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Performance Analysis of Landscape Architecture Design using Weighted Sum Model (WSM) Method

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Abstract

Landscape architecture in WSM (Weighted sum model) Method. Introduction: Landscape architecture is ecological, socio-behavioral or exterior areas to achieve aesthetic effects, Design of signs and structures. Design of signs and structures. Systematic design of structures and general Engineering, social, environmental and land based Study of soil conditions and processes and of other interventions that produce desired outcomes this includes design. Research significance: Landscape architecture is a powerful profession and Moral: Kiel is ready for the best planet. This potentially through a very strong research agenda can only feel. In Landscape Architecture Research authors such framework has created they are landscape architecture A useful, thoughtful roadmap for scholars provide. Methodology: Alternative: Nature, Physical Features, Design Issues, Spatial Experience. Evaluation option: Need waters, Weather, Need plants, Shade, Trees. Result: from the result it is seen that Weather and is got the first rank whereas is the Need waters got is having the lowest rank. Conclusion: The value of the dataset for Range of Landscape architecture in WSM (Weighted sum model) Method shows that it results in Weather and top ranking.

Key words: Neural Networks, Soft computing, Fuzzy logic and neuroscience, MCDM Method.

1. Introduction

Landscape architecture is about ecology, social-behavior or external to achieve aesthetic effects is to use parts. Variety for construction and human use Proper Design of structures And general engineering, existing social and environmental in the landscape and study of soil conditions and processes and other interventions that produce the desired effect These include design. The scope of business Broad and can be divided into several subtypes, they Professional or licensed landscape architect By government agencies, including artists Hired and wide for human use Scale structures and terrains Specialists in design; Licensed professional Non-landscape design; site planning; storm water management; corrosion control; environmental restoration; parks, recreation and urban planning; visual resource management; Green Infrastructure Planning and Organization and private estate and residential land Master planning and design; Variety of sizes is urban design, architecture, Geography, Ecology, Civil Engineering, and Architecture. Engineering, Horticulture, Environmental Psychology, Industrial design, soil science, botany and is a versatile field covering aspects of the fine arts. The activities of a landscape architect are public Parks and First Complexes and Corporate Site Creating Park Routes for Office Parks Planning may be up; Of residential gardens From design to civil infrastructure design; Tunnels from managing large forests to recovery Or degraded landscapes such as landscaping. Nature Architects, large or small, urban, Suburban and rural, and "rough" (built) And the environment with "soft" (planted) materials Consolidation of consistency, landscape of design Feature structures and exterior spaces Work.

2. Landscape architecture

Landscape architects in the Landscape Starting, they improve, recreate or modify existing landscapes. "Garden" usually refers to a small, highly intensive cultivated area; often a home is created around the building or other small structure. "Landscape" means park, urban Area refers to a large area such as campus or roadside. Trees, shrubs, bushes, fences, flowers, grasses, Water (lakes, streams, ponds and strata) and rocks change the Landscape structure or Used to create. Stairs, terraces, plazas, sidewalks, fences, gazebos and Synthetic devices such as fountains are also used. With Landscape ingredients the importance of man-made components compared to the designer, the purpose of the particular site and will vary depending on the culture and fashion in practice. [1] In this context, Landscape architecture research is more we believe that improvement is important. This to do this in the article we propose strategies implementing them we recommend ways. These strategies landscape an intellectual contribute to the advancement of architecture. In when referring to, "a developing, learning, knowing and Implementation, one that is systematically and unanimously prepared, legalized, and consumed Cognitive system. From this perspective, we have a PhD We focus on courses, because we are paying for a doctorate studies produce new knowledge, so

