid Transportation Problem with Interval –Valued Intuitionistic Fuzzy Logic” **Journal of International Academy of Physical Sciences**, ISSN: 0974-9373, Vol. 23(3), 2019 pp. 251-268. <https://www.researchgate.net/publication/343229623> **A New Goal Programming Approach for Multi-Objective Solid Transportation Problem with Interval-Valued Intuitionistic Fuzzy Logic**.
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  47. Inventory Model For Non- Instantaneous Decaying items with partial Backlogging under Inflationary Environment” International Journal of Pure and Applied Mathematics, Vol. 118, No. 19 2018, pp. 2407-2417, ISSN: 1311-8080 (Print) ISSN: 1314-3395 (Online) : [url-https://www.ijpam.eu](https://www.ijpam.eu)
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106. Randomness in System Reliability, **Proceeding of the National Seminar on Recent Trends in Advancement of Mathematical and Physical Sciences, ISBN: 81.85126, 120-6 (2006) pp. mathematics-164.**
107. Fuzzy Reliability and Availability of a Three Unit Degradable System, **Proceeding of the National Seminar on Mathematics and Computer Science, ISBN: 81-8283-046-X (2005) pp. 179-188.**

#### **18. Paper Presentation in Seminars/Conferences attended:**

1. Attended a Conference on “Current trends in mathematical sciences.” Organized by Department of Mathematics, University of Allahabad, Allahabad (2002).
2. Presented a paper entitled, “Fuzzy Reliability of a three unit gracefully degradable system”, Sixth Conference of the International Academy of physical sciences, organized by D.D.U. Gorakhpur University, Gorakhpur (Feb.6-8, 2004)
3. Presented a paper entitled, “Fuzzy Reliability and Fuzzy availability of a three unit gracefully degradable system”, in National Seminar on NSCOM, Organized by S.D., College Muzzafarnagar., on (Nov. 29-30, 2005)
4. Attended in 8<sup>th</sup> Conference of *International Academy of Physical Science* and presented a paper entitled, “**Multistate Fault Tree Analysis using Fuzzy Set Theory**”, for YSA Organized by Ch.Charan Singh University Meerut (Dec.29-31, 2005)
5. Attended National Seminar on Emerging Trends in Network Technologies and presented a paper entitled, “**Reliability evaluation of a network system in the fuzzy and possibility context.**” Organized by CITM Faridabad (Sept 2, 2006)
6. Attended 1<sup>st</sup> National Conference on Computer Science and Information Technology and presented a paper entitled, “**Profust Reliability and Profust Availability of Computer Communication Network.**” Organized by K.I.E.T., Muradnagar (Ghaziabad) (Nov.11-12, 2006)

7. Participated in National Seminar on “**Recent Trends in Advancement of Mathematical and Physical Sciences**” and presented a paper entitled, “Fuzzy Randomness in System Reliability” Organized by D.N.College, Meerut (Nov. 6, 2006)
8. Attended National Conference on advancement in Informational Technology and presented a research paper entitled as “**FCFS with Shorter Processes First.**” Organized by Department of Computer science and Technology, Dr. B. R. Ambedkar university, Agra ( Feb 16,2008)
9. Attended an International Seminar on “**Discourses in Public Policy and Governance in India.**” Organized by Department of Public Administration , Ch. Charan Singh University Meerut (January 27-28, 2008)
10. Attended in 11<sup>th</sup> Conference of *International Academy of Physical Science* and presented a paper entitled, “**Vague Set Theoretic Approach to Fault Tree Analysis**”, Organized by Allahabad University, Allahabad (Feb.20-22, 2010)
11. Attended in 12<sup>th</sup> Conference of *International Academy of Physical Science* and presented a paper entitled, “**Reliability Analysis of a Network System using Intuitionistic Fuzzy Sets**”, Organized by University of Rajasthan, Jaipur-Jaipur-302004 (Dec. 22-24, 2010)
12. Attended in 3<sup>rd</sup> National Seminar on Recent Trends In Advancement of Mathematical and Physical sciences and presented a paper entitled, “**Reliability Analysis of a Fuzzy Fault Tree System Using Vague and Intuitionistic Fuzzy Sets**”, Organized by D.N. College, Meerut (Feb. 5-6, 2011)
13. Attended National Seminar on Environment Issue and Consumer Protection in India and presented a paper entitled, “**Analytic Approach to various aspects of Consumer behaviour in Present Environment**”, Organized by Department of Political Science, C.C.S.University, Meerut (March. 28-29, 2011)
14. Attended 14<sup>th</sup> Conference of *International Academy of Physical Science* and presented a paper entitled, “**Fuzzy Reliability Analysis of a Fault Tree Model Using Ranking of Intuitionistic Fuzzy Numbers**”, Organized by S.V.National Institute of Technology, Surat (Dec. 22-24, 2011)
15. Attended National Conference on Mathematical Analysis &Modelling(NCMAM) and presented a research paper entitled, “**Intuitionistic Fuzzy Management Model for Health Care Systems**”, Organized by SRM University, NCR Campus, Modinagar, Ghaziabad( 30<sup>th</sup> – 31<sup>th</sup> March, 2012)

