REST Journal on Advances in Mechanical Engineering
Vol: 4(4), December 2025
REST Publisher; ISSN: 2583-4800 (Online)
Website: https://restpublisher.com/journals/jame/
DOI: https://doi.org/10.46632/jame/4/4/2

Computational Planning of Sustainable Water Resources Using the MOORA Method

*** Manjula Selvam, Devipriya Mani, Nathiya Murali, M. Ramachandran**
REST Labs, Kaveripattinam, Krishnagiri, Tamil Nadu, India.
*Corresponding Author Email: manjulaselvam2016@gmail.com

Abstract: *Water Resources Planning. Systems with water resources have benefited people and their enterprises for a very long time. Many services are provided by these systems. But in many regions around the globe, people are Infrastructure that is inappropriate, insufficient, or in poor condition, excessive river flow withdrawals, pollution from agricultural and industrial operations, nutrient loadings that cause eutrophication, salinization from ground water flows, insect infestation of exotic animals and plants, excessive fish foraging, flood simple and habitat modification from development activities, but rather modifications in water quality and sediment flow regimes are some of the typical causes. Systems for managing water resources have long benefited Individuals and their economy. These systems provide a variety of services. But they cannot meet all but the most basic needs for sanitization and drinking water in many regions of the world. Moreover, many of these water resource management regimes are unable to support and encourage resilient biodiverse ecosystems. Common causes include inappropriate, insufficient, and/or deteriorated infrastructure, excessive river flow withdrawals, pollution from agricultural and industrial operations, nutrient enrichment brought on by nutrient applied loads, salinization from groundwater recharge stream, infestations of exotic plants and animals, extreme fish collecting, flood plain and vegetation modification caused by construction events, and needs changing in water and sediment flow conditions. Decision Making (MODM) techniques are actually available, and this newsletter is prepared to introduce the new MODM methodology. Cross optimization ratio analysis in essence Unique AMS selection problems is resolved by the (MOORA) method in the context of real-time manufacturing. Using the method of the most objective reference point, house is one of MOORA's components. On the question of the owners' consumer sovereignty, several reservations may be made. Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, Time saved (months). Ala Wai, Espanola Valley, LA River, Lower San Joaquin River, Missouri River degradation. "From the result it is seen that Ala Wai and is got the first rank whereas is the LA River got is having the lowest rank." The value of the dataset for Water Resources Planning in MOORA method shows that it results in Ala Wai and top ranking".*

Keywords: *Post-SMART cost to complete (dollars), Dollars saved, Time saved (months).*

1. INTRODUCTION

River's source and numerous other vital water locations for past and present indigenous peoples. Currently, the National Water Council, kingdoms, and other important governments Regression control and checking for cross-hyperlinks between utility distribution systems for drinking water and storm water mitigate these dangers. For instance, efforts to increase the production of water for farm animals by connecting databases for fodder and water resources are now constrained by a lack of finance and public awareness. Nonetheless, a traditional sectarian approach prevails, leading to measuring Policy recommendations frequently have some positive effects on the progress and sustainability timetable. For instance, existing efforts to increase livestock water output by connecting databases for feed and water resources are constrained by a lack of funds and attention. Nonetheless, a traditional sartorial approach

