

## Dr. Bajj Nath Kaushik

Associate Professor, School of CSE, Shri Mata Vaishno Devi

University

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### EDUCATIONAL QUALIFICATIONS & Brief Profile

**Qualification:** B.E., M.Tech., Ph.D.

**Experience:**

**Teaching:** 21.4 Yrs **Research:** 6 Yrs **Adm:** 1.1 yrs **Total:** 21.4 Yrs

**Areas of Specialization/Interest:**

Machine Learning, Deep Learning, Nature Algorithms, Soft Computing & Parallel Algorithms

**Brief Bio-Data:**

Bajj Nath Kaushik received B.E. in Computer Science and Engineering from Nagpur University, Nagpur in 1997, Master of Technology from University School of Information Technology, GGSIPU, New Delhi in 2009 and Ph.D. in Computer Science from IIT Dhanbad, Dhanbad in 2016. He has more than 21 years of teaching and research experience and published many research papers in international journals and conferences of high repute. Presently, he is an Associate Professor in the School of Computer Science & Engineering, SMVDU, Katra, J&K. His research areas of interest include Machine Learning, Deep Learning, Nature Inspired Algorithms, Soft Computing and Parallel Algorithms.

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### Publications:

- Sharma, Surbhi., Kaushik, Bajjnath. (2019). A Survey on Internet of Vehicles: Applications, Security Issues & Solutions. Vehicular Communications (SCI), Volume 20, December 2019, 100182
- Chadha, Akshma., Kaushik, Bajjnath. (2019). A Survey on Prediction of Suicidal Ideation Using Machine and Ensemble Learning. The Computer Journal (SCI), bxx120, November, 2019.
- Sharma, Reya., Kaushik, Bajjnath, & Gondhi, Naveen (2019). Handwritten North Indian Script Recognition Using Machine Learning: A Survey. International Journal of Advanced Intelligence Paradigms (Scopus), Inderscience
- Sanjeev, Rajesh, Sanjay, Kaushik, Bajjnath (2019). A Comparative Study and Implementation of Neuro-Fuzzy and Decision Tree for Malignant Tumor Detection System. International Journal of Advanced Intelligence Paradigms (Scopus), Inderscience
- Vij, Richa, Kaushik, Bajjnath (2019). Human Face Tracking and Recognition in Video Frames using Machine Learning Algorithm. International Journal of Innovative Technology and Exploring Engineering (Scopus).
- Sharma, Reya., Kaushik, Bajjnath, & Gondhi, Naveen (2018). Devnagri and Gurumukhi Script Recognition in the context of Machine Learning Classifier. Journal of Artificial Intelligence (Scopus), 11 (2), 65-70.
- Gupta, Abhineet, Kaushik, Bajjnath. (2018). Feature Selection from Biological Database for Breast Cancer Prediction and Detection Using Machine Learning Classifier. Journal of Artificial Intelligence (Scopus), 11 (2), 55-64. <https://doi.org/10.3923/jai.2018.55.64>
- Gupta, Niharika., Kaushik, Bajjnath. (2018). Machine Learning in Biomedical Mining for Disease Detection. Journal of Artificial Intelligence (Scopus), 11 (2), 39-47. <https://doi.org/10.3923/jai.2018.39.47>
- Sharma, Surbhi., Kaushik, Bajjnath. (2018). Quantitative Analysis of Stock Market Prediction for Accurate Investment Decisions in Future. Journal of Artificial Intelligence (Scopus), 11 (2), 48-54. <https://doi.org/10.3923/jai.2018.48.54>
- Kaushik B. & H. Banka, (2015), "Performance evaluation of approximated artificial neural network(AANN) algorithm for reliability improvement", Journal of Applied Soft Computing (SCI), Elsevier, 26, 303-314.
- Kaushik B. & H. Banka, (2015), (2014), "Approach for Improving Reliability in Optimal Network Design", IJAIP, Inderscience Journal (Scopus ACM DBLP), 6(3), 157-175.
- Kaushik B., AK Kohli, N. Kaur, (2013), "Achieving Maximum Reliability in Fault Tolerant Network Design for Variable Networks" Journal of Applied Soft Computing (SCI), Elsevier, pp. 3211-3223.
