

REST Journal on Banking, Accounting and Business Vol: 1(3), 2022

REST Publisher; ISSN: 2583 4746



Website: http://restpublisher.com/journals/jbab/

Analysis of Operations Manager System Using Weighted Sum Model (WSM) Method

*¹Mohini Pooja Huggahalli, ²M. Ramachandran, ²Vimala Saravanan, ²Ashwini, Murugan ¹GITAM (Deemed to be University), Rudraram, Sangareddy District, Telangana, India.

²REST Labs, Kaveripattinam, Krishnagiri, Tamil Nadu, India.

*Corresponding author Email: poojahuggahalli@gmail.com

Abstract. Operations Manager WSM (Weighted sum model) Method. Has answered the call to help with these research activities Managers understand the skills needed to establish and develop a strategic business relationships. It has contributed to and contributed to the growing literature on business relationships A Practical Guide for Operations Managers. Research Significance: This empirically based research involves four phases; Interviews with managers to identify role models, interviews with managers of 27 companies, data analysis and testing of findings. The weighted sum method is a multi-criteria decision making method, there are many alternatives and we must decide which is the best alternative based on many criteria. Alternative: Cost, Quality, Delivery, and Flexibility. Evaluation option: Leadership, Strategy, Customer, Workforce, Operations. From the result it is seen that Operations and is got the first rank whereas is the Customer got is having the lowest rank. The value of the dataset for Range of Operations Manager in WSM (Weighted sum model) Method shows that it results in Operations and top ranking.

Key words: Operations Manager, WSM Method

1. Introduction

Operations are one of the three strategic functions of any enterprise. This means that it's miles and crucial part of enjoyable the corporation's strategy and ensuring its long-time period survival. Two different regions of strategic importance to the employer are advertising and finance. The operational strategy ought to help the overall corporate approach. Many organizations prepare a five-12 months preformed to aid in their operational making plans. Pro forma makes use of records from beyond and modern-day economic statements in a try and are expecting future events together with income and capital investments. Activities span time and space and are now taken for granted taking under consideration the activities of providers and clients. The want for integration growing with the scale and complexity of an increased business enterprise. Scale and complexity enhance concerns about new management era, too regularly, more and more often, integrated as information technology (IT). Enterprise resource making plans systems (ERP) are taken into consideration the solution to this fashion. Solutions ERP guarantees to reduce from coordination difficulties. The main objective of the Operations Control Center (OCC). Usually airlines have to preserve the flight introduced the flight time table for departure it will happen at the scheduled time. OCCs have other dreams and so on. Which includes lowering and countering the occurrence of delays any internal or external barriers to operations Therefore, it seems important to follow up all operations are automatic with the actual image Issued to OCCs. This allows for quick pick-up correct selections to stand any barriers to get the flight on time.

2. Operations Manager

The research device consisted of three components: fashionable information, Scales (Employee Safety Leadership Scale (ESLS), Operations Manager Safety Leadership Scale (OMSLS), Safety Expert Security Leadership Scale (SPSLS), and SCS1), and cowl stories. The 4 scales have been reviewed with the aid of five governments in the area, and their remarks and revisions have been incorporated to increase the validity of the scales as research contraptions. In addition, the researchers carried out semi-established person interviews with 15 of the examiner participants (5 employers, five operations managers, and five protection experts). In the interviews, the interviewers evaluated the completeness and relevance of the scale and objects in the questionnaire. Except for employers' suggestion to revise the safety priority in ESLS, they expressed full agreement and support.[1] However, ERP answers are not the simplest ones. As we will show, OM can study from discussions in different academic disciplines about their consequences. Adler and Boris' (1996) seminal the paper identifies styles of bureaucracy: permitting and coercive/restrictive Categories. Their factor is that any company generation can tackle many colorings It creates many effects which can be taken into account in an organization. So it is thrilling to ask, how are administrative technology taken under consideration? And how can it's this knowledge allows to recognize the Production and Operations Manager (POM). Consider the pros and cons of ERP? This is a trendy theme of the paper. ERP has been the issue of research in numerous fields for three many years. Today Research on ERP is widespread.[2] Operations managers have a variety of concerns Quality, safety, efficiency and timely completion of operations. Daily, for a short period of time Operations, managers typically use Non-financial working statistics in devices of output, Units of enter, scrap, pleasant,