update existing knowledge Also help to expand, and recent research into in Europe we are, we are focused on the situation. However, the strategies we propose are for landscape architecture worldwide we hope it may be relevant to the research. [2] Excellent for landscape architecture If education is to be achieved diversity, landscape planning, design and Create a better resource base to help justify management decisions It's important that More Studies R Conducted. As Brown & Cory put it, 'land Intentional and intellectual resources in about application and design Deciding, drop it It's time to dump her move on. Apparently, the focus is on landscape architecture creating a sound resource base Research to consider very useful. Also known as research domains, inquiry domains or areas of knowledge Represented, superficial occurrence of research on specific and related topics Themes. As have shown, 'human and There are various domains such as 'environmental relations', 'built contexts' and 'values and ethics'. This A Wide domain terrain Architecture is about research indicates an area. Hence, the landscape the focus of architectural Research is not yet clearly defined [3]. Broadly speaking, landscape architecture is the material landscape that enhances the human experience Designing is defined as a discipline. Both Theory and critique is the imagination of landscapes and representation included Imagination or representation is not enough or not an end. In Landscape architecture Ethics, theory and critique used, Sites for cultural ideals, aesthetic codes and community activities, ecosystems and we need to connect our humanities with the biophysical and spatial realities of the regions To create expansive landscapes (Jellicoe & Jellicoe 1986). From critique to theory, the ability to express from theory to critique the future of the theoretical foundation morality determines the format, and the validity and effectiveness of the specific examples of the critique this is an important factor in determining. 'Social' within landscape architecture for theory and critique an argument is put forward that more attention should be paid to the constructor 'structure. [4]. The landscape architecture (and related) fields need more attention from this perspective, Among others, Sounds cape And Arbor provide a useful platform for exploring the relationship between and landscape architecture Idea. The findings here are in line with the position described at the beginning of this study Support, a very qualitative approach to sound in landscape architecture needed. Although SPL measurements are important as tools for describing the sound environment Of such a situation in the present study It can be argued that they are not sufficient to describe the experience. [5] The green strategies in the plan do not always reveal everything. In addition, the National Design Awards Not provided for green projects Images of high design, successful landscapes and the emphasis on aesthetic qualities may be a factor. However, in the "Lead Group" 24 Thirteen Projects of Landscape Architects, Landscape Architecture to follow Are in companies. The release of their projects may increase the attention to environmental design strategies. Searched USPGC membership list by "System Type", 158 companies revealed that they list the terrain structure as one of their services. [6]. With eight landscape architects, Vada In-depth interviews with everyone in America, Natural to confirm the use of these five models Architects and academics mail-in Survey failed. Rather, from the results A different pattern emerged. In this model, design the research process is threefold Shares Idles: Bipur Designing; Tourism design; Honey design. Creditor OP Literature Critiz is an examination of the problem under study, provided the structure, A pilot study interview with the Faculty of Landscape Architecture Schools at Guelph University Explored the range The relationship between design and research perspectives. Landscape architecture study in North America and ask detailed questions posed by academics. [7]. He plays a key role in shaping teachers 'projects. Apparently, the teachers are Landscape Specialists in both Architectural / Urban Design and Outdoor Climate Studies Evaluate and guide students' studio work accurately and reliably. Two courses is in landscape architecture Bachelor's second year bachelor's degree; another is a first-year degree in landscape architecture. Two Courses include a variety of biology, physiology and landscape Covers fields. Learned how to use this to express design. [8]. I was first contacted by the editors of this special issue of Land, "Landscape Architecture Education and Its in professional practice and landscape design, planning, care and management When asked to provide a lengthy article entitled "Future Challenges", my answer has been this in recent years I have written a lot thinking about the theme. These trends are the education of landscape architecture and practically increasingly vulnerable. Outdoor competition is a narrow landscape architecture Creating career, which was 100 years ago at Landscape Architecture and Harvard University Very different from what the founders of my department imagined. [9]. Both our agenda and approach, the best theory of landscape architecture and Emphasizes the important role of aesthetics in rich practice, as well as analysis Our turn to philosophy, with previous works by authors of Landscape architecture Connected. However, the purpose of our article is to show that landscape architecture is an inherent art not to prove, and only if one understands that art is fine art. In landscape architecture We believe that Danville's theory is the key to all questions in aesthetic discourse Do not believe. We ask many questions and carry it forward in a experimental sense: theory How far can it take? What landscape architects do when designing landscapes how good is the theory of aesthetic creation as an explanation for what happens? It's for landscape architecture what the implications are? But, most importantly, strive to create aesthetic values (along with other values) Doctrine of Landscape architecture as a practice is a rich and faithful account of morality we insist that provides. [10]. Father and husband Mr. St. Joseph's Hospital Cure by the Rose Family in memory of Marshall Rose Funding for the garden is through a grant to the Trust Received. Research on the healing garden, A foundation to fund design and installation Vase set salt. Design by Select Studio Subject to a series of investigations, Texas a&M Bachelor of Landscape Architecture from UNIX and have a graduate degree. This is because one of the students was in the vicinity of the oncology unit where he was battling cancer the program is not significant for students and teachers. Confirming previous findings, terrain our research underscores the importance