still predominates, offering one-sided counsel for policymaking, frequently with only a few benefits to the agendas for progress and sustainability. Water Supplies Users can, however, print, download, or email articles for private use. assessing a significant federal initiative within the U.s that encourages regional aquaculture collaborations to resolve pointless supply water pollution issues. We evaluated the overall effectiveness of the gadget using reviews and widely accessible numbers from the instruction literature to see if we could offer guidance for environmental sustainability in sustainable water supply. The Civil Development Project aims to better link your mission programmers with national priorities and modify them to meet the nation's needs as well as the US of A's water concerns. You can see the true improvement with the power to set out and manage those funds. The funds ought to be allocated with careful preparation to satisfy national desires. One of the main solutions to the water problem is this. Nationally, the availability of resources and technologies for watershed control activities has increased. By educational and linguistic exchange efforts, NZLT specializes in enhancing water exceptional in conjunction with producers and landowners here on water level to develop profitable farms and enhance environmentally and economically sustainable farming practices. The goal of this paper is to increase understanding of NZLT's constant performance education and identify the main issue of completeness for network-driven water quality control. On New Zealand's South Island, three new watershed efforts have been launched. The evaluation of operational contingencies or formulating preparations for watershed control decision-making is frequently done using watershed management trends. modelling techniques utilized in addition to those made Planning, enhancing, and managing water resources to ensure sufficient, affordable, and financially viable water high standards for people and ecological processes can be most effectively accomplished if causal socio-financial factors, such as inadequate education, corruption, and population stress, are recognized and tackled. Controlling water helps to improve irrigation techniques that will benefit agriculture overall. With the help of water used wisely in our houses, we can preserve this priceless resource. teaches how to use the least quantity of water while necessary. Water sources are places where people can get water that may be good for them. This is important because it's absolutely necessary for survival. Water is used for many purposes, including agriculture, industry, housing, the majority of water resource management objectives, however, focus on making it easier to use water assets that are both ecologically friendly and economically viable. This entails increasing the benefits and lowering the risks associated with the current hydraulic infrastructure. Systems for obtaining water have helped humans and our economies for ages. Many of the services provided by such organizations. sanitizing in many parts of the industry. Several of these aquatic areas are unable to sustain and maintain healthy ecosystems with diverse biodiversity. Inadequate or destroyed infrastructure, unsustainable river flow recoveries, pollution from both agricultural and industrial operations, eutrophication owing to nutrient overload, and irrigation removal are common reasons., and over-flooding of incredible flora and fauna. additionally, habitat loss due to development.

2. MATERIALS AND METHOD

Alternative: Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, Time saved (months).
Evaluation Option: Ala Wai, Espanola Valley, LA River, Lower San Joaquin River, Missouri River degradation.
MOORA method: It is possible to resolve a few typical material selection problems using the MOORA approach. For the problems under consideration, the effectiveness of the reference factor method and the complete multiplication MOORA method is assessed. All three techniques offer nearly precise ratings for fabric options and are very easy to understand and use. Previous studies have supported the fact that this method exhibits compatibility, viability, and adaptability while resolving a variety of complicated selection-making problems. It can also order object alterations greater than what is required without being impacted by weights and normalization methods. In the production environment of today. It was suggested to use the (MOORA) method to pick the best ERP systems for each manufacturing company. The MOORA approach has shown to select the appropriate distribution chain using ANP and the MOORA technique, many issues, issues inside issues, and alternatives are identified among the suggested strategies. Using MOORA, which weighs the standards connected with the supply chains that are being investigated as well as their sub-criteria, it is possible to identify the exceptional delivery chain (opportunity). It has been developed through Given to the following and no longer needs to be normalized. The minimax measure for points creates a 2D way to verify the initial result using MOORA. In order to obtain several response qualities with a single response characteristic, MOORA procedures are tailored. ANOVA is used to investigate MRR, CF, and SR statistically significant parameters. The pleasant MCDM methodology is perceived by comparing the two ways. MORRA and When many objectives conflict, multi-objective optimization is prepared (specifications) limits on a simultaneous upgrade process. increasing revenue and a Improving efficiency while decreasing vehicle gas consumption, decreasing

