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Title	Professor	First Name	Poonam	Last Name	Singh	Photograph
Designation		Sr. Professor				
Department		Statistics				
Address (Campus)		Department of Statistics, University of Delhi, Delhi-110007				
(Residence)						
Phone No (Campus)		011-27666671				
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Email		psingh@stats.du.ac.in				
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Education

Subject	Institution	Year	Details
Ph.D.	**University of Delhi**	**2004**	Thesis topic: Some contributions to Mixture Experiments.
M.Phil	**University of Delhi**	**1992**	Topic: Mixture Experiments with Constraints: A Review
M.Stat.	**Indian Statistical Institute**	**1989**	Spl.: SQC and OR

Research Interests / Specialization

Design of Experiments, Optimization, Linear Models, Generalized Linear Models, Statistical Quality Control and Operations Research.

Teaching Experience (Subjects/Courses Taught)

M.Phil./ Ph.D. Statistics, M.A./M.Sc. Statistics, B.Sc. (H.) Statistics, B.Sc. Mathematical Sciences

Publications (Last five years)

In Indexed/ Peer Reviewed Journals

Singh, P., Mazumder, M. D. and Babu, S. (2024). Construction of Nearly Orthogonal Arrays Mappable to Tight Orthogonal Arrays of Strength Two Using Projective Geometry. *Statistics and Applications*. (Accepted).

Singh, P. and Shukla, H. (2024). Uniform mixture designs using designs in 3-dimensional spherical region. *International Journal of Agricultural and Statistical Sciences*, 20(1), 63-71.

Singh, P. and Shukla, H. (2024). Uniform mixture designs using designs in 2-dimensional spherical region. *Journal of Xidian University*, 18(2), 192-223.

Singh, P., and Sharma, R., (2023). Construction of Partial Diallel Crossing System using Latin Square Designs. International Journal of Agricultural and Statistical Sciences, 19(2), 851-858.

Singh, P., and Sharma, R., (2023). Construction of Complete Diallel Crossing System using Latin Square Designs. International Journal of Statistics and Reliability Engineering, 10(3), 597-602.

Singh, P., Mazumder, M. D. and Babu, S. (2023). Nearly Orthogonal Arrays Mappable into Symmetric Orthogonal Arrays of Strength Two. International Journal of Statistics and Reliability Engineering, 10 (2), 431-437.

Singh, P., Mazumder, M. D. and Babu, S. (2023). On the Construction of Mappable Nearly Orthogonal Arrays Using BIBD. *Journal of Xidian University, **17**(8), 621-638.*

Singh, P. and Shukla, H. (2023). Uniform mixture designs using designs in 2-dimensional spherical region. *Int J Syst Assur Eng Manag*. (Published on July 13, 2023). https://doi.org/10.1007/s13198-023-02019-7

Singh, P., Mazumdar, M. D., and Babu, S. (2023). Mappable Nearly Orthogonal Arrays Using Projective Geometry. *Turkish Journal of Computer and Mathematics Education (TURCOMAT), 14(03),* 454-464.

Singh, P., and Kumar, N. (2023). Orthogonal Latin Hypercube Designs with Eight Factors. *International Journal of Agricultural and Statistical Sciences*, 19(1), 427-434.

Singh, P., Mazumder, M. D. and Babu, S. (2023). Construction of Nearly Orthogonal Arrays Mappable Fully Orthogonal Arrays of Strength Two and Three. *International Journal of Mathematics Statistics, 24(1), 37-50.*

Singh, P., and Kumar, N. (2022). Some New Families of Orthogonal Latin Hypercube Designs with Nine Columns. International Journal of Statistics and Reliability Engineering, 9(3), 347-352.

Singh, P., and Sharma, R. (2022). Construction of Complete Diallel Crosses Plans using Galois Field. International Journal of Agricultural and Statistical Sciences, 18(2), 813-820.

Kim, J., Das, M., Saha, I., Sinha, P., Singh, P., and Das, R. N. (2022). Inter-relationship between homeostasis model assessment of insulin resistance & breast cancer biomarkers, Onkologia i Radioterapia, 16(4), 34-38.

Kim, J., Das, R. N., Singh, P., and Lee, Y. (2021). Robust second-order rotatable designs invariably applicable for some lifetime distributions. Communications for Statistical Applications and Methods (CSAM), 28(6), 463–479.

Singh, P., Sarin, V., Midha, N. (2021). Mixture designs generated using orthogonal arrays based on pairwise orthogonal Latin squares. *International Journal of Agricultural Statistical Sciences*, (accepted for publication to appear Dec. 2021).

Singh, P., Sarin, V., Midha, N. (2021). Mixture designs generated using orthogonal arrays from mutually orthogonal Latin squares. *Statistics and Applications*. 19(2), 13-26.

Singh, P. and Kumar, A. (2021). Bayesian D-optimal Designs for Beta Regression Model. *International Journal of Statistics and Reliability Engineering*, 8(1), 10-15.

Sunita Aggarwal, Mamta Bhardwaj, Poonam Singh, Himanshu Shukla, Ashok Saini, Manjula Suri (2021). Attitudes and Awareness about Antimicrobials Usage and Resistance in Delhi, India. Journal of Advanced Scientific Research, 12(1), Suppl 1, 317-325.

