

- **Publications 2021-22**

Sr. No.	Title of the paper	Author	Title of the journal	Issue Date
1	SARP: secure routing protocol using anonymous authentication in vehicular Ad-hoc networks	B Yelure, S Sonavane	Journal of Ambient Intelligence and Humanized Computing	2 Aug 2021
2	Optimized Auto Encoder on High Dimensional Big Data Reduction: an Analytical Approach	Arifa Shikalgar, Shefali Sonavane.	Turkish Journal of Computer and Mathematics Education	2 Aug 2021
3	Analysis of Connectivity Duration In Vehicular Network	B Yelure, S Sonavane	Turkish Journal of Computer and Mathematics Education	19 Aug 2021
4	Experimenting with Reordering Model of Phrase-Based Machine Translation System for English to Hindi	Arun R Babhulgaonkar, Shefali P Sonavane	Next Generation Information Processing System	12 Aug 2021
5	Performance of routing protocols using mobility models in vanet	Bhushan Yelure, Shefali Sonavane	Next Generation Information Processing System	30 July 2021
6	Investigation of Imbalanced Big Data Set Classification: Clustering Minority Samples Over Sampling Technique	Sachin Patil, Shefali Sonavane	Next Generation Information Processing System	7 Aug 2021
7	ModQUIC Protocol Performance Verification with CUBIC and BBR Congestion Control Mechanism, International Journal of Internet Protocol Technology	Kharat P. K.	International Journal of Internet Protocol Technology	31 Aug 2021
8	Advancements in Digital Computation: Issues and Opportunities in Healthcare Services	M G Rathi, S P Sonavane S G Tamhankar	Book Chapter in Digital Future of Healthcare	5 Oct 2021

● **Publications 2020-21**

Sr. No.	Title of the paper	Author	Title of the journal	Issue Date
1	Drowsiness Detection System Using Opencv And Raspberry Pi: An Iot Application	Urunkar A. A.	Springer Lecture notes in Electrical Engineering	--
2	Machine learning Techniques and Algorithms: A Survey	Shetty B. S.	Advances In Information, Computing And Trends in Data Engineering	--
3	Modified QUIC Protocol with Congestion Control for Improved Network Performance	Kharat P. K.	International Journal of Internet Protocol Technology	14 Mar 2019
5	Parallelization of Deep Convolutional Neural Network	Chavan U. B.	Machine Intelligence & Smart Computing	--
6	Co-occurrence patterns based fruit quality detection for hierarchical fruit image annotation	Sonavane S. P	Journal of King Saud University - Computer and Information Sciences	26 Nov 2020
7	Stacked GRU based Image Captioning	Sonavane S. P	Solid State Technology	05 May 2020
8	Crop Nutrition Medicines Selection for Papaya using Analytical Hierarchy Process	Umbarkar A. J Rathod R. R.	Solid State Technology	31 Dec 2020
9	A novel gradient foster shared-representation convolutional network optimization for multi-modalities	Arifa Javid Shikalgar, Shefali Sonavane.	Multimedia Tools and Applications	29 April 2021

• **Publications 2019-20**

Sr. No.	Title of the paper	Name of the author	Title of the journal	Issue Date
1	Application of Linguistic Knowledge in Factored Language Modeling for Hindi Language	A. R. Babhulgaonkar, S. P. Sonavane	Computing in Engineering and Technology	17 Sep 2019
2	Hybrid Deep Learning Approach for Classifying Alzheimer Disease Based on Multimodal Data	A. Shikalgar, S. P. Sonavane	Computing in Engineering and Technology	17 Sep 2019
3	Minority–Majority Mix mean Oversampling Technique: An Efficient Technique to Improve Classification of Imbalanced Data Sets	S. Patil, S. P. Sonavane	Computing in Engineering and Technology	17 Sep 2019
4	Automatic Feature Extraction for CBIR and Image Annotation Applications	S. B. Nemade, S. P. Sonavane	Computing in Engineering and Technology	17 Sep 2019
5	Performance Analysis of Jaya Algorithm Using CEC'2013 Benchmark Functions	A. J. Umbarkar, A. C. Adamuthe, S. B. Darade	Soft Computing: Theories and Applications	2 Nov 2019
6	Improved Ant Colony Optimization in K-Means for Data Clustering	S. S. Bamane, A. J. Umbarkar, M. R. Gaikwad	ICT Analysis and Applications	18 July 2018
7	Smartphone and IoT Based System for Integrated Farm Monitoring	M. A. Patil, A. C. Adamuthe, A. J. Umbarkar	Techno-Societal	11 July 2019
8	Optimizing Deep Convolutional Neural Network for Facial Expression Recognition	U. B. Chavan, D. B. Kulkarni	European Journal of Engineering Research and Science	25 Feb 2020
9	Rising Star Evaluation using Statistical Analysis in Cricket	A. M. Khot, A. D. Shinde	Springer Lecture Notes in Networks and Systems (LNNS) Book series	10 Mar 2019
10	QoS Evaluation of VANET Routing Protocol	B. S. Yelure, S. P. Sonavane	International Conference on Communication and Electronics Systems	19 July 2019