weight while increasing the electricity of a specific technical thing, and lowering the price of the commodity are a few instances of common problems. In a system, the good reference principle is established (2) The most goal-reference element is also subtracted based on the ratios. The Highest Objective Point of Reference Getting close to the point of reference the chosen coordinates are called subjective non while being realistically realized in one of the prospective alternatives. In general, many multi-goal optimization techniques are incoherent. a choice or choices from the given alternatives are more likely [1] MOORA device was introduced to address It is a versatile optimization strategy that can be applied effectively. Characteristic Should concentrate on the concept of will help you better define your desires. Measure the example of the goal by the attribute "emits tones of Sulphur dioxide as according 12 months" To, as stated in Keene and Rica's article on "Lowering Sulfur Dioxide Emissions" (1993: 32). A reporter's trait and an objective move together at all times. In light of this, while referencing the text "Code method reporting attribute. The ratio system as well as the reference Point technique are the two parts of the MOORA method. issues, many are multi-objective. There are actually Decision Making (MODM) approaches available. Multi-reason optimization ratio analysis in essence Unique AMS selection problems are resolved by the (MOORA) method in the context of real-time manufacturing. Using the method of the most objective reference point, house is one of MOORA's components. On the question of the owners' consumer sovereignty, several reservations may be made. Method using reference factor theory subtracts the most goal point of reference by deviating from the ratios shown in (2). Therefore, the objective and objective target reference point strategy is more effective is referred to as because the candidate is discovered among the alternatives using the reference point's chosen coordinates (ri). The following conclusions were reached using the MOORA approach: the first of three contractors Move three times. It is advantageous, and the fourth.

3. RESULTS AND DISCUSSION

TABLE 1. Water Resources Planning in MOORA method Data Set

DATA SET				
	Pre-SMART cost to complete (dollars)	Post-SMART cost to complete (dollars)	Dollars saved	Time saved (months)
Ala Wai	70	0.25	24	27
Espanola Valley	12	0.34	28	28
LA River	8	0.4	26	53
Lower San Joaquin River	13	0.08	28	38
Missouri River degradation	9	1.9	27	46

This table 1 shows that the value of dataset for Water Resources Planning in MOORA method Alternative: Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, Time saved (months). Evaluation Option: Ala Wai, Espanola Valley, LA River, Lower San Joaquin River, Missouri River degradation.

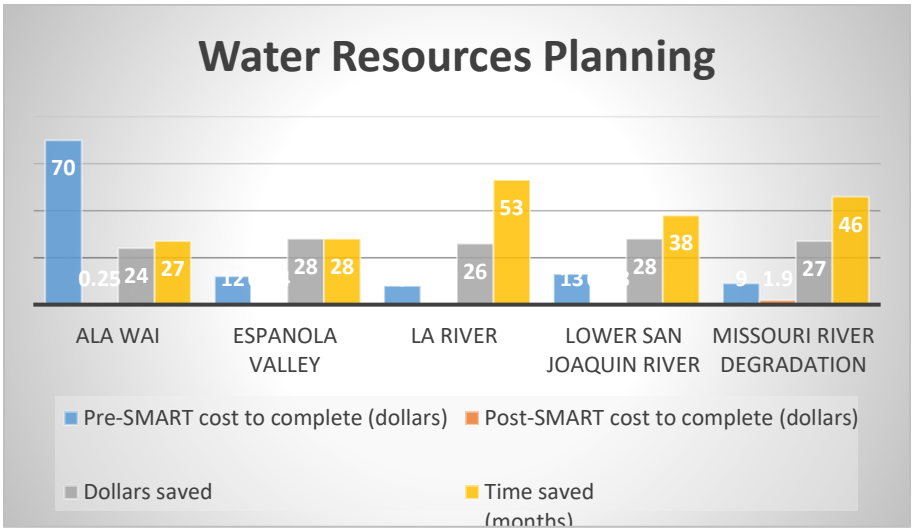

FIGURE 1. Water Resources Planning

This Figure 1 shows that the value of dataset for Water Resources Planning in MOORA method Alternative: Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, Time saved (months). Evaluation Option: Ala Wai, Espanola Valley, LA River, Lower San Joaquin River, Missouri River degradation.

TABLE 2. Divide & Sum

4900	0.0625	576	729
144	0.1156	784	784
64	0.16	676	2809
169	0.0064	784	1444
81	3.61	729	2116
5358	3.9545	3549	7882

Table 2 shows the Divide & Sum matrix formula used this table.

