



## CURRICULUM VIATE DR. HIMANSU SEKHAR BEHERA (Ph.D. ENGINEERING)

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### PERSONAL DETAILS

Present Designation : **Professor, Dean PGS&R & Head,**  
Department of Information Technology,  
Veer Surendra Sai University of Technology (VSSUT)  
(A Technical University Established by the Govt. of Odisha)  
Burla, Sambalpur-768018, Odisha, India.  
URL: [www.vssut.ac.in](http://www.vssut.ac.in)

Nationality : Indian

Religion : Hindu

Date of Birth : 14<sup>th</sup> Aug 1971

Gender : Male

Marital Status : Married

### CORRESPONDING ADDRESS

Dr. H.S. Behera, Associate Professor  
Department of Information Technology  
Qr. No. 3R/1, Professors Colony,  
Veer Surendra Sai University of Technology (VSSUT)  
(A Unitary Technical University Established by the Govt. of  
Odisha), Burla, Sambalpur-768018, Odisha, India.

### PERMANENT ADDRESS

Dr. Himansu Sekhar Behera  
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### CONTACT

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[mailtohsbehera@gmail.com](mailto:mailtohsbehera@gmail.com); [hsbehera\\_it@vssut.ac.in](mailto:hsbehera_it@vssut.ac.in)

## EDUCATION:

**Ph.D.** - (Doctor of Philosophy) in Computer Science & Engineering, Biju Patnaik University of Technology (B.P.U.T), Govt. of Odisha, Jail Road, Rourkela, 769004, Odissa, India

**Broad Area of Research:** Data Mining, **Specific Area:** Time Sequence Data Mining

**Title of the Ph.D. Thesis:** “Time Sequence Data Mining using Time Frequency Analysis and Soft computing Techniques” - 2011

**M.Tech.-** Master of Technology in Computer Science & Engineering, N.I.T, Rourkela (Formerly R.E.C Rourkela), Odissa, India – Thesis Title: “Dynamic Task Scheduling Schemes in Distributed System” , 2001.

**M.C.A-** Master Degree in Computer Application, Dept. of Computer Science & Application, Utkal University, Govt. of Odisha, Vani-Vihar, Orissa, India - Thesis Major: “Training Information System for OCAC, Govt. of Odisha”, 1995.

**B.Sc. (Hons)-** Bachelors Degree in Science, Ravenshaw University, Govt. of Odisha, (Formerly Ravenshaw College (Autonomous), Cuttack, Utkal University, Orissa, India- Math (Hons.), Phys, Chem. (pass) - 1992.

**XII –** Intermediate in Science, S.P College, Cuttack, C.H.S.E. Orissa, India (Physics, Chemistry, Mathematics) - 1989

**X-** Matriculation/H.S.C, J.P High School, Cuttack, B.S.E. Orissa, India - 1986.

## TEACHING INTEREST

Data Mining and Warehousing, Operating System, Software Engineering, Computer Organization & Architecture, Advanced Operating System, Data Base Engineering, Relational Database Management System, Advanced Computer architecture, Microprocessor and ALP, E-Commerce & ERP, Advanced Microprocessor & its Application, Management Information System, Soft computing, Evolutionary Computation,

## RESEARCH INTEREST

Time Sequence Data Mining using Soft Computing, Evolutionary Computation, Time Series Forecasting using Evolutionary neural Network, Developing Machine Intelligence using Natural and Adoptive Computation Techniques, Pattern Recognition, Hybridization of different natural/adoptive computation Technique to Construct an Intelligent System, Web Intelligence, Image Processing, Robotics, Financial Modeling and other Data Mining Applications.

## **ACADEMIC EXPERIENCE: (Total 18 Years)**

**From 15.05.2015 till Date:** Associate Professor, Department of Information Technology, Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India.

**From 30.07.2014 till Date14.05.2015:** Reader/Asst.Professor (Senior Grade), Department of Computer Science Engineering and Information Technology, Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India.

**From 05.07.2007 till 30.05.2014:** Asst. Professor, Department of Computer Science Engineering and Information Technology, Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India.

**From 05.07.2002 to 04.07.2007:** Lecturer/Asst. Professor Dept. of Computer Science & Engineering, University College of Engineering(UCE) , Government of Orissa, Burla, Orissa ,India.

**From 07.01.2002 to 04.07.2002:** Lecturer/Asst. Professor Dept. of Computer Science & Engineering, BIET, Bhadrak, Odisha, India.

**From 21.03.2001 to 05.01.2002:** Lecturer/Asst. Professor Dept. of Computer Science & Engineering, V.E.C, Vizianagaram, AP, India.

**From 02.09.1997 to 30.07.1999:** Lecturer (Contractual) Dept. of Computer Science & Appln, Ravenshaw College, Government of Odissa Cuttack, Odisha, India.

**From 28.06.1996 to 30.08.1997:** Lecturer(Contractual) Dept. of Computer Science & Appln, CET, OUAT, Government of Orissa BBSR, Odisha, India.

## **RESEARCH GUIDANCE**

### **Ph.D. IN ENGINEERING**

**(8 Awarded)**

Financial Time Series Forecasting using Soft Computing Technique by Sarat Ch. Nayak (Ph.D. Registration. No. 11060026) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India (Year of Award - 2015)

Higher Order Neural Network and Metaheuristic Optimisation based Machine Learning Approaches to Classification in Data Mining by Bighnaraj Nayak (Ph.D.Registration. No. 13060003) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India (Year of Award - 2016)

Soft Computing Approaches to Classification and Clustering in Data Mining: A Performance Perspectives by Janmenjoy Nayak (Ph.D.Registration. No. 13060002) under DST Inspired Fellowship (Govt. of India) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India, Burla, India (Year of Award - 2017)

Visual Perception Based Navigation and Multi Robot Co-operation Using Soft Computing Approach by Pradipta Kumar Das (Ph.D.Registration. No. 14060006) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India (Year of Award - 2017).

## **Ph.D. IN ENGINEERING**

**(5 in Progress)**

Artificial Neural Network for Time Series Forecasting K. K. Sahu (Ph.D. Registration.No.11060023) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India in 2012.

Automatic Time Series Forecasting using Soft Computing Technique by Sibarama Panigrahi (Ph.D.Registration. No. 14060001) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India in 2014

Study on Machine Learning and Soft Computing Approaches in Data Mining by D.P. Kanungo (Ph.D.Registration. No. 15060066) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India in 2015

Study on Evolutionary Algorithm and Soft Computing Approaches in Data Mining by R. M. Patnayak (Ph.D.Registration. No. 1610080001) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India in 2016.

## **M.E & M.Tech (Completed)**

Classification Using Bio-Inspired Optimized Neural Network by D. P. Kanungo (M.Tech.Redg.No.13040141) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, Orissa, India, in 2015.

Firefly Based Back propagation for Character Recognition by Mohinikanta Sahoo (M.Tech.Redg.No.13040152) in Veer Surendra

Sai University of Technology(VSSUT), Government of Orissa, Burla, India in 2015.

Pattern Recognition and Classification Using Fuzzy MLP Neural Network Approach Tirtharaj Dash (M.Tech. Redg.No. 12040085) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, India in 2014.

Bird Mating Optimization Based MLP for Classification by Nayan K.S. Behera( M.Tech.Redg.No.: 12040087) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, India in 2014.

Non-Linear Classification using CRO Based Functional Link Artificial Neural Network by Soumya R. Sahu (M.Tech.Redg.No. 12040095) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, India in 2014.

Automatic Time Series Forecasting Using Evolutionary Neural Network by Sibarama Panigrahi (M.Tech.Redg.No.: 11040056) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, India in 2013.

Hard and Fuzzy Clustering using Chemical Reaction Optimization by Archana Baral (M.Tech Redg. No.11040058) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, India in 2013.

High Dimensional Data Clustering Using Hybridized Teaching Learning Based Optimization by Tusar Kanta Samal (M.Tech.Redg.No.: 11040085) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, India in 2013.

Experimental Study of Higher Order Neural Network for Pattern Classification by Yasobant Karali (M.Tech.Redg.No.: 11040065) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India in 2013.

PSO Optimized Hybridized K-Means Clustering Algorithm for High Dimensional Data Sets by Madhusmita Mishra (M.Tech.Redg.No.: 10041048) in Veer Surendra Sai University of Technology(VSSUT), Government of Orissa, Burla, Orissa, India 2012.

A new proposed Self Adjustment Round Robin Scheduling Algorithm for Real Time System by Debashree Nayak (M.Tech.Redg.No.807101021) in Veer Surendra Sai University of Technology (VSSUT), Government of Orissa, Burla, India in 2010.

