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Article

Neutrosophic Failed Superhyperstable as the Survivors on the Cancer's Neutrosophic Recognition Based on Uncertainty to All Modes in Neutrosophic Superhypergraphs

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Abstract: In this research, Assume a neutrosophic SuperHyperGraph. Then a "Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a SuperHyperGraph NSHG:(V,E) is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common; a "neutrosophic Failed SuperHyperStable" $\mathcal{I}_n(NSHG)$ for a neutrosophic SuperHyperGraph NSHG: (V, E) is the maximum neutrosophic cardinality of a neutrosophic SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Assume a SuperHyperGraph. Then an " δ -Failed SuperHyperStable" is a maximal Failed SuperHyperStable of SuperHyperVertices with maximum cardinality such that either of the following expressions hold for the (neutrosophic) cardinalities of SuperHyperNeighbors of $s \in S$: $|S \cap N(s)| > |S \cap (V \setminus N(s))| + \delta$, $|S \cap N(s)| > |S \cap N(s)| > |S$ $\cap N(s)| < |S \cap (V \setminus N(s))| + \delta$. The first Expression, holds if S is an " δ -SuperHyperOffensive". And the second Expression, holds if S is an " δ -SuperHyperDefensive"; a"neutrosophic δ -Failed SuperHyperStable" is a maximal neutrosophic Failed SuperHyperStable of SuperHyperVertices with maximum neutrosophic cardinality such that either of the following expressions hold for the neutrosophic cardinalities of SuperHyperNeighbors of $s \in S$: $|S \cap N(s)|_{neutrosophic} > |S \cap (V \setminus N(s))|$ $_{neutrosophic} + \delta$, $|S \cap N(s)|_{neutrosophic} < |S \cap (V \setminus N(s))|_{neutrosophic} + \delta$. The first Expression, holds if S is a "neutrosophic δ —SuperHyperOffensive". And the second Expression, holds if S is a "neutrosophic δ -SuperHyperDefensive". A basic familiarity with Extreme Failed SuperHyperClique theory, Neutrosophic Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory are proposed.

Keywords: Neutrosophic SuperHyperGraph, Neutrosophic Failed SuperHyperStable, Cancer's Neutrosophic Recognition

AMS Subject Classification: 05C17, 05C22, 05E45

1. Background

Fuzzy set in Ref. [54] by Zadeh (1965), intuitionistic fuzzy sets in Ref. [41] by Atanassov (1986), a first step to a theory of the intuitionistic fuzzy graphs in Ref. [51] by Shannon and Atanassov (1994), a unifying field in logics neutrosophy: neutrosophic probability, set and logic, rehoboth in Ref. [52] by Smarandache (1998), single-valued neutrosophic sets in Ref. [53] by Wang et al. (2010), single-valued neutrosophic graphs in Ref. [45] by Broumi et al. (2016), operations on single-valued neutrosophic graphs in Ref. [37] by Akram and Shahzadi (2017), neutrosophic soft graphs in Ref. [50] by Shah and Hussain (2016), bounds on the average and minimum attendance in preference-based activity scheduling in Ref. [39] by Aronshtam and Ilani (2022), investigating the recoverable robust single machine scheduling problem under interval uncertainty in Ref. [44] by Bold and Goerigk (2022), polyhedra associated with locating-dominating, open locating-dominating and locating total-dominating sets in graphs in Ref. [38] by G. Argiroffo et al. (2022), a Vizing-type result for semi-total domination in Ref. [40] by J. Asplund et al. (2020), total domination cover rubbling

in **Ref.** [42] by R.A. Beeler et al. (2020), on the global total k-domination number of graphs in **Ref.** [43] by S. Bermudo et al. (2019), maker–breaker total domination game in **Ref.** [46] by V. Gledel et al. (2020), a new upper bound on the total domination number in graphs with minimum degree six in **Ref.** [47] by M.A. Henning, and A. Yeo (2021), effect of predomination and vertex removal on the game total domination number of a graph in **Ref.** [48] by V. Irsic (2019), hardness results of global total k-domination problem in graphs in **Ref.** [49] by B.S. Panda, and P. Goyal (2021), are studied. Look at [32–36] for further researches on this topic. See the seminal researches [1–3]. The formalization of the notions on the framework of Extreme Failed SuperHyperClique theory, Neutrosophic Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory at [4–29]. Two popular research books in Scribd in the terms of high readers, 2638 and 3363 respectively, on neutrosophic science is on [30,31].

