

Dr S. Karthikeyan

Professor & Head

Department of Computer Science

Institute of Science, Banaras Hindu University

Varanasi-221005, U. P., India

Tel: 91-542-2307306(O)

Mob: 91-9473967721

email: karthik@bhu.ac.in

Courses Taught:

- *Artificial Intelligence*
- *Soft Computing*
- *Human Computer Interactions*
- *Neural Information Processing*
- *Advanced Computer Architecture*
- *Software Engineering*
- *Operating Systems*
- *Data Structures*
- *Bioinformatics*
- *Bioinstrumentation*
- *Biomedical Image & Signal Processing.*

Research Interests:

- *Computational Intelligence*
- *Data Analytics*
- *Bioinformatics*

Education:

- **Ph.D. (Topic: Neurocomputing)** from IIT (BHU), Varanasi, India.
- **M.Tech. (Computer and Information Sciences)** from CUSAT, Kochi, India.
- **M.Tech. (Biomedical Engineering)** from IIT (BHU), Varanasi, India.

Work Experience:

- **Professor** in the Department of Computer Science, BHU, India from July 2009.
- **Senior Professor** in the Department of Computer Science and Engineering at Kalasalingam University for two years on Extraordinary Leave from BHU during 2007-09.
- **Associate Professor** in the Department of Computer Science at BHU, India from July 2006.
- **Visiting Academic** at the University of Western Australia on sabbatical leave from BHU during 2005
- **Lecturer** in the Department of Computer Science at BHU, India from December, 1991.

Recent Research Publications:

A. International Journals

1. Abhigyan Nath, **Karthikeyan Subbiah**, "The role of pertinently diversified and balanced training as well as testing data sets in achieving the true performance of classifiers in predicting the antifreeze proteins", *Neurocomputing*, Volume 272, 2018, Pages 294-305
2. Anoop Kumar Tiwari, Abhigyan Nath, **S Karthikeyan** and K K Shukla, " Enhanced Prediction for Observed Peptide Count in Protein Mass Spectrometry Data by Optimally Balancing the Training Dataset" *International Journal of Pattern Recognition and Artificial Intelligence*, vol.31, no. 12, 2017 p.1750040.

3. Abhigyan Nath, **S. Karthikeyan**, "Enhanced identification of β -lactamases and its classes using sequence, physicochemical and evolutionary information with sequence feature characterization of the classes", *Computational Biology and Chemistry*, Volume 68, 2017, Pages 29-38.
4. Abhigyan Nath and **Karthikeyan Subbiah**, "Probing an Optimal Class Distribution for Enhancing Prediction and Feature Characterization of Plant Virus Encoded RNA Silencing Suppressors" *3Biotech*, 2016,6:93.
5. Abhigyan Nath and **Karthikeyan Subbiah**, "Enhanced Prediction and Characterization of CDK-Inhibitors Using Optimal Class Distribution" *Interdisciplinary Sciences: Computational Life Sciences*, 2017, Vol. 9:2, pp 292–303
6. Abhigyan Nath, **Karthikeyan Subbiah**, "Insights into the molecular basis of piezophilic adaptation: Extraction of piezophilic signatures", *Journal of Theoretical Biology*, Volume 390, 2016, Pages 117-126.
7. Abhigyan Nath, **Karthikeyan Subbiah**, "Unsupervised learning assisted robust prediction of bioluminescent proteins", *Computers in Biology and Medicine*, Volume 68, 2016, Pages 27-36.
8. Abhigyan Nath, **Karthikeyan Subbiah**, "Maximizing lipocalin prediction through balanced and diversified training set and decision fusion", *Computational Biology and Chemistry*, Volume 59, Part A, 2015, Pages 101-110
9. Abhigyan Nath, **Karthikeyan Subbiah**, "Inferring biological basis about psychrophilicity by interpreting the rules generated from the correctly classified input instances by a classifier", *Computational Biology and Chemistry*, Volume 53, Part B, 2014, Pages 198-203.
10. Abhigyan Nath, Radha Chaube, **Karthikeyan Subbiah**, "An insight into the molecular basis for convergent evolution in fish antifreeze Proteins", *Computers in Biology and Medicine*, Volume 43, Issue 7, 2013, Pages 817-821

