Dr.SMITA VERMA

1. Personal Information

(i)	Name	Dr. Smita Verma
(ii)	Qualification	Ph.D., M.Tech., M.Sc. Applied Mathematics MBA (Human Resource Management)
(iii)	Designation	Associate Professor and Head
(iv)	Email-id	yvsmita@gmail.com
(v)	Employee No.	1409061
(Vi)	Department	Applied Mathematics and Computational Science
(vii)	Experience	20 years

2. Educational Qualification

S. No.	Degree	Specialization	Year	University/Board
1.	B.Sc.	Computer Science	1994	Devi Ahilya University, Indore
2.	M.Sc.	Applied Mathematics	1996	Devi Ahilya University, Indore
3.	M.Tech.	Future Studies and Planning	1998	Devi Ahilya University, Indore
4.	Ph.D.	Engineering Sciences	2002	Devi Ahilya University, Indore
5.	M.B.A.	Human Resource Management	2014	Sikkim Manipal University, Sikkim

6. Research Interests

Optimization Techniques

7. **Research Paper Publications**
(I)   International/National Journal Publications (32)

1. A New Approach for solving Linear Fractional Programming Problem, International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 13, No 2, pp. 916-918, 2018.

2. Estimation of Technical Efficiency using DEA Approach: A Case of Automobile Companies, Journal of Applied Science and Computations, ISSN 0076-5131, Volume 5, Issue 7, pp. 47-53, 2018.

3. Fuzzy α_q Open Sets and Fuzzy β_q Open Sets in Fuzzy Quad Topological Space, International Journal of Mathematical Archive, ISSN 2320-3242, Volume 15, No.2, pp 123-126, 2018.

4. Fuzzy Semi-Open Sets and Fuzzy Pre-Open Sets in Fuzzy Quad Topological Space, Annals of Pure and Applied Mathematics, ISSN 2279-087X, Volume 17, No.1, pp 123-124, 2018.

5. Fuzzy Connectedness in Fuzzy Quad Topological Space, International Journal of Mathematics Trends and Technology (IJMTT), Volume 57, Issue 3, 2018.

6. Some properties of Tri-b Open Sets in Tri Topological Space, International Journal of Mathematics and Applications, ISSN 2347-1557 Volume 6, No. 2, pp 279-2872018.

7. Fuzzy q-b Open Sets and Fuzzy q-b Separation in Fuzzy Quad Topological Space, International Journal of Scientific Research in Multidisciplinary Studies, ISSN 2454-9312, Volume 4, Issue 6, pp 1-11, 2018.

8. Optimality and Convexity Theorems for Linear Fractional Programming Problem, International Journal of Computational and Applied Mathematics, ISSN 1819-4966 Volume 12, Number 3,pp. 911-916, 2017.

9. Data Envelopment Analysis Approach for Measuring Technical Efficiency of Libraries of Technical Colleges, JUET Research Journal of Science and Technology, Volume 3, No.1, pp.95-100, 2016.

10. An algorithm for solving fractional linear programming problem, International Journal of Advance Research in Science and Engineering, Vol.5, Issue 03, pp.286-289, 2016.

11. Optimality condition for linear fractional programming problem, The Journal of Indian Academy of Mathematics, Volume 37, No.1, pp.19-24, 2015.

12. Measurement of technical efficiency using data envelopment analysis: A case of Indian textile industry, International Conference Proceedings of 3rd International Conference on Advances in Engineering Sciences and Applied Mathematics (ICAESAM'2015) pp. 34-38, 2015.

13. Convexity in linear fractional programming problem, International Journal of Engineering Science & Research Technology, Volume No. 2, Issue No. 11, pp.3142-3145, 2013.

14. Mathematical programming approach for measuring technical efficiency, International Journal

of Scientific Engineering and Technology, ISSN 0974-3189, Volume No. 2, Issue No. 10, pp. 1000-1003, 2013.

15. Parametric approach for estimation of technical efficiency, International Journal of Scientific Engineering and Technology, ISSN 0974-3189, Volume No. 2, Issue No. 10, pp. 996-999, 2013.

