

Dr. Akhilesh Kumar Singh

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1. Educational Qualification

- Post-Doctoral Research Scientist (C.S.I.R.), Motilal Nehru National Institute of Technology (MNNIT), Allahabad (April 2011-July 2012).
- Ph.D., University of Allahabad (A Central University), 2009.
Subject: *Mathematical Analysis*, **Thesis Title:** “*Generalized Measures and Applications*”
- M.Sc., University of Allahabad (A Central University), 2005(76.33%) . (2ndrank in Order of Merit)
- B.Sc., University of Allahabad (A Central University), 2003 (75.89%) . (3rdrank in Order of Merit)

2. Administrative Responsibilities

- Assistant Registrar, KNIT Sultanpur. (Nov. 2020-31 August 2021)
- Assistant Hostel Warden New VS, KNIT Sultanpur. (May 2018-June 2020)
- Assistant Hostel Warden Old VS, KNIT Sultanpur. (May 2018-June 2020)
- Member in Committee for Publications, ‘Indian Journal of Mathematics’.(Jan. 2016 – contd.)
- Member in Committee for Publications, ‘Bulletin of the Allahabad Mathematical Society’.(Jan. 2016- contd.).
- Member in Board of Trustees, Forum for Interdisciplinary Mathematics.(Dec. 22, 2013-Jan. 5, 2015).

3. Selected Publications

SCI Journals

- Akhilesh Kumar Singh, Signed λ -measures on effect algebras, *Proceedings of National Academy of Sciences, India Section A: Physical Sciences*, 89(4) (2019), 729-735. (Springer) Impact factor: 0.921
- Akhilesh Kumar Singh, Invariance of non-atomic measures on effect algebras, *Mathematica Slovaca*, 68(2), (2018) 311-318. (Walter De Gruyter) Impact factor: 0.654
- Akhilesh Kumar Singh, Outer measure on effect algebras, *Mathematica Slovaca*, 67(4) (2017), 811-818. (Walter De Gruyter) Impact factor: 0.654
- Akhilesh Kumar Singh, Variations on effect algebras, *Proceedings of National Academy of Sciences, India Section A: Physical Sciences*, 85 (2015), 83-86. (Springer) Impact factor: 0.921
- Akhilesh Kumar Singh (with M. Kumar, A. Srivastava), A new fifth order derivative free Newton type iterative method for solving nonlinear equations, *Applied Mathematics and Information Sciences*, 9 No. 3 (2015), 1507-1513. (Natural Science Publishers) Impact factor: 1.232
- Akhilesh Kumar Singh (with M. Kumar), Multi-peak solution of non-Linear elliptic singularly perturbed reaction-diffusion equations using finite element simulations, *Journal of Taiwan Institute of Chemical Engineers*, 50 (2015), 56-68. (Elsevier) Impact factor: 4.794
- Akhilesh Kumar Singh (with M. Kumar, A. Srivastava), Numerical solution of singularly perturbed non-Linear elliptic boundary value problems using finite element method, *Applied Mathematics and Computation*, Vol. 219 (1), 15 September 2012, (2012), 226-236.(Elsevier) Impact factor: 3.472
- Akhilesh Kumar Singh (with M. Khare), Weakly tight functions, their Jordan type decomposition and total

- variation in effect algebras, *Journal of Mathematical Analysis and Application*, Vol. 344 (1), 1 August 2008, (2008), 535-545. (Elsevier) Impact factor: 1.220
- Akhilesh Kumar Singh (with M. Khare), Pseudo-atoms, atoms and a Jordan type decomposition in effect algebras, *Journal of Mathematical Analysis and Application*, Vol. 344 (1), 1 August 2008, (2008), 238-252. (Elsevier) Impact factor: 1.220
 - Akhilesh Kumar Singh (with M. Khare), Atoms and Dobrakov submeasures in effect algebras, *Fuzzy Sets and Systems*, Vol. 159 (2008), 1123-1128. (Elsevier) Impact factor: 3.305

SCOPUS Indexed Journals

- Akhilesh Kumar Singh, Functions of bounded variation on effect algebras, *AIP Conference Proceedings* 1897, 020022 (2017).
- Akhilesh Kumar Singh (with M. Khare), The range of non-atomic measures in effect algebras, *Demonstratio Mathematica*, Vol. 43 (3), (2010), 497-510. (De Gruyter)
- Akhilesh Kumar Singh (with M. Khare), Atoms and a Saks type decomposition in effect algebras, *Novi Sad Journal of Mathematics*, Vol. 38 (1), (2008), 59-70. (Serbia and Montenegro)

4. Training Program Organized

- Organized a one week Short term course on “*Operation Research: Techniques and Applications*” at KNIT Sultanpur. (Feb. 3-7, 2020)
- Organized a one week Short term course on “*Numerical Techniques for Scientific Computations (NTSC-2019)*” at KNIT Sultanpur in collaboration with MNNIT Allahabad. (July 15-19, 2019)
- Organized a Workshop entitled “*Numerical methods using Scilab*” at Jaypee Institute of Information Technology, Noida. (April 8-9, 2016)

5. Refresher Course

- Attended and obtained “Grade A” in *Two-Week Refresher Course in “Mathematics”* organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of “Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching” (PMMMNTT) in collaboration with Department of Mathematics, Ramanujan College (March 16-30, 2021).

6. Induction/Orientation Program

- Attended and obtained “Grade A+” in *One Month Faculty Induction/Orientation Program* for “Faculty in Universities/Colleges/Institutes of Higher Education” organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of “Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching” (PMMMNTT) in collaboration with Department of Mathematics, Ramanujan College (June 19-July 18, 2021).
- Attended three days Program on “*Induction training for Newly Recruited Faculties*” organized by ESCI, The Institution of Engineers (India), Hyderabad (Telangana State) at Hotel Noida International Noida UP (April 6-8, 2018).