TABLE 3. Normalized Data

Normalized Data			
Pre-SMART cost to complete (dollars)	Post-SMART cost to complete (dollars)	Dollars saved	Time saved
0.95630557	0.125717	0.402864	0.3041204
0.163938098	0.170975	0.470008	0.31538412
0.109292065	0.201147	0.436436	0.59697708
0.177599606	0.040229	0.470008	0.4280213
0.122953573	0.95545	0.453222	0.51813105

$$X_{n1} = \frac{X1}{\sqrt{((X1)^2+(X2)^2+(X3)^2\ldots)}} \quad (1).$$

Table 3 shows the various Normalized Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, and Time saved. Normalized value is obtained by using the formula (1).

TABLE 4. Normalized Data

Weight			
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

$$\boldsymbol{X_{wnormal1}} = X_{n1} \times w_1$$

Table 4 shows the Weight ages "used for the analysis. We had taken same weights for all the parameters for the analysis. All weight value same 0.25".

TABLE 5. Weighted normalized decision matrix

Weighted normalized decision matrix			
0.239076393	0.031429265	0.100715949	0.07603
0.040984524	0.042743801	0.117501941	0.078846
0.027323016	0.050286824	0.109108945	0.149244
0.044399901	0.010057365	0.117501941	0.107005
0.030738393	0.238862415	0.113305443	0.129533

Table 5 shows the weighted normalized decision matrix Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, and Time saved. The weighted default result is calculated using the matrix formula (2).

TABLE 6. Assessment value

	Assesment value
Ala Wai	0.093759609
Espanola Valley	-0.112619645

LA River	-0.180743373
Lower San Joaquin River	-0.170049999
Missouri River degradation	0.026762604

Table 6 shows the Assessment value& Rank value used. Assessment value for Ala Wai = 0.093759609, Espanola Valley = 0.112619645, LA River) = --0.180743373, Lower San Joaquin River = -0.170049999, Missouri River degradation = 0.026762604. Assesmentvalue = $\sum X_{wn1}+X_{wn2}-X_{wn3}$ (3).

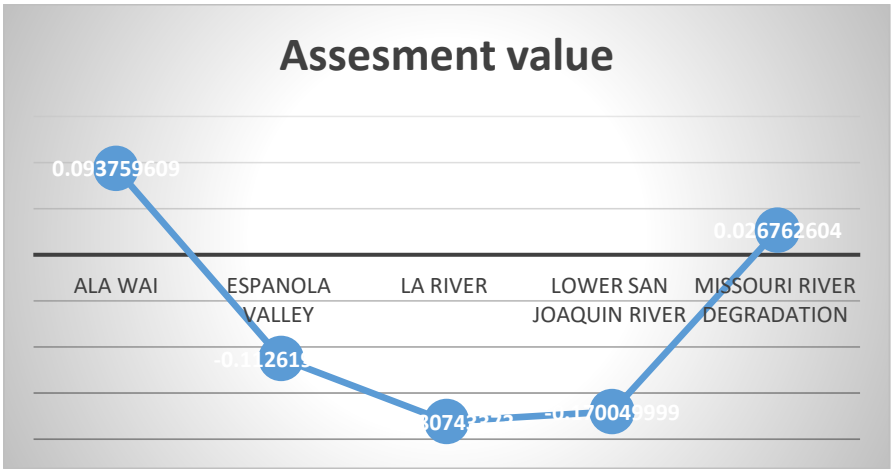

FIGURE 2. Assessment value

Figure 2 graphical view of MOORA method using the analysis Assessment value Pre-SMART cost to complete (dollars), post-SMART cost to complete (dollars), Dollars saved, Time saved (months). is showing the lowest value.

TABLE 7. Rank

	Rank
Ala Wai	1
Espanola Valley	3
LA River	5
Lower San Joaquin River	4
Missouri River degradation	2

Table 7 shows the "from the result it is seen that Ala Wai and is got the first rank whereas is the LA River got is having the lowest rank".

