



MANAV RACHNA UNIVERSITY, FARIDABAD

Sector 43, Aravalli Hills, Manav Rachna Campus Rd, Faridabad, Haryana 121004

Dr. Kalpana Shukla



Designation: Assistant Professor

Qualifications: Ph.D.(Mathematics)

Email: kalpanashukla@mru.edu.in

Experience: 9 Years

[Google Scholar Profile](#)

<https://scholar.google.co.in/citations?hl=en&user=WCVhWkAA>

Research Interest: Optimization Technique, Generalized Convexity, Nonlinear Programming, Operations Research

+ Journal Publication Details:

BB Upadhyay, T. Antczak, S.K. Mishra, Kalpana Shukla " **Nondifferentiable generalized minimax fractional programming under (ϕ, ρ) -invexity**", Yugoslav Journal of Operations Research, 2021. (SCOPUS)

T. Antczak ; Kalpana Shukla (2020) " **Higher order duality for a new class of semi-infinite multiobjective fractional programming with support functions**" Journal of applied analysis and computations, vol.10(6), 2806-2825. (Scopus and WoS)

R.N. Mohapatra; Kalpana Shukla; Vivek Laha (2018) " **On Vector Variational Inequalities and E-Pseudoconvex Multiobjective Programming Problems**" , PanAmerican Mathematical Journal, 28, Number 3, 94 – 103 .(Scopus)

S.K. Mishra; Kalpana Shukla; R. U. Verma (2012) " **Minimax Fractional Integral Programming Problems Involving Univexity**", Dynamics of Continuous, Discrete and Impulsive Systems, Series A: Mathematical Analysis 18, 335-355. (Scopus)

S.K. Mishra; Kalpana Shukla (2010) " **Nonsmooth minimax programming problems with $V - r - invex$ functions**" , Optimization, Vol. 59, No. 1, pp. 95-103. (WoS & (Scopus))

URL: <https://www.tandfonline.com/doi/abs/10.1080/02331930903500308?journalCode=gopt20>

S.K. Mishra; Kalpana Shukla; J.S. Rautela (2009) " **Nonlinear multiple objective Fractional Programming Involving Semi-Locally Type $I - \alpha - Preinvex$ and Related Functions**" , PanAmerican Mathematical Journal, Vol. 19, No. 3, pp. 51-67. (Scopus)

S. K. Mishra; S. Y. Wang; K. K. Lai; Kalpana Shukla (2009) " **Minimax Fractional Programming Involving Type I and Related Functions**" , International Journal of Operations Research, Vol. 6, No 2, pp. 45-54. (Referred)

S.K. Mishra; Kalpana Shukla; J.S. Rautela (2009) " **Optimality and duality for nondifferentiable multiobjective programming under generalized $\alpha - univexity$** ", Analele Universitatii Bucuresti, Mathematica Anul LVIII, pp. 239-252. (Referred)

+ Research Supervised(PhD):

Ms. Nivedita Kadyan on Optimization, Joined in January 2021, Deptt. Of Mathematics, MRU (Ongoing)

+ Book/Chapter Publications:

S.K.Mishra; Kin Keung Lai; Sy Ming Gu; Kalpana Shukla (2011) "On Sufficient Optimality Conditions for Semi-Infinite Discrete Minimax Fractional Programming Problems Under Generalized V-Invexity", Topics in nonconvex optimization, Springer optimization and its Applications, Volume 50, , chapter -9, pp 133-145.

+ Administrative Responsibilities:

"Admission Coordinator , Department of Mathematics" in MRU from 0/06/2020 to till date.

"Ph.D. Coordinator, Department of Mathematics" in MRU from 01/04/2021 to till date.

"ERP Coordinator, Department of Mathematics" in MRU from 01/04/2021 to till date.

+ Professional Affiliation:

Working Group On Generalized Convexity (WGGC)

International Society On Multiple Criterion Decision Making

The Continuous Optimization Working Group of EURO

+ Expert Talk Delivered

Talk as speaker in "Workshop On Nonlinear Optimization, Variational Inequalities and Artificial Intelligence" to Talk on "Lagrange's Multipliers & KKT Conditions" on 25th March 2021 in MRU, Faridabad .

+ Event Organized(Conference/Seminar/FDP/Workshops

Conducted Workshop as a Convenor on **Workshop On Nonlinear Optimization ,Variational Inequalities and Artificial Intelligence** From 22th March-26th March 2021, at Manav Rachna University.

+ Awards

Post Doctoral Fellowship (National Board of Higher Mathematics, Department Of Atomic Energy, Mumbai) from 2010-13