order portions, stock balance and so on. It's one-of-a-kind in '12 For manufacturing companies, we did now not locate any instance of a key each day production indicator An expense or other monetary wide variety. However, Account numbers end up essential as the horizon turns into longer. Performance Managers are often measured in monetary numbers and executives make up minds Model the monetary implications in their moves guided through frame relay. Also, now and again a longer horizon is required due to concerns about expenses Rather than certainly measures (e.g. controlling budget expenditures, identifying problems, etc.) opportunities for advancement).[3] The dispatch department, within the operations control team, then notifies the man or woman Team participants carry out their tasks and send reports For station managers in outlying regions. Follow-up and sickness departments in this group keep Track individual team member contamination, reschedule Due to infection and personnel information. Cockpit team Rotations are achieved within the flight agenda Group beneath Air Operations, Planning and Group Movements Department produces weekly cycles and each day changes and transmits them Planning department for weekly schedule and Catalog repair. [4] The purpose of the paper is to try to provide a few insights into these ability units identify the role of operations managers in status quo and development Relationships with commercial enterprise partners. Our awareness is on strategic relationships Long-term partnerships are critical to developing and maintaining competitiveness Advantage. We consciousness on exemplary relationships, which might be splendid Good relationships that may serve as a benchmark for businesses looking to enhance and their strategic relationships with key companions. So, we have three objectives, first to discover, from the literature, the important thing the subject matters in dealing with strategic relationships are secondary to their software Themes for information how exemplary businesses shape and develop Third to determine strategic relationships and the position of operational managers This procedure. The objectives of the paper are to try to offer guidance for OM Professionals who're invited or challenged to make contributions to an interest an business enterprise that chooses to establish or develop one or extra strategic relationships and provide impetus for further operations control studies on this location.[5] The above provided a comprehensive literature review 60 articles and books and summarize them by saying they are publications In general, the need for operations strategy describes how to coordinate operations Business/Corporate Strategy, Strategic operations Principles, Life Cycle Activities and focused activities. They decided that more Empirical work is required to further develop, test and refine the product Strategic principles relevant to practice. Swami has and Newell provided a brief review with a broad classification Existing literature on the dimensions of strategic content and strategy process. [6] We argue that brief-term managers have a short time attitude favors them Temporary workers (demand bearers shocks) to everlasting ones, as these are more the charge went up in the quick time period. Thus, the results Recently appointed managers approximately stock popularity and number of personnel option could be displayed Using both methods in mixture for buffering Demand is often more shocking than high tenure Managers will. There is empirical proof to assist those ideas Collected from the database of Spanish agencies.

This paper further consists of three components. The second explains the theoretical arguments. In the 1/3 phase we conduct an empirical analysis. Finally, the fourth outlines our conclusion reviews. [7] Activities are one of the outcomes Managers need to see the impact of their decisions in the service received by the end customer. With an Organization of operations, flow of materials and information Beyond sect oral barriers. As a result, the communication will be poor and unresponsive Customer needs are slow. In the field of engineering the situation often worsens with each A different path can be followed through product manufacturing The system ensures that every order is processed quickly and on time is very difficult.[8] An operations manager profile can be described by a set of skills consistent with a widely accepted theoretical framework. The three main "dimensions" of knowing How to be are described as mental, bodily and elements connected to simple attitudes or personal identity; What is thought is defined as expertise Work, obligations, methods, personal position, surroundings and organization; And know Technical knowledge is defined as know-how, procedures and solutions Knowledge and skills required to carry out information technology management activities.[9] The significance of accomplishing in addition studies on The scope of manufacturing/operations management has multiplied When converting roles and responsibilities Production/Operations Manager is considered. There are the competitive pressures noted above Changed the position of production/operations managers from a branch-centric technique to go-functional linkages with advertising, engineering, human sources, finance and accounting. This change is partly because of the vital organizational structures fewer personnel to tackle a huge range of various roles. However, market pressures also play a position Drives these modifications to the Production/Operations Manager role. Markets are actually demanding new merchandise Faster, fewer changes and shorter manufacturing Life-Cycle. [10] The reason of this examine is to determine Changes inside the job of production/operations supervisor, Identified in Australian manufacturing/operations Managers can be found in Another industrialized united states. The observe located dramatic changes in productivity, numbers, motivation and process satisfaction. Operations managers in Australia in comparison to outcomes Past studies. The resulting research tool It was used inside the same manner as the questionnaire used in it study Although the 2 studies are very comparable, there may be A key difference. [11] Answers to the first question will provide insight In the knowledge of operational managers around Three components of sustainability. These are the answers Needed by Top managers and teachers Understand choice making in value introduction Parts of the deliver chain. Second solutions The query will help determine the impact of these Management understanding is on operational performance consequences and could offer fundamental understanding of sustainability to assist craft responses. Answers to the first query [12] longitudinal studies of TQM practices have observed a tremendous correlation among HR practices Such as: empowerment, full-size training, performance appraisal and teamwork with TQM and organizational performance in the manufacturing and provider region. There is education and TQM-driven overall performance management Introduced as included highbrow potential elements that act as catalysts Develop information, abilities and attitudes. It can be It is essential to strengthen the staff potential in adaptive form, that's important