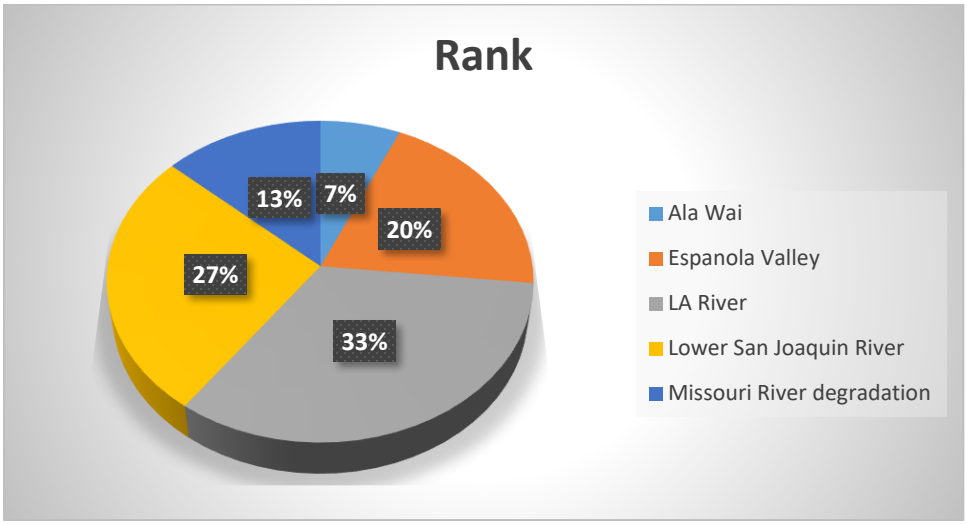

FIGURE 3. Rank

Figure 3 shows the "from the result it is seen that Ala Wai and is got the first rank whereas is the LA River got is having the lowest rank".

4. CONCLUSION

For instance, efforts to increase the production of water for farm animals by connecting databases for fodder and water resources are now constrained by a lack of finance and public awareness. Nonetheless, a traditional sectarian approach prevails, leading to measuring Policy recommendations frequently have some positive effects on the progress and sustainability timetable. For instance, existing efforts to increase livestock water output by connecting databases for feed and water resources are constrained by a lack of funds and attention. Nonetheless, a traditional sartorial approach still predominates, offering one-sided counsel for policymaking, frequently with only a few benefits to the agendas for progress and sustainability. Water Supplies Users can, however, print, download, or email articles for private use. assessing a significant federal initiative within the U.s that encourages regional aquaculture collaborations to resolve pointless supply water pollution issues. We evaluated the overall effectiveness of the gadget using reviews and widely accessible numbers from the instruction literature to see if we could offer guidance for environmental sustainability in sustainable water supply. In order to obtain several response qualities with a single response characteristic, MOORA procedures are tailored. ANOVA is used to investigate MRR, CF, and SR statistically significant parameters. The pleasant MCDM methodology is perceived by comparing the two ways. MORRA and when many objectives conflict, multi-objective optimization is prepared (specifications) limits on a simultaneous upgrade process. increasing revenue and a Improving efficiency while decreasing vehicle gas consumption, decreasing weight while increasing the electricity of a specific technical thing, and lowering the price of the commodity are a few instances of common problems. In a system, the good reference principle is established (2) The most goal-reference element is also subtracted based on the ratios. "From the result it is seen that Ala Wai and is got the first rank whereas is the LA River got is having the lowest rank.".

REFERENCES

[1]. Jackson, Sue, and Marcus Barber. "Recognition of indigenous water values in Australia's Northern Territory: current progress and ongoing challenges for social justice in water planning." Planning Theory & Practice 14, no. 4 (2013): 435-454.

[2]. Sunku, Raghavendra. "AI-Powered Data Warehouse: Revolutionizing Cloud Storage Performance through Machine Learning Optimization." International Journal of Artificial intelligence and Machine Learning 1, no. 3 (2023): 278

[3]. Hoverman, Suzanne, and Margaret Ayre. "Methods and approaches to support Indigenous water planning: An example from the Tiwi Islands, Northern Territory, Australia." Journal of Hydrology 474 (2012): 47-56.

