# Scope Database Link: https://sdbindex.com/documents/0000001/00000-16523.pdf Article Link: https://www.iaeme.com/MasterAdmin/Journal\_uploads/IJCIET/VOLUME\_9\_ISSUE\_5/IJCIET\_09\_05\_084.pdf

Manuscript ID: 00000-16523

International Journal of Civil Engineering and Technology

Volume 9, Issue 5, May 2018, Pages 761-765, Page Count - 5



Source ID: 00000001

## BIPOLAR VALUED Q -FUZZY APPLICATION IN BUILDING SCIENCES

M. Muthumeenakshi (1) P.Muralikrishna (2) S.Sabarinathan (3)

- (1) Department of Commerce, Vellore Institute of Technology (Deemed to be university), Vellore, Tamilnadu, India.
- (2) Department of Mathematics, Muthurangam Government Arts College, Vellore, India.
- (3) Department of Mathematics, K.L.N. College of Engineering, Pottapalayam, India.

## **Abstract**

This paper presents a decision making algorithm using Bipolar valued Q-fuzzy set and focusses its application in civil engineering for the selection of cement with its influenced characters. It can be applied for other such scenarios. The Bipolar valued Q-fuzzy takes the positive and negative values for each and every object in the selected set with respect to the constraints. The opinion of the experts in the optimal selection of the cement is analyzed in this study using Comprehensive Index of a Bipolar Valued fuzzy number.

## **Author Keywords**

Bipolar valued fuzzy number, Bipolar valued Q-fuzzy set, BVQFD-set, Comprehensive Index

ISSN Print: 0976-6308 Source Type: Journals

Publication Language: English
Abbreviated Journal Title: IJCIET
Publisher Name: IAEME Publication
Major Subject: Physical Sciences
Subject area: Published and Construction

Subject area: Building and Construction

**ISSN Online:** 0976-6316

**Document Type:** Journal Article **DOI:** 10.34218/IJCIET.09.5.2018.084

Access Type: Open Access Resource Licence: CC BY-NC

Subject Area classification: Engineering and Technology

**Source:** SCOPEDATABASE

# Reference

## References (13)

1. Atanasov KT
Intuitionistic fuzzy sets and systems

(1986) Journal of Mathematical Analysis and Applications, Volume 20, Issue 1, Page No 87–96,

2. Lee K.M, Bipolar

Valued-valued fuzzy sets and their operations

(2000) Proceeding International Conference on Intelligent Technologies, Page No 307-312,

Scope Database www.sdbindex.com Email:info@sdbindex.com

## 3. Mondal Kalyan and Pramanik Surapati

Intuitionistic fuzzy multi-criteria group decision making approach to quality clay-brick selection problems based on grey relational analysis

(2014) Journal of Applied Quantitative Methods, Volume 9, Issue 2, Page No 35-50,

## 4. Muthumeenakshi. M and Muralikrishna. P

A Study on SFPM analysis using Fuzzy Soft Set

(2014) International Journal of Pure and Applied Mathematics, Volume 94, Issue 2, Page No 207-213,

#### 5. Muthumeenakshi. M

Application of Q-Fuzzy in Investment Decision For Middle Income Group

(2015) International Journal of Pure and Applied Mathematics, Volume 98, Issue 5, Page No 15-18,

## 6. Nagarajan. R and Venugopal. K

Socialistic Decision Making Approach for Bipolar Fuzzy Soft H-Ideals over Hemi Rings

(2014) International Journal of Science and Research, Volume 3, Issue 8, Page No 649 - 655,

## 7. Sahaya Arockia Selvi.S, Naganathan.S and Arjunan.K

Homomorphism on Bipolar- Valued Q-Fuzzy Subgroup of a Group

(2014) Applied Mathematical Sciences, Volume 8, Issue 61, Page No 3043 – 3049,

# $8.\,Shanmugavelu\,Sabarinathan,\,David.C.Kumar\,\,and\,\,Prakasam\,\,Muralikrishna$

Bipolar valued fuzzy ideals of BF-Algebras

(2016) International Journal of Pure and Applied Mathematics, Volume 109, Issue 4, Page No 837-846,

## 9. Zadeh.L.A

Fuzzy sets

(1965) Inform Control, Volume 8, Page No 338-353,

## 10. Zhikang Lu, Jun Ye

Decision-making Method for Clay-brick Selection Based on Subtraction Operational Aggregation Operators of Intuitionistic Fuzzy Values

(2016) The Open Cybernetics & Systemics Journal, Volume 10, Issue 1, Page No 283-291,

## 11. Sunny Joseph Kalayathankal, John T Abraham and Joseph Varghese Kureethara

AN ORDERED IDEAL INTUITIONISTIC FUZZY SOFTWARE QUALITY MODEL

(2017) International Journal of Mechanical Engineering and Technology, Volume 8, Issue 10, Page No 535-546,

#### 12. N. Sujatha, V. S. N. Murthy Akella and G. V. S. R. Deekshitulu

ANALYSIS OF MULTIPLE SERVER FUZZY QUEUEING MODEL USING  $\alpha$  - CUTS

(2017) International Journal of Mechanical Engineering and Technology, Volume 8, Issue 10, Page No 35-41,

## 13. Twinkle Tayal, Dr. Prema K.V

AN INTELLIGENT FUZZY-BASED TSUNAMI WARNING SYSTEM

(2014) International Journal of Computer Engineering and Technology, Volume 5, Issue 4, Page No 32-40,

# **About Scope Database**

What is Scope Database Content Coverage Guide Scope Database Blog Content Coverage API Scope Database App

© Copyright 2021 Scope Database, All rights reserved.

## **Customer Service**

Help Scope Database Key Persons Contact us

Scope Database www.sdbindex.com Email:info@sdbindex.com