16. Attended 15<sup>th</sup> Conference of *International Academy of Physical Science* and presented a paper entitled, “**Reliability Analysis of Fuzzy systems Using Interval Valued Intuitionistic Fuzzy Numbers**”, Organized by Rajamangala University of Technology Thanyaburi, Thailand (Dec. 09-13, 2012)
17. Attended a national conference on Role of Mathematics and its application in development of science and Technology and presented a research paper entitled, “**Generalizations of fuzzy sets and their application in healthcare**”, organized by GOVT. P.G. College, Lansdowne (Jaiharikhakl), PauriGarhwal, Uttrakhand during (21-22) March, 2013.
18. Participated in National Environment awareness campaign Theme: Biodiversity Conservation sponsored by Ministry of Environment and Forests, Government of India at Aligarh Muslim University, Aligarh 19-20<sup>th</sup> Dec. 2013.
19. Attended a National Seminar on National Integration and participated in Slogan writing competition, group discussion and Essay writing competition, organized by National Foundation For Communal Harmony, Ministry of Home affairs, Government of India, New Delhi and Aligarh Muslim University, Aligarh (15<sup>th</sup> Dec. 2013)
20. Participated in slogan writing competition on National Environment Awareness Campaign on the theme of Biodiversity Conservation sponsored by Ministry of Environment and Forests, Government of India at Aligarh Muslim University, Aligarh (15<sup>th</sup> Dec. 2013).
21. Participated in National Conference on Advances in Mathematics sponsored by National Board on Higher Mathematics held at Hansraj College, University of Delhi during March 7-8, 2014.
22. Participated in International Conference on recent Trends in Interdisciplinary Sciences: Opportunities and Challenges (RTISOC-2014) held at Faculty of Science, MultanialModi College, Modinagar-201204 during Feb.28, 2014-March 01, 2014.
23. Attended XVI<sup>th</sup> International Conference of *International Academy of Physical Science* and presented a paper entitled, “**Vague Reliability Analysis of a Fault Diagnosis in Power Transformer**”, Organized by PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur (M.P.) (March 20-22, 2014)
24. Attended a national conference on Applications of Mathematics in Engineering and sciences (AMES-2014) and presented a research paper entitled, “**Reliability Analysis of a Bridge Network using Possibility and Intuitionistic Fuzzy sets**”, organized

- by Department of Mathematics, Motilal Nehru National Institute of Technology Allahabad, Allahabad-211004 (India), during (29-30) November, 2014.
25. Attended II<sup>nd</sup> International Conference on Higher Education: Issues & Challenges and presented a paper entitled, “**Role of Computer in Education**”, Organized by College of Education, Bilaspur, Greater Noida, G.B. Nagar (U.P.) (December 08-09, 2014)
  26. Attended XVII<sup>th</sup> International Conference of *International Academy of Physical Science* and presented a paper entitled, “**Vague Set Theoretic Approach to Reliability Analysis of a Complex System**”, Organized by University of Rajasthan, Jaipur (January 16-18, 2015)
  27. Attended One day Interactive Seminar on role of CST UP in promotion of science & Technology and Facilitation of IPR Protection organized by Council of science and technology, U.P. Lucknow in Collaboration with: Intellectual Property Cell, C.C.S. University, Meerut (March 18, 2015)
  28. Attended Conference on advance Technique & devices in Mathematics & Physical Sciences (An International Meet) and presented a paper entitled, “**Fuzzy Reliability Analysis of Cheese Making Plant**”, Organized by Department of Mathematics & Physics at SRM University, Delhi-NCR, Campus, Ghaziabad, U.P. (January 23<sup>rd</sup>-25<sup>th</sup>, 2015)
  29. Attended 2<sup>nd</sup> International Conference on Advance Developments in Engineering and Technology and presented a paper entitled, “**Fuzzy Analysis of Shortest Job First Approach**”, Organized by Lord Krishna College of Engineering, Ghaziabad (U.P.) (February 21-22, 2015)
  30. Attended National Seminar on Interdisciplinary Approach of science in advance of technology : Art of human welfare, Organized by Department of Applied Sciences and humanities, Galgotias College of Engineering and technology Greater Noida (U.P.) (October 15-16, 2015)
  31. Attended XVIII<sup>th</sup> International Conference of *International Academy of Physical Science* and presented a paper entitled, “**Vague Reliability Analysis of a Bridge Network**”, Organized by Faculty of Science, University of Allahabad, Allahabad-211002, India (December, 22-24, 2015)
  32. Attended an International Conference on Modern Mathematical Methods and High Performance Computing in Science & Technology (M3HPCST-2015) and presented a paper entitled, “**Interval Valued Vague Set Theoretic Approach to Multiple criteria**