In attaining the numerous satisfactory attributes supplied inside the MBNQA, including "customer". Hilton Supported the concept of improving manager and worker capability as first priority Follow any great method. [13] Second, imposing ISO calls for strong commitment the top control stage of each company. Third, the top control function may be assigned the project crew or their depended on folks to put into effect the ISO venture; in this situation, the Functional or related branch managers. Fourth, groups ought to be capable of use ISO Clauses intended to implement the ISO device. Executing those ISO Develop fine practices for the enterprise as ISO constantly units a complete machine a system of how to properly and successfully enforce for the company. These practices whenever any enhancements are made thru the findings at some point of the audit with the aid of External and inner auditors. [15] The last criterion is the personal factor Key skills include appearance, age, culture and written communication skills. Although employees those who pass these three criteria can perform routine tasks in the service encounter, those who cannot handle operational issues effectively, especially when unusual circumstances arise. This is because the employee lacks operational management skills. Therefore, this study will focus on choosing the most efficient operations manager in the service encounter to improve the service Quality. identify multiple criteria for selecting an activity A manager who can efficiently manage operational work with the objective of recruitment or promotion Employees to a higher operational management level.[16]

3. Weighted Sum Model (WSM)

Spectrum for electronic transitions at very high energies we assess weight loss, current Magnetic Neutron Scattering Experiments on Instability and by weighting in multimagnon processes can be detected, they are in energies and velocities In undetectable no polar neutron-scattering experiments Undetectable. All these factors After considering the experimental uncertainty sum rule We conclude that this is not violated Reassurance, on the other hand a big part It is very difficult to determine the spectral weight under current experimental conditions.[25] This refers to of the 'hidden' spectral weight function By range data defined by is best determined. It is supported Through Aspen's study, he explored the possibility of expanding an elliptic scale The dielectric constant beyond the experimental range was measured and detected using the KK relationships Total spectral weighting of some extensive spectral regions can moderately be recovered. Defined some analytical treatments of the frequency problem. [28] The shape of the hill is generally, the weights and mount position depend only on the input. A Many stimuli must be interpreted through symbols, such as encoding. To overcome this limit, Grasberg Automatic gain to reduce sensitivity to input variety A shunting activation function with control Introduced. [29] A normalization term Additional activation of the shunting model was found Functional models are used however; there is no rule about how to combine the two types or Top-down input. I now recommend one, A related model is through top-down stimuli of multiple stimuli including their de-modulation Allows for balanced representation.[30] This is consistent with the reality of low density In structure, charge with double occupancy of electrons Fluctuations are rare. Fill like an electron the closer it gets to half fill, the more spectrally weighted the sound Moving from mode to optical modes. Finally At half-fill, the sound form disappears; so charge the stimuli are as shown in the references have a limited interval. [31] An SPN as a rooted dynamic acyclic graph can be understood graphically. Each internal A sum or product surgery that tends to is each leaf tip is immutable on it Distribution is variable. A child from a sum node Up to every edge has a positive weight. [32] To represent this type of knowledge, we have developed a new regime language Weight control rules. It extends normal logic programs by allowing weight constraints Instead of literals in a clause. A weight constraint may express a resource constraint a linear inequality is written in the form of a set of terms with associated weights. [33] A useful a special case is the cardinality constraint, which is used to represent a selection from a set Words with forced cardinality constraints. Also, includes language optimization Statements for finding the largest or smallest fixed samples for a sequence of cost functions expressed as a set of weighted terms. [34] An SPN as a rooted dynamic acyclic graph can be understood graphically. Each internal A sum or product surgery that tends to is Each leaf tip is immutable on it Distribution is variable. [35] A child from a sum node Up to every edge has a positive weight The proposed NNMS LDPC decoding network is CNs between VNs at each iteration Each connection edge has different weights. The LDPC code of the parity check matrix H is a space is the matrix, and this process is long uses multiple multipliers for codes.[36] This in section, to reduce the number of correction factors, Shared Neural Normalized Min Sum (SNNMS) we propose an LDPC decoding network. By sharing the same correction factors in the same layer, Channels Good performance can be achieved with LDPC decoding network a slight increase in computational complexity. [37]

