

Dr Gaurav Kumar
Professor, Department of Mathematics
N.A.S. (P.G.) College, Meerut
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Research and Teaching Experience: 19 Years plus Experience

College: N.A.S. (P.G.) College, Meerut (Nov'00- July'05 and April '09 till date)

Role: Associate Professor, Department of Mathematics

Responsibilities:

- Guiding and teaching post graduate students on various areas in Applied and Conceptual Mathematics
- Helping students to identify areas of research and development in the field of Mathematics and Computer Science

Area of Interest: Artificial Neural Networks, Data Analysis, Differential Equations, Algebra, Graph Theory, Mathematical Modeling, Six Sigma, Environment Valuation

Professional Experience: 3 Years 8 Months Experience.

Organization: Deutsche Bank International Operations (DBOI) Pvt Ltd – Oct'08 till March '09

Role: Assistant Vice President – Transformation

Responsibilities:

- Supported **Transaction Management Group** in formulating and implementing Continuous Improvement Plan
- Drove productivity through Transformational Projects
- Developed Capacity models for processes across TMG
- Developed quality audit process to identify and track defects
- Imparted training on Six Sigma, Lean and build quality culture across organization.

Organization: Aviva Life Insurance India Ltd – Nov '07 till Oct '08

Role: Sr. Manager – Service Quality

Responsibilities:

- Identify Process Gaps and formulate continuous improvement plan across different verticals of organization.
- Mentored Green Belt, Yellow Belt, Lean and BPMS projects across organization.
- Implemented COPC standard in Operations vertical of Insurance

Organization: Genpact – July'05 till Oct '07

Role: Six Sigma Black Belt – Process Excellence

Projects Undertaken:

- Worked on various IT projects like User ID Management and Response Time Reduction projects for one of Customers of Genpact.
- Worked on FTP project which involves invoices/docs transfer from Mexico to India and then upload the same to Workflow application
- Baseline, Construct and Analyze Service Level Agreements for IT Operation vertical using **Six Sigma tools (Statistical Tool like Minitab)**
- Mentored 5 Six Sigma Green Belt and 4 Lean projects

Skills and Achievements:

Research Papers: Published number of Research Papers details of which are as:

S.N.	Title	Journal Name	Year	ISSN Number
1	Lie Symmetry Method to Solve Linear Ordinary Differential Equation of First Order	International Journal of Engineering Research And Development	2022	2278-800X
2	Solution of Riccati Equation using Lie Symmetry Method	International Journal of Engineering Research And Development	2022	2278-800X
3	Lie Symmetry Solution of Bernoulli Differential Equation of First Order	Journal Research in Applied Mathematics	2022	2394-0743
4	Lie Symmetries for homogeneous and linear ordinary differential equation of first order	International Journal of Applied Research	2020	2394-7500
5	The Pigeonhole Principle: A forgotten but a simple principle to solve problems	International Journal of Humanities and Social Science	2019	2348-7429
6	An overview of data analysis methods for environment valuation	International Journal of Applied Research	2019	2394-7500
7	Mathematics in India during Middle Period (400AD-1200AD)	International Journal of Multidisciplinary Trends	2019	2709-9350
8	Air Pollution and Its Management in India	Research Discourse	2019	2277-2014
9	On lie symmetry solution of first order homogeneous ordinary differential equation	International Journal of Applied Research	2019	2394-7500
10	Time Series Analysis of PM10 for Bulandshahr Industrial Area in NCR using Multiple Linear Regression	International Journal of Engineering Research And Development	2018	2278-800X
11	Time Series Analysis of PM10 for Sahibabad Industrial Area in NCR using Hedonic Regression	Invertis Journal of Science & Technology	2018	0973-8940
12	Time Series Analysis of PM10 for Noida Sector 1 Industrial Area in NCR using Multiple Linear Regression	BULLETIN OF PURE AND APPLIED SCIENCES	2018	0970-6577
13	Six Sigma to improve disaster management process	International Journal of Applied Research	2018	2394-7500
14	Air Pollution Evaluation Methods	International Journal of Engineering Research And Development	2017	2278-800X
15	Six Sigma: A Problem Solving Approach	BULLETIN OF PURE AND APPLIED SCIENCES	2017	0970-6577
16	A conceptual framework of artificial neural network	Invertis Journal of Science & Technology	2016	0973-8940
17	Global Warming, Air Pollution and Hedonic Method	Shauth Vaichariki	2015	2277-6419
18	Basics and Comparison of Lean and Six Sigma	International Journal of Humanities and Social Science	2014	2348-7429
19	Business Process Management System: An Overview	AITEA International Journal of Education & Humanities	2013	2231-380X
20	LEAN: A Beginner's Perspective	AITEA International Journal of Education & Humanities	2012	2231-380X