## **RESEARCH PUBLICATIONS**

### **SELECTED JOURNAL ARTICLES**

Sibarama Panigrahi and H.S.Behera, "A hybrid ETS-ANN model for Time Series Forecasting ", **Journal of Engineering Application of Artificial Intelligence (EAAI), Elsevier Science(Science Direct) EAAI-17-848R1 (Accepted)(SCOPUS,SCI, Elsevier, DBLP, INSPEC,DOAJ) ISSN: 0952-1976, IF: 2.894 July 2017.**

H. S. Behera, P. K. Dash and B Biswal, "Power Quality Time Series Data Mining using S -Transform and Fuzzy Expert System" **Journal of Applied Soft Computing, Elsevier Science,(Science Direct) (SCI, SCOPUS, COMMENDEX, DBLP, INSPEC,DOAJ) ISSN No. 1568-4946, IF: 2.970, Vol 10, Issue 3 , pp 945-955, 2010.**

P. K. Dash, H. S. Behera and IWC Lee "Time Sequence Data Mining using Time- Frequency Analysis and Soft computing Techniques", **Journal of Applied Soft Computing, Elsevier Science,(Science Direct) (SCI, SCOPUS, COMMENDEX, DBLP, INSPEC,DOAJ) ISSN No. 1568-4946, IF: 2.970, Vol:8 Issue 1, pp. 212-226, Jan 2008.**

B.Biswal, H.S.Behera, R.Bisoi and P.K.Dash "Classification of Power Quality Data Using Decision Tree and Chemotactic Differential Evolution Based Fuzzy Clustering" **Swarm and Evolutionary Computation, Elsevier (Science Direct), (SCI, SCOPUS, COMMENDEX, DBLP, INSPEC,DOAJ) ISSN: 2210-6502 SCImago Journal Rank (SJR):5.631 Source Normalized Impact per Paper (SNIP): 9.218 Vol. 4, pp. 12-24, 2012.**

Bighnaraj Naik, Janmenjoy Nayak and H.S. Behera, "A self adaptive harmony search based functional link higher order ANN for non-linear data classification", **Neurocomputing,Elsevier,(IF:2.083),(SCISEARCH, SCOPUS, INSPEC),ISSN: 0925-2312(In Press),2016.**

P.K. Das, H.S. Behera, S. Das, H.K. Tripathy, B.K. Panigrahi, S.K. Pradhan, "A Hybrid Improved PSO-DV Algorithm for Multi-Robot Path Planning in a Clutter Environment",**Neurocomputing, Elsevier, (IF:2.083), (SCISEARCH,SCOPUS,INSPEC),ISSN: 0925-2312(In Press),2015.**

Bighnaraj Naik, Janmenjoy Nayak and H.S. Behera, "A TLBO based gradient descent learning-functional link higher order ANN: An efficient model for learning from non-linear data", **Journal of King Saud University - Computer and Information**

Sciences, Elsevier, (SCOPUS,INSPEC, SCIRUS,ACM, Google Scholar), ISSN: 1319-1578 (Accepted),2016.

P.K. Das, H.S. Behera, B.K. Panigrahi, "A hybridization of an Improved Particle Swarm optimization and Gravitational Search Algorithm for Multi-Robot Path Planning", **Swarm and Evolutionary Computation**, Elsevier, (SNIP IF :5.220) SCI, SCOPUS, COMMENDEX, DBLP, INSPEC,DOAJ), ISSN: 2210-6502,2015(In Press).

P.K. Das, H.S. Behera, B.K. Panigrahi, "Intelligent-based multi-robot path planning inspired by improved Classical Q-learning and improved particle swarm optimization with perturbed velocity", **Engineering Science and Technology, an International Journal**, Elsevier, (EBSCOhost, Academic Search,TOC Premier, Science & Technology Collection) ISSN: 2215-0986,2015 (In Press).

Janmenjoy Nayak, Bighnaraj Naik, and **H. S. Behera**. "A novel nature inspired firefly algorithm with higher order neural network: Performance analysis", **Engineering Science and Technology, an International Journal**, Elsevier, (EBSCOhost, Academic Search,TOC Premier, Science & Technology Collection) ISSN: 2215-0986,2015 (In Press).

Bighnaraj Naik, Janmenjoy Nayak and **H.S. Behera**, "A Global-best Harmony Search based Gradient Descent Learning FLANN (GbHS-GDL-FLANN) for Data Classification", **Egyptian Informatics Journal**, Elsevier, ISSN: 1110-8665 (SNIP IF: 0.810), 2015. (In Press)

S. C., Nayak, B. B., Mishra, and **H.S. Behera**, "Artificial Chemical Reaction Optimization of Neural Networks for Efficient Prediction of Stock Market Index", **Ain Shams Engineering Journal**, Elsevier, (Science Direct), (SCOPUS), ISSN: 2090-4479,Source Normalized Impact per Paper (SNIP): 0.932,2015, DOI:10.1016/j.asej.2014.12.013,2015.

Janmenjoy Nayak, Bighnaraj Naik, and **H. S. Behera**. "A novel Chemical Reaction Optimization based higher order Neural Network (CRO-HONN) for nonlinear classification." **Ain Shams**

**Engineering Journal , Elsevier, (Science Direct), (SCOPUS) ,**  
Volume 6, Issue 3, September 2015, pp. 1069-1091, ISSN: 2090-4479, SNIP: 0.932, DOI:10.1016/j.asej.2014.12.013, 2015.

P.K. Das, **H.S. Behera**, B.K. Panigrahi, “Multi-Robot Path Planning in a dynamic environment using Improved Gravitational Search Algorithm”, **Journal of Electrical Systems and Information Technology, Elsevier**, ISSN: 2314-7172,2015 (In Press).

P.K. Das, **H.S. Behera**, P. K. Jena, B.K. Panigrahi, “An Intelligent Multi-Robot Path Planning in a dynamic environment using Improved Gravitational Search Algorithm”, **International Journal of Automation and Computing, Springer** (SCOPUS, INSPEC, Google Scholar, ACM Digital Library, EI-Compendex) ISSN: 1476-8186 (In Press).

**H. S. Behera**, Janmenjoy Nayak, M., Nanda and K., Nayak, “A Novel Hybrid Approach for Real World Data Clustering Algorithm based on Fuzzy C-means and Firefly Algorithm (FCM-FA)”, **International Journal of Fuzzy Computation and**

**Modelling (IJFCM)** (INSPEC, Google Scholar), **Inderscience**, ISSN : 2052-353X, 2015 (In Press).

S. C., Nayak, B. B., Mishra, and **H.S. Behera**, “Exploration and Incorporation of Virtual Data Position for Efficient Forecasting of Financial Time Series”, **International Journal of Industrial and Systems Engineering, Inderscience** (SCOPUS, COMMENDEX) ISSN: 1748-5037, 2015 (In Press).

S R Sahu and **H S Behera** “A hybrid CRO-based FLANN for financial stock market forecasting” **International Journal of Data Analysis Techniques and Strategies, Inderscience** (Scopus, ACM Digital Library, Google Scholar, Inspec ,Institution of Engineering and Technology) **(In Press)**, 2015.

Bighnaraj Naik, Janmenjoy Nayak, **H.S. Behera** and A. Abraham, “An improved harmony search-based functional link higher order ANN for nonlinear data classification”, **International Journal of Intelligent Systems Design and Computing, Inderscience** ISSN: 2052-8477, 2015 (In Press)

Bighnaraj Naik, Janmenjoy Nayak and **H.S. Behera**, "An efficient FLANN Model with CRO based Gradient Descent Learning for Classification", **International Journal of Business Information Systems(IJBIS)**, **Inderscience** (Scopus,DBLP Computer Science Bibliography, ACM Digital Library, Google Scholar) , Vol.21, No.1, pp.73 – 116, ISSN: 1746-0972, 2016.

Archana Baral and **H. S. Behera**, "A Novel Chemical Reaction Based Clustering and its Performance Analysis", **International Journal of Business Intelligence and Data Mining**, **Inderscience** (**SCOPUS**, ACM Digital Library), ISSN : 1743-8187,Vol 8 No. 2, pp 184-198, 2013.

D. P., Kanungo, Janmenjoy Nayak, B., Naik and **H. S. Behera**, "Hybrid Clustering using Elitist Teaching Learning based Optimization- An Improved Hybrid Approach of TLBO", **International Journal of Rough Sets and Data Analysis (IJRSDA)**, **IGI-Global**, (ACM Digital Library, Google Scholar), ISSN: 2334-4598,2015 (In Press).

S. C., Nayak, B. B., Mishra, and **H. S. Behera**, "An adaptive second order neural network with genetic algorithm based training (ASONN-GA) to forecast the closing prices of the stock market", **Int. Journal of Applied Metaheuristic Computing**, **IGI Global**(ACM Digital Library, DBLP, INSPEC, Google Scholar), 2015 (Accepted)

**H S Behera**, M Nanda, K Nayak, Janmenjoy Nayak, "A Hybrid Fuzzy Firefly based Evolutionary Radial Basis Functional Network for Classification", **International Journal of Information Processing**(Google Scholar, arXiv, Indian Citation Index, getCITED), Vol. 9 (3),pp. 76-91, 2015, ISSN: **0973-8215**

S. C., Nayak, B. B., Mishra, and **H. S., Behera**, "Soft and Evolutionary Computing Techniques for Stock Market Forecasting: A Survey", **European Journal of Academic Essays**, (**Google Scholar**),Vol. 2,2014.