[4]. Abhinav, E. Meher, Sai Naveen Kavuri, Thota Sandeep Kumar, Maragani Thirupathi, M. Chandra Mohan, and A. Suresh Reddy. "Analysis of molecular single-electron transistors using silicene, graphene and germanene." In Proceedings of

the Second International Conference on Computer and Communication Technologies: IC3T 2015, Volume 1, pp. 77-84. New Delhi: Springer India, 2015.

[5]. [1]. George, Diana, and Sam G. Benjamin. "Survey Paper on Different Types of Prediction Algorithm For Air Quality Index And Comparative Study On Types Of algorithms Used." INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS 9, no. 6 (2021): b557-b562.

[6]. Tan, Poh-Ling, Kathleen H. Bowmer, and John Mackenzie. "Deliberative tools for meeting the challenges of water planning in Australia." Journal of Hydrology 474 (2012): 2-10.

[7]. Nguyen, Thu Thuy, Huu Hao Ngo, Wenshan Guo, Xiaochang C. Wang, Nanqi Ren, Guibai Li, Jie Ding, and Heng Liang. "Implementation of a specific urban water Management-Sponge City." Science of the Total Environment 652 (2019): 147-162.

[8]. Vimala Saravanan, M. Ramachandran, Chitra Periyasamy, Anusuya Mohan, "Performance Evaluation of Humanoid Robot Imitation Skills Using the MOORA Method", Data Analytics and Artificial Intelligence, 5(1), 2025, 164-174.

[9]. Sunku, Raghavendra. "Beyond digitalization strategic automation as a driver of policy administration performance using linear and random forest regression." International Journal of Computer Science and Data Engineering 2, no. 4 (2025): 260.

[10]. Veettil, Anoop Valiya, and Ashok K. Mishra. "Water security assessment using blue and green water footprint concepts." Journal of Hydrology 542 (2016): 589-602.

[11]. Syme, Geoffrey J., and Brian S. Sadler. "Evaluation of public involvement in water resources planning: A researcher-practitioner dialogue." Evaluation Review 18, no. 5 (1994): 523-542.

[12]. Blümmel, Michael, Amare Haileslassie, Anandan Samireddypalle, Vincent Vadez, and an Notenbaert. "Livestock water productivity: feed resourcing, feeding and coupled feed-water resource data bases." Animal Production Science 54, no. 10 (2014): 1584-1593.

[13]. Thota, Sandeep Kumar, Kumari Gubbala, Ashok Polavarapu, Vikram Narayandas, Hari Suresh Babu Gummadi, Narendra Chennupati, Sreedhar Babu Seshagani, Shivakrishna Deepak Veeravalli, and Manisha Guduri. "Adversarial Training with Attention-Guided DCGAN for Robust Lung Segmentation in Medical Imaging." In 2025 IEEE Region 10 Symposium (TENSYMP), pp. 1-6. IEEE, 2025.

[14]. Nayeemuddin, . and Salma, Umme, Analysis of a Drilling Hybrid Aluminum Metal Matrix Composites by Using SPSS (May 7, 2023). Int. J. Adv. Res. 11(01), 82-91, 2023, Available at SSRN: https://ssrn.com/abstract=4440349

[15]. Benham, C. F., S. G. Beavis, and K. E. Hussey. "The cost of collaboration: how Caring for Our Country has shaped regional Natural Resource Management in an Australian river catchment." Australasian Journal of Environmental Management 22, no. 3 (2015): 285-297.

[16]. Diana George, R. Navya, Vinitha V, "Next-Gen Air Quality Index Forecasting with Hybrid Machine Learning Models and Cloud Synergy", International Journal of Engineering Trends and Technology, 73(8), 2025, 129-136.

[17]. Galvez, Victor, and Rodrigo Rojas. "Collaboration and integrated water resources management: a literature review." World Water Policy 5, no. 2 (2019): 179-191.