- in Decision Making**”, Organized by Department of Mathematics, RKGIT, Ghaziabad, India (December 27-29, 2015)
33. Attended an International Conference on Recent development in computational and information technology and presented a paper entitled, **“Reliability Analysis of a Network System”**, Organized by Department of Information technology, SRM, University, Delhi NCR Campus, Ghaziabad, U.P. (February 26-27, 2016)
  34. Attended a National Seminar on Political Thinking in Indian Literature at Department of Political Science, C.C.S. University, Meerut (February 13-14, 2016)
  35. Attended a National Seminar on Quality Assurance in Higher Education: Involvement of Information and Communication Technology and presented a paper entitled, **“Role of ICT in Teaching of Mathematics and its Impact”**, Organized by D.J. College, Baraut (Baghpat) U.P. sponsored by directorate of Higher Education, U.P. (March 01-02, 2016)
  36. Attended XIX<sup>th</sup> International Conference of *International Academy of Physical Science* and presented a paper entitled, **“Vague Reliability Analysis of a Stochastic system using different types of membership functions”**, Organized by Department of Mathematics and computer science, DSB Campus, Kumaun University, Nainital, India (October, 17-19, 2016)
  37. Attended a National Seminar on Recent advances in mathematics and its computational aspects and presented a paper entitled, **“Similarity Measure of water system using Interval Valued Vague sets in Multi criteria decision Making”**, Organized by Department of mathematics S.M.P. Govt. Girls P.G. College, Meerut U.P. sponsored by directorate U.G.C., New Delhi, (November 11-12, 2016)
  38. Attended a National Conference on Current Trends in Applied Sciences and presented a paper entitled, **“Reliability analysis of A Three Unit Parallel System With Vague Failure and Repair Rates”**, Organized by IQAC & Faculty of Science J.V. Jain College, Saharanpur-247001 U.P. sponsored by directorate of Higher Education, Govt. of Uttar Pradesh, (March 18<sup>th</sup> -19<sup>th</sup> , 2017)
  39. Attended 2<sup>nd</sup> International Conference on *Innovative Approaches in Applied Sciences and Technologies* and presented a paper entitled, **“Fuzzy Reliability Analysis of a Comparable Redudant Gas Seperator System”**, Organized by LKC Medicine, Nanyang Technological University, Singapore, In Collaboration with NUS, National University of Singapore, Department of Anatomy, Youg Loo Lin School of Medicine, Singapore, 639673 (June, 19-23, 2017)

40. Attended XX<sup>th</sup> International Conference of *International Academy of Physical Science on Recent Advances in Physical Sciences and Future Challenges* and presented a paper entitled, “**Vague Set Theoretic Approach to Reliability Analysis of a Summer Air conditioning System**”, Organized by Faculty of Sciences, Osmania University, Hyderabad, India– 500007 (July, 14-16, 2017)
41. Attended a National Seminar on *Current Trends in Applied Sciences* and presented a paper entitled, “**Reliability analysis of A Three Unit Parallel System With Vague Failure and Repair Rates**”, Organized by IQAC & Faculty of Science J.V. Jain College, Saharanpur-247001 U.P. sponsored by directorate of Higher Education, Govt. of Uttar Pradesh, (March 18<sup>th</sup> -19<sup>th</sup> , 2017)
42. Attended a National Seminar on *Challenges and Solutions of Higher Education in Current Time* and presented a paper entitled, “**Role of ICT in the Challenges of Higher Education**”, Organized by MUTA and D.A.V. College, Bulandshahr (December 26<sup>th</sup>, 2017)
43. Attended a National Seminar on गणित एवं इसके अनुप्रयोग में तकनीकी शब्दावली का महत्व और शोध पत्र फजी विश्वसनीयता के साथ जटिल प्रणाली का विश्वसनीयता मूल्यांकन स्थान न हेरू ग्राम भारती, विश्वविद्यालय, इलाहाबाद अवधि 16–18 फरवरी 2018
44. Attended a National Conference on *Advances in Operations Research and Mathematical Sciences (AORMS-2018)* and presented a paper entitled, “**Reliability analysis of uncertain stochastic fuzzy systems using different types of membership functions**”, Organized by Department of research & post graduate studies in mathematics & department of statistics, Vardhman College, Bijnore (U.P.) in association with Operational Research Society of India (ORSI), Meerut Chapter, (Feb. 24<sup>th</sup> -25<sup>th</sup> , 2018)
45. Attended XXII<sup>nd</sup> International Conference of *International Academy of Physical Science on Recent Advances in Physical Sciences and Future Challenges* and presented a paper entitled, “**Reliability Analysis and optimization using vague logic based on statistical data**”, Organized by Faculty of Sciences, Dr. Ram Manohar Lohia Avadh University, Faizabad (Ayodhya) – 224001, U.P. to be held during 13-15 April, 2018
46. Attended XXIII<sup>rd</sup> International Conference of *International Academy of Physical Science on Recent Advances in Physical Sciences and Future Challenges* and presented a paper entitled, “**Vague Reliability of a System using Sugeno’s fuzzy-TSK model**”, NEPAL ACADEMY OF SCIENCE AND TECHNOLOGY (NAST) KATHMANDU, NEPAL during November 16-18, 2018

