

Designation : Associate professor

Qualification : M. Sc. (Mathematics), ph. D.

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Areas of interest : Operatims Research (Mathematical Programming,Multiobjective Programming, Generalised Convex Functims)

### CURRICULUM VITAE

1. Name : Tilak Raj Gulati

2. Date of Birth : january 15, 1949

3. Nationality : Indian

5. Address :

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6. Educational Qualifications :

Examination	Board/University	Main Subjects	Year of Passing	Division
High school	U.P. Board	Maths,Science,English	1965	I (Distinction in maths)
Intermediate	U.P. Board	Maths,Physics,Chemistry,English	1967	I (Distinction in maths)
B.Sc.	Meerut	Maths,Physics,Chemist	1969	I (Distinction

	University	ry,		in maths)
M.Sc.	Gurukula Kangri University	Mathematics	1971	I (Ist position in University)
Ph.D.	I.I.T. Delhi	Mathematics (Operations Research)	1976	

7. Title of ph. D. Thesis : Optimality Criteria and Duality in ComplexMathematical Programming

8. Specialization : Operations Research (Mathematical Programming)

9. Research Papers :

Published in International Journals ----- =37

Presented at Conferences/Research Reports =11

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Total----- = 48

(i) Associate professor : Department of mathematics, University of Roorkee Since August 7, 1997

(ii) professor : School of Basic & Applied sciences, Thapar, Institute of Engineering&Technology, patiala. August 7,1995-August 6,1997(On leave from University of Roorkee)

10. Teaching Experience : Operations Research and Engineering Mathematics to M. Sc., M. Teach., M. E., M.C.A. and B.E. classes 24 Years

11. Present and past positions :

(iii) Reader : Department of Mathematics, University of Roorkee ( July 31, 1989- August 6, 1995 )

Duties : Teaching and Research

(iv) Lecturer : Department of Mathematics, University of Roorkee (July 31, 1976 to July 30, 1979 )

Duties : Teaching and Research

(v) Research Fellow (CSIR) : Department of Mathematics, I.I.T. Delhi ( July 31, 1971 to July 30, 1976 )

Duties : Research and Tutorial Teaching.

12. Position held Abroad : University of Melbourne Research Fellow, Melbourne, Australia Nov. 1980 to Oct. 1982 (On leave from University of Roorkee)

1. Efficiency and duality in multiobjective mathematical programming, by M.A.Islam, April, 1989.
2. Optimality conditions and duality in multiple objective programming, by Nadia Talaat, June, 1991.
3. One some multiobjective programming problems, by Aquil ahmed, July, 1996.
4. Efficiency and duality in vactor minimum problems, by Izhar Ahmad., October, 1996.
5. Multi level optimization of a water resources system (In progress).

A. M.Phil. Thesis

1. convexity and generalized convexity of fractional, indefinite and composite functions in mathematical programming, by saral Kumar Jain, October, 1984.
2. Some algorithms in liners fractional programming, by sandhya, Mishra, september, 1985.
3. A software package for project management, by V.Veerakarhikeyan June, 1988.
4. Computational algorithms for large scale linear programming problems, by Taru Garg, November, 1990.
5. Methods of solving fractional programming problems, by Satyabir Singh, March 1992.
6. Optimality in multiobjective programming, by Ruchika Jain, July, 2000.

Research Publications of Last Five Years.

1. sufficiency and duality in multiobjective programming involving generalized F-convex functions (with M.A.Islam). J.Math. Annl. Appl. 183 (1994). 181-195.
2. Efficiency and duality in multiobjective fractional programming (with Izhar Ahmad), Opsearch 32(1995). 31-43.
3. Symmetric duality for nondifferentiable minimax mized integer programming problems (with I.Hussain and Izhar Ahmad). Optimization 39 (1997). 41-84.
4. Symmetric duality with invexity in static and continuous fractional programming (with I Hussain and A.Ahmad). Optimization 40(1997), 41-56.
5. Symmtric duality for multiobjective veriational problems (with I Hussain and A.Ahmad). J.Math Anal. Appl. 210(1997). 22-38.
6. Multiobjective symmetric duality with invexity (with I.Hussain and A.Ahmad). Bull. Austral. Math. Soc. 56(1997), 25-36.
7. Second order symmetric duality for nonlinear minimax mixed integer programs (with Izhar ahmad). European Journal of Operational Research 101(1997), 122-129.
8. Symmetric duality for minimux variational problems (with Izhar Ahmad and I. Hussain) Mathematical Methods of operations Research 48(1998). 82-95.

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9. Multiobjective duality using Fritz John conditions (with Izhar Ahmad), Asia-Pacific Journal of Operational Research 14(1998), 63-74.
10. Optimality conditions and duality in nondifferentiable multiobjective programming (with Izhar Ahmad), mathematics and its Application in Engineering and Industry, Eds. Bani Singh et.al., Narosa Publishing House (1997), 76-84.