16. Solving Flow-shop Sequencing Problem using Scheduling Algorithm based on Search and Prune technique, International Journal of Scientific Engineering and Technique, ISSN 2277-1581, Volume No. 1, Issue No. 6, pp. 269-271, 2012.

17. Solving Flow-shop Sequencing Problem using an Algorithm, International Journal of Mathematical Science and Engineering Applications, ISSN 0974-3189 Vol.6 No.V, pp. 397-402, 2012.

18. Solving the Job-Shop Scheduling Problem by using Genetic Algorithm, International Journal of Computational Science and Mathematics, ISSN 0974-3189 Volume 3, Number 1, pp.93-98, 2011.

19. Probability on Fuzzy Sets, International Journal: Mathematical Manuscripts, ISSN 0974-2883 Volume 3 Number 1, pp 7-11, 2010.

20. Comparison of Six Traditional Forecasting Techniques for Sales Demand, International Journal of Statistics and Systems, ISSN 0973-2675 Volume 5 Number 2 pp. 223–227, 2010.

21. Flow-Shop Model using Genetic Algorithm, International Journal of Computational and Applied Mathematics, International Journal of Computational and Applied Mathematics, ISSN 1819-4966 Volume 4 Number 2 , pp. 111–114, 2009.

22. Forecasting Methodology: Qualitative and Quantitative means of better Future, Journal of Ultra Scientist of Physical Sciences, Vol 21, No.1, 2009.

23. Exponential Smoothing for Regular Data, Journal of Ultra Scientist of Physical Sciences, Vol 21, No.1, 2009.

24. Empirical Estimation Technical Efficiency using Frontier Model: A Case of Cotton-Textile Companies, Impact Journal of Science & Technology. Vol.1, No.3, 105-118, 2008.

25. Estimation of Technical Efficiency: An Econometric Approach, Impact Journal of Science & Technology, Vol.1, No.2, 112-118, 2007.

26. Technology Transfer: A Complex but Necessary Process, Everyman's Science, The Indian Science Congress Association, Vol.42 No.2, 89-90, 2007.

27. Time Series Forecasting of Ambient Air Quality of Indore-2006, Journal of Environmental Expert-International Water Association, Madrid Spain, 2007.

28. Quantitative Forecasting Techniques: An Overview, Journal of Ultra Scientist of Physical Sciences, Vol.18 No.3 2006M Dec, 2006.

29. Estimation of Asymptotic Limit and Threshold Limit for the Expenditure, Journal of Ultra Scientist of Physical Sciences, Vol. 17(3)M, 443-448, 2005.

30. Estimation of Allocative Efficiency in the Indian Cotton-Textile Industry using Frontier Models, The ICFAI Journal of Operation Management, Vol. IV No.4, 72-81, 2005.

31. Estimation of Productive Efficiency: A Basic Approach, Indian Journal of Quantitative Economics (An International Journal of Development Economics), Vol. 19, No.1-2, 99-109, 2004.

32. Measurement of Productive Efficiency of Sugar Companies through Frontier Methodology, The Economic Challenger, Vol.13, No.4, 39-42, 2001.

(II) International/National Conference Publications

1. Denominator Objective Restriction Method and Fully Fuzzy Method to solve Linear Fractional Programming Problem, National Conference on Mathematical Analysis and Mathematical Modelling, organized by Calcutta Mathematical Society on 7-8 December 2018, Kolkata.

2. Estimation of Technical Efficiency using DEA Approach: A Case of Automobile Companies, 2nd International Conference in Recent Developments in Science, Humanities and Management, 8th July 2018, held at Maratha Chamber Pune.

3. Applying Data Envelopment Analysis Approach for Measuring Technical Efficiency, IV International Conference of Applied Mathematics, Modeling and Computational Science, Organized by Wilfrid Laurier University, 20-25August 2017, Waterloo, Ontario, Canada.

4. An Improved Algorithm to Solve Linear Fractional Programming Problem, Silver Jubilee International Conference Forum for Interdisciplinary Mathematics On Interdisciplinary Mathematics, Statistics and Computational Techniques, 22-24 December 2016, Manipal University, Jaipur.

5. An algorithm for Solving Fractional Linear Programming Problem, 4th International Conference on Recent Innovations in Science, Engineering and Management, 20th March 2016 at India International Centre, New Delhi.