Janmenjoy Nayak, Bighnaraj Naik and **H. S. Behera**."A Comprehensive Survey on Support Vector Machine in Data Mining Tasks: Applications & Challenges." **International Journal of Database Theory and Application** (**Google Scholar**), Vol. 8(1), pp. 169-186, 2014.

S. C., Nayak, B. B., Mishra, and **H. S., Behera**, "A neuro-fuzzy hybrid network for stock future index forecasting", **International Journal of Computer Science and Technology** (**DOAJ**. **Google Scholar**), Vol. 5, pp. 95-100,2014.

Josabanta Karali, Sibarama Panigrahi and **H.S.Behera**, "A Novel Differential Evolution Based Algorithm for Higher Order Neural Network Training", **Journal of Theoretical and Applied Information Technology (SCOPUS, Elsevier, DBLP, INSPEC,DOAJ)** E-ISSN 1817-3195 / ISSN 1992-8645, **IF: 1.71** Vol. 56, Issue No. 2, pp 355-361, Oct 2013.

K.K.Sahu, Sibarama Panigrahi and **H. S. Behera**, "A novel Chemical Reaction Optimization Algorithm for Higher Order Neural Network Training", **Journal of Theoretical and Applied Information Technology (SCOPUS, Elsevier, DBLP, INSPEC,DOAJ)**E-ISSN 1817-3195 / ISSN 1992-8645, **IF: 1.71**, Vol. 53, issue 3, July 2013, pp 402-409.

Janmenjoy Nayak, B., Naik, H. S., Behera, A., Abraham (2016) "Elitist Teaching Learning Based Optimization (ETLBO) with Higher order Jordan Pi-sigma neural network: A Comparative Performance Analysis", Neural Computing and Applications, Springer (Accepted, in Press). [I.F. : 1.492, SCIE, SCOPUS]

Bighnaraj Naik, Janmenjoy Nayak and H.S. Behera(2016) "FLANN + BHO: A Novel Approach for Handling Nonlinearity in System Identification", International Journal of Rough Sets and Data Analysis (IJRSDA), IGI Global, (Accepted, in Press).

Janmenjoy Nayak, Bighnaraj Naik, H. S. Behera (2016) "Solving nonlinear Classification Problems with Black Hole Optimization and Higher Order Jordan Pi-sigma Neural Network: A Novel Approach", International Journal of Computational System Engineering, Inderscience (Accepted, in Press).

Janmenjoy Nayak, Bighnaraj Naik, D. P., Kanungo, H. S. Behera (2016) "A Hybrid Elicit Teaching Learning based Optimization with Fuzzy c-means (ETLBO-FCM) Algorithm for Data Clustering", Ain Shams Engineering Journal, Elsevier, (Accepted, In Press, DOI:<http://dx.doi.org/10.1016/j.asej.2016.01.010>). [SCOPUS]

S. C., Nayak, B. B., Mishra, and **H.S. Behera**, "Artificial chemical reaction based virtual data position exploration for efficient financial time series forecasting", **Ain Shams Engineering Journal, Elsevier, (Science Direct)**, (SCOPUS) , ISSN: 2090-4479,Source Normalized Impact per Paper (SNIP): 0.932,2015, DOI:10.1016/j.asej.2014.12.013,2015. (In Press)

K. K. Sahu; S. R. Sahu; S. C. Nayak; H. S. Behera, "Forecasting foreign exchange rates using CRO based different variants of FLANN and performance analysis" **International Journal of Computational Systems Engineering**, Inderscience Publication, DOI: 10.1504/IJCSYSE.2016.10002375

Sarat Chandra Nayak; Bijan Bihari Misra; H. S. Behera, "Fluctuation prediction of stock market index by adaptive evolutionary higher order neural networks", *International Journal of Swarm Intelligence (IJSI)*, Inderscience Publication. DOI: 10.1504/IJSI.2016.10002192

Kishore Kumar Sahu; Soumya Ranjan Sahu; Gyana Ranjan Biswal; Prabin Kumar Sahu; H. S. Behera "Chemical reaction optimisation: a hybrid technique applied to functional link artificial neural networks with least mean square learning for foreign exchange rates forecasting", *International Journal of Swarm Intelligence (IJSI)*, Inderscience Publication. DOI: 10.1504/IJSI.2016.10002193

## SELECTED CONFERENCE PROCEEDINGS

Janmenjoy Nayak, D. P., Kanungo, Bighnaraj, Naik and **H. S., Behera**. "Evolutionary Improved Swarm-Based Hybrid K-Means Algorithm for Cluster Analysis", In *Proceedings of the Second International Conference on Computer and Communication Technologies* (pp. 343-352), 2015. **Springer** India.

Bighnaraj, Naik, Janmenjoy Nayak and **H. S. Behera**. "A Honey Bee Mating Optimization Based Gradient Descent Learning-FLANN (HBMO-GDL-FLANN) for Classification." *Emerging ICT for Bridging the Future-Proceedings of the 49th Annual Convention of the Computer Society of India CSI Volume 2*. **Springer** International Publishing, 2015.

**S. C. Nayak**, B. B. Mishra and **H. S. Behera**, "Comparison of Performance of Different Functions in Functional Link Artificial Neural Network: A Case Study on Stock Index Forecasting", *Smart Innovation, Systems and Technologies*, **Springer**, Volume 31, pp 479-487, 2015.

**S. C. Nayak**, B. B. Misra and **H. S. Behera**, "A Pi-Sigma Higher Order Neural Network for Stock Index Forecasting", *Smart Innovation, Systems and Technologies*, **Springer**, Volume 32, pp 311-319, 2015.

R. C. Barik, R. Pati and **H. S. Behera** "Robust Signal Processing Compression for Clustering of Speech Waveform and Image Spectrum" International Conference on 4th **IEEE** International Conference on Communication and Signal Processing-ICCSP'15, Melmaruvathur, Tamilnadu, India - 603319, April 2015

Janmenjoy, Nayak, N. Sahoo, J. R. Swain, Tirtharaj Dash, and **H. S. Behera**. "GA Based Polynomial Neural Network for Data Classification." **IEEE** International Conference on Information Technology (ICIT), pp. 234-239, 2014.

Janmenjoy, Nayak, D. P. Kanungo, Bighnaraj Naik, and **H. S. Behera**. "A higher order evolutionary Jordan Pi-Sigma Neural Network with gradient descent learning for classification." **IEEE** International Conference on High Performance Computing and Applications (ICHPCA), 2014, pp. 1-6., 2014, Bhubaneswar.

Janmenjoy, Nayak, Bighnaraj Naik, and **H. S. Behera**. "A hybrid PSO-GA based Pi sigma neural network (PSNN) with standard back propagation gradient descent learning for classification." **IEEE** International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT), pp. 878-885., 2014, Tamilnadu.

N. K. S., Behera, and **H. S. Behera**. "Firefly based ridge polynomial neural network for classification." **IEEE** International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pp. 1110-1113., 2014.

T. Dash and **H.S. Behera**, "A Fuzzy MLP Approach for Non-linear Pattern Classification," International Conference on Communication and Computing (ICC-2014), **Procedia Technology, Elsevier**, 2014.

N.K.S. Behera and **H.S. Behera**, "Firefly based Ridge Polynomial Neural Network for Classification", **IEEE** International Conference on Advanced Communication Control and Computing Technologies (ICACCCT-2014), ISBN No. 978-1-4799-3914-5/14, pp. 1110-1113, Publisher: **IEEE Xplore**, 2014.

S. R. Sahu and **H.S. Behera**, "Classification using CRO based Functional Link Artificial Neural Network", International Conference on Communication and Computing (ICCC 2014), **Procedia Technology, Elsevier**, 2014.

Bighnaraj Naik, Janmenjoy Nayak and **H. S. Behera**, "A Novel FLANN with a Hybrid PSO and GA based Gradient Descent Learning for Classification" , 3rd International Conference on

Frontiers of Intelligent Computing: Theory and applications (FICTA-2014), AISC Series, Springer, 2014.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "Cooperative optimization for efficient financial time series forecasting," 8th. International conference on computing for sustainable development, INDIACom-2014, IEEE, doi: 10.1109/IndiaCom.2014.6828114, 2014.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "An evolutionary neural network model for financial time series forecasting", AICTE sponsored national conference on soft computing: A panorama of possibilities, NIIS, Bhubaneswar, June 2013.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "Training radial basis function networks with GA for classification", National seminar on cloud computing : technology for tomorrow, Srusti Academy of Management, Bhubaneswar, May 2013.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "Chemical Reaction Optimization: An Application to Stock Market Trend Prediction", Digital Digest, The Science & technology magazine of Silicon Institute of Technology, 2013.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "Index Prediction Using Neuro-Genetic Hybrid Networks: A Comparative Analysis of Performance," *IEEE* Conference on Computing, Communication and Application, (ICCCA 2012), doi: 10.1109/ICCCA.2012.6179215, 2012.