2. Neutrosophic Applications in Cancer's Neutrosophic Recognition toward Neutrosophic Failed SuperHyperStable

For neutrosophic giving the neutrosophic sense about the neutrosophic visions on this neutrosophic event, the neutrosophic Failed SuperHyperStable is neutrosophicly applied in the general neutrosophic forms and the neutrosophic arrangements of the internal neutrosophic venues. Regarding the neutrosophic generality, the next section is introduced.

Definition 1. ((neutrosophic) Failed SuperHyperStable). Assume a SuperHyperGraph. Then

- (i) a **Failed SuperHyperStable** $\mathcal{I}(NSHG)$ for a SuperHyperGraph NSHG: (V,E) is the maximum cardinality of a SuperHyperSet S of SuperHyperVertices such that there's a SuperHyperVertex to have a SuperHyperEdge in common;
- (ii) a neutrosophic Failed SuperHyperStable $\mathcal{I}_n(NSHG)$ for a neutrosophic SuperHyperGraph NSHG: (V,E) is the maximum neutrosophic cardinality of a neutrosophic SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common.

Definition 2. ((neutrosophic) δ -Failed SuperHyperStable). Assume a SuperHyperGraph. Then

(i) an δ -**Failed SuperHyperStable** is a <u>maximal</u> of SuperHyperVertices with a <u>maximum</u> cardinality such that either of the following expressions hold for the (neutrosophic) cardinalities of SuperHyperNeighbors of $s \in S$:

$$|S \cap N(s)| > |S \cap (V \setminus N(s))| + \delta; \tag{1}$$

$$|S \cap N(s)| < |S \cap (V \setminus N(s))| + \delta. \tag{2}$$

The Expression 1, holds if S is an δ -SuperHyperOffensive. And the Expression 2, holds if S is an δ -SuperHyperDefensive;

(ii) a neutrosophic δ -Failed SuperHyperStable is a maximal neutrosophic of SuperHyperVertices with maximum neutrosophic cardinality such that either of the following expressions hold for the neutrosophic cardinalities of SuperHyperNeighbors of $s \in S$:

$$|S \cap N(s)|_{neutrosophic} > |S \cap (V \setminus N(s))|_{neutrosophic} + \delta;$$
 (3)

$$|S \cap N(s)|_{neutrosophic} < |S \cap (V \setminus N(s))|_{neutrosophic} + \delta.$$
 (4)

The Expression 3, holds if S is a neutrosophic δ -SuperHyperOffensive. And the Expression 4, holds if S is a neutrosophic δ -SuperHyperDefensive.

3. General Neutrosophic Results for Cancer's Neutrosophic Recognition toward Neutrosophic Failed SuperHyperStable

For the Neutrosophic Failed SuperHyperStable, and the Neutrosophic Failed SuperHyperStable, some general results are introduced.

Remark 1. Let remind that the Neutrosophic Failed SuperHyperStable is "redefined" on the positions of the alphabets.

Corollary 1. Assume Neutrosophic Failed SuperHyperStable. Then

 $Neutrosophic Neutrosophic Failed Super Hyper Stable = \\ \{the Neutrosophic Failed Super Hyper Stable of the Super Hyper Vertices \mid \\ \max | Super Hyper Defensive Super Hyper \\ Stable |_{neutrosophic Cardinal ity a midthose Neutrosophic Failed Super Hyper Stable.} \}$

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Corollary 2. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then the notion of Neutrosophic Failed SuperHyperStable and Neutrosophic Failed SuperHyperStable coincide.

Corollary 3. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then a consecutive sequence of the SuperHyperVertices is a Neutrosophic Failed SuperHyperStable if and only if it's a Failed SuperHyperStable.

Corollary 4. Assume a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then a consecutive sequence of the SuperHyperVertices is a strongest SuperHyperCycle if and only if it's a longest SuperHyperCycle.

Corollary 5. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph on the same identical letter of the alphabet. Then its Neutrosophic Failed SuperHyperStable is its Neutrosophic Failed SuperHyperStable and reversely.

Corollary 6. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyperBipartite, SuperHyperMultipartite, SuperHyperWheel) on the same identical letter of the alphabet. Then its Neutrosophic Failed SuperHyperStable is its Neutrosophic Failed SuperHyperStable and reversely.

Corollary 7. Assume a neutrosophic SuperHyperGraph. Then its Neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Neutrosophic Failed SuperHyperStable isn't well-defined.