Books Published:

- Authored a book on “Lie Symmetry Analysis of Ordinary Differential Equations” published by Parilekh Prakashan (ISBN: 978-93-84068-52-3), Najibabad, U.P. in the year 2017.

Chapters Published:

- Authored a chapter on “Environment Degradation” published by Recherche Foundation (ISBN: 978-81-947764-3-7), Meerut, U.P. in the year 2021.
- Authored a chapter on “Hedonic Model for Estimation of Impact of PM10 on House Rent” published in conference proceedings (ISBN: 978-81-936058-2-0) of Ninth Biennial Conference of Indian Society for Ecological Economics (INSEE), New Delhi held at Kerala Institute of Local Administration, Thrissur, Kerala in the year 2017.
- Authored a chapter on “Hedonic Price Method: A Tool for Environmental Valuation” published in conference proceedings (ISBN: 978-81-930005-4-0) of a national conference organized by Department of Mathematics, Shaheed Mangal Pandey Govt Girls P.G. College, Meerut, U.P. in the year 2016.

Conferences:

- Presented a paper on “Forecasting of Air Pollutant PM10 using Artificial Neural Network for Ghaziabad City in NCR” in International Conference on Recent Advances in Mathematics and Their Applications (ICRAMTA -2016) held in July, 2016 at Department of Mathematics, University of Rajasthan, Jaipur, Rajasthan.
- Presented a paper on “Environmental Challenges in Usage of ICT for Education” in International Conference on Innovating Education, Youth Entrepreneurship and Skill Development held in April, 2016 at Brahaspati Bhawan, CCS University, Meerut, U.P.
- Presented a paper on “Air Pollution and Global Warming” in National Seminar on “Recent Innovative Changes in Science and Technology, Humanities, Law & Commerce in Context of Human Welfare held in March, 2016 at D.A.V.(P.G.) College, Muzaffarnagar, U.P.
- Presented a paper on “Air Pollution: A hurdle of FDI in NCR” in the National Seminar on “Impact of Foreign Direct Investment (FDI) on Socio-Economic Transformation in India: Problems and Prospects” held in March, 2016 at Shambhu Dayal(P.G.) College, Ghaziabad, U.P.
- Presented a paper on “Challenges in Curbing of Urban Air Pollution” in National Seminar on “Environmental Issues and Challenges in Present Scenario” held in March, 2016 at S.G. (P.G.) College, Sarurpur Khurd, Meerut, U.P.
- Participated in the National Seminar on “Quality Assurance in Higher Education: Involvement of Information and Communication Technology” and Presented a paper on “Challenging Issues Related to the Application of ICT in Current Education System” held in March, 2016 at D.J. College, Baraut (Baghpat), U.P., India.
- Presented a paper on “Mathematics: In Ancient and Medieval India” in 20th Annual National Conference of “Gwalior Academy of Mathematical Sciences and Symposium on Mathematics in Real Life Problems with Special Reference to Life Sciences” held during February, 2016 at Jiwaji University, Gwalior, M.P.