S. C. Nayak, B. B. Misra and **H. S. Behera**, "Evaluation of Normalization Methods on Neuro-Genetic Models for Stock Index Forecasting," *IEEE World Congress* on Information and Communication Technologies, (WICT 2012), doi: 10.1109/WICT.2012.6409147, 2012.

S. C. Nayak , B. B. Misra and **H. S. Behera**, "Hybridizing chemical reaction optimization and artificial neural network for stock future index forecasting," *IEEE International conference on emerging trends and applications in computer science*, , doi: 10.1109/ICETACS.2013.6691409,2012.

**H.S. Behera** and R. Mohanty, et.al. "An Experimental Study of Hybrid Rough Set Particle Swarm Algorithm for Image Pixel Classification", Proceeding of the International Conference on Information Science and Applications, ICISA-2010, pp 49-53, 2010.

R.Mohanty, **H.S.Behera** and Khusbu Patwari et.al. "Design and Performance Evaluation of a New Proposed Shortest Remaining Burst Round Robin (SRBRR) Scheduling Algorithm", Proceeding

of the International Symposium on Computer Engineering and Technology, ISCET-2010, pp 126-131, 6<sup>th</sup> February, 2010.

R. Mohanty, **H.S.Behera** and B.Nayak et.al. "Comparative Performance Analysis of Proposed Variants of List Accessing Algorithms Using Centralized Cost Model with Doubly Linked List", International Conference on Methods and Models in Computer Science, **IEEE Explore**, pp 59, ISBN: 978-1-4244-9701-0, 13-14 Dec, 2010.

Swatee Rekha Mohanty, D.P.Mohapatra and **H.S.Behera** "A Novel Approach for Static Slicing of Inter-Procedural Programs" has been accepted in the 9<sup>th</sup> International Conference on Information Technology (ICIT-2006) at Bhubaneswar 18<sup>th</sup> -21<sup>st</sup> Dec 2006.

D. P. Mohapatra and **H.S.Behera**, "Software: An Essential Asset", Proceedings of International Conference on "Software Engineering: Emerging Paradigms", CSI Trivandrum chapter, 01-03 March 2001.

D. P. Mohapatra, **H.S.Behera** and R. Baliar Singh, "Restoration & Deblurring of Images Using Gabor Filter", Proceedings of International Conference on Bio Medical Engineering, Anna University Chennai, pp 281-285, 24-26 Jan 01.

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Naik, Bighnaraj, Janmenjoy Nayak, and **H. S. Behera**, "A FLANN Based Non-linear System Identification for Classification and Parameter Optimization Using Tournament Selective Harmony Search", Advances in Intelligent Systems and Computing, Volume 411, pp 267-283, **Springer**, 2016, ISBN: 978-81-322-2729-8.

Nayak, S. K., Nayak, S.C. and **H. S. Behera**, "Evolving Low Complex Higher Order Neural Network Based Classifiers for Medical Data Classification", Advances in Intelligent Systems and Computing, Volume 411, pp 415-425, **Springer**, 2016, ISBN: 978-81-322-2729-8..

D. P. Kanungo, Janmenjoy Nayak, Bighnaraj Naik & **H. S. Behera**, "Non-Linear Classification using Higher Order Pi-Sigma Neural Network and Improved Particle Swarm Optimization: An Experimental Analysis", *Advances in Intelligent Systems and Computing*, **Springer**, Volume 411, pp 507-518, Springer, 2016, ISBN: 978-81-322-2729-8..

Naik, Bighnaraj, Janmenjoy Nayak, and **H. S. Behera**. "A Novel FLANN with a hybrid PSO and GA based gradient descent learning for classification." *Advances in Intelligent Systems and Computing*, **Springer**, Volume 327, 2015, pp. 745-754, 2015, ISBN: 978-3-319-11933-5.

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Das, Himansu, Ajay Kumar Jena, Janmenjoy Nayak, Bighnaraj Naik, and **H. S. Behera**. "A Novel PSO Based Back Propagation Learning-MLP (PSO-BP-MLP) for Classification." In *Computational Intelligence in Data Mining-Volume 2*, pp. 461-471. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

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Naik, Bighnaraj, Janmenjoy Nayak, **H. S. Behera**, and Ajith Abraham. "A Harmony Search Based Gradient Descent Learning-FLANN (HS-GDL-FLANN) for Classification." In *Computational Intelligence in Data Mining-Volume 2*, pp. 525-539. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

Prasad, Chanda, S. Mohanty, Bighnaraj Naik, Janmenjoy Nayak, and **H. S. Behera**. "An Efficient PSO-GA Based Back Propagation Learning-MLP (PSO-GA-BP-MLP) for Classification." In *Computational Intelligence in Data Mining-Volume1*, pp.517-527, **Springer** India, 2015, ISBN: 978-81-322-2204-0.

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Data Mining-Volume 2, pp. 151-164. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

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Sahu, K. K., G. R. Biswal, P. K. Sahu, S. R. Sahu, and **H. S. Behera**. "A CRO Based FLANN for Forecasting Foreign Exchange Rates Using FLANN." In Computational Intelligence in Data Mining-Volume 1, pp. 647-664. **Springer** India, 2015, ISBN: 978-81-322-2204-0.

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Nayak, Chinmaya Kumar, Satyabrata Das, and **H. S. Behera**. "Hierarchical Agents Based Fault-Tolerant and Congestion-Aware Routing for NoC." In Computational Intelligence in Data Mining-Volume 3, pp. 705-714. **Springer** India, 2015, ISBN: 978-81-322-2201-9.

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Das, P. K., **H. S. Behera**, S. K. Pradhan, H. K. Tripathy, and P. K. Jena. "A Modified Real Time A\* Algorithm and Its Performance Analysis for Improved Path Planning of Mobile Robot." In Computational Intelligence in Data Mining-Volume 2, pp. 221-234. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

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Nayak, S. C., B. B. Misra, and **H. S. Behera**. "A Pi-Sigma Higher Order Neural Network for Stock Index Forecasting." In *Computational Intelligence in Data Mining-Volume 2*, pp. 311-319. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

Dash, Tirtharaj, Sanjib Kumar Nayak, and **H. S. Behera**. "Hybrid Gravitational Search and Particle Swarm Based Fuzzy MLP for Medical Data Classification." In *Computational Intelligence in Data Mining-Volume 1*, pp. 35-43. **Springer** India, 2015, ISBN: 978-81-322-2204-0.

Nayak, S., C. Panda, Z. Xalxo, and **H. S. Behera**. "An Integrated Clustering Framework Using Optimized K-means with Firefly and Canopies." In *Computational Intelligence in Data Mining-Volume 2*, pp. 333-343. **Springer** India, 2015, ISBN: 978-81-322-2207-1.

Behera, N. K. S., Sahoo, M. K. and **H. S. Behera**. "HOG Based Radial Basis Function Network for Brain MR Image Classification." In *Computational Intelligence in Data Mining-Volume 1*, pp. 45-56. **Springer** India, 2015, ISBN: 978-81-322-2204-0.

S. C. Nayak, B. B. Misra & H. S. Behera, "Adaptive Hybrid Higher Order Neural Networks for Prediction of Stock Market Behaviour", *Applied Artificial Higher Order Neural Networks for Control and Recognition*, IGI Global, 2016 edited by Dr. Ming Zhang, (Christopher Newport University, United States).

**S. C. Nayak**, B. B. Misra & H. S. Behera, "Improving Performance of Higher Order Neural Network using Artificial Chemical Reaction Optimization: A Case Study on Stock Market Forecasting", *Applied Artificial Higher Order Neural Networks for Control and Recognition*, **IGI Global**, 2016 edited by Dr. Ming Zhang, (Christopher Newport University, United States).

## **BOOK PUBLISHED**

**H.S. Behera**, Janmenjoy Nayak, H. Pattnayak , A text book on "Formal Languages and Automata Theory", **Vikash Publications**, Pvt. Ltd., India, ISBN No: 9789325978591, 2014.

