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Department : Department of Computer Science & Engineering
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RESEARCH INTERESTS

- ✓ Software Reliability
- ✓ Machine Learning

Academic Qualifications

- ✓ Ph. D. (Computer Science), Utkal University, Bhubaneswar, India
- ✓ M. Tech. (Computer Science), BPUT, India
- ✓ MCA, NIT, Rourkela, India

Teaching Experience/Industrial Experience/Research Experience

- ✓ Teaching Experience : 24 years
- ✓ Research Experience : 13 years

PUBLICATIONS

JOURNAL

[1]. C.S.K. Dash, **A. K. Behera**, S. Dehuri, and S-B. Cho. (2013). Differential Evolution Based Optimization of Kernel Paramètres in Radial Basis Function Networks for Classification. *International Journal of Applied Evolutionary Computation (IJAEC)*, vol. 4, issue-1, pp. 56-80.

[2]. C.S.K. Dash, **A. K. Behera**, S. Dehuri, and S-B. Cho. (2013). A Novel Radial Basis Function Networks Locally Tuned with Differential Evolution for Classification : An Application in Medical Science. *International Journal of Systems Biology and Biomedical Technologies (IJSBBT)*, vol. 2, no. 2, pp. 33-57.

[3]. **A. K. Behera**, C.S.K. Dash, and S. Dehuri. (2013). A Brief Review of accuracy of Classifiers Based on Radial Basis Function Neural Networks. *The IUP Journal of Computer Science*, *7*(2)., pp. 7-24.

[4]. C.S.K Dash, **A. K. Behera**, S Dehuri, S-B Cho, GN Wang. (2015). Towards Crafting an Improved Functional Link Artificial Neural Network Based on Differential Evolution and Feature Selection. *Informatica*, 39 (2), pp.195-208.

[5]. C.S.K Dash, **A. K. Behera**, S Dehuri, S-B Cho. (2016). Radial Basis Function Neural Networks : A Topical State-of-the-Art Survey. *Open Computer Science*, 6(1), 33-63.

[6]. C.S.K. Dash, **A. K. Behera**, S.C. Nayak, S. Dehuri, S.B. Cho. (2019). An Integrated CRO and FLANN Based Classifier for a Non-Imputed and Inconsistent Dataset. *International Journal on Artificial Intelligence Tools*, 28(03), 1950013.

[7]. **A. K. Behera**, M. Panda, C. S. K. Dash, S. Dehuri & R. Mall. (2021). A state-of-the-art neuro-swarm approach for prediction of software reliability. *International Journal of Advanced Intelligence Paradigms*, *20*(3-4), 296-322. Inderscience.

[8]. **A. K. Behera**, M. Panda, & S. Dehuri. (2021). Software reliability prediction by recurrent artificial chemical link network. *International Journal of System Assurance Engineering and Management*, 12(6), 1308-1321. Springer.

[9]. C.S.K. Dash, **A. K. Behera**, S. Dehuri & S.B. Cho, (2022). Building a novel classifier based on teaching learning-based optimization and radial basis function neural networks for non-imputed databases with irrelevant features. *Applied Computing and Informatics*, 18(1/2), 151-162.

[10]. C.S.K. Dash, **A. K. Behera**, S. Dehuri & A. Ghosh. (2023). An outliers detection and elimination framework in the classification task of data mining. *Decision Analytics Journal*, 6, 100164.

[11]. C.S.K. Dash, S.C. Nayak, **A. K. Behera**, S. Dehuri. (2023). A Neuro-Fuzzy Predictor Trained by an Elitism Artificial Electric Field Algorithm for Estimation of Compressive Strength of Concrete Structures. *Informatica*, *47*(5).

[12]. **A. K. Behera**, M. Panda, & S. Dehuri. (2024). A recurrent ANFIS tuned by modified differential evolution for efficient prediction of software reliability. *Evolutionary Intelligence*, 1-14.

CONFERENCE

[1]. C.S.K. Dash, **A. K. Behera**, M.K. Pandia, and S. Dehuri. (2013). Neural Networks Training Based on Differential Evolution in Radial Basis Function Networks for Classification of Web Logs. International Conference on Distributed Computing and Internet Technology (ICDCIT 2013), Springer LNCS, vol.7793, pp.183-194, Bhubaneswar, India.

[2]. P. Sahoo, **A. K. Behera**, M. K. Pandia, C.S. K. Dash, S. Dehuri. (2013)). On the Study of GRBF and Polynomial Kernel Based Support Vector Machine in Web Logs. 1st International Conference on Emerging Trends and Applications in Computer Science (ICETACS), IEEE, pp.1-5, Meghalaya, India, ISBN 978-1-4673-5250-5.

[3]. **A. K. Behera**, C.S.K. Dash, S. Dehuri. (2014). Classification of Web Logs Using Hybrid Functional Link Artificial Neural Networks. Proceedings of the 3rd International Conference on Frontiers of Intelligent Computing Theory and Applications (FICTA)2014. Advances in Intelligent Systems and Computing, 327, 255-263, Bhubaneswar, India.