- Kaushik B., AK Kohli, N. Kaur, (2012), "Improved Approach for Maximizing Reliability in Fault Tolerant Networks" Journal of Advanced Computational Intelligence and Intelligent Informatics (Scopus), Fuji Press, Japan, 17, 1, pp. 27-41.
- Kaushik B., AK Kohli, N. Kaur, (2012), "Improved Neural Approach in Maximizing Reliability for Increasing Networks" International Journal of Computational Sciences and Engineering, Inderscience (Scopus, ACM DBLP), 11(2), 176-185.
- Kaushik B. & H. Banka, and Suresh Dara, Binary PSO Approach in Solving Bounded and Exact Reliability in High Dimensional Complex Networks, International Journal of Applied Engineering Research, Vol. 10, Issue: 81, pp. 242-246 (2015). (SCOPUS Indexed).
- Niahrika & Kaushik B., (2017), "Recent trends of workflow scheduling algorithms in cloud computing under Qos constraints", 4th IEEE International Conference on Signal Processing, Computing and Control, ISPPC 2017, IEEE (Scopus).
- Kaushik B. & H. Banka, (2016), "Solving reliability problems in complex networks with approximated cuts and paths", Smart Innovation, Systems and Technologies, Springer (Scopus).
- Agarwal, M., Kaushik, B., (2016), "Text recognition from image using artificial neural network and genetic algorithm", Proceedings of the 2015 International Conference on Green Computing and Internet of Things, IEEE (Scopus).
- B. Kaushik et al., (2010), "A Computational Study on the Design of Overall Reliability Measures of Optimized ANN for Computer Networks with Fixed and Varying Link Reliabilities", IEEE (Scopus).
- Richa Vij, B. Kaushik., (2019). A Survey on Various Face Detecting and Tracking Techniques in Video sequences, IEEE (Scopus).
- Akshma Chadha, B. Kaushik, (2020). Suicidal Ideation from the Perspective of Social and Opinion Mining. LNEE (Springer, Scopus).
- Priyanka, B. Kaushik, (2019). Review on Suicidal Tendency on Social Media. IEEE (Scopus).
- Priyanka, B. Kaushik, Sunanda, (2019). Suicidal Tendency on Social Media by using Text Mining, LNCS (Springer, Scopus).
- Akshma Chadha, B. Kaushik, (2019). A Review on Suicidal Ideation from Twitter Data and Machine Learning Perspectives. LNCS (Springer, Scopus).

25. Shikha, B. Kaushik, (2020). A Database for Printed Takri class of northwest Indian Regional Scripts. LNCS (Springer, Scopus).

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#### Invited Talks

1. FDP on Deep Learning and Machine Learning Applications using Python, organized by EICT, IIT Roorkee and School of CSE, SMVDU, Katra, 6th – 10th January, 2020.
2. FDP on Internet of Things, Organized by Central University Jammu and AICTE (ATAL), 14-18 October, 2019.
3. Recent Trends in Machine Learning and Data Science, organized by Human Resource Development Centre, SMVDU, Katra, 08th-12th oct, 2018.
4. Recent Trends in Machine Learning & Deep Learning, Workshop on Contemporary Research & IPR, JNTU Hyderabad, 28th – 01st Feb, 2019.
5. Machine Learning, FDP on Machine Learning (ML-2019), BGBSU, Rajouri, 29th-01st May, 2019.
6. Recent Trends in Data Science, Machine & Deep Learning, Workshop organized by FDC, NMEICT, IIT Bombay, SMVDU, 16th Feb-01st Mar, 2019.
7. Recent Trends in Data Science & Machine Learning, National Conf. NCRACIT, BGBSU, Rajouri, 24th Apr, 2018.
8. Recent Trends in Data Science & Machine Learning, Invited Talks at MIET, Jammu, 19th Apr, 2018.
9. Applications of AI & ML, Invited talks at Yoganada College of Engg., Jammu, 12th Feb, 2018.
10. Applications of AI & ML in Mathematical sciences, Invited talks at GGM Science College, Jammu, 19-20th Jan, 2018.
11. Applications of ML in Systems Adaptation, Invited Talks at Jammu University under IETE, 14th Nov, 2017.

