Biography

Dr. Sahay has earned his PhD in Operations Research from University of Delhi in. He is teaching in the Department of Management Studies, SSCBS since 2014. He has headed the Department of Management Studies between 2018-20. He was coordinator of the prestigious BBA(FIA) course from 2016 to 2018. He started his teaching career in the year 2006 at Department of Computer Science, College of Vocational Studies. He got awarded Junior Research Fellowship (JRF) in Mathematical Sciences by UGC in the year 2001. He has attended many national and international conferences. He has got his research work published in the journal of national and international repute. His area of interest includes Optimization techniques, Operations Management and Business Analytics. He believes in the quote by William Arthur Ward: "The mediocre teacher tells, The good teacher explains, The superior teacher demonstrates, The great teacher inspires".

Educational Qualification:

- PhD in Operations Research: University of Delhi (2013)
- M.Phil. in Operations Research: University of Delhi (2002)
- M.Sc. in Operations Research: Kirori Mal College, University of Delhi (1999)
- B.Sc.(H) in Mathematics: SKM University, Dumka, Jharkhand (1997)

Awards / Scholarship

- Recipient of Best teacher Award by Govt. of NCT Delhi for the year 2018-19
- Awarded Junior Research Fellowship by UGC after qualifying the **UGC-CSIR (JRF)** examination in Mathematical sciences held in July 2001.

Teaching Experience

- Working as an Assistant Professor in the Department of Management Studies, Shaheed Sukhdev College of Business studies (University of Delhi), since 03rd June 2014.
- Worked as an Assistant Professor (Temporary) in Computer Science department, College of Vocational Studies (University of Delhi), 21st August 2006 to 02nd June 2014.
- Visiting faculty at CDAC Noida, 2007-08 & 2008-09 (for M.Tech. VLSI program)
- Visiting faculty at Department of Business Economics, 2014-15 (for MBA(BE) program)
- Visiting faculty at Lal Bahadur Shastri Institute of Management, Delhi for PGDM (Part time) program, 21st Nov 2021 to 06th Feb 2022.

Subjects taught: Business Analytics, Operational Research/ Quantitative Techniques/Management Science, Statistics, Operations Management, R programming, Probability theory, Numerical Analysis, Calculus, Algebra, and Differential Equations.

Administrative Experience

- Bursar, Shaheed Sukhdev College of Business Studies, since Dec 2017
- Coordinator, Certificate course on Data Analytics & Business Intelligence, SSCBS, since Nov 2022

- Teacher In Charge, Department of Management Studies, SSCBS, July 2018 to June 2020
- Coordinator, Bachelor of Business Administration (Financial & Investment Analysis) (BBA(FIA)) program, SSCBS, July 2016 to June 2018
- Teacher-In-Charge, Department of Computer Science, College of Vocational Studies for the academic sessions 2011-12 & 2013-14.