11	Image Segmentation using Convolutional Neural Network for Image Annotation	S. B. Nemade, S. P. Sonavane	International Conference on Communication and Electronics Systems	19 July 2019
12	F-WSS + + : incremental wrapper subset selection algorithm for fuzzy extreme learning machine	A. Kale, Dr. S. P. Sonavane.	International Journal of Machine Learning and Cybernetics	8 June 2018
13	Pressure sensor behavioral search: Simulation research for aerospace application	V. Wagh, S. P. Sonavane, C. Kapoor.	International Journal of Recent Technology and Engineering	10 June 2018
14	Smart Sensing of Medical Disorder Detection for Physically Impaired Person	S. G. Tamhankar, S. P. Sonavane, M. G. Rathi	Book Chapter, Elsevier Publication, Volume 5	2 April 2019
15	Performance Analysis of Parallel and Scalable GPU Based Convolutional Neural Network	U. B. Chavan, Dr. D. B. Kulkarni	Computing in Engineering and Technology	2 Jan 2020

• **Publications 2018-19**

Sr. No	Title of the paper	Auhor	Title of the journal	Issue Date
1	Multi-GPU approach for development of parallel and scalable pub-sub system	M. A. Shah, Dr. D. B. Kulkarni	Advances in Intelligent Systems and Computing	10 Jan 2019
2	PF-FELM: A Robust PCA Feature Selection for Fuzzy Extreme Learning Machine	A. P. Kale, Dr. S. P. Sonavane.	IEEE Journal on Selected Topics in Signal Processing	8 Oct 2018
3	Performance evaluation of runner-root algorithm on CEC 2013 benchmark functions	Dr. A. J. Umbarkar, Dr. A. C. Adamuthe, S. M. Nale	Advances in Intelligent Systems and Computing	14 Dec 2018
4	Congestion controlling schemes for high-speed data networks: A survey	P. K. Kharat, M. Kulkarni	Journal of High Speed Networks	10 Feb 2019
5	Modified QUIC protocol for improved network performance and comparison with QUIC and TCP	P. K. Kharat, M. Kulkarni	International Journal of Internet Protocol Technology	21 Jan 2019
6	Heterogeneous leach protocol with sink node protection in a wireless sensor network	B Pawde, B. S. Shetty	ICTACT Journal On Communication Technology,	10 Jun 2019
7	A comprehensive Dialogue for U-Body Sensor Network(UBSN) with experimental case study	Dr. S. P. Sonavane, S. G. Tamhankar, M. G. Rathi	Book Chapter in "Sensor for Health Monitor", Elsevier Publication,	24 june 2019
8	Performance issues of parallel, scalable convolutional neural networks in deep learning	U. B. Chavan, Dr. D. B. Kulkarni	Advances in Intelligent Systems and Computing	13 Sep 2018
9	A review of dimensionality reduction in high-dimensional data using multi-core and many-core architecture	S. V. Patil, Dr. D. B. Kulkarni.	Communications in Computer and Information Science	4 Sep 2019
10	Design and Development of Integrated Deep Convolution Neural Network Approach for Handling Heterogeneous Medical Data	A. J. Shikalgar, Dr. S. P. Sonavane	Proceedings - 2019 Amity International Conference on Artificial Intelligence	4 Feb 2019