of the site for architectural design, cultural and a site that focuses on physical characteristics rather abilities suggested to give the best health effect. Of the site. Be aware of site limitations and opportunities by documenting, a site-based concept can be created for review by the end user group. Landscape design is an independent industry and tradition of design and art, which is Landscape And is practiced by landscape designers incorporating culture. Contemporary In practice, landscape design bridges the gap between landscape architecture and garden design Connecting. Landscape design is the integrated primary landscape planning of a property and its Focuses on both the landscape elements involved in architecture, civil engineering, surveying, landscape contracting and Collaborate with related fields such as artisan specialties. [11]. Landscape design, new landscaping, new landscaping and nature conservation, A creative and scientific approach to Landscape ecology and regional landscape planning Attitude required. Landscape planning and ecology first landscape design and techniques a landscape architect who is educated and trained in the field of, of the actions we take basically we can think of different subdivisions of our industries. Architectural work methods the landscape is older than architecture and at least in the field of landscape design-landscape like what designers use in their work. Other than that, a design in architecture the process is theoretically expanded by various texts, including Rowe was used for the purpose of this article. Architects and Uses the most common architectural approach to illustrating how the minds of designers work. [12]. There are a couple of genuine endeavors, for instance: presented the six-level structure, which Coordinates questions connected with scene configuration issues; Nature Normal models for the connection among exploration and plan in engineering Depicted; gave rules to investigate quality; Metropolitan The preparation/plan point of view reflects research-plan; And as the reason for fundamental examination in plan rules in scene engineering Presents a current model. Inside this expansive meaning of scene engineering, of capacity There are three regions: scene arranging, scene plan and seen the executives In the drawn out advancement and protection of regular and social scenes Scene arranging, execution of vital objective ideas and allotment of land use types Related with making. Scene configuration manages shape and material and wanted Accomplish social, social and environmental ramifications Physical, practical and is worried about the design of the tasteful game plan. [13]. Significant of analog-based realism in the history of landscape design visualization There are examples, digital techniques and technologies for every designer Have provided an opportunity to achieve reality. The dominant design visualization exemplifies In transition, digital realism deeply influences landscape design communication culture. Terrain In the specific context of design visualization, digital realism is concept, interpretation, technology, technique, education and teaching is affected by six main limitations. Digital Landscape Design Considering the limitations of hyper-realism in visualization, the realities of practice and reality Develop policies for digital visualization that reflect both the clutter of the landscape, the vision and Gallery based design This section creates alternative precursors for processes. [14]. to study visual design representations in relation to landscape design processes we begin by explaining the relevance of the Semiotic theory. As a linguist, a Saur argues that the relationship between marker and symbol is culturally determined Found. For example, in landscape design practice, the detailed use of symbols is different can easily cause confusion among participants. Derrida's unstable code is a landscape design Representation is the extent to which an imaginary reality or territory is legally represented Questions whether. In terms of capacity, power and control issues, Western We follow the argument that thought is dominated by eye centrism Visual One can claim the truth through representation. Hence, visual representations of landscape designs we regard the act of creating as the act of constructing knowledge; as if claiming the right to truth. Landscape In design practice, participants design their knowledge, expertise and ideas these knowledge claims can be created by sharing and using through representations. [15]