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#### Projects Submitted

1. The identification of neuro-degenerative diseases by investigating the neuro-imaging and neuro-signals, JK-DST & DST, **1, 55, 20, 122, PI**.
2. Role of Artificial Intelligence in Finding Optimum solution to Big Genomic Data, DBT-DST, **8,57,15, 034, Co-PI**
3. Machine Learning Based Model and Approach for Predictions of Diseases in Apple using Wireless Sensor, SERBONLINE, **29, 35, 037, Co-PI**.

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#### FDP / Conf. / Workshop Organized

1. Int. Conf. ICMLCI-2017, Convenor, 27-28 September, 2017, School of CSE, Shri Mata Vaishno Devi University.
2. **FDP on Applications of Soft Computing & ML**, Coordinator, 3rd-7th Apr, 2018, School of CSE, Shri Mata Vaishno Devi University.
3. **FDP on Applications of Data Science & ML**, Coordinator, **TEQP-III**, 6th-10th Aug, 2018, School of CSE, Shri Mata Vaishno Devi University.
4. **FDP on data Analytics with Python**, Coordinator, **EICT-IIT Roorkee**, 4th-08th sept, 2018, School of CSE, Shri Mata Vaishno Devi University.
5. **FDP on Wireless & Mobile Communication**, Coordinator, **EICT-IIT Roorkee**, 3rd-7th Dec, 2018, School of CSE, Shri Mata Vaishno Devi University.
6. **FDP on AI & ML**, Coordinator, **EICT-IIT Roorkee**, 17th-21st Dec, 2018, School of CSE, Shri Mata Vaishno Devi University.
7. **FDP on IOT with Cloud Applications**, Coordinator, **EICT-IIT Roorkee**, 17th-21st Dec, 2018, School of CSE, Shri Mata Vaishno Devi University.
8. **FDP on Deep Learning and Machine Learning Applications using Python**, organized by EICT, IIT Roorkee and School of CSE, SMVDU, Katra, 6th – 10th January, 2020.

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#### Teaching Experience

1. Associate Professor, School of CSE, SMVDU, 24th April, 2017.
2. Associate Professor, School of CSE, Sharda University, 07th Feb-24th Apr., 2017.
3. Associate Professor, School of CSE, ABES Engg. College, 21st July 2014-30th Nov., 2016.
4. Associate Professor, School of CSE, Krishna Engg. College, 05th Jan 2010-21st July 2014.

5. Assistant Professor, School of CSE, SRM University, 13th Aug 2007-05th Jan, 2010.
6. Lecturer, School of CSE, JSSATE, Noida, 01st Feb 2006-13th Aug. 2017.
7. Lecturer, School of CSE, College of Engg, Roorkee, 22nd Aug-31st Jan, 2006.
8. Lecturer, School of CSE, MACET, Patna, 25th Jan 1999-20th Aug, 2005.

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#### Achievements:

1. **NPTEL MOOC Course on Fuzzy Sets, Logic and Systems & Applications (Completed).**
12. **NPTEL MOOC Course on Python for Data Science (completed).**
13. **NPTEL MOOC Course on Problem Solving Through Programming in C (completed).**
14. **Stanford online Mooc Course on Computer Science 101 (Completed).**

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#### Contact Details

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