7. Faculty Development Program Attended

- Attended one week online Faculty Development Program on “*Emerging Pedagogy in Online Teaching Learning*”, organized by Rajkiya Engineering College, Sonbhadra (affiliated with AKTU, Lucknow). (Oct. 26-30, 2020)
- Attended 5 days TEQIP III sponsored online Faculty Development Program on “*Technology and Innovation in Math Education*”, organized by Anand International College of Engineering (affiliated with RTU, Kota), Kota. (Sep. 14-18, 2020)

- Attended joint AKTU-AICTE short term training program- Online Faculty Development Program on “*Mathematical Modelling and its Application in Engineering*” organized by Applied Sciences and Humanities Department, Institute of engineering and Technology, Lucknow. (July 6-10, 2020)
- Attended one week Faculty Development Program on “*ICT Tools for Teaching, Learning Process & Institutes*” jointly organized by Electronics and ICT academy, MNIT Jaipur, NIT Patna, IITDM Jabalpur, IIT Guwahati & KNIT Sultanpur under the scheme of financial assistance for setting up electronics and ICT academics by Ministry of electronics and information technology (MeitY) Govt. of India. (Jan. 13-17, 2020)
- Attended one week Faculty Development Program on “*AI and Machine Learning*” jointly organized by Electronics and ICT academy, NIT Patna, IIT Roorkee&KNITSultanpur under the scheme of financial assistance for setting up electronics and ICT academics by Ministry of electronics and information technology (MeitY) Govt. of India. (Dec. 23-27, 2019)
- Attended one week Faculty Development Program on “*Python programming with Industry Perspective*” jointly organized by Electronics and ICT academy, NIT Patna, IITDM Jabalpur, MNIT Jaipur & Department of Mechanical Engineering, KNIT Sultanpur under the scheme of financial assistance for setting up electronics and ICT academics by Ministry of electronics and information technology (MeitY) Govt. of India. (Dec. 2-6, 2019)
- Attended AICTE sponsored two weeks Faculty Development Program on “*Process Improvement Methodologies: Lean and Six sigma*” at KNIT Sultanpur. (Nov. 20-Dec. 01 2019)
- Attended one week Short Term Program through ICT mode on “*Control and Automation*” organized by NITTR Kolkata at KNIT Sultanpur. (Nov. 18-22, 2019)
- Attended AICTE sponsored one week Short Term Program on “*Simulation Techniques for Engineering Research*” at KNIT Sultanpur. (Nov. 14-19, 2019)
- Attended five days Workshop on “*Mechatronics and Instrumentation*” at KNIT Sultanpur. (Oct. 18-22, 2019)
- Attended one week Faculty Development Program on “*Robotics and AI*” jointly organized by Electronics and ICT academics at IITDM Jabalpur, MNIT Jaipur, NIT Patna, NIT Warangal & KNIT Sultanpur under the scheme of financial assistance for setting up electronics and ICT academics by Ministry of electronics and information technology (MeitY) Govt. of India. (June 24-28, 2019)
- Attended one week AICTE recognized Short term course on “*Next generation wireless networks*” organized by NITTR Chandigarh and conducted by CSE department at KNIT Sultanpur. (April 29-May 3, 2019)
- Attended one week Faculty Development Program on “*ICT in advanced teaching and learning for academicians: A gateway to technical excellence*” jointly organized by Electronics and ICT academy, NIT Patna & Department of Electrical Engineering, KNIT Sultanpur under the scheme of financial assistance for setting up electronics and ICT academics by Ministry of electronics and information technology (MeitY) Govt. of India. (March 26-30, 2019)
- Attended three days Faculty Development Program on “*Induction training for Newly Recruited Faculties*” organized by ESCI, The Institution of Engineers (India), Hyderabad (Telangana State) at Hotel Noida International, Noida UP. (April 6-8, 2018)
- Attended one week Faculty Development Program on “*Intellectual Property Right and Entrepreneurship Development*” organized by Institute of Entrepreneurship Development, Lucknow at Kamla Nehru Institute of Technology, Sultanpur. (Feb. 13-17, 2018)
- Attended one week Faculty Development Program on “*Mathematical Aspects of Image Processing and Computer Vision*” organized by Department of Mathematics, Jaypee institute of Information Technology, Noida. (July 10-15, 2017)
- Attended one week Faculty Development Program on “*Continuum Mechanics*” organized by Department of Mathematics, Jaypee institute of Information Technology, Noida. (July 18-23, 2016)
- Attended and delivered a talk entitled “*Mathematical Structures emerging from Hilbert space formulation of Quantum Mechanics*” in Six Days Faculty Development Program on “*Functional Analysis and its Applications*” organized by Department of Mathematics, Jaypee institute of Information Technology Noida. (July 13-18, 2015)

- Attended one week Faculty Development Program on “*Numerical Methods and Scientific Computing*” in Jaypee Institute of Information Technology, Noida. (July 21-26, 2014)

8. Membership of the Academic Bodies

- Forum for Interdisciplinary Mathematics (FIM), India (Life Membership No. 1109).
- International Association of Engineers (IAENG) (Life Membership No. 120780).
- Ramanujan Mathematical Society (RMS) (Life Membership No. 011/715).
- Indian Mathematical Society (IMS) (Life Membership No L/ 2010/55).
- Allahabad Mathematical Society (AIMS) (Life Membership No LM/09/181).