

Dr. Purnendu Das

Assistant Professor

Department of Computer Science

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Academic Qualification:

M.Sc.: Assam University Silchar, India (2006)

Ph. D.: Tripura University, Agartala, India (2016)

GATE: 2007

CSIR-NET JRF: Dec, 2008

Professional Experience:

Lecturer, Department of Mathematics, Tripura University

From 25/01/2010 to 10/07/2013

Assistant Professor, Department of Computer Science, Assam University Silchar

From 11/07/2013- Till Date

Ph. D Supervision

1. Bishwa Ranjan Roy (2017), "Efficient Replacement Policies for the Cache Memories in Multicore Processors". (Thesis Submitted)
2. Satyabrata Nath (2019), "A Study on Decision Making Techniques with Applications to Computer Science". (Title Registered)
3. Nurulla Mansur Barbhuiya (2020)
4. Raghavendra Sinha (2020)

Research Interest: Real Analysis, Fuzzy Mathematics, Optimization, Machine Learning and Computer Architecture.

Research Publications:

1. Bhattacharya S. & **Das P. (2013)**. Numerical solution of integral equation by using B-spline based fuzzy transform, Journal of Tripura Mathematical Society, Volume 15 (2013), pp 56-64.
2. Bhattacharya S. & **Das P. (2014)**. A method for approximating solution of ordinary differential equations by using fuzzy transforms, Journal of Nonlinear Analysis and Optimization, Volume 5, No 1, pp 81-87
3. Bhattacharya S., **Das P.**, Das S. & Paul S. **(2016)** A method for Approximating solution of Ordinary Differential Equations by using Shepard Kernel based Fuzzy Transforms, Mathematical Sciences International Research Journal, Volume 5, (2016), issue 1, pp 54-58.
4. **Das P.**, Das S. & Paul S. **(2016)**. A Color image coding/decoding method based on newly constructed fuzzy transforms, Engineering Sciences International Research Journal, Volume 4, Issue 1, pp 29-33
5. **Das P. (2018)**. A Color image Coding/Decoding by using Newly Constructed Shepard Kernel Based Fuzzy Transform, Mathematical Sciences International Research Journal, Volume 7, (2018)issue 5, pp 5-16
6. **Das P. (2018)**. A method for Approximating solution of ODE by using B-spline based Fuzzy Transform, Mathematical Sciences International Research Journal, Volume 7, (2018), issue 5 pp 53-60,
7. **Das P.**, Roy B.R., Das, S. & Paul S. **(2018)**. A New Method Of Gray Image Coding/Decoding By Using Newly Constructed Shepard Kernel Based Fuzzy Transforms, Mathematical Sciences International Research Journal vol. 7. 97-107.
8. **Das P.**, Roy B.R. & Paul S. **(2018)**. Balanced Data Clustering Algorithm for Both Hard and Soft Clustering. International Journal of Computer Sciences and Engineering. 6. 176-183. 10.26438/ijcse/v6i2.176183.

9. **Das P.,** Roy B.R. & Das, S. (2018). A Fast Global k-means Algorithm for Datasets having Streaming Behavior. *International Journal of Computer Sciences and Engineering*. 6. 84-91. 10.26438/ijcse/v6i2.8491.
10. **Das P. (2019)** Role of Cache Replacement Policies in High Performance Computing Systems: A Survey. In: Verma S., Tomar R., Chaurasia B., Singh V., Abawajy J. (eds) *Communication, Networks and Computing. CNC 2018. Communications in Computer and Information Science*, vol 839. Springer, Singapore. https://doi.org/10.1007/978-981-13-2372-0_35
11. **Das P. & Roy B.R. (2019).** SplitWays: An Efficient Replacement Policy for Larger Sized Cache Memory. 10.35940/ijeat.A1634.109119.
12. Paul S., Purkaystha B.S. & **Das P. (2019).** NLP tools in Civil Aviation : A Survey, *International Journal of Advanced Research in Computer Science*, volume 9, (2018) issue No. 2, pp 109-114
13. **Das P. (2020).** Cache Memory Architectures for Handling Big Data Applications: A Survey. In: Elçi A., Sa P., Modi C., Olague G., Sahoo M., Bakshi S. (eds) *Smart Computing Paradigms: New Progresses and Challenges. Advances in Intelligent Systems and Computing*, vol 767. Springer, Singapore. https://doi.org/10.1007/978-981-13-9680-9_18
14. Das S., **Das P.,** Roy B.R. (2020) Cloud Detection and Cloud Removal of Satellite Image—A Case Study. In: Sarma H., Bhuyan B., Borah S., Dutta N. (eds) *Trends in Communication, Cloud, and Big Data. Lecture Notes in Networks and Systems*, vol 99. Springer, Singapore. https://doi.org/10.1007/978-981-15-1624-5_6
15. **Das P.,** Roy B.R. (2020) “Small-LRU: A Hardware Efficient Hybrid Replacement Policy” *International Journal of Advanced Computer Science and Applications(IJACSA)*, 11(9). <http://dx.doi.org/10.14569/IJACSA.2020.0110981>
16. **Das P.,** Roy B.R. (2021) A Categorical Study on Cache Replacement Policies for Hierarchical Cache Memory. In: Mandal J., Mukhopadhyay S., Roy A. (eds) *Applications of Internet of Things. Lecture Notes in Networks and Systems*, vol 137. Springer, Singapore. https://doi.org/10.1007/978-981-15-6198-6_19
17. **Das P.,** Roy B.R. (2021) Reused-based Replacement Policy for Last Level Cache with Minimum Hardware Cost. In: *Emerging Technologies for Smart Cities. Lecture Notes in Electrical Engineering*. Springer, Singapore. (in press).