Research papers published

1. Jain, V., **Sahay, R.R.** & Nupur Multi-verse metaheuristic and deep learning approach for portfolio selection with higher moments. Int Journal of System Assurance Engineering & Management (2023). https://doi.org/10.1007/s13198-023-02218-2, **Scopus & ESCI**
2. **Sahay, R. R.**, & Bhatia, G. (2024). Higher order strict global minimizers in non-differentiable multiobjective optimization involving higher order invexity and variational inequality. OPSEARCH, 61(1), 226-244, **Scopus & ESCI**
3. Lal, M., Ramesh Kumar & **Sahay, R.R.** (2023). Unleashing India's Potential": A Comprehensive Analysis of New Education Policy's Entrepreneurial Vision in Education Reform. Social Action (A Quarterly Journal Of Social Science), 73 (3), 233-251, **UGC(CARE)**
4. **Sahay, R. R.** and Bhatia, G.: Characterizations for the set of higher order global strict minimizers, *Journal of Nonlinear and Convex Analysis*, vol. 15(6), 1293-1301, 2014, ISSN: 1345-4773. **Scpus & SCI-E**
5. Bhatia, G. and **Sahay, R. R**.: Strict global minimizers and higher-order generalized strong invexity in multiobjective optimization, *Journal of Inequalities and Application*, Doi: 10.1186/1029-242X-2013-31, 2013, ISSN: 1029-242X (electronic version). **Scopus & SCI-E**
6. **Sahay, R. R.** and Bhatia, G.: Optimality and second order duality for a class of quasi-differentiable multiobjective optimization problem, *Yugoslav Journal of Operations Research*, 23 (2), 221-235, 2013, ISSN: 0354-0243. **Scopus**
7. **Sahay, R. R.**: Optimality and duality via strong (Φ,F)-invexity of higher order, *Advances in Theoretical and Applied Mathematics*, 6(3), 413-422, 2011, ISSN: 0973-4554.
8. **Sahay, R. R.**, Jha, P. C. and Bhatia, D.: Duality with strong pseudo – univexity for a class of non – differentiable programming problem, In: *VISION 2020: The Strategic Role of Operational Research*, Ravichandran, N. (ed.), 481-494, 2005, Allied Publishers Pvt. Ltd., New Delhi (proceeding of 37th Annual Convention of Operational Research Society of India, 8 – 11 Jan. 2005, **IIM Ahmedabad**), ISBN: 81-8424-108-9.

Books Edited

1. Quantitative Techniques, Department of Distance and Continuing Education under the aegis of Campus of Open Learning/School of Open Learning, University of Delhi, ISBN:978-81-962177-9-2
2. Data Analysis & Decision Tools, Department of Distance and Continuing Education under the aegis of Campus of Open Learning/School of Open Learning, University of Delhi, ISBN:978-93-95774-08-6

3. Statistics for Business Decisions, Department of Distance and Continuing Education under the aegis of Campus of Open Learning/School of Open Learning, University of Delhi, ISBN:978-93-95774-04-8
4. Production & Operations Management, Department of Distance and Continuing Education under the aegis of Campus of Open Learning/School of Open Learning, University of Delhi, ISBN:978-81-19169-10-8

Conferences / Workshops participation

1. Seventh International Conference on Innovative Computing & Communication, held at SSCBS, Delhi, 16-17 February 2024 (organizing team)
2. Sixth International Conference on Innovative Computing & Communication, held at SSCBS, Delhi, 17-18 February 2023 (organizing team)
3. Fifth International Conference on Innovative Computing & Communication, held at SSCBS, Delhi, 19-20 February 2022 (organizing team)
4. Fourth International Conference on Innovative Computing & Communication, held at SSCBS, Delhi, 20-21 February 2021 (organizing team)
5. Third International Conference on Innovative Computing & Communication, held at SSCBS, Delhi, 21-23 February 2020 (organizing team)
6. International Conference on Information Technology & Technology Management, 22-23 Dec 2017 (organizing team).
7. Recent Advances in Optimization Theory & Applications (RAOTA) held at University of Delhi during January 30 – 31, 2016.
8. International Conference on "The Legacy of Srinivasa Ramanujan", University of Delhi, Delhi, December 17 – 22, 2012.
9. International Conference on Optimization Modelling and Applications, University of Delhi, Delhi, November 29 – December 01, 2012.
10. **Training Programme** on Optimization Theory and Applications, Department of Mathematics, University of Delhi, Delhi, February 10 – 14, 2010.
11. Fourth International Conference on Quality, Reliability and Infocom Technology (ICQRIT), University of Delhi, Delhi, December 14 – 17, 2009.
12. **Workshop** on Mathematical Modeling Optimization and Their Applications, Bharti Vidyapeeth Deemed University, sponsored by Department of Science and Technology (DST), April 23 – 27, 2007.
13. National Symposium on Recent Advanced in Optimization Theory and Applications (RAOTA), University of Delhi, Delhi, October 27 – 28, 2006.
14. Instructional **Workshop** on Convex Analysis, Optimization and Application, Indian Institute of Technology (IIT), Kanpur, December 5 – 21, 2005.
15. 37th Annual Convention of Operational Research Society of India (ORSI), Indian Institute of Management (IIM), Ahmedabad, January 8 – 11, 2005.
16. Sixth International Conference of the Association of Asia Pacific Operational Research Societies (APORS), New Delhi, December 8 – 11, 2003.