B. International Conferences

1. Pandey, Manish Kumar and **Subbiah, Karthikeyan**, "Performance Analysis of Time Series Forecasting of Ebola Casualties Using Machine Learning Algorithms.", International work-conference on Time Series, ITISE 2017, Granada, Spain, 18-20, September, 2017
2. Pandey, Manish Kumar and **Subbiah, Karthikeyan** A Novel Storage Architecture for facilitating Efficient Analytics of Health Informatics Big Data in Cloud The *6th IEEE International Symposium on Cloud and Service Computing*, Nadi, Fiji, December 7-10, 2016. [IEEE Xplore](#)
3. Pandey, Manish Kumar and **Subbiah, Karthikeyan**, "Social Networking and Big Data Analytics Assisted Reliable Recommendation System Model for Internet of Vehicles", *Third International Conference, IOV 2016*, Nadi, Fiji, December 7--10, 2016, pp 149—163, ISBN 978-3-319-51969-2. [Springer](#)
4. Kumar, S.; Pandey M.K.; Nath, A. and **Subbiah, K.**, "Performance Analysis of Ensemble Supervised Machine Learning Algorithms for Missing Value Imputation" *International Conference on Computational Intelligence and Networks (CINE 2016) 160-165, 11th January 2016, Bhubaneswar, India. [IEEE Xplore](#)*
5. Kumar S.; Pandey M.K.; Nath, A. and **Subbiah, K.**, "Missing QoS-Values Predictions using Neural Networks for Cloud Computing Environments," *International Conference on Computing and Network Communications (COCONET '15) 420-425 16-19 December 2015.Trivandrum, India. [IEEE Xplore](#)*
6. Anoop Kumar Tiwari; Abhigyan Nath; **Karthikeyan Subbiah**; Kaushal Kumar Shukla, "Effect of varying degree of resampling on prediction accuracy for observed peptide count in protein mass spectrometry data," in *11th International Conference on Natural Computation (ICNC), 2015*, vol., no., pp.691-695, 15-17 Aug. 2015 China [IEEE Xplore](#)
7. Kumar, S.; Pandey, M.K.; Nath, A.; **Subbiah, K.**; Singh, M.K., "Comparative study on machine learning techniques in predicting the QoS-values for web-services recommendations," in *International Conference on Computing, Communication & Automation (ICCCA), 2015*, vol., no., pp.161-167, 15-16 May 2015. Noida, India [IEEE Xplore](#)
8. Manish Kumar Pandey, Sunil Kumar and **S.Karthikeyan**, "Information Security Management System (ISMS) Standards in Cloud Computing- A Critical Review", *International Conference on Control, Computing, Communication and Materials-2013(ICCCCM-2013)*, 2013, pp.912-915, August 03-04, 2013, Allahabad, India. [IEEE Xplore](#)
9. Nath A., Chaube R., and **Karthikeyan S.**, "Discrimination of Psychrophilic and Mesophilic Proteins Using Random Forest Algorithm," *International Conference on Biomedical Engineering and Biotechnology (iCBEB), 2012*, 179-182, 28-30 May 2012. Macau, Macao. [IEEE Xplore](#)

10. Singh, P.K.; **Karthikeyan, S.**, "Combining GRNN and SVM Using Receiver Operating Characteristics (ROC) for Improved Classification of Non Coding RNA," *International Conference on Biomedical Engineering and Biotechnology (iCBEB), 2012*, 115-118, 28-30 May 2012 Macau, Macao. [IEEE Xplore](#)

Professional Affiliations:

- Life Member of Biomedical Engineers Society of India.
- Life Member of Indian Society of Technical Education.

Administrative Experience:

- Head, *Department of Computer Science, BHU from Apr 2010 to Mar 2013 & Aug.2017- till date*
- Member of Academic Council, *BHU from April 2010 to March 2013.*
- Member of Policy & Planning Committee, *I.Sc, BHU from Apr 2010 to Mar 2013.*
- Member Board of Studies for Computer Science.
- Member of Departmental Planning & Policy Committee, Research Committee, etc.