Singh, P., Sarin, V., Midha, N. (2021). Efficient Mixture Designs using Galois field**.** *International Journal of Applied Mathematics & Statistics***,** 60(1), 31-44.

Singh, P., Sarin, V., Midha, N. (2020). Construction of Mixture Designs Based on Taguchi's Mixed Element Orthogonal Arrays. Journal of Statistical Theory and Practice (2020) 14:59. Published online August 19, 2020. https://doi.org/10.1007/s42519-020-00126-3

Singh, P., Sarin, V., Midha, N. (2020). Mixture designs generated using orthogonal arrays developed using difference schemes. *International Journal of Mathematical, Engineering and Management Sciences*, 5(6), 1379-1391.

Saha, I., Singh, P., Medda, S.K., and Das, R.N. (2020). Associations between body mass index and breast cancer markers. *Journal of Oncology Research*, 2(1), 1-7.

Das, R. N., Singh, P., Medda, S.K. (2020). Role of Blood Pressure on Heart Patients. *EC Cardiology*, 7.3, 01-06.

ARTICLES IN THE EDITED BOOKS

Aggarwal M.L. and Poonam Singh (2008): Efficient Uniform Designs for Mixture Experiments in Three and Four Components. Trends in Applied Statistics Research, Nova Science Publications, Inc., New York, Chapter 2, pp. 11-26 (M. Ahsanullah Editor).

Singh, P., Sarin, V., Goel, R. (2018): "Mixture Designs Based on Plackett and Burman Designs", *Conference Proceedings, Trends and Challenges in Mathematics*, 978-93-85835-55-1.

Conference Presentations:

Special Invited talk entitled "Construction of Mappable Nearly Orthogonal Arrays using Hadamard matrices" in the ninth International Conference on Statistics for Twenty-first Century-2023 (ICSTC-2023)" organized by International Statistics Fraternity (ISF), Department of Statistics and School of Physical and Mathematical Sciences, University of Kerala, Trivandrum during 15-18 December 2023.

Invited talk entitled "Construction of Partial Diallel Crossing System using Latin Squares" in International Conference on "Statistics, Data Science and Reliability: Exploring Trends, Methods, & Applications(IC-SDSRETMA-2023)" held during December 24-26, 2023.

Special Invited talk entitled Uniform Designs for Unconstrained Mixture Experiments using Designs in Spherical Region" in Seventh International Conference on Statistics for Twenty-first Century-2021 (ICSTC 2021)" organized by the Department of Statistics, University of Kerala (virtual conference) during December 15-19, 2021.

Special Invited talk entitled "*Mixture Designs based on Definitive Screening Composite Designs*" in International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS to be held during September 07-10, 2021.

Chaired an Invited talks Session on 27.02.2021 in Web Conference Visionary Innovations in Statistical Theory and Applications (VISTA-2021); Organized by ICAR-NAARM, Hyderabad in conjunction with 23rd Annual Conference of the Society of Statistics, Computer and Applications during February 24-28, 2021.

Special Invited talk entitled "*Efficient Mixture Designs Through Orthogonal Arrays Based on Difference Matrices"* in Sixth "International Conference on Statistics for Twenty-first Century-2020 (ICSTC 2020)" organized by the Department of Statistics, University of Kerala (virtual conference) during December 16-19, 2020.

Invited talk entitled "*Pandit Ishwar Chandra Vidyasagar-A Path-Breaking Reformer"* as a resource person in a two day "International webinar on *Pandit Iswar Chandra Vidyasagar: An Erudite Social Reformer and Educationist"* organized by University BT & Evening College, Cooch Behar (B.Ed Section) during September 25-26, 2020.

Invited talk on "*Efficient Mixture Designs Using Latin Squares Based Orthogonal Arrays"* in Diamond Jubilee National Conference on "Recent Advances In Statistics: Theory and Applications" organized by the Department of Statistics, Sardar Patel University, during Jan 31-Feb 1, 2020 (also chaired a session).

Platinum Jubilee Lecture on "Designs for Mixture Experiments through Projection" in the Section of Mathematical Sciences (including Statistics) at 106th Indian Science Congress at Lovely Professional University, Jalandhar during January 3-7, 2019.

Invited talk in International Conference on Statistics and Informatics in Agricultural Research organized by Indian Society of Agricultural Statistics held at IASRI, PUSA, New Delhi during 18-20, November 2012 (also chaired a session).

Participated in "The legacy of Srinivasa Ramanujan-An International Conference" held at University of Delhi, Delhi-110007 during 17-22, December 2012.

Invited Talk entitled "Uniform Designs for Mixture Experiments" in Pre-ICM International Convention on Mathematical Sciences held at Delhi during December 18-20, 2008.

Invited Talk on "*Efficient mixture designs through projection of Minimal point second order response surface designs*" in *95th Indian Science Congress* held at Vishakhapatnam during January 3-7, 2008.