 TABLE 1. Operations Manager in Data Set

	Cost	Quality	Delivery	Flexibility
Leadership	54.080	135.530	30.150	21.050
Strategy	36.120	140.970	35.690	22.300
Customer	29.080	126.580	27.180	29.100
Workforce	30.170	124.280	29.600	19.590
Operations	35.330	189.410	25.960	18.890

Table 1 shows the graphical representation Operations Manager Data Set value of Alternative: Cost, Quality, Delivery, and Flexibility. Evaluation option: Leadership, Strategy, Customer, Workforce, Operations.

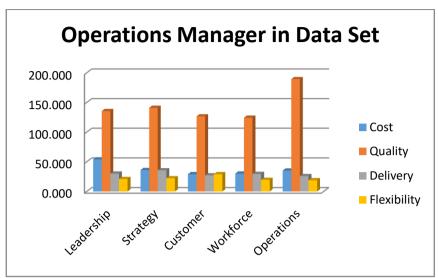


FIGURE 1. Operations Manager

Figure 1 shows the graphical representation Operations Manager Data Set value of Alternative: Cost, Quality, Delivery, and Flexibility. Evaluation option: Leadership, Strategy, Customer, Workforce, Operations.

TABLE 2. Operations Manager in Normalized Data

	Normalized			
Leadership	1.00000	0.71554	0.86103	0.89739
Strategy	0.66790	0.74426	0.72737	0.84709
Customer	0.53772	0.66829	0.95511	0.64914
Workforce	0.55788	0.65614	0.87703	0.96427
Operations	0.65329	1.00000	1.00000	1.00000

Table 2 Shows the Normalized Data Matrix of Evaluation Preference: Leadership, Strategy, Customer, Workforce, Operations. Economy it is also Maximum or Minimum value =C5/MAX (\$C\$4:\$C\$8), =MIN (\$D\$4:\$D\$8)/D6 Normalized Data formula used.

TABLE 3. Operations Manager in Weight age

Weight age				
0.25	0.25	0.25	0.25	
0.25	0.25	0.25	0.25	
0.25	0.25	0.25	0.25	
0.25	0.25	0.25	0.25	
0.25	0.25	0.25	0.25	

Table 3 shows the Weight ages used for the analysis. We taken same weights for all the parameters for the analysis

TABLE 4. Operations Manager in Weighted normalized decision matrix

	Weighted normalized decision matrix			
Leadership	0.25000	0.17888	0.21526	0.22435
Strategy	0.16697	0.18606	0.18184	0.21177
Customer	0.13443	0.16707	0.23878	0.16229
Workforce	0.13947	0.16404	0.21926	0.24107
Operations	0.16332	0.25000	0.25000	0.25000

Table 4 shows the Weighted Normalized Decision Matrix. Alternative: Alternative: Cost, Quality, Delivery, and Flexibility. Evaluation option: Leadership, Strategy, Customer, Workforce, Operations, Economy it is also Weighted Normalized Decision Matrix value multiplication formula used.

TABLE 5. Preference Score

	Preference Score
Leadership	0.86849
Strategy	0.74665
Customer	0.70257
Workforce	0.76383
Operations	0.91332

Table 5. Shows the Preference Score Leadership = 0.86849, Strategy = 0.74665, Customer =0.70257, Workforce =0.76383, Operations =0.91332.

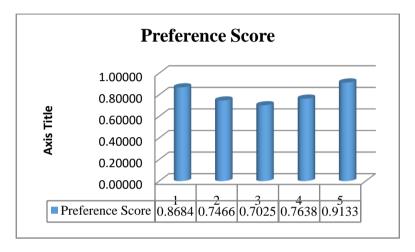


FIGURE 2. Preference Score

Figure 2 shows the preference Score for Operations is showing the highest value for Customer is showing the lowest value.