3. WSM (Weighted Sum Model)

Weighted sum model performance ratings amplify the function importance of overall performance scores and emphasize the electricity of weight rather than calculating sub-scores. The white-beam beam technology technique is used specifically for listening to aids through a microphone set. There are several design parameters which includes the scale of a hollow, the number of microphones and the microphone association, that may affect the overall performance of the hearing aid. However, in this paper, for the frequency range from three hundred Hz to 3000 Hz, the aperture length and the quantity of microphones had been set to less than 10 cm and four microphones. [2] The microphone machine is designed to growth the mobility of the listening to useful resource so that the sound coming from the front increases even as reducing the sound coming from the backward instructions. Simulations had been made the usage of the spherical head-associated transmission function (HRTF) and the correct microphone association became detected. The weighing technique and production paintings make a specialty of finding sorting, [3] which is quite simple for a present day pc. The take a look at consequences show the effectiveness of the proposed technique. Weight loss can be accompanied through fatigue and constant tiredness. Common ideas for decreasing the weight of car body systems consist of pressure scattering and load scattering.[6] These techniques are geared toward decreasing weight and increasing stress and electricity. For this purpose, it is critical to understand whether or not the load is scattered in the structure. Weight-sum method, wherein Barrett seeks most reliable answers with the aid of systematically changing weights into objective features. In previous studies, this method regularly produces poorly disbursed solutions within the Barrett front place, and Barrett does now not discover superior solutions in the areas in which it is concentrated. means of enhancing weights in place of using precision

weight choices and by specifying extra inequality controls.[7] The Adaptive Weighted Sum System creates nicely-allotted solutions, detects baroto most beneficial solutions in unsatisfactory areas, and ignores non-barite top of the line answers. The weighted sum machine has some distance-reaching implications. However, despite the fact that many posted applications and literature for this technique have addressed its shortcomings in depicting Barrett’s ultimate set, there may be no particular discussion of the conceptual significance of weights and strategies to enhance the technique’s performance. Primary expression of possibilities. [8]Therefore, in this paper, we will discover the essential significance of weights in phrases of alternatives, Barrett most fulfilling set and goal-functional values. We determine are diagnosed based totally on the enhance pronunciation of priorities, recommendations are provided to avoid indiscriminate use of the machine, and the pattern is examined through a take a look at performed within the public delivery sector in South India.[9] Four special kinds of automobile our bodies. One of the motors is inside the same gadget (IS), the opposite three are outsourced (OS-1, OS-2 & OS-3) bodies. The design and function of the rearview replicate in a heavy vehicle is substantially suffering from the following variables, together with the space among the driver and the right facet or the body shape (A), the gap among the driving force and the left facet. But many of the network Routing parameters and sensor terminal Limited resources Due to this to realize not so easy various controls power of WSNs Optimization problems arise in designing efficient routing algorithms. Two in this chapter Simple multi-scale Results methods, weighted sum method and weight product Let’s look at the method.[10] Amount weighed In the system, a transfer The value of the value is its value For the sum of the values Be equal to, Each of the weights there Are the main weights associated with the attribute. Performance scores, in weighted production system Characterization of performance scores Support amplifying importance To calculate scores Instead emphasize the power of weight. To measure accuracy Decision making using WP and Tops algorithms An application system that supports Has been created. Thirty student data Calculated according to their ranking.. [6] The data were calculated to determine the percentage of methods, From it were obtained two methods of accuracy and low error ratios. Perfect for each method to find the scale, in a specific section of the company created a ranking of trainees who received an internship program. From these barriers, in Bali Digital library services at computer colleges in It was necessary to evaluate, thus Developed recommendations for service improvements.[7] In principle, the evaluator is a specific product / project / service / Absolute about the policy under review And collecting accurate information from an appraiser, Is the recommendation. Evaluation is a Information about the specific object Collecting, analyzing and distributing. Of computer learning control Provides appropriate functionality. The path of learning objects.[8]

TABLE 1. Landscape architecture in Data Set

	DATA SET			
	Nature	Physical Features	Design Issues	Spatial Experience
Need waters	36.080	149.530	50.150	55.050
Weather	99.120	122.970	68.690	29.300
Need plants	29.080	172.580	30.180	33.100
Shade	84.170	148.280	40.600	70.590
Trees	63.330	196.410	71.960	80.890

Table 1 shows the Landscape architecture Data Set value of Alternative: Nature, Physical Features, Design Issues, Spatial Experience. Evaluation option: Need waters, Weather, Need plants, Shade, Trees.