11	IoT based Smart Farming: Feature subset selection for optimized high-dimensional data using improved GA based approach for ELM	A. P. Kale, Dr. S. P. Sonavane	Computers and Electronics in Agriculture	19 June 2019
12	Identification and Removal of Accident-Prone Locations Using Spatial Data Mining	R A Mestri, Dr. R. R Rathod, R. D. Garg	Applications of Geomatics in Civil Engineering	20 June 2019
13	A decision support system using analytical hierarchy process for student-teacher-industry expectation perspective	S. S. Pawar, Dr. R. R. Rathod.	Advances in Intelligent Systems and Computing	13 Sep 2018
14	Design of Password Guessing Prevention Protocol for Levelled-Security System	R. L. Bagad, A. N. Magar, S. N. Mali, Dr. R. R. Rathod	Helix 8 (5)	31 Aug 2018
15	Review on LTE Cryptography Algorithm ZUC and its Attacks	S. Lawange, M. B. Narnaware	International Journal of Emerging Research in Management & Technology	17 Jun 2018

• **Publications 2017-18**

Sr. No.	Title of the paper	Auhor	Title of the journal	Issue Date
1	Maximize The Lifetime Of Sensor Network By Load Balancing Using Tree Topology	B. S. Shetty, S. S. Patil	ICTACT Journal on Communication Technology	10 Jun 2018
2	Smart And Precision Polyhouse Farming Using Visible Light Communication And Internet Of Things	K. Kadam, G. T. Chavan, U. B. Chavan, R Shah, P Kumar	Intelligent Computing and Information and Communication	12 Jan 2018
3	Segmentation Of Bright Region Of The Optic Disc For Eye Disease Prediction.	R Jadhav, M. B. Narnaware	ICTACT Journal on Image & Video Processing 8	2 Feb 2018
4	Practice Based Closure quality loop optimization in teaching learning process: A case study in software engineering design	Dr. S. P. Sonavane, S Patil, M. G. Rathi	International Journal of Education and Learning Systems, 2018	13 Feb 2018
5	Optimal feature subset selection for fuzzy extreme learning machine using genetic algorithm with multilevel parameter optimization	A. P. Kale, Dr. S. P. Sonavane.	IEEE International Conference on Signal and Image Processing Applications	12 Sep 2017
6	Improved classification of large imbalanced data sets using rationalized technique: Updated Class Purity Maximization Over_Sampling Technique (UCPMOT)	S. S. Patil, Dr. S. P. Sonavane.	Journal of Big Data	12 Dec 2017
7	Data flow analysis of MPI program using dynamic analysis technique with partial execution	K. B. Manwade, Dr. D. B. Kulkarni.	Scalable Computing	24 Nov 2017
8	Analysis of fractal inter frame video coding using parallel approach	M. V. Kulkarni, Dr. D. B. Kulkarni.	Signal, Image and Video Processing	10 Nov 2016
9	Literature Survey on Load Balancing Algorithm in Wireless Sensor Network	B. S. Shetty	International Journal of Advance Research in Science and Engineering	10 Oct 2017
10	Exploring Education Theme in Teaching Learning Transformation: An Expectation in Software Engineering	M. G. Rathi, Dr. S. P. Sonavane	Everant Engineering and Technology Journal	10 Jul 2017

12	Teaching–Learning-Based Optimization on Hadoop	S. M. Jagdeo, Dr. A. J. Umbarkar, P. D. Sheth.	Advances in Intelligent Systems and Computing	10 Jan 2018
13	Data Privacy and Prediction Using Neural Network and Homomorphic Encryption	N. D. Navqhare, Dr. D. B. Kulkarni.	International Conference on Intelligent Computing and Control Systems	10 Jun 2018
14	ClustMap: A topology-aware MPI process placement algorithm for multi-core clusters	K. B. Manwade, Dr. D. B. Kulkarni.	Advances in Intelligent Systems and Computing	18 Jan 2018
15	Situation-Based Congestion Control Strategies for Wired and Wireless Networks	P. K. Kharat, M. Kulkarni	International Conference On Advances in Communication and Computing Technology	23 Feb 2018