47. Attended and presented a research paper in a National Seminar on applications of technical terminology in modeling, optimization and computing in Science & Technology on Fuzzy Logic and its applications at SRM University Delhi NCR-Campus, Ghaziabad during 26<sup>th</sup> -28<sup>th</sup> April, 2019 organized by Commission for scientific and technical terminology, Government of India.
48. Presented a research paper through video conferencing in 4<sup>th</sup> International Conference on Innovative Approaches in Applied Sciences and Technologies on “Reliability Analysis of a gracefully degradable system by using Sugeno’s (TSK) Mediative Fuzzy logic” during June 25-29, 2019 organized by Mahsa University Kuala Lumpur, Malaysia.
49. Attended National Conference of *International Academy of Physical Science on Promoting the Advancement of Applied Sciences* and presented a paper entitled, **“Learning opportunities from Mathematical Fallacies and paradoxes”** organized by department of mathematics, HNB Garhwal University, SRT Campus Badshahi Thaul, Tehri Garhwal during October 22-23, 2019.
50. Participated in the One day webinar on “Enhancing Research Effectiveness using Scopus, Sciencedirect and Mendeley” organized by Faculty Development Centre, Kurukshetra University, Kurukshetra in Collaboration with Elsevier (Under the Aegis of PMMMNMTT, MHRD, Govt. of India) on 01-05-2020.
51. Participated in the Two days webinar on “Computing Paradigms” jointly organized by Yelagiri Hills ACM Chapter and School of Computing Science, Don Bosco College (Co-Ed), Yelagiri Hills, during 21<sup>st</sup> to 22<sup>nd</sup> May, 2020.
52. Participated in “Role of Technical Terminologies of Indian Languages in the research studies of Social and scientific” organized by Commission for Scientific and Technical Terminology, Ministry of human Resource Development, Department of Higher education organized by Bundel Kand University, Jhanshi during 21<sup>st</sup> -24<sup>th</sup> may, 2020.
53. Participated in the Webinar on, “Art of Writing Research Paper” held on May29, 2020 organized by Department of Computer Science and Engineering, University School of Information and Communication Technology, Gautam Buddha University, Greater Noida, Uttar Pradesh, India.
54. Participated in the online AICTE Recognized Faculty Development Programme on **Programming Using MATLAB** from 08/06/2020 to 12/06/2020 (One week) organized by NIITR, Chandigarh.

55. Participated in the online AICTE Recognized Faculty Development **Artificial Neural Network and Fuzzy logic** from 22/06/2020 to 26/06/2020 (One week) organized by NIITR, Chandigarh.
56. Participated in the online Faculty Development **on Applications on GeoGebra** from 01/06/2020 to 05/06/2020 (One week) organized by Yashantrao Chavan College of Engineering Nagpur-441110.
57. Participated in a National Webinar on Application of **Mathematical Modeling and Statistical Learning on Covid-19** and its related Problem organized by department of Mathematics, Bareilly College Bareilly-243005 on June 07, 2020.

#### **19. Symposiums, Workshops & Training Program:**

1. **Short Term Course in** Fundamentals & Dos Windows, Office, Introduction to Visual Fix Pro & Multimedia, Internet with 78% from RAC Computers, Lucknow, 2002.
2. Attended a National Symposium on **“Scientific Computing with Application To Partial Differential Equations”** at I.I.T., Kanpur (Nov.19-21, 2006).
3. Attended an Orientation Program Organised by UGC-AcademicStaffCollege, Hermitage Compound, KumaunUniversity, Nainital.During February 18, 2008 to March, 19, 2008.
4. Attended a National symposium on **Mathematics inComputer Applications**and presented A research paper **“Reliability Analysis of CCNS Using vague sets”**organised by Department of Mathematics C.C.S.University, Meerut (March 28-29, 2009).
5. Attended a National Workshop on **Ancient Indian mathematics With Special Reference to Vedic Mathematics and Astronomy** and delivered an invited talk on **“Fuzzy Logic in Ancient Mathematics”** organized by Rashtriya Sanskrit Vidyapeetha, Tirupati, during 20-24 september, 2010.
6. Attended a National Workshop on **Optimization – Theory and Practice** organized by SSJ Campus Almora of Kumaun University, Nainital (U.K.) during 15-19 November, 2010.
7. Attended aRefresher Course in **Mathematics/ Operations Research/ Computer Science**Organised by UGC-Academic Staff College, CPDHE, University of Delhi-DelhiDuring January 2, 2013 to January 22, 2013.
8. Attended a NHRC Sponsored one day training programme on **Human Rights** organized by GOVT. P.G. College, Lansdowne(Jaiharikhakl), PauriGarhwal, Uttarakhand on 20 March, 2013.