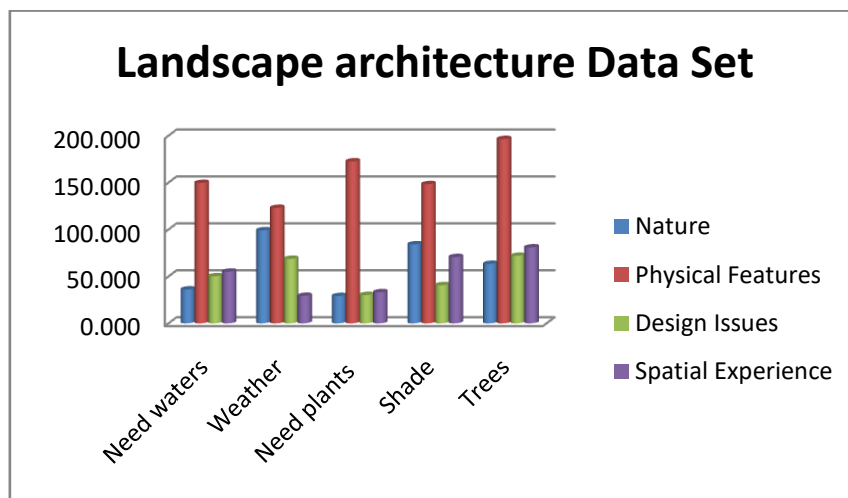


FIGURE 1. Landscape architecture in Data Set

Figure 1 shows the Landscape architecture Data Set Data Set value of Alternative: Nature, Physical Features,

Design Issues, Spatial Experience. Evaluation option: Need waters, Weather, Need plants, Shade, Trees.

TABLE 2. Landscape architecture in Normalized Data

	Normalized Data			
Need waters	0.36400	0.76132	0.60179	0.53224
Weather	1.00000	0.62609	0.43937	1.00000
Need plants	0.29338	0.87867	1.00000	0.88520
Shade	0.84917	0.75495	0.74335	0.41507
Trees	0.63892	1.00000	0.41940	0.36222

Table 2 Shows the Normalized Data Matrix of Alternative: Nature, Physical Features, Design Issues, Spatial Experience. Evaluation Preference: Need waters, Weather, Need plants, Shade, Trees. 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. Landscape architecture in Weight age

	Weight			
Need waters	0.25	0.25	0.25	0.25
Weather	0.25	0.25	0.25	0.25
Need plants	0.25	0.25	0.25	0.25
Shade	0.25	0.25	0.25	0.25
Trees	0.25	0.25	0.25	0.25

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

TABLE 4. Landscape architecture in Weighted normalized decision matrix

	Weighted normalized decision matrix			
Need waters	0.09100	0.19033	0.15045	0.13306
Weather	0.25000	0.15652	0.10984	0.25000
Need plants	0.07335	0.21967	0.25000	0.22130
Shade	0.21229	0.18874	0.18584	0.10377
Trees	0.15973	0.25000	0.10485	0.09056

Table 4 shows the Weighted Normalized Decision Matrix. Alternative: Nature, Physical Features, Design Issues, Spatial Experience. Evaluation Preference: Need waters, Weather, Need plants, Shade, Trees. Economy it is also Weighted Normalized Decision Matrix value multiplication formula used.