TABLE 6. Rank

	Rank
Leadership	2
Strategy	4
Customer	5
Workforce	3
Operations	1

Table 5. shows the final result of this paper the Strategy is in Fourth rank, the Customer is in Fifth rank, the Workforce is in Third rank, the Operations is in First rank and the Leadership is in Second rank.

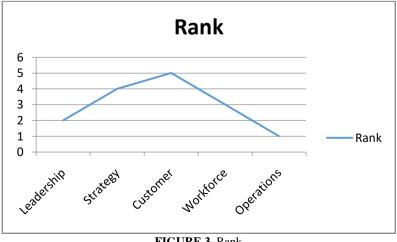


FIGURE 3. Rank

Figure 3 shows the graphical view of the final result of this paper the Strategy is in 4th rank, the Customer is in 5th rank, the Workforce is in 3rd rank, the Operations is in 1st rank and the Leadership is in 2nd rank.

4. Conclusion

Operations managers have a variety of concerns Quality, safety, efficiency and timely completion of operations. Daily, for a short period of time Operations, managers typically use Non-financial working statistics in devices of output, Units of enter, scrap, pleasant, order portions, stock balance and so on. Its one-of-a-kind in '12 for manufacturing companies, we did now not locate any instance of a key each day production indicator and expense or other monetary wide variety. However, Account numbers end up essential as the horizon turns into longer. Performance Managers are often measured in monetary numbers and executives make up minds Model the monetary implications in their moves guided through frame relay. Also, now and again a longer horizon is required due to concerns about expenses Rather than certainly measures (e.g. controlling budget expenditures, identifying problems, etc.) opportunities for advancement). To represent this type of knowledge, we have developed a new regime language Weight control rules. It extends normal logic programs by allowing weight constraints Instead of literals in a clause. A weight constraint may express a resource constraint a linear inequality is written in the form of a set of terms with associated weights. A useful a special case is the cardinality constraint, which is used to represent a selection from a set Words with forced cardinality constraints.

References

- [1]. Wu, Tsung-Chih, Chia-Hung Lin, and Sen-Yu Shiau. "Predicting safety culture: The roles of employer, operations manager and safety professional." Journal of safety research 41, no. 5 (2010): 423-431.
- [2]. Hald, Kim Sundtoft, and Jan Mouritsen. "Enterprise resource planning, operations and management: Enabling and constraining ERP and the role of the production and operations manager." International Journal of Operations & Production Management (2013).
- [3]. Van der Veeken, Henk JM, and Marc JF Wouters. "Using accounting information systems by operations managers in a project company." Management Accounting Research 13, no. 3 (2002): 345-370.
- [4]. Mehbodniya, Abolfazl, Julian L. Webber, and Sathishkumar Karupusamy. "Improving the geo-drone-based route for effective communication and connection stability improvement in the emergency area ad-hoc network." Sustainable Energy Technologies and Assessments 53 (2022): 102558.
- [5]. Abd Allah Makhloof, M., M. Elsayed Waheed, and Usama A. El-Raouf Badawi. "Real-time aircraft turnaround operations manager." Production Planning & Control 25, no. 1 (2014): 2-25.
- [6]. Mohan, Anand, E. Kodhai, Makarand Upadhyaya, K. Thilagam, Ashim Bora, P. Vijayakumar, and Pravin R. Kshirsagar. "An artificial intelligence based algorithm for prevention of Covid." In AIP Conference Proceedings, vol. 2393, no. 1, p. 020069. AIP Publishing LLC, 2022.
- [7]. Johnston, Robert, and Roy Staughton. "Establishing and developing strategic relationships—the role for operations managers." International Journal of Operations & Production Management (2009).
- [8]. Hum, Sin-Hoon, and Lay-Hong Leow. "The perception of the strategic role of manufacturing amongst operations managers: an empirical study based on a newly industrialized economy." International Journal of Operations & Production Management (1992).
- [9]. Kumar Pandey, Rakesh, Anil Kumar, Ajay Mandal, and Behzad Vaferi. "Genetic algorithm optimization of deep structured classifier-predictor models for pressure transient analysis." Journal of Energy Resources Technology 145, no. 2 (2022): 023003.
- [10]. Alfaro, José A., and Josep A. Tribó. "Operations manager turnover and inventory fluctuations." International Journal of Production Economics 81 (2003): 51-58.
- [11]. Manoharan, Hariprasath, Sulaima Lebbe Abdul Haleem, S. Shitharth, Pravin R. Kshirsagar, Vineet Tirth, M. Thangamani, and Radha Raman Chandan. "A machine learning algorithm for classification of mental tasks." Computers and Electrical Engineering 99 (2022): 107785.
- [12]. Armistead, Colin, and John Mapes. "The changing role of supply chain operations managers." Logistics Information Management (1992).
- [13]. Bouraad, Fatat. "IT project portfolio governance: the emerging operation manager." Project Management Journal 41, no. 5 (2010): 74-86.
- [14]. Paliwal, Priyanka, Julian L. Webber, Abolfazl Mehbodniya, Mohd Anul Haq, Anil Kumar, and Prem Kumar Chaurasiya. "Multi-agent-based approach for generation expansion planning in isolated micro-grid with renewable energy sources and battery storage." The Journal of Supercomputing 78, no. 17 (2022): 18497-18523.
- [15]. Sohal, Amrik S., Brian D'Netto, Paul Fitzpatrick, and Hamid Noori. "The roles and responsibilities of production/operations managers in SMEs: evidence from Canada." Technovation 21, no. 7 (2001): 437-448.
- [16]. Venkatesh, Dr A. Narasima, Dr Bhati, Shradha Agarwal, Dr Maitri, Dr Kshirsagar, and R. Pravin. "Employee Association, Commitment and Habituation in the Time of COVID-19: Imputation for Human Resource Management." Psychology and Education (2021).
- [17]. Pagell, Mark, and David Gobeli. "How plant managers' experiences and attitudes toward sustainability relate to operational performance." Production and Operations Management 18, no. 3 (2009): 278-299.