9. Attended a National workshop on **Optimization Techniques & Their Applications (NWOTA-2013)** organized by Department of Mathematics, Motilal Nehru National Institute of Technology, Allahabad & sponsored by NBHM, DRDO, CSIR, INSA and MNNIT Allahabad during June 05-11, 2013.
10. Attended a Refresher Course in **Computer Applications** Organised by UGC-Academic Staff College, Aligarh Muslim University, Aligarh During Dec. 3, 2013 to Dec. 23, 2013.
11. Attended a Faculty Development **Programme on Modelling, Simulation and MATLAB tools**, organized by ABES Engineering College, Ghaziabad during January 15-17, 2014.
12. Attended a BlueMix Enablement Session through IBM software, India at MIET, Meerut on 18<sup>th</sup> April, 2014.
13. Attended and Participated in the **One Week Faculty Development Programme on Innovative Approaches in Mathematical & Statistical Sciences** Organized by SRM University Delhi- NCR Campus, Ghaziabad, U.P. During July 06, 2015 to July 11, 2015.
14. Attended and Participated in the **Workshop on ICT Usages in Teaching** Organised by UGC-HRDC Centre for Professional Development in Higher Education, University of Delhi- Delhi, During September 01, 2015 to September 08, 2015.
15. Attended and participated in the National Workshop on Advances Techniques in Mathematics, Physics & Computer science held at SRM, University, Delhi NCR Campus, Ghaziabad, U.P. (February 18-20, 2016)
16. Attended and participated in the Faculty Development Programme on contemporary Trends in Research Methodologies for professional development one Week Organized at SRM, University, Delhi NCR Campus, Ghaziabad, U.P. (July 04-10, 2016)
17. Attended a Refresher Course in **Mathematical Sciences** Organised by UGC-HRDC CPDHE, University of Delhi- Delhi During August 30, 2016 to September 20, 2016.
18. Attended a national workshop on Higher Education in India: Challenges and opportunity Organized by IQAC , Ch. Charan Singh University, Meerut during March 19<sup>th</sup> 2017.
19. Attended a national workshop on Research Ethics, Plagiarism and Reference management jointly Organized by Department of Library & Information Science and IQAC , Ch. Charan Singh University, Meerut during April 3<sup>rd</sup> 2017.
20. Attended a webinar on Challenges of higher education in era of Covid-19 Pandemic organized by Department of Mathematics, Shia P.G. College, Lucknow on 03 June, 2020.

21. Participated in a webinar on Covid-19 and its Biology: Cure, Precautions and Future organized by Vivek college of Education, Bijnor on 30, June, 2020.

## **20. Invited Lectures delivered/ chaired the Session**

1. **“New Employment Trends in IT”**. In a national seminar organized by Department of computer science, ShyamlalSharaswati (PG) College, Shikarpur, BulandShahr (U.P.) (Dec. 04, 2007)
2. **“SPSS Package in Research Methods in Social Sciences”** In a Workshop on Research Methods in Social Sciences Organized by Department of Political Science C.C.S.University (March 16-21, 2009)
3. **“SPSS Package in Research Methods in Social Sciences”** In a Workshop on Research Methods in Social Sciences Organized by Department of Political Science C.C.S.University (March 23-28, 2009)
4. **“Generalization of Fuzzy Sets and Their Application in Medical Diagnosis”** in a national conference on Role of Mathematics and its application in development of science and Technology as resource person organized byGOVT. P.G. College, Lansdowne (Jaiharikhakl), PauriGarhwal, Utrakhhand during (21-22) March, 2013.
5. Attended a national conference on Role of Mathematics and its application in development of science and Technology and chaired a session organized byGOVT. P.G. College, Lansdowne (Jaiharikhakl), PauriGarhwal, Utrakhhand during (21-22) March, 2013.
6. Attended a national conference on Applications of Mathematics in Engineering and sciences (AMES-2014) and chaired a session organized byDepartment of Mathematics, MotilalNehru National Institute of Technology Allahabad, Allahabad-211004 (India), during (29-30) November, 2014.
7. **“Soft Computing and Fuzzy Logic”** in a National Workshop on Advance Techniques in Mathematics, Physics & Computer Science as resource person organized by SRM University Delhi-NCR Campus, Ghaziabad, U.P. during (18-20) February 2016.
8. **“Fuzzy logic and its Impact on Reliability”** in a national SeminarRecent advances in mathematics and its computational aspects Organized by Department of mathematics S.M.P. Govt. Girls P.G. College, Meerut U.P. sponsored by directorate U.G.C., New Delhi, (November 11-12, 2016)
9. **Matlab: A Tool in Research and its Application** inthe Faculty Development Programme on contemporary Trends in Research Methodologies for professional development one