[18]. Dandasi, Varun Venkatesh, Suresh Deepak Gurubasannavar, and Raghavendra Sunku. "ENHANCING SMART GRID SECURITY: A MULTI-CRITERIA EVALUATION THROUGH GRA METHOD." Management 14, no. 2: 153-167

[19]. UMME, SALMA. "NiO nano particles doped PS-PVDF nanocomposite films: By Solution caste method, structural, morphology and Mechanical studies." WORLD 25, no. 3 (2025): 1724-1729

[20]. Daniell, K. A. "Practical responses to water and climate policy implementation challenges." Australasian Journal of Water Resources 17, no. 2 (2013): 111-125.

[21]. Kathad, S. K., and D. J. Pandya. "Virtual Inertia Evaluation for Frequency Instability in Renewable Energy Integration." Indonesian Journal of Electrical Engineering and Computer Science 37, no. 1 (2024): 380

[22]. Eppel, Elizabeth, and Jackie Dingfelder. "Collaborative governance of freshwater." In Handbook of Collaborative Public Management. Edward Elgar Publishing, 2021.

[23]. Patterson, James J., Carl Smith, and Jennifer Bellamy. "Understanding enabling capacities for managing the 'wicked problem'of nonpoint source water pollution in catchments: A conceptual framework." Journal of environmental management 128 (2013): 441-452.

[24]. Aka, V. P. K. "Strategic Framework for SAP S/4HANA Transformation Planning: Support Vector Regression Analysis of Migration Parameters and Implementation Paths." International Journal of Computer Science and Data Engineering 1, no. 2 (2024): 1-7

[25]. Baldwin, Claudia, and Vikki Uhlmann. "Accountability in planning for sustainable water supplies in South East Queensland." Australian Planner 47, no. 3 (2010): 191-202.

[26]. Yoe, Charles. "Transforming water resources planning through SMART planning." Journal of Water Resources Planning and Management 140, no. 9 (2014): 02514001.

[27]. Tyson, Ben, Christine Unson, and Nick Edgar. "Predictors of success for community-driven water quality management—Lessons from three catchments in New Zealand." Applied Environmental Education & Communication 16, no. 3 (2017): 186-195.

[28]. Black, D. C., Peter J. Wallbrink, and P. W. Jordan. "Towards best practice implementation and application of models for analysis of water resources management scenarios." Environmental Modelling & Software 52 (2014): 136-148.