- [18]. Shokri, Alireza, and Farhad Nabhani. "Quality management vision of future early career operations managers." International Journal of Quality & Reliability Management 36, no. 2 (2019): 162-185.
- [19]. Forro, Denise A. "The role of an operations manager in interlibrary loan and document delivery services." Journal of Interlibrary Loan, Document Delivery & Electronic Reserve 17, no. 4 (2007): 55-62.
- [20]. Krishna Kumar TP, M. Ramachandran, Sathiyaraj Chinnasamy, "Exploring Various Applications of Block Chain Technology", Recent trends in Management and Commerce, 1(1), (2020):92-96
- [21]. KEYWORD, USING DENSITY OF. "WEB GRAPH BASED SEARCH BY USING DENSITY OF KEYWORD AND AGE FACTOR." (2013).
- [22]. Yadav, Ritesh Kumar, and M. Sivakkumar. "Design framework of stock price forecasting using cascaded machine learning and swarm intelligence." Solid State Technology 64, no. 1 (2021): 724-738.
- [23]. King, Sharon. "Saying hello to new members and goodbye to our operations manager." Journal of Aesthetic Nursing 6, no. 4 (2017): 204-204.
- [24]. Pandey, Rakesh Kumar, Anil Kumar, and Ajay Mandal. "A robust deep structured prediction model for petroleum reservoir characterization using pressure transient test data." Petroleum Research 7, no. 2 (2022): 204-219.
- [25]. Nunthaphanich, Tanawin, and Natcha Thawesaengskulthai. "Design of an operations manager selection system in service encounter." Management Science Letters 5, no. 10 (2015): 933-944.
- [26]. Verleysen, Michel, and Damien François. "The curse of dimensionality in data mining and time series prediction." In International work-conference on artificial neural networks, pp. 758-770. Springer, Berlin, Heidelberg, 2005.
- [27]. Brownfield, Steven, and Junxiu Zhou. "Sentiment analysis of Amazon product reviews." In Proceedings of the Computational Methods in Systems and Software, pp. 739-750. Springer, Cham, 2020.
- [28]. Saaran, Viraat, Vaishali Kushwaha, Sachi Gupta, and Gaurav Agarwal. "A Literature Review on Generative Adversarial Networks with Its Applications in Healthcare." In *Congress on Intelligent Systems*, pp. 215-225. Springer, Singapore, 2020.
- [29]. Sathiyaraj Chinnasamy, M. Ramachandran, Prabakaran Nanjundan, Malarvizhi, "Analysis of Blind Spot in Heavy Vehicles using TOPSIS MCDM Method", REST Journal on Advances in Mechanical Engineering, 1(2), (2022):19-27
- [30]. Hastie, Trevor, Robert Tibshirani, Jerome H. Friedman, and Jerome H. Friedman. The elements of statistical learning: data mining, inference, and prediction. Vol. 2. New York: springer, 2009.
- [31]. Refonaa, J., Dinh Tran Ngoc Huy, Nguyen Dinh Trung, Hoang Van Thuc, Roop Raj, Mohd Anul Haq, and Anil Kumar. "Probabilistic methods and neural networks in structural engineering." The International Journal of Advanced Manufacturing Technology (2022): 1-9.