- Week Organized at SRM, University, Delhi NCR Campus, Ghaziabad, U.P. (July 04-10, 2016)
10. Attended a national Seminar Recent advances in mathematics and its computational aspects and chaired a technical session Organized by Department of mathematics S.M.P. Govt. Girls P.G. College, Meerut U.P. sponsored by directorate U.G.C., New Delhi, (November 11-12, 2016)
  11. **“Vague Logic and their Application in Human Health”** in a National Conference on Current Trends in Applied Sciences Organized by IQAC & Faculty of Science J.V. Jain College, Saharanpur-247001 U.P. sponsored by directorate of Higher Education, Govt. of Uttar Pradesh, (March 18<sup>th</sup> -19<sup>th</sup> , 2017)
  12. **“Fuzzy Logic and Reliability”** in a National Conference on Advances in Mathematics and Its Applications (NCAMA 2018) organized by Department of Mathematics, M.B. Govt. P.G. College, Haldwani (Nainital), Uttarakhand during 17-18, March, 2018.
  13. Attended a national conference on Advances in Mathematics and Its Applications (NCAMA 2018) organized by Department of Mathematics, M.B. Govt. P.G. College, Haldwani (Nainital), Uttarakhand and chaired a session during 17-18, March, 2018.
  14. **“Mediative Fuzzy Logic to Reliability Analysis of Network System”** in a 21<sup>st</sup> Annual Conference of Vijana Parishad of India on Modeling, Optimization and Computing for Technological and Sustainable Development (MOCTSD-2019) organized by Department of Mathematics, SRM University Delhi NCR-Campus, Ghaziabad during 26<sup>th</sup> -28<sup>th</sup> April, 2019.
  15. Attended a 21<sup>st</sup> Annual Conference of Vijana Parishad of India on Modeling, Optimization and Computing for Technological and Sustainable Development (MOCTSD-2019) and chaired a technical session organized by Department of Mathematics, SRM University Delhi NCR-Campus, Ghaziabad during 26<sup>th</sup> -28<sup>th</sup> April, 2019.
  16. Attended the Second International Conference on Frontiers in Industrial and Applied Mathematics (FIAM-2019) and Gave an Invited Talk during December 21-22, 2019 organized by Department of Applied Sciences (Mathematics) Galgotias College of Engineering & Technology, Greater Noida, U.P., India
  17. Attended the Second International Conference on Frontiers in Industrial and Applied Mathematics (FIAM-2019) and chaired a technical session during December 21-22, 2019 organized by Department of Applied Sciences (Mathematics) Galgotias College of Engineering & Technology, Greater Noida, U.P., India

18. Attended the 25<sup>th</sup> Conference of International Academy of Physical Sciences (CONIAPSXXXV) on “Physical and Biological Sciences at Cross-roads: Interdisciplinary Explorations and Exciting Challenges” and delivered an Invited Talk on “Multi-Criteria decision making systems using alternatives based on meditative fuzzy logic” during December 29-31, 2019 organized by Guru Jambheshwar University of Sciences & Technology, Hisar-125001, U.P., India.
19. Attended the 25<sup>th</sup> Conference of International Academy of Physical Sciences (CONIAPSXXXV) on “Physical and Biological Sciences at Cross-roads: Interdisciplinary Explorations and Exciting Challenges” and chaired a technical session during December 29-31, 2019 organized by Guru Jambheshwar University of Sciences & Technology, Hisar-125001, U.P., India
20. Invited Lecture on Mathematical Aspects of Fuzzy Logic and their extension to Real life System, on the theme Smart Innovations in Science, Communications and Computing Technology SISCT-2020 during 14<sup>th</sup> -15<sup>th</sup> Feb, 2020 in Subharti University, Meerut.
21. Invited Lecture on AI & Neural Network on the theme “Emerging Trends & Their Future Prospects in Multidisciplinary Sphere” on 11<sup>th</sup> November, 2020 in I.P. College BSR.
22. Invited lecture in Faculty Development Programme on “ASPECTS OF MATHEMATICS” titled “Soft Computing” dated 24<sup>th</sup> March 2021 UGC Sponsored Faculty Development Programme on “Aspects of Mathematics” 22.03.2021 to 28.03.2021
23. Resource Person in the online Refresher Course in Mathematics /Operational Research / Statistics and Computer Science held from 4<sup>th</sup> October 2021 - 18<sup>th</sup> October 2021 for University and College teachers organized by Centre for Professional Development in Higher Education (CPDHE) UGC-Human Resource Development Centre University of Delhi Delhi - 110 007 , Website: <http://cpdhe.du.ac.in/> Telephone: 91-11-27667099 Ext. 201/104; 91-11-27662065
24. Invited Lecture on **Mediative Fuzzy Extension Technique and its Consistent Measurement in the Decision Making of Medical Application** in 27<sup>th</sup> International conference on Fuzzy and Computational Mathematics (CONIAPS\_2021) organized by Department of Mathematics, National Institute of Technology Agartala, Tripura, India, Pin: 799046, during 26-28 october, 2021
25. Chaired a technical session on 26-10-2021 at NIT Agartala in 27<sup>th</sup> International conference on Fuzzy and Computational Mathematics (CONIAPS\_2021).