Orientation/ Refresher courses/Faculty Development Programs

1. Attended refresher course in Mathematical sciences held at CPDHE, University of Delhi (26th Nov to 16th Dec. 2015)
2. Attended Orientation Program conducted by CPDHE, Delhi University. (20th May 2016 to 17th June 2016).

3. Attended a national level workshop on "Machine Learning: A practical approach", 29th Jan-03rd Feb 2018, held at SSCBS
4. Attended one week faculty development programme on "Software packages for Mathematical Sciences, 14th Nov-19th Nov 2018, held at Hansraj College
5. Attended one week faculty development programme on "Network Science: Foundation of Social Network Analysis", 03rd Dec-08th Dec 2018, held at Department of Computer Science, University of Delhi
6. Attended Refresher Course in Mathematics/ Operational Research/ Statistics and Computer Science (SRC) held at CPDHE, University of Delhi (31st May to 14th June, 2019)
7. Attended one week (online) faculty development programme on "Decision making in Management using R", 23rd Oct-01st Nov 2020 (Organized by GAD TLC and Maharaja Agrasen College, University of Delhi)
8. Attended two weeks (online) refresher course on "Data Analysis with Statistical methods", 21st Dec 2020-03rd Jan 2021 (Organized by TLC Ramanujan College, University of Delhi)
9. Attended one week (online) faculty development programme on "Time Series Analysis using R", 18th July-24th July 2021 (Organized by SGGSC & HRC, University of Delhi)
10. Attended one week (online) faculty development programme on "Data Science and Machine Learning using Python", 24th Sep-30th Sep 2021 (Organized by Hansraj College, University of Delhi)

Innovation Projects

1. Financial Inclusion- Issues and challenges: An empirical study (SSCB-204), 2013-14, Co-PI, funding agency: Delhi University
2. Sustainable Business Strategies: A Study of select Indian Enterprises, (SSCBS-303) 2015-16, Co-PI, funding agency: Delhi University

Member of the learned bodies

1. Life member of Indian Mathematical Society (IMS). Membership No. S-09-302 (http://www.indianmathsociety.org.in/lifememberslist.htm)
2. Life member of Working Group on Generalized Convexity. (https://www.genconv.org/index.php/membership-area/members-list-by-country)
3. Life member of Ramanujan Mathematical Society (RMS). Membership No. 882 (http://www.ramanujanmathsociety.org/members/801-1000)

Resource person in Workshop/FDPs

1. Delivered series of two lectures on Numerical methods (Interpolation and Polynomial Approximations, Numerical Integration), Five Day National Workshop: NUMDECS – 2011: Numerical Methods and Differential Equations in Computational Science, Deen Dayal Upadhyaya College, University of Delhi, Delhi, sponsored by University Grants Commisision (UGC), February 01 – 05, 2011.
2. Contributed as Resource Person for 2 Sessions of 2 hours in One-Week Online National Faculty Development Program "OFDP105: Statistics with 'R', Financial Database and Analysis Software" jointly organized by University of Delhi and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit

Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education, 04th to 11th November 2022

Editorial Board

Associate Editor, Journal of Multi Disciplinary Engineering Technologies (published by Bharti Vidyapeeth's College of Engineering, New Delhi)

Members of external committees

1. Syllabus revision committee of BMS course CBCS, 2015
2. Syllabus revision committee of BMS course CBCS(LOCF), 2019
3. Syllabus revision committee of B.Sc.(H) O.R. course CBCS(LOCF), 2019
4. Syllabus revision committee of BMS, BBA(FIA), and B.Sc. Mathematical sciences under NEP, 2022