## BOOKS REVIEWED

Advanced Operating System, Course Structure of MCA, SU,  
Vikas Publishing House Pvt. Ltd. New Delhi, ISBN-  
9789325969742

Computer Organization and Architecture, Course Structure of  
MCA S.U, Vikas Publishing House Pvt. Ltd. New Delhi, ISBN-  
9789325960800

Microprocessor & Assembly Language Programming Course  
Structure of MCA S.U, Vikas Publishing House Pvt. Ltd. New  
Delhi, ISBN-9789325966659

Relational Database Management System Using Oracle Course  
Structure of MCA, S.U, Vikas Publishing House Pvt. Ltd. New  
Delhi, ISBN-9789325969773

RDBMS Using Oracle Course Structure of PGDCA S.U, Vikas  
Publishing House Pvt. Ltd. New Delhi, ISBN-9789325964563

Database Management System Course Structure of BCA S.U,  
Vikas Publishing House Pvt. Ltd. New Delhi, ISBN-  
9789325969759

Computer Organization and Architecture, BCA Courses of S.U,  
Vikas Publishing House Pvt. Ltd. New Delhi, ISBN-  
9789325969766

Programming With C, Course Structure of BCA S.U, Vikas  
Publishing House Pvt. Ltd. New Delhi, ISBN-9789325960381

## BOOK SERIES EDITED

**Computational Intelligence in Data Mining-Volume 1, 2017,**  
Advances in Intelligent Systems and Computing, **Springer (In  
production)** Editors: Behera, H.S., Nayak, J., Naik, B., Abraham, A.

**Intelligence in Computational Data Mining-Volume 1, 2016,**  
Advances in Intelligent Systems and Computing, **Springer (In  
production)** ISBN 978-981-10-3874-7 Editors: Behera, Himansu  
Sekhar, Mohapatra, Durga Prasad (Eds.)

**Computational Intelligence in Data Mining-Volume 1, 2015**, Advances in Intelligent Systems and Computing, **Springer**, ISSN: 2194-5357, Print ISBN 978-81-322-2732-8, Online ISBN: 978-81-322-2734-2 DOI 10.1007/978-81-322-2734-2. Editors: **Behera**, Himansu Sekhar, **Mohapatra**, Durga Prasad (Eds.)

**Computational Intelligence in Data Mining-Volume 2, 2015**, Advances in Intelligent Systems and Computing, **Springer**, ISSN: 2194-5357, ISBN 978-81-322-2729-8, Online ISBN: 978-81-322-2731-1 DOI 10.1007/978-81-322-2731-1. Editors: **Behera**, Himansu Sekhar, **Mohapatra**, Durga Prasad (Eds.)

**Computational Intelligence in Data Mining-Volume 1, 2014**, Smart Innovation Systems and Technologies 31, **Springer**, ISBN: 978-82-322-2204-0, ISSN: 2190-3018, ISSN: 2190-3026(Electronics), ISBN 978-81-322-2205-7(e-Book), DOI 10.1007/978-81-322-2205-7, Library of congress control Number: 2014956493. **Editors** Lakhmi C. Jain Himansu Sekhar Behera, Jyotsna Kumar Mandal, Durga Prasad Mohapatra

**Computational Intelligence in Data Mining-Volume 2 ,2014**, Smart Innovation Systems and Technologies, **Springer**, ISBN 978-81-322-2207-1, ISSN:2190-3018, ISSN:2190-3026(Electronics), ISBN 978-81-322-2208-8(e-Book), DOI 10.1007/978-81-322-2208-8, Library of congress control Number:2014956493. **Editors** Lakhmi C. Jain Himansu Sekhar Behera, Jyotsna Kumar Mandal, Durga Prasad Mohapatra

**Computational Intelligence in Data Mining-Volume 3 ,2014**, Smart Innovation Systems and Technologies 31, **Springer**, ISBN 978-81-322-2201-9 ISSN:2190-3018, ISSN:2190-3026(Electronics), ISBN 978-81-322-2205-6(e-Book), DOI 10.1007/978-81-322-2202-6, Library of congress control Number:2014956493 **Editors** Lakhmi C. Jain Himansu Sekhar Behera, Jyotsna Kumar Mandal, Durga Prasad Mohapatra

## **CONFERENCE/WORKSHOP/FDP ORGANIZED**

Program Chair, International Conference on Computational Intelligence in Data Mining-(ICCIDM-2016), held during 10<sup>th</sup> and 11<sup>th</sup> DEC 2016 in KIIT University, Bhubaneswar, Odisha,

India, Proceeding of the Conference has been published in the Book Series of “**Advances in Intelligent Systems and Computing**” Springer (In Production)

Program Chair, International Conference on Computational Intelligence in Data Mining-(ICCIDM-2015), held during 5<sup>th</sup> and 6<sup>th</sup> DEC 2015 in Bhubaneswar, Odisha, India, Proceeding of the Conference has been published in the Book Series of “**Advances in Intelligent Systems and Computing**” Springer, (<http://www.springer.com/series/11156>), , ISSN: 2194-5357.

Convenor, International Conference on Computational Intelligence in Data Mining-(ICCIDM-2014), held during 19<sup>th</sup> and 20<sup>th</sup> DEC 2014 in VSSUT, Burla, Proceeding of the Conference has been published in the Book Series of **Smart Innovation Systems and Technologies 31, Springer**, ISSN: 2190-3018 <http://www.springer.com/series/8767> , and **Inderscience**.

Coordinator of the workshop on HACKTRACK (Ethical Hacking and Information Security) scheduled to held during 19<sup>th</sup> and 20<sup>th</sup> Jan 2013 in VSSUT, Burla, with a collaboration with Teck Defence Pvt. Ltd and Entrepreneurships cell of IIT, Delhi, India

Coordinator, Two Weeks **Faculty Development Programme** on “Recent Trends in Advanced Computing” (RTAC-2013) conducted at VSSUT, Burla, Sambalpur, held during April 29-May 11, 2013” (Two Weeks) with a sanction budget of 5 Lakhs (Five Lakhs) Sponsored by AICTE, Govt. of India, vide AICTE sanctioned letter No. **File No. 1-7/AICTE/RIFD/FDP/P(1)-52/2012-13**, dated **12/12/2012** and **25/02/2013**

## ASSOCIATE EDITOR

Associate Editor, International Journal of Autonomic Computing, Inderscience.

Associate Editor, Special Issue on: "Recent Advances in Machine Learning and Data Mining" International Journal of Data Sciences (IJDST), **Inderscience**, 2015 **ISSN online: 2053-082X**  
**ISSN print: 2053-0811**

Associate Editor, Special Issue on: "Recent Advances in Fuzzy Logic, Machine Learning and Data Mining" International Journal Intelligent System Design and Computing, **Inderscience**, 2015  
**ISSN online: 2052-8485**  
**ISSN print: 2052-8477**

Associate Editor, Special Issue on: "Data Mining and its Applications in Networking" International Journal of Computational Science and Engineering, **Inderscience**, 2015  
**ISSN print:** 1742-7185

Associate Editor, Special Issue on: "Advances in Evolutionary Computation, Fuzzy Logic and Swarm Intelligence" International Journal of Swarm Intelligence, **Inderscience**, 2015, **ISSN online:** 2049-405X, **ISSN print:** 2049-4041

Associate Editor, Special Issue on: "Recent Advances in Evolutionary and Natural Computing: Practice and Applications", International Journal of Computational Systems Engineering, **Inderscience**, 2016, **ISSN online:** 2046-3405, **ISSN print:** 2046-3391.

Associate Editor, Special Issue on: "Recent Advances in Data Analysis with Computational Intelligence Techniques", International Journal of Rough Sets and Data Analysis (IJRSDA), IGI-Global, ISSN: 2334-4598.

## **RESEARCH PROJECTS**

Proposal for grant of a Research Project entitled "A Novel Adaptive Differential Evolution Approach with Conditional Multiple Trial Vectors Trained Artificial Neural Networks for Automatic Time Series Forecasting" of rupees 13 Lakh seventy two thousand only under UGC Major Research has been submitted to UGC Govt. of India and is under process

Proposal for grant of a Research Project entitled, "A Novel Automated Tool for Univariate Time Series Forecasting, using Evolutionary Higher Order Neural Network" of Rupees 21 Lakh ninety three thousands only, under the scheme SERC has been submitted to the Department of Science & Technology (DST) Govt. of India and is under process.

## **AICTE STTP PARTICIPATED**

AICTE - ISTE Short Term Training Program on "Applications of Neural Network and Fuzzy Logic in Civil Engg.", Oct. 7<sup>th</sup> to Oct. 19<sup>th</sup>, 2002, in University College of Engineering, Burla, Odisha, India.

QIP Short Term Training Program on "*Unix Concepts & Applications*", December 9<sup>th</sup> to December 13<sup>th</sup>, 2002, in Indian Institute of Technology, Delhi, India

AICTE - ISTE Short-Term Course on “Molecular Computer – A New Challenge Ahead”, Dec. 16<sup>th</sup> to Dec. 29<sup>th</sup>, 2002, in College of Engineering & Technology, OUAT, Bhubaneswar, Odisha, India.

Short-Term Course on “Applied Soft computing and Machine Intelligence”, August 9<sup>th</sup> to August 11<sup>th</sup>, 2003, in Silicon Institute of Technology, Bhubaneswar, Odisha, India.