- Participated in the International Conference “BRICS – Evolution from Acronym to Global Power” and Presented a paper on “India and Terrorism” held in January, 2016 at Russian Centre of Science and Culture, New Delhi, India.
- Presented a paper on “ICT as a tool of Change in Mathematics” in the International Conference on “Innovating Education in Asia” held on October, 31st to November, 2nd, 2015 at Hans Raj College, Delhi University, New Delhi.
- Presented a paper on “Artificial Neural Network: A Tool for Data Analysis” in International Conference on “Advance Techniques & Devices in Mathematics & Physical Science” held in Jan, 2015 at SRM University, Ghaziabad, U.P.
- Participated in the Sixth Biennial Conference on “Nature, Economy and Society: understanding the Linkages” held in Oct, 2011 at Centre for Economic and Social Studies (CESS), Hyderabad.
- Presented a paper on “Importance of Data Analysis in Contemporary India” in National Conference on “Emerging Trends in Engineering & Sciences” held in May, 2011 at Jiwaji University, Gwalior, M.P.
- Participated in One-Day Seminar on Climate Change and Markets: Opportunities, Challenges and Policy Concern organized by TAER Limited, Mumbai & INSEE at TERI University on Feb 11, 2011
- Presented a paper on “Environmental Awareness among Rural Youth” in National Seminar on “Youth in Rural India: Challenges and Prospects” held in Jan, 2011 at S.G. (P.G.) College, Sarurpur Khurd, Meerut, U.P.

Chaired Sessions:

1. Chaired sessions in The Second International Conference on Frontiers in Industrial and Applied Mathematics held in Dec, 2019 at Galgotias College of Engineering & Technology, Greater Noida, U.P.
2. Chaired sessions in National Seminar on Women Wellness: Opportunities and Challenges held in April, 2018 at C.C.S. University, Meerut, U.P.
3. Chaired sessions in International Conference on Globalization & Well Being held in April, 2017 at C.C.S. University, Meerut, U.P.

Refresher Courses:

1. In Mathematical Science organized by UGC-HRDC, CPDHE, New Delhi from 6th June 2017 to 27th June 2017.
2. In Women Studies (Mathematics) organized by UGC Academic Staff College, Aligarh Muslim University, Aligarh from 20th Feb 2017 to 14th March 2017.
3. In Disaster Management (Interdisciplinary) organized by UGC Academic Staff College, Jamia Milia Islamia, New Delhi from 20th July to 9th Aug 2016
4. In Environmental Studies (Interdisciplinary) organized by UGC Academic Staff College, Aligarh Muslim University, Aligarh from 19th Aug 2009 to 8th Sept 2009

Orientation Course:

1. Organized by UGC-ASC, CPDHE, New Delhi from 15th April 2005 to 13th May 2005.

Short Term Courses:

1. On Research Methodology organized by Meerut College, Meerut from 12th June 2016 to 18th June 2016
2. In Cyber Security organized by UGC-HRDC, JNU, New Delhi from 6th Jan 2020 to 11th Jan 2020

Training Course:

1. 2-day training course on Remote Sensing, GIS and Machine Learning Methods for Environment, Natural Resources and Agriculture at IIIT-D campus, New Delhi from 4th Jan 2019 to 5th Jan 2019

Educational Qualification:

- **Ph.D. in Mathematics** from C.C.S. University, Meerut, 2018
- **M.Tech. (Computer Applications)** from **I.I.T. Delhi**, C.G.P.A. 7.32, July 1997 - Dec 1998
- **M.Phil. (Mathematics)** from **I.I.T Roorkee**, 83.73%, July 1996 – July 1997
- **M.Sc. (Applied Mathematics)** from **I.I.T Roorkee**, 74.36%, July 1994 – June 1996

Academics:

- Qualified **GATE-96** in Mathematics with **91.66** percentile
- Qualified **GATE-97** in Mathematics with **97.45** percentile
- Qualified **CSIR-NET** examination in July '1997
- **Gold Medal** in M.Phil. (Maths)

Professional:

- Tested **Six Sigma Black Belt**
- Certified **COPC** registered Coordinator
- **ITIL** certified professional