- [32]. Zimmermann, Thomas, Nachiappan Nagappan, Harald Gall, Emanuel Giger, and Brendan Murphy. "Cross-project defect prediction: a large scale experiment on data vs. domain vs. process." In Proceedings of the 7th joint meeting of the European software engineering conference and the ACM SIGSOFT symposium on The foundations of software engineering, pp. 91-100. 2009.
- [33]. Buradkar, MM Vanita Tonge, and Manisha More. "Introduction to Machine Learning and Its Applications: A Survey." Journal of Artificial Intelligence, Machine Learning and Soft Computing 5, no. 1 (2020): 12.
- [34]. Gupta, Sachi, and Gaurav Agarwal. "Hybrid fuzzy-based Deep Remora Reinforcement Learning Based Task Scheduling in Heterogeneous Multicore-processor." *Microprocessors and Microsystems* 92 (2022): 104544.
- [35]. Naufal, Ammar, Amelia Kurniawati, and Muhammad Azani Hasibuan. "Decision support system of SMB telkom university roadshow location prioritization with weighted sum model method." In 2016 2nd International Conference of Industrial, Mechanical, Electrical, and Chemical Engineering (ICIMECE), pp. 107-111. IEEE, 2016.
- [36]. Goh, Chon-Huat, Yung-Chin Alex Tung, and Chun-Hung Cheng. "A revised weighted sum decision model for robot selection." Computers & Industrial Engineering 30, no. 2 (1996): 193-199.
- [37]. Sathiyaraj Chinnasamy, M. Ramachandran, Chinnasami Sivaji, "A Study on Ultraviolet Radiation and Its Effects", REST Journal on Advances in Mechanical Engineering, 1(2), (2022):1-9
- [38]. Dahiya, Priyanka, Anil Kumar, Ashok Kumar, and Bijan Nahavandi. "Modified Artificial Bee Colony Algorithm-Based Strategy for Brain Tumor Segmentation." Computational Intelligence and Neuroscience 2022 (2022).
- [39]. Kshirsagar, Pravin, Udari Naresh, Arpit Yadav, Pranav Chippalkatti, and Damalla Satheesh Kumar. "FPGA Implementation of Binary Multipliers Based on Hardware Algorithms." System 5, no. 1 (2020).
- [40]. Jeong, Jihyeon, and Youngjin Park. "Arrangement of array microphones for hearing-aids based on delay-weight-sum beamforming methods." In 2014 14th International Conference on Control, Automation and Systems (ICCAS 2014), pp. 1540-1542. IEEE, 2014.
- [41]. Agarwal, Gaurav, Hari Om, and Sachi Gupta. "A learning framework of modified deep recurrent neural network for classification and recognition of voice mood." *International Journal of Adaptive Control and Signal Processing* 36, no. 8 (2022): 1835-1859.
- [42]. Esangbedo, Moses Olabhele, and Ada Che. "Grey weighted sum model for evaluating business environment in West Africa." Mathematical Problems in Engineering 2016 (2016).
- [43]. C. Sukumaran, M. Ramachandran, Vimala Saravanan, Sathiyaraj Chinnasamy, "An Empirical Study of Brand Marketing Using TOPSIS MCDM Method", REST Journal on Banking, Accounting and Business, 1(1), (2022):10-18