TABLE 5. Preference Score

	Preference Score
Need waters	0.56484
Weather	0.76636
Need plants	0.76431
Shade	0.69064
Trees	0.60514

Table5. Shows the Weather = 0.76636, Need plants = 0.76431, Shade =0.69064, Trees =0.60514, Need waters =0.56484.

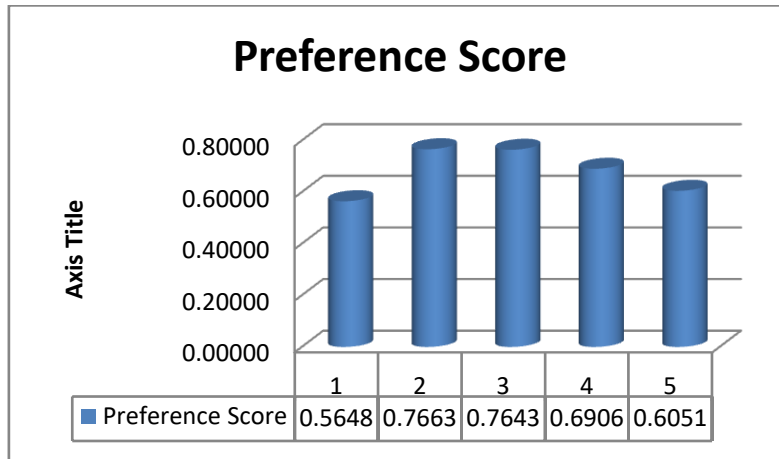


FIGURE 2. Preference Score

Figure 2 shows the preference Score for Weather is showing the highest value for Need waters is showing the lowest value.

TABLE 6. Rank

	Rank
Need waters	5
Weather	1
Need plants	2
Shade	3
Trees	4

Table 5. shows the final result of this paper the Trees is in Fourth rank, the Need waters is in Fifth rank, the Shade is in Third rank, the Weather is in First rank and the Need plants is in Second rank.

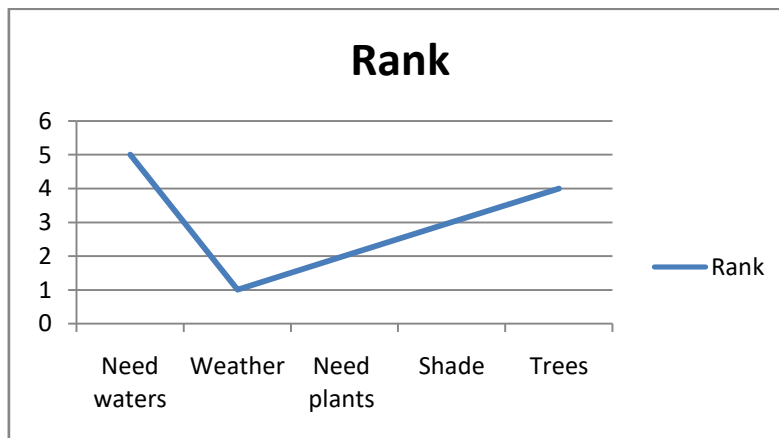


FIGURE 3. Rank

Figure 3 shows the graphical view of the final result of this paper the Trees is in 4th rank, the Need waters is in 5th rank, the Shade is in 3rd rank, the Weather is in 1st rank and the Need plants is in 2nd rank.

4. Conclusion

The green strategies in the plan do not always reveal everything. In addition, the National Design Awards Not provided for green projects Images of high design, successful landscapes and the emphasis on aesthetic qualities may be a factor. However, in the "Lead Group" 24 Thirteen Projects of Landscape Architects, Landscape Architecture to follow Are in companies. The release of their projects may increase the attention to environmental design strategies. Searched USPGC membership list by "System Type", 158 companies revealed that they list the terrain structure as one of their services. These techniques are geared toward decreasing weight and increasing stress and electricity. For this purpose, it is critical to understand whether or not the load is scattered in the structure. Weight-sum method, wherein Barrett seeks most reliable answers with the aid of systematically changing weights into objective features. In previous studies, this method regularly produces poorly disbursed solutions within the Barrett front place,

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