AICTE - ISTE Short-Term Course on “Soft Computing Methods and Their Application”, December 22<sup>nd</sup> to January 3<sup>rd</sup>, 2004, in IGIT, Sarang, Odisha, India.

AICTE – STTP Short-Term Course on "Architecture, Programming and Application of Advanced Microprocessors & Micro controllers", March 15<sup>th</sup> to March 27<sup>th</sup>, 2004 in University College of Engineering, Burla, Odisha, India.

Qip Short Term Course on “Scientific Computing with MATLAB” June 7<sup>th</sup> to June 11<sup>th</sup>, 2004 in Indian Institute of Technology, Kanpur, India

Qip Short Term Course on “ Software Engineering” June 14<sup>th</sup> to June 18<sup>th</sup>, 2004 in Indian Institute of Technology(IIT), Khargpur, India

## **WORKSHOPS ATTENDED**

National Workshop on Emerging Technologies (Soft Computing, Swarm intelligence, Time- frequency Transform, Signal processing in Electrical Power System) held from 23.03.2007 to 26/03/2007 at CEB, Bhubaneswar, India

Campus Connect Faculty Enable Programme held from 16.11.2009 to 20.11.2009 at Infosys Tech. Pvt. Ltd., Bhubaneswar, Odisha, India

## **PROFESSIONAL BODIES MEMBERSHIP**

### **ADVISORY BOARD MEMBER**

Chief Technical Advisory Board Member, International Journal of Research in Advance Technology in Engineering (**IJRATE**)([www.ijrate.org](http://www.ijrate.org))

The World Academy of Research in Science & Engineering (**WARSE**)  
**Journals:**

International Journal of Computing, Communications and Networking (IJCCN) ISSN 2319 - 2720

International Journal of Networks and Systems (IJNS) ISSN 2319 – 5975

**JOURNAL/ CONFERENCE EDITORIAL POSITION/ BOARD MEMBER**

Guest Editor, Special Issue on: "Recent Advances in Machine Learning and Data Mining" International Journal of Data Sciences (IJDS), Inderscience, 2015

Guest Editor, Special Issue on: "Recent Advances in Fuzzy Logic, Machine Learning and Data Mining" International Journal Intelligent System Design and Computing, Inderscience, 2015

Guest Editor, Special Issue on: "Data Mining and its Applications in Networking" International Journal of Computational Science and Engineering, Inderscience, 2015

Guest Editor, Special Issue on: "Advances in Evolutionary Computation, Fuzzy Logic and Swarm Intelligence" International Journal of Swarm Intelligence, Inderscience, 2015

Section Editor, Smart Innovation, Systems and Technologies, (SIST Series) Springer, International Conference on Computational Intelligence in Data Mining (ICCIDM-2014),

International Journal of Science and Applied Information Technology (IJSAIT), **The World Academy of Research in Science and Engineering** (WARSE), ISSN: 2278 – 3083.

International Journal of Advances in Computer Science and Technology (IJACST) **The World Academy of Research in Science and Engineering** (WARSE), ISSN: 2320 – 2602

International Journal of Computer and Communication Technology (**IJCCT**) ISSN: 2231-0371(On Line) & 0975-7449 (Print)

International Journal of Computer Science and Informatics (**IJCSI**) ISSN: 2231-5292(Print)

International Journal of Smart Sensors and Ad Hoc Networks (**IJSSAN**) ISSN: 2248-9738(Print)

International Journal of Advanced Computer Theory and Engineering (**IJACTE**) ISSN (Print): 2319-2526

Journal of Information, Pak Publishing Group, Amin Garh Road, Near Hafiz Abad Colony, Rahim Yar Khan - 64200, Punjab, Pakistan.

**American Journal of Computer Science & Information Technology (AJCSIT), PUBICON (Publication Icon)**

International Journal of Research in Computer and Communication Technology (**IJRCCT**)

Journal of Software Engineering Tools & Technology Trends (**JOSETTT**)

IFRSA International Journal of Data Warehousing and Data Mining (**IJDWM**)

International Journal of Computer Engineering & Technology (**IJCET**), **IAEME** (International Association for Engineering & Management Education) Group of Journals.

International Journal of Engineering & Advance Technology (**IJEAT**), ISSN: 2249-8958(On Line)

International Journal of Soft Computing & Engineering (**IJSCE**), ISSN: 2231-2307(On Line)

Journal of Current Trends in Information Technology (**JCTIT**), STM (Science, Technology & Management) Journals

International Journal of Research In Manufacturing Technology & Management(**IJRM TM**), **IASTER**(International Academy for Science & Technology ,education & Research)

International Journal of Research In Computer Application & Information Technology (**IJRCAIT**), **IASTER**(International Academy for Science & Technology ,education & Research)

International Journal of Applied Engineering and Technology(IJET) published by **Centre for Info Bio Technology (CIBTech)** (Regd. No. SH/311R/2-16AP/42/09).

Journal of Advanced Database Management & Systems (**JoADMS**), **STM** (Science, Technology & Management) Journals.

Journal of Operating Systems Development and Trends (**JoOSDT**), **STM** (Science, Technology & Management) Journals

International Journal of Bio-Medical Informatics and e-Health (**IJBMIeH**)  
**ISSN 2321 – 9017**

American Journal of Advanced in Engineering and Technology (AJAET),  
PUBICON (Publication Icon)

American Journal of Computer Science & Engineering Survey (AJCSES),  
PUBICON (Publication Icon)

Scholars Journal of Engineering and Technology (SJET): An international, bi-monthly open access, peer reviewed journal, published by Scholars Academic and Scientific Publishers (SAS Publisher) ISSN: 2321-435X

Information Sciences and Computing (ISC) (A peer-reviewed international journal of Information Science and Computing) ISSN 2321–8215

## **TECHNICAL REVIEWER (Conferences/ Journals)**

International Conference on Computer and Communication Technology (**ICCT**) 2012 organized by Computer Science and Engineering Department M.N.N.I.T., Allahabad (U.P.), INDIA

International Journal on Advanced Computing Techniques and Applications (**IJACTA**)

International Journal of Computer Science and Information Security (**IJCSIS**)

International Journal on Advances in Engineering and Technology (**IJAET**) (ISSN: 2231-1963)

ICTACT Journal of Communication Technology (**IJCT**): 0976-0091(Print) and 2229-6948(On-line)

ICTACT Journal of Soft Computing (**IJSC**): 0976-6561(Print) and 2229-6956 (On-line)

Asian Journal of Computer and Information Systems (**AJCIS**)

International Journal of Modern Communication Technologies and Research (**IJMCTR**)

International Journal of Inovative Science and Applied Engineering Research(IJISAER). ISSN-2349-9389

## **PROFESSIONAL MEMBERSHIP (SOCIETIES)**

**Life Member** – ISTD-Indian Society for Training and Development, (India)(B-677/2002/Mar2003 50940&51772 LM)

**Senior Member**-International Association of Computer Science and Information Technology (IACSIT), Singapore. (Membership No. 80347410).

**Senior Member** -International Association of Engineers (IAENG), Hong Kong (Membership No. 134124)

**Member** – **CSTA**- Computer Science Teachers Association, USA (Membership No. 4250005)

**Global Member** – **ISOC**- Internet Society, USA (Membership No. 388503)

**Member – ISOC-** Internet Society, Kolkota Chapter (Membership No. 388412)

**Senior Member – UACEE –** Universal Association of Computer and Electronics Engineering, (Membership No. SNM1004580)

**Member – SDIWC-**The Society of Digital Information and Wireless Communication (Membership Number: 249)

**Life Member-OITS-**Orissa Information Technology Society, BBSR, Odisha, India (Membership Number: L13/458)

**Life Member-OMS-** Orissa Mathematical Society, BBSR, Odisha, India (Membership Number: LM-694/13)

**Life Member – AIAER-**All India Association of Educational Research, India (Individual Life Membership Number: 3638)

**Life Member –ISTE-**Indian Society for Technical Education, New Delhi, India.

**Member –**The IAENG Society of Artificial Intelligence, Hong Kong

**Member –**The IAENG Society of Computer Science, Hong Kong

**Member –**The IAENG Society of Data Mining, Hong Kong

**Member –**The IAENG Society of Scientific Computing, Hong Kong

## **TECHNICAL REVIEWER/ SCIENTIFIC EXPERTS COMMITTEE**

Eastern Regional Convention (ERC) on “Corporate Governance: Role of HR in the present Business Scenario”, ISTD November 2006

Program Committee Member of ICIT 2008

Experts for “Soft Computing for Knowledge Discovery and Data Mining” <http://arnetminer.org/search/1381145405259>

National Conference on Advanced Trends on Computer and Information Technology - ATCIT-2013 Dept of Computer Application, Sambalpur University

International Journal of Computer Science and Information Security (IJCSIS)

Convener of the Expert Committee, for Accreditations of the Study Centers to offer “O”, “A”, “B” & “C” Level Courses of NIELIT (DOEACC), Govt. of India