- [44]. Revathy, G., K. Bhavana Raj, Anil Kumar, Spurthi Adibatti, Priyanka Dahiya, and T. M. Latha. "Investigation of E-voting system using face recognition using convolutional neural network (CNN)." Theoretical Computer Science (2022).
- [45]. Deshmukh, Vivek, and Pravin Kshirsagar. "Intelligent Vehicle Navigation using Fuzzy Logic." In National Conference on Innovative Paradigms in Engineering & Technology. Proceedings published by International Journal of Computer Applications®(IJCA), pp. 13-16. 2013.
- [46]. Agarwal, Gaurav, Vikas Maheshkar, Sushila Maheshkar, and Sachi Gupta. "Vocal Mood Recognition: Text Dependent Sequential and Parallel Approach." In *Applications of Artificial Intelligence Techniques in Engineering*, pp. 131-142. Springer, Singapore, 2019.
- [47]. Lorenzana, J., G. Seibold, and R. Coldea. "Sum rules and missing spectral weight in magnetic neutron scattering in the cuprates." Physical Review B 72, no. 22 (2005): 224511.
- [48]. Kuzmenko, A. B., Dirk Van Der Marel, Fabrizio Carbone, and Frank Marsiglio. "Model-independent sum rule analysis based on limited-range spectral data." New Journal of Physics 9, no. 7 (2007): 229.
- [49]. Hamker, Fred H. "Predictions of a model of spatial attention using sum-and max-pooling functions." Neurocomputing 56 (2004): 329-343.
- [50]. Kshirsagar, Pravin, Ambarish Salodkar, and Roshan Bhaiswar. "Generic Approach in Automation and Sensors for Enhanced Efficiency." International Journal of Emerging Technology and Advanced Engineering 2, no. 3 (2012): 152-156.
- [51]. Sathiyaraj Chinnasamy, M. Ramachandran, Sowmiya Soundharaj, "Mechanical and Thermal Properties of poly butylene succinate (PBS) Nano Composites", REST Journal on Emerging trends in Modelling and Manufacturing, 8(2), (2022):58-67
- [52]. Momoi, Tsutomu. "Spectral properties and sum rules of the one-dimensional Hubbard model." Physics Letters A 195, no. 5-6 (1994): 351-357.
- [53]. Singh, Prabhat Kumar, Gaurav Agarwal, and Sachi Gupta. "A new ranking technique for ranking phase of search engine: Size based ranking algorithm (SBRA)." *International Journal of Computer Applications* 82, no. 5 (2013).
- [54]. Ragab, Mahmoud, Ehab Bahaudien Ashary, Wajdi H. Aljedaibi, Ibrahim R. Alzahrani, Anil Kumar, Deepak Gupta, and Romany F. Mansour. "A novel metaheuristics with adaptive neuro-fuzzy inference system for decision making on autonomous unmanned aerial vehicle systems." ISA transactions (2022).
- [55]. Gens, Robert, and Domingos Pedro. "Learning the structure of sum-product networks." In International conference on machine learning, pp. 873-880. PMLR, 2013.
- [56]. Simons, Patrik, Ilkka Niemelä, and Timo Soininen. "Extending and implementing the stable model semantics." Artificial Intelligence 138, no. 1-2 (2002): 181-234.
- [57]. SudhirAkojwar, Pravin Kshirsagar. "Performance Evolution of Optimization Techniques for Mathematical Benchmark Functions." In WSEAS International conference on Neural Network-2016, Rome, Italy.
- [58]. Krishna Kumar TP, M. Ramachandran, Sathiyaraj Chinnasamy, "Investigation of Public Transportation System Using MOORA Method", REST Journal on Emerging trends in Modelling and Manufacturing, 6(4), (2020):124-129.
- [59]. Agarwal, Gaurav, Vikas Maheshkar, Sushila Maheshkar, and Sachi Gupta. "Recognition of emotions of speech and mood of music: a review." In *International Conference on Wireless Intelligent and Distributed Environment for Communication*, pp. 181-197. Springer, Cham, 2018.
- [60]. Wang, Qing, Shunfu Wang, Haoyu Fang, Leian Chen, Luyong Chen, and Yuzhang Guo. "A model-driven deep learning method for normalized min-sum LDPC decoding." In 2020 IEEE International Conference on Communications Workshops (ICC Workshops), pp. 1-6. IEEE, 2020.
- [61]. Sayers, Colin M., G. M. Johnson, and G. Denyer. "Predrill pore-pressure prediction using seismic data." Geophysics 67, no. 4 (2002): 1286-1292.