6. Measurement of Technical Efficiency using Data Envelopment Analysis: A case of Indian Textile Mills, 3rd International Conference on Advances in Engineering Sciences and Applied Mathematics (ICAESAM'2015), March 23-24, 2015 at London (United Kingdom), organized by Institute of Engineers,

7. Convexity in CCR model, National Conference on Recent Developments in Pure and

Applied Mathematics organized by Department of Engineering Mathematics, Laxmi Narayan College of Technology, Indore, 29th November 2014.

8. Application of Data Envelopment Analysis to Measure Technical Efficiency, National Conference on Recent Developments in Pure and Applied Mathematics organized by Department of Engineering Mathematics, Laxmi Narayan College of Technology, Indore, 29th November 2014.

9. Optimality Condition in Linear Factional Programming Problem, International Conference on Recent Advances in Mathematical Sciences and Applications (ICRAMSA-2013), organized by Department of Applied Mathematics, University Institute of Technology, Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, 24-26 December 2013.

10. Parametric Approach for Estimation of Technical Efficiency, 2nd International Science Congress (ISC-2012), organized by International Science Congress Association at Bon Maharaj Engineering College, Vrindavan, 8-9 December 2012.

11. Mathematical Programming Approach for Measuring Technical Efficiency, 2nd International Science Congress (ISC-2012), organized by International Science Congress Association at Bon Maharaj Engineering College, Vrindavan, 8-9 December 2012.

12. Algorithms for solving Flow-shop Scheduling problem and their comparison with traditional method, International Conference on Advances in Modelling, Optimization and Computing, organized by Department of Mathematics, IIT Roorkee, 5-7 Dec 2011.

13. Forecasting Sales Demand using three Exponential smoothing Methods, National Conference on Recent Trends in Engineering Mathematics, Organized by Laxmi Narayan College of Technology, Bhopal from 26-27 March 2010.

14. Forecasting Methodology: Qualitative and Quantitative means to better future, 2nd National Conference on Engineering Applications of Mathematics, Organized by Department of Mathematics, Maharashtra Academy of Engineering Alandi, Pune from 22-23 May, 2008.

15. Exponential Smoothing for Time Series Prediction, Annual Conference of Vijnana Parishad of India and National Symposium held in the Department of Mathematics and Statistics, J.N.V. University Jodhpur, Rajasthan from October 25-27, 2007.

16. Forecasting Ambient Air Quality Using Smoothing Methods, Paper presented in 12th Annual Conference of Gwalior Academy of Mathematical Sciences (GAMS) & All India Symposium on Computational Biology, Organized by MANIT Bhopal. (6-8 April 2007).

17. Comparative Study of Smoothing Techniques for Forecasting Air Pollution, Paper presented in National Conference of Shanti Swarup Bhatnagar Award Winners, Organized by Devi Ahilya University, Indore. (8-10 March 2007).

18. A Survey of Historical Development of Econometrics through Statistics, Paper presented in

International Conference on History & Heritage of Mathematical Sciences (16-19 Dec 2004).

19. Model Formulation of Transportation Problem with Budgetary Constraints: A Fuzzy Approach, Published in proceedings of X Annual Conference of Vijnana Parishad of India on Mathematical Modelling (17-19 May 2004).

20. Frontier Estimation and Economic Inefficiency Measures in a Single Cross Section of Firms, Paper presented in 38th Annual Conference of the Indian econometric Society, Chennai 14-16 Jan 2002.

21. Micro Data Base and Methodology for Estimating Productive Efficiency of Manufacturing firms: An Econometric Approach, paper presented in Seminar on Measurement of Efficiency and Productivity at Indian Institute of Management (IIM), Indore.

8. List of Conferences/Workshops/Seminars Organized

1. Two-day Workshop on Recent Advances in Mathematics and Its Applications, organized by Department of Applied Mathematics and Computational Science, Shri G. S. Institute of Technology and Science, Indore. 20-21Jan 2017.

2. Two-day Workshop on Role and Importance of Mathematics in Industries, organized by Department of Applied Mathematics and Computational Science, Shri G. S. Institute of Technology and Science, Indore. 27-28 April 2018.

