

## Faculty Profile



**Name:** Dr. JYOTIRANJAN NAYAK

**Designation:** Professor

**Teaching Areas:** Operations Research, Optimization Techniques, Linear Algebra, Number Theory, Discrete Mathematics. Cryptography

**Research Interests:** Theory of Optimization, Fuzzy Sets, Optimal Control Theory.

### Education:

- Ph. D. Utkal University, Bhubaneswar, 2005
- M. Phil., Berhampur University, 1991
- M. Sc. , Berhampur University, 1988

### Research / Selected Publications:

1. Tripathy A., Subudhi R., Patnaik S., **Nayak J.** (Editors) Operations Research in Development Sector, Publisher © Springer Nature, Singapore Pte Ltd.(2019).
2. Sasmita Mishra, **Jyotiranjana Nayak**, “Symmetric Duality and Complementarity in Non-Convex Programming”, Operations Research in Development Sector. Asset Analytics (Performance and Safety Management). Springer, Singapore. (2018) Pages 53-61.
3. P.K. Sahoo, S.K. Behera, **J.R. Nayak**, Solution of Fuzzy Transportation Problem by Using Ranking Function, Advanced Science Letters, American Scientific Publishers, 22 (2), 564-566,(2016).
4. B.S .Mishra, **J.R. Nayak**, P.K. Satpathy, Duality Theorems for Non-Convex Mixed Integer Programming Problems, International Journal of Computing and Optimization, HIKARI Ltd, www.mhikari.com, Vol. 3, , No. 1, 1- 9,(2016)
5. S. Mishra, **J.R. Nayak**, A Parametric Approach to Non-Convex Optimal Control Problem, American Journal of Operations Research, 4(02), 53-,(2014), <http://www.scirp.org/journal/ajor>
6. **J.R. Nayak**, S. Varshney, Chandrashekhar; (Editors) Modeling and Applications in Operations Research, CRC Press, Taylor & Francis Group (In Press) (2023).

### Ph.D. Guidance: Thesis Supervised:

1. Some Problems and Application of Non-Convex Programming: A Fuzzy Approach (2014), Awarded(Utkal University), Principal Supervisor
2. Some Problems of Parametric Non-Convex Programming on Convex Cones (2019) Awarded (Utkal University), Principal Supervisor
3. Optimization of some Non-Convex functions- A Numerical and Algorithmic Approach (2021) Awarded (Utkal University), Principal Supervisor