## **PROGRAM COMMITTEE**

The World Academy of Research in Science and Engineering (WARSE) 3<sup>rd</sup> International Conference on Advanced Computing, Engineering & Technology (ICACET 2015) January 05-06,

2015, Sheraton Imperial Kuala Lumpur Hotel, Kuala Lumpur, Malaysia.  
(<http://warse.org/conference/icacet2014/icacet2014-home.htm>)

The World Academy of Research in Science and Engineering (WARSE)

3<sup>rd</sup> International Conference on Advanced Computing, Engineering & Technology (ICACET 2014) September 15 - 16, 2014 Sheraton Imperial Kuala Lumpur Hotel, Kuala Lumpur, Malaysia.  
(<http://warse.org/conference/icacet2014/icacet2014-home.htm>)

The International Conference on Computer Science and Information Technology (ICCSIT 2015) organized by The World Academy of Research in Science and Engineering (WARSE), PARKROYAL on Kitchener Road, Singapore, February 9, 2015  
(<http://warse.org/conference/iccsit2015/iccsit2015-home.html>)

**International Conference on Communication, Electrical, Electronics and Mechanical Engineering (ICCEEM 2015)**, organized by The World Academy of Research in Science and Engineering (WARSE) PARKROYAL on Kitchener Road, Singapore, February 9, 2015  
(<http://warse.org/conference/icceem2015/icceem2015-home.php>)

The International Conference on Electrical, Electronics, Mechanical and Computer Engineering (**ICEEMC 2015**), organized by The World Academy of Research in Science and Engineering (WARSE) will be held in GLM Meridian, Chennai, India during January 27, 2015  
(<http://warse.org/conference/iceemc2015/iceemc2015-home.html>)

The **3<sup>rd</sup> International Conference on Computer Applications and Advanced Communications (ICCAAC 2014)** organized by The World Academy of Research in Science and Engineering (WARSE) will be held in The Golkonda Hotel, Hyderabad, India during December 08, 2014.. (<http://warse.org/conference/iccaac2014/iccaac2014-home.htm>)

The World Academy of Research in Science and Engineering (WARSE) 2<sup>nd</sup> International Conference on Emerging Trends in Computer Science and Engineering (ICETCSE 2014) October 20, 2014 Hotel sandesh The Prince, Mysore, India

The 3<sup>rd</sup> International Conference on Computer Science and Information Engineering (ICCSIE 2015), organized by The World Academy of Research in Science and Engineering (WARSE) will be held in The Solitaire Hotel, Bangalore, India during January 16, 2015.  
(<http://warse.org/conference/iccsie2015/iccsie2015-home.html>)

The World Academy of Research in Science and Engineering (WARSE) International Conference on Engineering, Computing and

Technologies (ICECT 2014) September 01,2014, The Golkonda Hotel, Hyderabad, India

The World Academy of Research in Science and Engineering (WARSE), 2nd International Conference on Computing, Engineering and Communication Technologies (ICCECT 2014) Royal Orchid Sheraton Hotel & Towers, Bangkok, Thailand, July 14-15, 2014

The World Academy of Research in Science and Engineering (WARSE), International Conference on Computing, Engineering and Technologies (ICCET 2014) Hotel Sandesh The Prince, Mysore, India, July 07, 2014

The 4<sup>th</sup> International Conference on Communications, Electrical, Electronics and Computer Engineering (ICEEC 2016) will be held in *The Dunes, Cochin, India* on January 14, 2016. <http://www.warse.org/conference/iceec2016/index.php>

The 3<sup>rd</sup> International Conference on Engineering, Computing and Technologies (ICECT 2016) will be held in *Hyderabad Marriot Hotel & Convention Centre, Hyderabad, India*, on February 01, 2016. being organized by The World Academy of Research in Science and Engineering(WARSE), <http://www.warse.org/conference/icect2016/index.php>

The 4<sup>th</sup> International Conference on Computing, Engineering and Information Technology (ICCEIT 2016) will be held in *The Solitaire Hotel, Bangalore, India* on February 16, 2016 <http://www.warse.org/conference/icceit2016/index.php>

The 4<sup>th</sup> International Conference on Computer Science and Information Engineering (ICCSIE 2016) will be held in *The Savera, Chennai, India*, during February 29, 2016, <http://warse.org/conference/iccsie2015-4th/iccsie2015-home.html>

3<sup>rd</sup> International Conference on Computing, Engineering and Communication Technologies (ICCECT 2016) will be held in *The Savera, Chennai, India*, February 29, 2016, <http://warse.org/conference/iccect2015/iccect.html>

The International Conference on Electrical, Electronics, Communication Technologies and their Applications (ICEECA 2016) will be held in *Sheraton Imperial Kuala Lumpur Hotel, Kuala Lumpur, Malaysia* during April 14-15, 2016, <http://www.warse.org/conference/iceeca2015/index.php>

The International Conference on Technological Advances in Electrical, Electronics, Communications Engineering (ICTAEEC 2016) will be held in Royal Orchid Sheraton Hotel & Towers, Bangkok, Thailand, during April 19 - 20, 2016 being organized by The World Academy of Research in Science and Engineering (WARSE), <http://www.warse.org/conference/ictaeec2015/index.php>

The International Conference on Data Mining, Data Science and Big Data (ICDDBD 2016) will be held in Royal Orchid Sheraton Hotel & Towers, Bangkok, Thailand, during April 19 - 20, 2016, <http://www.warse.org/conference/icddbd2015/index.php>

The International Conference on Computing, Engineering and Emerging Technologies (ICCEET 2016) will be held in *Crowne Plaza Hotel, Dubai, UAE*, during April 08-09, 2016 <http://www.warse.org/conference/icceet2016/>

#### **INVITED LECTURER/ SEMINAR**

Department of Computer Science and Application, Sambalpur University Jyotivihar, Burla, Odisha, India

Department of Master of Finance and Control (MFC) Sambalpur University Jyotivihar, Burla, Odisha, India

Academic Staff College, Sambalpur University Jyotivihar, Burla, Odisha, India

#### **PAST/PRESENT ACADEMIC/ ADMINISTRATIVE SERVICES**

Selection Committee members Odisha Public Service Commission (OPSC), Govt. of Odisha

Chairman of the Screening Committee for Accreditation of NIELIT (DOEACC) Hardware CHM-'A' Level Course, National Institute of Electronics and Information Technology (NIELIT) Ministry of Communication and Information Technology, Govt. of India, NIELIT/KOL/1195 dated 11 Dec 2015

Member Departmental Academic Committee(DAC) of IT for academic session 2015-16 Veer Surendra Sai University of Technology(VSSUT), Govt. of Odisha,Burla,Orissa,768018 VSSUT/ACD/142 dated 02/05/2015

Member Departmental Academic of Computer Science & Engineering Committee(DAC) for spring 2015 Veer Surendra Sai University of

Academic Council Member, Veer Surendra Sai University of Technology(VSSUT), Govt. of Odisha, Burla,Orissa,768018, [www.vssut.ac.in](http://www.vssut.ac.in) ,06632430211(O), Email: [vcvssut@gmail.com](mailto:vcvssut@gmail.com), Fax:06632430204

NBA Coordinator, Dept. of Computer Science Engineering, Veer Surendra Sai University of Technology(VSSUT), Govt. of Odisha, Burla,Orissa,768018, [www.vssut.ac.in](http://www.vssut.ac.in) ,06632430211(O), Email: [vcvssut@gmail.com](mailto:vcvssut@gmail.com), Fax:06632430204

Convenor of the Screening Committee for Accreditation of NIELIT (DOEACC) 'O' Level Course as per DOEACC Standard Operating Procedure(SOP), National Institute of Electronics and Information Technology (NIELIT) Ministry of Communication and Information Technology, Govt. of India, Ref: NIELIT/ACCR-02248 dated 30/04/2015.

Convenor of the Monitoring Visit to the Institute (ACCR-01483) conducting NIELIT (DOEACC) Accredited Courses National Institute of Electronics and Information Technology (NIELIT) Ministry of Communication and Information Technology, Govt. of India, Ref: NIELIT//ACCR-01483 dated 21/01/2015

Observer for conducting B.Tech Examinations, BPUT, Rourkela, 2004, 2005 Odisha, India

C.T.O, Engineers Platoon, 3(O) CTC, NCC, Burla, Odisha, India from 02/09/04 to 30/06/07

Assistant Warden, West Hostel University College of Engineering, Burla, Odisha, India from 13/08/04 to 13/08/06

Member of the Computer awareness Committee, to train all non teachers, for the Computerization of all the sections/departments of the University College of Engineering, Burla, Odisha, India, since 13.02.2008.

Member, Coordination Committee, Central networking and Internet Facility Veer Surendra Sai University of Technology(VSSUT), Burla, Odisha, India since 03/04/2007 and continuing as such.