## 21. Books Published

1. A Text Book on Coordinate Geometry and Vectors, Shiksha Sahitya Prakashan, Meerut (2006)
2. A Text Book on , **Linear Algebra & Matrices for Graduate Classes, ISBN: 978-93-80803-24-1**, Kedar Nath Ram Nath publication, Meerut (2012)
3. A Text Book on , **Differential equations and integral Transforms, ISBN: 978-93-80803-25-8**, Kedar Nath Ram Nath publication, Meerut (2012)
4. A Text Book on , **Mechanics, ISBN: 978-93-80803-22-7**, Kedar Nath Ram Nath Publication, Meerut (2012)
5. A Text Book on , **Real Analysis, ISBN: 978-93-80803-50-0**, Kedar Nath Ram Nath Publication, Meerut (2013)
6. A Text Book on , **Complex Analysis, ISBN: 978-93-80803-46-3**, Kedar Nath Ram Nath Publication, Meerut (2013)
7. A Text Book on , **Numerical Analysis and Programming in C, ISBN: 978-93-80803-45-6**, Kedar Nath Ram Nath publication, Meerut (2013)
8. A Chapter on Vague Management Model in Medical Diagnosis in Edited book on **Applied Mathematics ISBN: 978-93-82532-64-4** published by Yking Books Jaipur-302006 (2014)
9. A Chapter on Fuzzy Reliability of a complex power supply system using fuzzy failure rates In Edited book on **Applied Mathematics ISBN: 978-93-82532-64-4** published by Yking Books Jaipur-302006 (2014)
10. A Chapter on Impact of Demonetization on Industry and Business in Edited book On **DEMONETIZATION A Socio Economic Transformation ISBN: 978-93-85000-69-0** Published by Bharti Publications, New Delhi (2017).
11. A Chapter on A mathematical model for air polluting factors its impact on Human Health: An intuitionistic Fuzzy Approach in Edited book on Global Challenges to Environment by Adhyayan Publishers & Distributors, New Delhi (2021) ISBN: 978-81-952007-4-0.
12. A Chapter on Intuitionistic Fuzzy Management Model in Failure Effects of cardiac Pacemaker in Edited book on Pollution & Sustainability Development by Adhyayan Publishers & Distributors, New Delhi, India (2021) ISBN: 978-93-91943-42-4.

## 22. Achievements:

1. Qualified **NET** [U.G.C.-CSIR] in June 2001.
2. Qualified **NET** [U.G.C.-CSIR] in July 2002.
3. Qualified **NET-JRF** [U.G.C.-CSIR] in Dec. 2002
4. Qualified **G.A.T.E.** [I.I.T., Kanpur] in Dec. 2002.

### **23. Awards/Fellowship:**

1. Junior Research Fellowship from **U.G.C.-C.S.I.R.** New Delhi from Dec., 2002.
2. National Fellowship Scheme by Ministry of Education and Cultural, Govt. of India.- 1997.
3. SARC Certificate of Excellence for Outstanding Educationist Award-2016 on the occasion of International Conference on Global Initiatives in Applied Sciences and green Technologies (GiAsT-2016) during (September, 09-11, 2016), at SRM University, Delhi –NCR Campus, Modinagar, Ghaziabad (UP.), India
4. SERS Excellence in Teaching Award-2017 on the occasion of 2<sup>nd</sup> International Conference on Innovative Approaches in Applied Sciences and Technologies (iCiAsT-2017) during (June, 19-23, 2017), at Nanyang Technological University (NTU), Singapore, 639673
5. Associate Fellowship Award- 2019 for valuable contribution to mathematics on December, 29, 2019 during CONIAPSXXV at Guru Jambheshwar University of Sciences & Technology, Hisar by International Academy of Physical Sciences.
6. Silver Medal by International Academy of Physical Sciences on December 29, 2019 during CONIAPSXXV at Guru Jambheshwar University of Sciences & Technology, Hisar