Invited Talk on "*D-Optimal Designs in Two Orthogonal Blocks for Darroch and Waller's Quadratic Model in Constrained Mixture Components*" in *93rd Indian Science Congress* held at Hyderabad during January 3-7, 2006.

Invited Talk on "*Optimal Designs In (q-1) Orthogonal Blocks for Darroch and Waller's Quadratic Mixture Models in q Components*" in "*International Conference on Design of Experiments: Theory and Applications* held at Memphis, USA during May 13-15, 2005.

Paper on "*Optimal Orthogonal Block Designs for Mixture Models with Inverse Terms" in International Conference* "Joint Statistical Meet" held in Delhi during December 30, 2000, to January 3, 2001.

Paper on "*Projection Designs for Mixture Experiments" in an International Conference* "Recent Trends and Future Directions" held in Delhi during December 27 -30, 2001.

Paper on "*Optimal Orthogonal Block Designs for Becker's Mixture Models" in International Conference* "Teaching Research for 21st Century" held in Delhi during January 8 – 10, 2000.

Webinars attended:

Faculty Development Program "***Advanced Concepts in Google Classroom & Google Meet***" organized by Website and Automation Committee & Department of Microbiology, Institute of Home Economics University of Delhi, on 30th January 2021.

International Webinar in connection with World Statistics Day Celebrations 2020 organised by Department of Statistics and School of Physical and Mathematical Sciences, University of Kerala on 20 October 2020.

Faculty Development Program "Online teaching using Google Classroom and Google Meet" organized by Website and Automation Committee & Department of Microbiology, Institute of Home Economics University of Delhi, on 22nd August 2020.

International Webinar entitled "Disability: Identity and Challenges in South Asia" conducted by N.S.S. Unit of P.G.D.A.V. College, University of Delhi on 28th July 2020.

National Webinar on Applications of Statistics in Data Science *organized by Department of Mathematics, School of Science, GITAM (Deemed to be University), Hyderabad, during July 21 & 22, 2020.*

National Webinar on Experimental Research in Social Science organized by Bihar Agricultural University, Sabour, Bhagalpur on July 13, 2020.

National Seminar on Recent Trends in Statistical Theory and Applications-2020 (NSSTA – 2020) Webinar organized by Indian Society for Probability and Statistics (ISPS), Kerala Statistical Association (KSA) and the Department of Statistics, University of Kerala, Trivandrum, during June 29 - July 01, 2020.

Webinar on the 14th National Statistics Day in the memory of Prof. Prasanta Chandra Mahalanobis organised by Sankhyiki-The Statistical Society of P.G.D.A.V. College, University of Delhi on 29th June 2020.

Workshops attended:

Research level workshop on experimental designs held at Indian Statistical Institute, Kolkata during 25.12.2002 to 29.12.2002.
Colloquium on advanced lecture circuit in design of experiments held at University of Delhi, Delhi during 03.06.2000 to 14.04.2001.
International World Mathematics Year 2000 Workshop, held at University of Delhi, Delhi on 29.12.2000.

Professional Societies Memberships

Society of Statistics, Computer and Applications.
Indian Science Congress Association.
Calcutta Mathematical Society.
Indian Society for Probability and Statistics.

Other Details

Administrative Assignments (selected few):

Head of the Department, Department of Statistics, University of Delhi: 21st August 2016 to 23rd September 2019 and 02.08.2012 to 20.08.2013.
Nodal Officer M.A./M.Sc. Statistics admissions- 2019, 2018, 2017.
Nodal Officer M.Phil./Ph.D. Statistics admissions- 2019, 2018, 2017.
Nodal Officer M.A./M.Sc. Statistics DUET- 2019, 2018, 2017.
Nodal Officer M.Phil./Ph.D. Statistics DUET- 2019, 2018, 2017.
Faculty Coordinator, Placement Cell, Department of Statistics, University of Delhi: since 2005-2006 till 2019-20.
Faculty Coordinator, Udaan- The Socio-Cultural Cell, Department of Statistics, University of Delhi since 2016-2020.

Faculty Coordinator, Heritage Club, Department of Statistics, University of Delhi since 2017-2020.
Faculty Coordinator, Research Activity Cell, Department of Statistics, University of Delhi since 2017-18 to Sept. 2019.
Chairperson, University Unit Complaints Committee against Sexual Harassment, Faculty of Mathematical Sciences, University of Delhi: 2009-2010 to 2012-2013.
Chairperson, Faculty Development Program on "Financial Statistics" organized by the Department of Statistics, University of Delhi, Delhi, during 20 -22, December 2017.
Chairperson, Faculty Development Program on "Actuarial Statistics" organized by the Department of Statistics, University of Delhi, Delhi, organized during 27-28, December 2017.
Chairperson, workshop on "Statistical Computing using R" organized by Department of Statistics, University of Delhi during 14-15 September 2013.
Chairperson, Committee for syllabi preparation FYUP in Statistics for Department of Statistics in A.Y. 2012-2013.
Teacher In-charge, Department of Statistics, PGDAV College, Delhi: Academic year 2003-2004.

Research Guidance:

Ph.D.: Awarded: 10, Submitted: 1, In Progress: 4
M.Phil.: Awarded: 13