[4]. **A. K. Behera**, S.C. Nayak, C.S.K. Dash, S. Dehuri, & M. Panda. (2019). Improving Software Reliability Prediction Accuracy Using CRO-Based FLANN. An Innovations in Computer Science and Engineering pp. 213-220.

[5]. **A. K. Behera**, & M. Panda, (2019). Software Reliability Prediction with Ensemble Method and Virtual Data Point Incorporation. In International Conference on Biologically Inspired Techniques in Many-Criteria Decision Making (pp. 69-77). Springer, Cham.

[6]. S.C. Nayak, C.S.K Dash, **A. K. Behera**, S. Dehuri, (2020). Improving Stock Market Prediction Through Linear Combiners of Predictive Models. In Computational Intelligence in Data Mining (pp. 415-426). Springer, Singapore.

[7]. C.S.K. Dash, **A. K. Behera**, S.C. Nayak, & S. Dehuri. (2021). QORA-ANN : Quasi Opposition Based Rao Algorithm and Artificial Neural Network for Cryptocurrency Prediction. In 2021 6th International Conference for Convergence in Technology (I2CT) (pp. 1-5). IEEE.

[8]. S.C. Nayak, C.S.K., Dash, **A. K. Behera**, B.B. Mishra. (2021). A machine learning approach for estimating compressive strength of concrete structures using an artificial electric field algorithm-based neuro-fuzzy predictor. In 2021 19th OITS International Conference on Information Technology (OCIT) (pp. 229-233). IEEE.

[9]. D.K. Behera, S. Dash, **A. K. Behera**, C.S.K., Dash. (2021). Extreme Gradient Boosting and Soft Voting Ensemble Classifier for Diabetes Prediction. In 2021 19th OITS International Conference on Information Technology (OCIT) (pp. 191-195). IEEE.

[10]. **A. K. Behera**, M. Panda, S.C. Nayak, & C.S.K. Dash, (2022). An Artificial Electric Field Algorithm and Artificial Neural Network-Based Hybrid Model for Software Reliability Prediction. In Computational Intelligence in Data Mining : Proceedings of ICCIDM 2021 (pp. 271-279). Singapore: Springer Nature Singapore.

[11]. S.C. Nayak, C.S.K. Dash, **A. K. Behera**, & S. Dehuri, (2022). An Elitist Artificial-Electric-Field-Algorithm-Based Artificial Neural Network for Financial Time Series Forecasting. In Biologically Inspired Techniques in Many Criteria Decision Making: Proceedings of BITMDM 2021 (pp. 29-38). Singapore : Springer Nature Singapore.

[12]. C.S.K. Dash, **A. K. Behera**, S.C. Nayak, S. Dehuri, & J.P. Mohanty. (2022). Estimation of Air Quality Index of Brajarajnagar and Talcher Industrial Region of Odisha State : A Higher Order Neural Network Approach. In 2022 OITS International Conference on Information Technology (OCIT) (pp. 176-180). IEEE.

[13]. **A. K. Behera**, J.P. Mohanty, C.S.K. Dash, & S. Dehuri. (2022). Radial Basis Neural Networks for Class Discovery. In 2022 OITS International Conference on Information Technology (OCIT) (pp. 330-334). IEEE.

[14]. **A. K. Behera**, S. Dehuri, A. Ghosh, (2023). Surrogate-Assisted Multi-objective Genetic Fuzzy Associative Classification by Multiple Granularity Measures. In 2023 International Conference for Advancement in Technology (ICONAT) (pp. 1-9). IEEE.

BOOK CHAPTER

[1] C.S.K. Dash, **A. K. Behera**, & S.C. Nayak. (2018). DE-Based RBFNs for Classification with Special Attention to Noise Removal and Irrelevant Features. *Hand Book of Research on Modeling, Analysis, and Application of Nature-Inspired Metaheuristic Algorithms*, 218, IGI Global.

[2] **A. K. Behera**, & M. Panda, (2021). Efficient Software Reliability Prediction With Evolutionary Virtual Data Position Exploration. *In Handbook of Research on Automated Feature Engineering and Advanced Applications in Data Science* (pp. 275-285). IGI Global.

[3] C.S.K, Dash, **A. K. Behera** & S.C. Nayak, (2021). 14 Online Clinic Appointment System Using Support Vector Machine. *Cognitive Computing Using Green Technologies Modeling Techniques and Applications*, 239.

[4] C. S. K. Dash, **A. K. Behera**, S. C. Nayak, & S. Dehuri. (2021). Usage of Convolutional Neural Networks in Real-Time Facial Emotion Detection. In *Cognitive Computing Using Green Technologies* (pp. 259-273). CRC Press.

MEMBER OF PROFESSIONAL BODIES

- ISTE (Indian Society for Technical Education) (Life Member)
- OITS (Orissa Information Technology Society) (Life Member)

RESEARCH GUIDANCE

- Supervisor of 01 Ph.D. student under Silicon University