### **24. Worked as reviewer in Various National and International Journals**

1. **International Journal of Applied and Computational Mathematics (Springer)**
2. **Quaternary International, (Elsevier)**
3. **Asian Journal of Probability and Statistics**
4. **JNMS - Journal of Nepal Mathematical Society**
5. **International Journal of the Analytic Hierarchy Process.**
6. **International Journal of Electrical and Computer Engineering (IJECE)**
7. **GANITA [Journal of Bharat Ganit Parisad]**
8. **International Journal of Fuzzy Systems (Springer)**
9. **Current Journal of Applied Science and Technology**
10. **Journal of Intelligent & Fuzzy Systems**
11. **IEEE Access**
12. **Health Informatics Journal(Scopus)**
13. **Results in Control and Optimization (Elsevier)**

#### **14. International Journal of Environment and Climate Change (WoS)**

#### **15. Engineering Optimization**

#### **16. OPSEARCH**

#### **25. Research Projects:**

**1. Project:** Project entitled “Mathematical Aspect of Mediative Fuzzy Logic to Health Management System” and granted the amount of Rs. 3, 00,000 /= (Rupees Three Lakhs only) for research and development scheme during the financial year 2020-21. (F. No. 47/2021/606/Sattar-4-2021-4(56)/2020 Dated: 30-03-2021)

**2.Center of Excellence:** Fuzzy/ Intuitionistic Transportation and Transshipment in context of Computational Artificial Intelligence on this topic awarded by Uttar Pradesh Government for the establishment of Center of Excellence for the year 2021-2022 under file number (F. No. -91/2021/2095/Sattar-4-2021-4(17)/2021 Dated: 11-10-2021)

**3. DST-SERB:** Fuzzy Logic, Optimization and soft computing in the context of Artificial Intelligence awarded by File Number SSY/2021/000202 dated 16-12-2021.

**4.URGS Ref. No. Dev./1043** dated 29-06-2022 An Extension of type-2 fuzzy logic approach: Decision making analysis in medical diagnosis

#### **26. Conference / Seminars/ Workshop/ FDP Organized**

**1. 24<sup>th</sup>** Conference of International Academy of Physical Sciences (CONIAPSXXXV) on “Innovation in Physical Sciences during August 09-11, 2019 organized by Faculty of Science Chaudhary Charan Singh University, Meerut -250004. U.P., India as Organizing Secretary.

**2. Two week interdisciplinary, ONLINE, Faculty, Development Programme, On, Usage of ICT in Education: Challenges and Opportunities during, Covid-19, July 2-15, 2021 by Department of Mathematics, Chaudhary Charan Singh University, Meerut, as Coordinator.**

**3. One week national work shop sponsored by DST-SERB: Fuzzy Logic, Optimization and soft computing in the context of Artificial Intelligence awarded by File Number SSY/2021/000202 dated 16-12-2021, during 12<sup>th</sup> -18<sup>th</sup> Feb, 2022 organized by Department of Mathematics, Chaudhary Charan Singh University, Meerut as Convener.**

**4. Two days national seminar sponsored by Uttar Pradesh Government on the topic: Optimization, Fuzzy Logic and MATLAB, , during 25<sup>th</sup> -26<sup>th</sup> Feb, 2022 organized by Department of Mathematics, Chaudhary Charan Singh University, Meerut as Convener.**

#### **27. Patents:**

(i) IOT & CYBER SECURITY BASED ADVANCED ACCIDENT MONITORING SYSTEM USING THINGSPEAK WEB SERVER, Published on 06-05-2022,  
<https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>,

Application Number 202211023159

(ii) CUSTOMIZABLE DATA SCIENCE EDUCATIONAL ENVIRONMENT: FROM COMPETENCES MANAGEMENT AND CURRICULUM DESIGN TO VIRTUAL LABS ON-DEMAND, Published on 06-05-2022.

<https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

Application Number: 202211023281

(iii) TYPE-2 NEURO FUZZY METHOD AND SYSTEM,

<https://ipindiaservices.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus>

Application No.202211047503, Publication Date : 02/09/2022,

## **28. Ph. D.**

Thesis Title: “A Study of Fuzzy Aspect of System Reliability”

Supervisor: **Prof. D. Pandey**,

## **M. Phil. Dissertation:**

Dissertation Title: “Some Results on Fuzzy, Software and Hardware Reliabilities”

Supervisor: **Prof. D. Pandey**

## **Relevant Software Skills:**

**Statistical:** MATLAB, SPSS & Computer Applications in Mathematics.

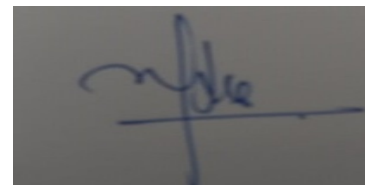
**Others:** Internet Explorer, Adobe Reader and Adobe Photoshop.

## **28. Declaration:**

I hereby declare that the above written particulars are true to the best of my knowledge and belief.

Date: 02-08-2022

PLACE: Meerut



**(Mukesh Kumar Sharma)**