

Refutation of another neutrosophic genetic algorithm

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We assume the method and apparatus of Meth8/VL4 with Tautology as the designated *proof* value, **F** as contradiction, **N** as truthity (non-contingency), and **C** as falsity (contingency). Results are a 16-valued truth table in row-major and horizontal, or repeating fragments of 128-tables for more variables.

LET $p, q, r, s, t, u, v, w, x: A1, A2, A3, A4, A5, s1, s2, s3, d1;$
 \sim Not; $\&$ And, \wedge ; = Equivalent;
 $>$ Imply, greater than; $<$ Not Imply, lesser than, \in .

From: Elwahsh, H.; et al. (2018). A novel approach for classifying MANETs attacks with a neutrosophic intelligent system based on genetic algorithm. vixra.org/pdf/1810.0042v1.pdf
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$$\text{If } (A1 \in s2 \wedge A2 \in s3 \wedge A3 \in s2 \wedge A5 \in s1) \text{ then } d1 \in s3 \quad (3.1)$$

$$(((p < v) \& (q < w)) \& (r < v)) \& (u < u) > (x < w); \quad \text{TTTT TTTT TTTT TTTT} \quad (3.2)$$

Eq. 3.2 as rendered is tautologous.

Remark: We decompose Eq. 3.1 into truth tables for the antecedent and consequent respectively.

$$(A1 \in s2 \wedge A2 \in s3 \wedge A3 \in s2 \wedge A5 \in s1) \quad (3.1.1.1)$$

$$(((p < v) \& (q < w)) \& (r < v)) \& (u < u) = (p = p); \quad \mathbf{FFFF \ FFFF \ FFFF \ FFFF} \quad (3.1.1.2)$$

$$d1 \in s3; \quad (3.1.2.1)$$

$$(x < w) = (p = p); \quad \mathbf{FFFF \ FFFF \ FFFF \ FFFF}, \quad \text{TTTT TTTT TTTT TTTT} \quad (3.1.2.2)$$

Eq. 3.2 consists of the implication pattern of $\mathbf{F} > \mathbf{F} = \mathbf{T}$.

We accepted the author's invitation to request the data set in an Excel file on which Eq. 3.1 is derived. The values sought were for neutrosophic feature A_n , subset s_n , degree of membership $u_A(x)$, degree of non-membership $v_A(x)$, and indeterminacy $s_A(x)$. Our approach was to evaluate using our specialized contingency test for how significantly the supplied data diverged from a state of randomness. However the request was not answered or honored. (We are accustomed to non cooperation from practitioners of neutrosophic logic as promoted by its inventor Florentin Smarandache.)