3. One day workshop for Examinations Reforms for Teachers, organized by AICTE Regional Office Bhopal and Shri G. S. Institute of Technology and Science, Indore. 9-May-2019.

4. Three-day Faculty Development Program for Student Induction (FDP-SI) organized by AICTE Regional Office Bhopal and Shri G. S. Institute of Technology and Science, Indore. 27-29 June 2019.

5. Joint Organizer for International Conference on Computational Mathematics and Applications CMA-2019, Discipline of Mathematics, IIT Indore. 12-14 Nov 2019.

6. One-day Workshop on Implementation of AICTE Examination Reforms Policy, organized by Shri G. S. Institute of Technology and Science, Indore. 22-Feb-2020.

7. One-day Webinar on Large Scale Machine Learning and Algorithm, organized by Department of Applied Mathematics and Computational Science, Shri G. S. Institute of Technology and Science, Indore. 5-Jun-2020

9. Invited Lectures/Expert Talks/Chairmanships at Conferences

Session Chair

1. IV International Conference of Applied Mathematics Modelling and Computational Science, Wilfrid Laurier University, Canada. 23-Aug-2017.

2. International Conference on Computational Mathematics and Applications CMA-2019, Discipline of Mathematics, IIT Indore. 12-Nov-2019.

Expert Lecture

1. Expert Lecture on **Mathematical Programming Approach for Measuring Technical Efficiency at** National workshop on Mathematical Modelling and It's Applications, Institute of Engineering and Science, IPS Academy, Indore. 12-Nov-2016.

2. Expert Lecture on **Solving Linear Fractional Programming Problems using Algorithms** at Workshop on Recent Trends in Mathematics and It's Applications in Different Engineering Fields, Institute of Engineering and Science, IPS Academy, Indore. 7-Sep-2018.

3. Keynote Lecture on **Linear Fractional Programming Problems** in FDP on Data Envelopment Analysis, Acropolis Institute of Engineering, Indore. 16-Mar-2019.

4. Expert Lecture on **Data Envelopment Analysis**in FDP on Data Envelopment Analysis, Acropolis Institute of Engineering, Indore. 16-Mar-2019.

5. Expert Lecture on **Concepts of Interpolation** in FDP on Pedagogy for Effective Use of Mathematics in Engineering, Institute of Engineering and Science, IPS Academy, Indore. 17-Sep-2019

6. Expert Lecture on **Numerical Methods** in FDP on Pedagogy for Effective Use of Mathematics in Engineering, Institute of Engineering and Science, IPS Academy, Indore. 17-Sep-2019

7. Keynote Lecture on **Importance of Mathematics** in National Mathematics Day, Govt. Ahilya Ashram School Indore. 22-Dec-2019.

8. Expert Lecture on **Bloom's Taxonomy** in One-day Workshop on Implementation of AICTE Examination Reforms Policy, Shri G. S. Institute of Technology and Science, Indore. 22-Feb-2020.

9. Expert Lecture on **Bloom's Taxonomy** in One-day training Program on Examination Reforms, Ujjain Engineering College, Ujjain. 07-Mar-2020.

10. Expert Lecture on **Linear Programming Problems** in Mathematics Seminar, PMB Gujarati Science College, Indore. 16-Mar-2020.

11. Expert Lecture on **Parametric and Non-parametric Approaches for Estimation of Technical Efficiency** at SAGE Summer School, Department of Applied Sciences, SAGE University, Indore. 29-May-2020.

12. Keynote Lecture on **Regression Analysis**in One Day National Level Online Workshop entitled Mathematical Indulgence: A Journey to Cherish, Department of Mathematics, Acropolis Institute

of Technology and Research Indore. 8-Jun-2020.

13.Guest Lecture on **Operations Research in Management**, PG Seminar Series, Prestige Institute of Engineering and Management, Indore, 29-Jun-2020.

14. Guest Lecture on **Numerical Methods**, Department of Mathematics. IPS Academy Indore. 8-Nov-2020.

15. Keynote Lecture on **Contributions of Indian Mathematicians to the World**, at National Mathematics Day 2020, Prestige Institute of Engineering and Management, Indore. 22-Dec-2020.