• **Publications 2016-17**

Sr. No.	Title of the paper	Auhor	Title of the journal	Issue Date
1	Towards Fuzzy Extreme Learning Machine	A. Kale, Dr. S. P. Sonavane	National - ACM-W India Celebration of Woman in Computing	10 Sep 2016
2	The Perspective and significance of Artificial Intelligence in Big Data Analysis	A. Shikalgar, Dr. S. P. Sonavane	National - ACM-W India Celebration of Woman in Computing	10 Sep 2016
3	Flexible & secure auditing of outsourced database in cloud computing	B. S. Shetty	International Journal of Advanced Research in Computer and Communication Engineering	14 May 2017
4	A brief review of the Large Eddy Simulation Methods	B. S. Shetty	International Journal of Advanced Research in Computer and Communication Engineering	14 May 2017
5	Performance evaluation of firefly algorithm with variation in sorting for non-linear benchmark problems	A. J. Umbarkar., U. T. Balande, P. D. Seth.	AIP Conference	18 Jun 2017
6	Design of electricity tariff plans using gap statistic for K-means clustering based on consumers monthly electricity consumption data	R. R. Rathod, R. D. Garg.	International Journal of Energy Sector Management	26 June 2017
7	Review on Segmentation Techniques used in Optic Disc and Blood Vessel Segmentation	R Jadhav, M. B. Narnaware	International Journal of Emerging Research in Management and Technology	28 Apr 2017
8	A basic model for profiling power consumption in HPC sub-systems	P. R. Pawar, U. B. Chavan, A. K. Gupta.	International Conference on Computing, Communication, Control and Automation,	10 Aug 2016
9	Implementation of parallel algorithm for support vector machine applied to intrusion detection systems	N. Z. Tarapore, Dr. D. B. Kulkarni, V. K. Prasad	International Conference on Computing, Analytics and Security Trends	15 Dec 2016

• **Intellectual property (IPR)**

Name	Applied Year	Current Status	Title of Invention	Ref. No
Dr. R. R. Rathod	2021	Submitted	Water Supply System For Multistory Buildings	Ref. No./Application No.: 202121002937 dated 21 January 2021
	2021	Submitted	An Iot Based Sytem For Security And Door Access Control	Ref. No./Application No.: 2021100346 dated 20 January 2021
Dr. S. P. Sonavane	2021	Submitted	Handy Device And Process For Non-Destructive Identification Of Devgad Alphonso Mango And Its Ripening Percentage	Ref. No./Application No.: 2021211012895 dated 24 March 2021
Dr. S. P. Sonavane	2020	Published, waiting for examination	System and Method for Facilitating Verification of Academic Certificates using Blockchain	Ref. No./Application No.: 202021035355
Dr. A. J. Umbarkar	2018	Published, waiting for examination	A method for vehicle monitoring system using Radio Frequency Identification (RFID) based data acquisition system	Ref. No./Application No.: 201821021439
Dr. A. J. Umbarkar	2017	Under Examination	A System and a Method for faster Biometric Data processing on a distributed computing system	Ref. No. Application No.: 201721011898
Dr. A. J. Umbarkar	2016	Under Examination	A System and A Method For Faster Reorganization Of Iris Pattern On Distributed Systems	Ref. No./Application No.: 201621004648
Dr. A. J. Umbarkar	2016	Published, Examination Report submitted, waiting for granting	A Method and a System for Identifying Frauds in an Electronic Voting Machine	Ref. No./Application No.: 201621008275
Dr. S. P. Sonavane	2012	Published, Examination Report submitted, waiting for granting	Process for Image Authorization, Authentication and Integrity Check	Ref. No./Application No.: 1120/MUM/2012

- **Research Funding**

Sr. No.	Name	Title	Amount (In Lacs)	Year
1	Mr. U. B. Chavan	CDAC	2.30	2019-2020
2	Dr. S. P. Sonavane	Max Plank, Germany and DST	4.45	2014-2015
3	Dr. A. J. Umbarkar	NVidia and TEQIP-II (SEED)	2.50	2013-2014
4	Dr. S. P. Sonavane	AICTE-FDP	7	2013-2014
5	Dr. D. B, Kulkarni	Setup of GPU lab	2	2013-2014
6	Dr. P. K. Kharat	TEQIP-II (SEED)	3.25	2013-2014
7	Dr. R. R. Rathod	AICTE-MODROB	16	2013-2014
8	Dr. S. P. Sonavane	AICTE-RPS	8	2013-2016
9	Dr. P. K. Kharat	Aakash Tablets for E-Learning	5	2011-2012
10	Dr. D. B, Kulkarni	NRB-DRDO	46.6	2009-2011
Total			97 Approx.	