[29]. Tzeng, Chorng-Jyh, Yu-Hsin Lin, Yung-Kuang Yang, and Ming-Chang Jeng. "Optimization of turning operations with multiple performance characteristics using the Taguchi method and Grey relational analysis." Journal of materials processing technology 209, no. 6 (2009): 2753-2759.
[30]. Gurubasannavar, S. D. "Predictive Analysis of User Satisfaction in Omni-Channel Retailing a Comparative Analysis of Linear Regression and Random Forest Models." J Comp Sci Appl Inform Technol 8, no. 2 (2023): 1-8
[31]. Çaydaş, Ulaş, and Ahmet Hasçalık. "Use of the grey relational analysis to determine optimum laser cutting parameters with multi-performance characteristics." Optics & laser technology 40, no. 7 (2008): 987-994.
[32]. Lin, C. L. "Use of the Taguchi method and grey relational analysis to optimize turning operations with multiple performance characteristics." Materials and manufacturing processes 19, no. 2 (2004): 209-220.
[33]. Tosun, Nihat. "Determination of optimum parameters for multi-performance characteristics in drilling by using grey relational analysis." The International Journal of Advanced Manufacturing Technology 28, no. 5 (2006): 450-455.
[34]. Chakraborty, Shankar. "Applications of the MOORA method for decision making in manufacturing environment." The International Journal of Advanced Manufacturing Technology 54, no. 9 (2011): 1155-1166.
[35]. Karande, Prasad, and Shankar Chakraborty. "Application of multi-objective optimization on the basis of ratio analysis (MOORA) method for materials selection." Materials & Design 37 (2012): 317-324.
[36]. Brauers, Willem Karel M. "Multi-objective contractor's ranking by applying the MOORA method." Journal of Business Economics and management 4 (2008): 245-255.
[37]. Brauers, Willem K., and Edmundas K. Zavadskas. "Robustness of the multi-objective MOORA method with a test for the facilities sector." Technological and economic development of economy 15, no. 2 (2009): 352-375.
[38]. Gadakh, V. S., Vilas Baburao Shinde, and N. S. Khemnar. "Optimization of welding process parameters using MOORA method." The International Journal of Advanced Manufacturing Technology 69, no. 9 (2013): 2031-2039.
[39]. Brauers, Willem Karel M., Romualdas Ginevičius, and Valentinas Podvezko. "Regional development in Lithuania considering multiple objectives by the MOORA method." Technological and Economic Development of Economy 16, no. 4 (2010): 613-640.
[40]. Gurubasannavar, S. D. "Evaluating Enterprise Data Accuracy Using Batch Migration Algorithm Analysis." International Journal of Computer Science and Data Engineering 1, no. 2 (2024): 1-6
[41]. Aka, V. P. K. "Improving the Performance of Artificial Intelligence and Robotics Systems Through Comprehensive Sensor-Based Data Analysis and Predictive Model." International Journal of Artificial intelligence and Machine Learning 1, no. 3 (2023): 1-7
[42]. Kathad, Shilpa K., and Pandya Dharmesh. "A review on Virtual Inertia emulation during Integration of Renewable Energy Sources." (2023)
[43]. Tiwari, Varun, Prashant Kumar Jain, and Puneet Tandon. "Product design concept evaluation using rough sets and VIKOR method." Advanced Engineering Informatics 30, no. 1 (2016): 16-25.
[44]. Manurung, Samuel Van Basten, Fati Gratianus NafiriLarosa, Indra M. Sarkis Simamora, Asaziduhu Gea, Emma RosintaSimarmata, and Alfonsus Situmorang. "Decision Support System of Best Teacher Selection using Method MOORA and SAW." In 2019 International Conference of Computer Science and Information Technology (ICoSNIKOM), pp. 1-6. IEEE, 2019.
[45]. Karande, Prasad, and Shankar Chakraborty. "Application of multi-objective optimization on the basis of ratio analysis (MOORA) method for materials selection." Materials & Design 37 (2012): 317-324.
[46]. Gadakh, V. S., Vilas Baburao Shinde, and N. S. Khemnar. "Optimization of welding process parameters using MOORA method." The International Journal of Advanced Manufacturing Technology 69, no. 9 (2013): 2031-2039.
[47]. Brauers, Willem Karel M., Romualdas Ginevičius, and ValentinasPodvezko. "Regional development in Lithuania considering multiple objectives by the MOORA method." Technological and Economic Development of Economy 16, no. 4 (2010): 613-640.
[48]. Aka, Venkata Pavan Kumar, and Kiran Kumar Mandula Samuel. "Adoption of SAP FSCM–Enhancing Collections and Dispute Processes in Spain, Portugal, and UK Operations." International Journal of Information Technology and Management Information Systems (IJITMIS) 15, no. 2 (2024): 148-161
[49]. Gurubasannavar, S. D. "A Predictive and Scalable Framework for B2b Commerce Platforms Using Micro Services, Micro Frontends." And Machine Learning Models. International Journal of Artificial intelligence and Machine Learning 1, no. 3 (2023): 1-9
[50]. Sustainable third-party reverse logistic provider selection with fuzzy SWARA and fuzzy MOORA in plastic industry
[51]. Harrison, Paula A., Marie Vandewalle, Martin T. Sykes, Pam M. Berry, Rob Bugter, Francesco de Bello, Christian K. Feld et al. "Identifying and prioritising services in European terrestrial and freshwater ecosystems." Biodiversity and conservation 19, no. 10 (2010): 2791-2821.