Vice-President SSG & Students Aid Fund Society, University College of Engineering, Burla, Odisha from 02/09/06 to 02.09.07

Faculty Advisor for SAMAVESH(Tech Fest) 2007, UCE, Burla, Odisha, India

Member, Quarter Maintenance Committee, University College of Engineering, Burla, Odisha, India Since 14/11/2008 and continuing as such.

Teacher I/C Microprocessor and Computer Organization Lab, CSE Dept, VSSUT, Odisha from 15.08.03 to 27.10.09

Member, Coordination Committee, T& P Department, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India From 08/01/08 to 08/01/09

Faculty Advisor, Audio Visual Club, University College of Engineering, Burla, Odisha, India, (Letter No UCE/DSA/76(A) (80)/10 dated 30.06.2009)

Coordinator, VSSUT Nodal Center, for OJEE e-Council Govt. of Odisha (Letter No OJEE/2010/2913 dated 26.08.10)

Member- M.Tech Selection Committee, CSE Dept, VSSUT, Burla, Odisha, India

Warden, Mariachi Hall of Residence, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha

Prof I/C, University Canteen, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India, 2011-2014

Coordinator, Time Table I/C, Department of CSE and IT Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India-2013

Prof I/C, Central Library, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India, 2016-Contd.

## **AWARD/ RECOGNITION**

Received **Distinguished Scientist Award** for the year 2016 for contribution and achievement for the field of Data Mining from Centre of Advance Research and Design, Venus International Foundation, Chennai, Tamilnadu, India.

Listed in 32<sup>nd</sup> Edition (2015 32<sup>nd</sup> Edition). of **Who's Who in the World** 32<sup>nd</sup> Edition, "**Marquis Who's Who**" USA. **VIP Number: 36823026**

Convenor, International Conference Computational Intelligence in data Mining (ICCIDM-2014), published in SIST series Springer, VSSUT, Burla, Odisha, India.

Member, Board of Studies, BCA, MCA, PGDCA Programme, Directorate of Distance Education, Sambalpur University, Odisha, India from 18.08.04 to 20.08.08.

Member, Conducting Board, BCA, MCA, PGDCA Programme, Directorate of Distance Education, Sambalpur University, Odisha, India from 18.08.04 to 20.08.08.

Member, Board of Studies, B.Tech., M.Tech, Ph.D programme Computer Sc. & Engineering, IT and MCA, Veer Surendra Sai University of Technology(VSSUT), Burla, Odisha, India since 12/02/2008 and continuing as such .

Member, Conducting Board and Moderation board B.Tech., M.Tech, Ph.D programme in Computer Sc. & Engineering, IT and MCA Veer Surendra Sai University of Technology(VSSUT), Burla, Odisha, India since 12/02/2008 and continuing as such

Member, Board of Study, Computer Application, DAV Autonomous College, Titilagarh, Bolangir, Odisha, India since 08.09.2009 and continuing as such

Member, Selection Committee, to conduct On –Line Test for Admission in to M.Tech and M.sc Programme in Various Discipline, Veer Surendra Sai University of Technology(VSSUT), Burla, Odisha, India (Letter No. VSSUT/ACD/264 dated 14.0.2011.

Member, Co-ordination committee to prepare the modality of the courses (BCA, PGDCA and MCA) offered by the Directorate of Distance Education, Sambalpur University, Odisha and inspection of different study centers in Odisha to improve the quality of education since 03.08.2009 and continuing as such.

Nodal Officer, VSSUT Nodal Center for OJEE-2010, Govt. of Odisha, for Engineering, Medical, Pharmacy, MBA and MCA Entrance Examination

Member, Post-Graduate (M.Tech.) and Ph.D. Admission Committee, Department of Computer Science & Engineering, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India

Resource Person to deliver lecturer in the AICTE sponsored STTP on Architecture, Programming & Applications of Advanced Microprocessors and Microcontrollers, UCE, Burla, Odisha

Member-Selection Committee to conduct the walk-in interview for engagement of faculties in CSE Dept. UCE, Burla, Odisha, India

Guest Speaker, Department of Master of Finance and Controller (MFC), Sambalpur University, India

Deputy Center Superintendent, Joint Entrance Examination (JEE), Govt. of Odisha, 2005, UCE, Burla Center.

Member, Board of Studies, Department of Computer Science Application, Sambalpur University, Odisha.

Member Doctoral Scrutiny Committee (DSC) Member, Department of Computer Science & Engineering, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India.

Choice Locking officer, VSSUT Nodal Center for OJEE-2013, Govt. of Odisha, for Engineering, Pharmacy, MBA and MCA Entrance Examination.

Observer for “O”, “A”, “B” & “C” Level Theory Examination conducted at different Study Centers of NIELIT (DOEACC), Govt. of India.

Resource Person- for Refresher Courses conducted by UGC Academic Staff College, Sambalpur University, Odisha, India.

Observer Cum Chief Examiner for “O”, “A”, “B” & “C” Level Practical Examination conducted at different Study Centers of NIELIT (DOEACC), Govt. of India.

Coordinator for the AICTE Sponsored two week Faculty Development Program (FDP) on Recent Trends in Advanced Computing (RTAC) 2013 in the Dept of CSE, Veer Surendra Sai University of Technology(VSSUT), Burla, Odisha, India from 29<sup>th</sup> April to 11<sup>th</sup> May2013

Coordinator, National Board of Accreditation (NBA), Department of Computer Science & Engineering Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India.

## **COURSE CURRICULUM DEVELOPMENT**

Designed the syllabus of the subjects such as Operating system, Computer organization and Architecture and Software Engineering for B. Tech. Courses in Computer science & Engineering and IT, VSSUT, Burla, Odisha, India

Coordinator for Preparing the PG proposal to start M.Tech Programme in the Department of Computer Science and Engineering, Veer Surendra Sai University of Technology, Burla, Odisha.

Designed the syllabus of the subjects such as Software Engineering, Database Engineering, Computational Intelligence and Data Mining and Warehousing for M.Tech Courses in Computer science and

Engineering, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India

Lecturer notes are prepared for the subjects like Operating system, Computer organization and Architecture, Database Management, Software Engineering in B. Tech syllabus, Veer Surendra Sai University of Technology VSSUT, Burla, Odisha.

Lecturer notes are prepared for the subjects like Software Engineering, Data Mining and Ware housing in M.Tech computer Science & Engineering syllabus, Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India

## **LABORATORY DEVELOPMENT**

Designed the Instruction sheets and Laboratory assignments of AD Lab, Operating System and Computer Organization and Microprocessor Lab. in B. Tech, Computer science and Engg. and IT, for Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India

Designed the Laboratory Experiments for Operating System, Computer Architecture and Organization, C and Data Structure and Information System Design in B. Tech, Computer science and Engg. and IT for Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, India

Learning materials developed in the form of vocabulary list, exercises which expand on the content from learners view point for effective classroom teaching.

## **CONTRIBUTION IN INNOVATIVE TEACHING/LEARNING/ RESEARCH**

Teaching plans has been prepared and supplied to students for the subjects like Operating system, Computer organization and Architecture, Database Management, software engineering,

Data Mining and Warehousing taught by me in B.Tech and M.Tech in Computer Science and Engineering, VSSUT, Burla, Odisha, India

Innovation in teaching method is supported by the real world Problem Based Learning (PBL) and with a clear presentation, by reflecting the trends and recent developments.

Teaching is supported with Interactive sessions with feedback and self assessments with active involvement & support.

To create supportive learning environment, Power Point Slides has been prepared for the subjects Operating system, Computer organization and Architecture, E-Commerce and ERP, Databases, software engineering,

Data Mining and Warehousing in B.Tech and M.Tech syllabus taught by me in Computer Science and Engineering .

More emphasis is being given not only on theory / lecturer notes and textbooks but also based on practical and real life problems with Learning for memorization and understanding with the knowledge of students response and feedback

Try to keeping students motivated to understand the importance of learning and given emphasis on student-centered pedagogies, extension of learning beyond the classroom, and ICT integration into teaching and learning

PPT along with hands on exercise and assignment for each subject has been prepared by me to facilitate learning process more effective.

A general rule “*Test What is Taught*” has been followed by me for a review of student performance.

Evaluate the student learning by giving them multiple choice test & independent project & critical thought with short answer test.

## **SELF APPRAISAL**

Major Strength : -Sincerity& Punctuality,  
-Hardworking, dedication & determination  
-Self-Confidence

Major Weakness : -Straight Forwardness,  
- Self Respect & Emotional  
- Sensitive, Short tempered

## **DECLARATIONS**

I do here by declare that the foregoing information provided above is Correct to the best of my knowledge and belief.

Date: 12.01.2018  
Place: Burla, Odisha, India

(Dr. H. S. Behera)  
Associate Professor & Head  
Dept. of Information Technology  
Veer Surendra Sai University of Technology (VSSUT),  
(Established by Government of Odisha)

