Full List of Publications

List of Peer-reviewed Journal Publications

1. Gumte, K., Pantula, P. D., Soumitri M. S., Mitra, K., Achieving Wealth from Bio-Waste in a Nationwide Supply Chain Setup under Uncertain Environment through Data Driven Robust Optimization Approach, *Journal of Cleaner Production*, 2021 Jan 8; 291: 125702.

2. Sharma, S., Pantula, P. D., Soumitri M. S., Mitra, K., A Novel Data-driven Sampling Strategy for Optimizing Industrial Grinding Operation under Uncertainty using Chance Constrained Programming, *Powder Technology*, Jan 2021; 377: 913-923.

3. Gumte, K., Pantula, P. D., Miriyala S. S., Mitra, K., Data Driven Robust Optimization for Handling Uncertainty in Supply Chain Planning Models, *Chemical Engineering Science*, 2021 Dec 31; 246: 116889.

4. Kankanamge, D., Ubeysinghe, S., Tennakoon, M., Pantula, P. D., Mitra, K., Giri, L., Karunarathne, A., Dissociation of the G protein βγ from the Gq–PLCβ complex partially attenuates PIP2 hydrolysis, *Journal of Biological Chemistry*, 2021 Jan; 296: 100702.

5. Pantula, P. D., Mitra, K., Towards Efficient Robust Optimization using Data based Optimal Segmentation of Uncertain Space, *Reliability Engineering & System Safety*, 2020 May 1;197:106821.

6. Pantula, P. D., Miriyala, S. S., Mitra, K., An Evolutionary Neuro-Fuzzy C-means Clustering Technique, *Engineering Applications of Artificial Intelligence*, 2020 Mar 1;89:103435.

7. Inapakurthi, R. K., Pantula, P. D., Miriyala S. S., Mitra, K., Data driven robust optimization of grinding process under uncertainty, *Materials and Manufacturing Processes*, 2020 Dec 9; 35(16) :1870-1876.

8. Pantula, P. D., Mitra, K., A data-driven approach towards finding closer estimates of optimal solutions under uncertainty for an energy efficient steel casting process, *Energy*, 2019 Oct 7; 189: 116253.

9. Swain, S., Gupta, R. K., Ratnayake, K., Pantula, P. D., et al. Confocal imaging and *k*-means clustering of GABAB and mGluR mediated modulation of Ca2+ spiking in hippocampal neurons, *ACS chemical neuroscience*, 2018 Jul 25; 9(12), 3094-3107.

10. Pantula, P. D., Miriyala, S. S., Mitra, K., KERNEL: enabler to build smart surrogates for online optimization and knowledge discovery, *Materials and Manufacturing Processes*, Genetic algorithms special issue, 2017 Jul 27; 32(10):1162-71.

11. Gupta, R. K., Swain, S., Kankanamge, D., Pantula, P. D., et al. Comparison of Calcium Dynamics and Specific Features for G Protein– Coupled Receptor–Targeting Drugs Using Live Cell Imaging and Automated Analysis, *SLAS DISCOVERY: Advancing Life Sciences R&D*, 2017 Aug; 22(7):848-858.

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List of International Conference Proceedings

1. Pantula, P. D., Miriyala, S. S., & Mitra, K., 2021, December. A Deep Unsupervised Learning Algorithm for Dynamic Data Clustering. In *2021 Seventh Indian Control Conference (ICC)* (pp. 147-152). IEEE.

2. Ramamurthy A., Pantula, P. D., Gharote M, Lodha S., and Mitra, K., 2021, April. Multi-Objective Optimization for Virtual Machine Allocation in Computational Scientific Workflow under Uncertainty. In *2021 11th International Conference on Cloud Computing and Services Science (CLOSER).* Virtual conference, (pp. 240-247).

3. Pantula, P. D., et al. 2020, December. Synchronicity Identification in Hippocampal Neurons using Artificial Neural Network based Fuzzy C-means Clustering. In 2020 IEEE Symposium Series on Computational Intelligence (SSCI). Canberra, Australia, IEEE.

4. Pantula, P. D., Miriyala, S. S., et al. 2019, December. Automation of Synchronicity Identification in Hippocampal Neurons through Intelligent Data Clustering Approach. In 2019 Sixth Indian Control Conference (ICC) (pp. 268-273). IEEE.

5. Gumte, K. M., Pantula, P. D., Miriyala, S. S. and Mitra, K., 2019, December. Data Driven Robust Optimization for Supply Chain Planning Models. In 2019 Sixth Indian Control Conference (ICC) (pp. 218-223). IEEE.

6. Pantula, P. D. and Mitra, K., 2019, June. An Evolutionary Machine Learning Approach Towards Less Conservative Robust Optimization. In 2019 IEEE Congress on Evolutionary Computation (CEC) (pp. 2990-2997). IEEE.

7. Pantula, P. D., Miriyala, S. S. and Mitra, K., 2019, January. A Novel ANN-Fuzzy Formulation Towards Evolution of Efficient Clustering Algorithm. In 2019 Fifth Indian Control Conference (ICC) (pp. 254- 259). IEEE.

8. Pantula, P. D., Miriyala, S. S. and Mitra, K., 2019, January. A Chance Constrained Programming Based Multi-Criteria Decision Making Under Uncertainty. In 2019 Fifth Indian Control Conference (ICC) (pp. 359-364). IEEE.

9. Swain, S., Pantula, P. D., et al., 2018, July. Confocal imaging of cytosolic Ca 2+ and fuzzy clustering reveal the circuit topology details underlying synchronization in hippocampal neurons. In 2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) (pp. 822-825). IEEE.

10. Miriyala, S. S., Pantula, P. D., et al., 2018, July. Smart Data Analytics approach to model Complex Biochemical Oscillations in Hippocampal Neurons. In 2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) (pp. 5045-5048). IEEE.

11. Pantula, P. D., Miriyala, S. S. and Mitra, K., 2017, January. Simultaneous knowledge discovery and development of smart neuro-fuzzy surrogates for online optimization of computationally expensive models. In 2017 Indian Control Conference (ICC) (pp. 260-267). IEEE.

12. Miriyala, S. S., Pantula, P. D., Majumdar, S. and Mitra, K., 2016, January. Enabling online optimization and control of complex models through smart surrogates based on ANNs. In 2016 Indian Control Conference (ICC) (pp. 214-221). IEEE.

Book Chapters

1. Pantula, P. D., Miriyala, S. S. and Mitra, K., 2018. Efficient Optimization Formulation Through Variable Reduction for Clustering Algorithms. In *Handbook of Research on Emergent Applications of Optimization Algorithms* (pp. 135-162). IGI Global.
2. Pantula, P. D., Miriyala, S. S., & Mitra, K. 2021. Stochastic Optimization of Industrial Grinding Operation through Data-Driven Robust Optimization. In *Statistical Modeling in Machine Learning: Concepts and Applications*, Editors: Goswami T and Sinha G. R., Elsevier.