Corollary 8. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph. Then its Neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Neutrosophic Failed SuperHyperStable isn't well-defined.

Corollary 9. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyperBipartite, SuperHyperMultipartite, SuperHyperWheel). Then its Neutrosophic Failed SuperHyperStable isn't well-defined if and only if its Neutrosophic Failed SuperHyperStable isn't well-defined.

Corollary 10. Assume a neutrosophic SuperHyperGraph. Then its Neutrosophic Failed SuperHyperStable is well-defined if and only if its Neutrosophic Failed SuperHyperStable is well-defined.

Corollary 11. Assume SuperHyperClasses of a neutrosophic SuperHyperGraph. Then its Neutrosophic Failed SuperHyperStable is well-defined if and only if its Neutrosophic Failed SuperHyperStable is well-defined.

Corollary 12. Assume a neutrosophic SuperHyperPath(-/SuperHyperCycle, SuperHyperStar, SuperHyperBipartite, SuperHyperMultipartite, SuperHyperWheel). Then its Neutrosophic Failed SuperHyperStable is well-defined if and only if its Neutrosophic Failed SuperHyperStable is well-defined.

Proposition 1. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph. Then V is

- (i): the dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): the strong dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): the connected dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): the δ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): the strong δ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): the connected δ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 2. *Let* $NTG : (V, E, \sigma, \mu)$ *be a neutrosophic SuperHyperGraph. Then* \emptyset *is*

- (i): the SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): the strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): the connected defensive SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): the δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): the strong δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): the connected δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 3. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph. Then an independent SuperHyperSet is

- (i): the SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): the strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): the connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): the δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): the strong δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): the connected δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 4. Let NSHG:(V,E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperCycle/SuperHyperPath. Then V is a maximal

- (i) : SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $(iv): \mathcal{O}(NSHG)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): strong $\mathcal{O}(NSHG)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): connected $\mathcal{O}(NSHG)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 5. Let NSHG:(V,E) be a neutrosophic SuperHyperGraph which is a SuperHyperUniform SuperHyperWheel. Then V is a maximal

- (i): dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): strong $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): connected $\mathcal{O}(NSHG)$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 6. Let NSHG:(V,E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperCycle/SuperHyperPath. Then the number of

- (i): the Neutrosophic Failed SuperHyperStable;
- (ii): the Neutrosophic Failed SuperHyperStable;
- (iii): the connected Neutrosophic Failed SuperHyperStable;
- (iv): the $\mathcal{O}(NSHG)$ -Neutrosophic Failed SuperHyperStable;
- (v): the strong $\mathcal{O}(NSHG)$ -Neutrosophic Failed SuperHyperStable;
- (vi): the connected O(NSHG)-Neutrosophic Failed SuperHyperStable.

is one and it's only V. Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 7. Let NSHG: (V, E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperWheel. Then the number of

- (i): the dual Neutrosophic Failed SuperHyperStable;
- (ii): the dual Neutrosophic Failed SuperHyperStable;
- (iii): the dual connected Neutrosophic Failed SuperHyperStable;
- (iv): the dual $\mathcal{O}(NSHG)$ -Neutrosophic Failed SuperHyperStable;
- (v): the strong dual $\mathcal{O}(NSHG)$ -Neutrosophic Failed SuperHyperStable;
- (vi): the connected dual O(NSHG)-Neutrosophic Failed SuperHyperStable.

is one and it's only V. Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 8. Let NSHG:(V,E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then a SuperHyperSet contains [the SuperHyperCenter and] the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices is a

- (i): dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $(iv): \frac{\mathcal{O}(NSHG)}{2} + 1$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $(v): strong \frac{\mathcal{O}(NSHG)}{2} + 1$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi) : connected $\frac{\mathcal{O}(NSHG)}{2} + 1$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 9. Let NSHG: (V, E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then a SuperHyperSet contains the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices in the biggest SuperHyperPart is a

- (i): SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) : δ-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v) : strong δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi) : connected δ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 10. Let NSHG: (V, E) be a neutrosophic SuperHyperUniform SuperHyperGraph which is a SuperHyperStar/SuperHyperComplete SuperHyperBipartite/SuperHyperComplete SuperHyperMultipartite. Then Then the number of

(i): dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

- (ii): strong dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $(iv): \frac{\mathcal{O}(NSHG)}{2} + 1$ -dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $\begin{array}{l} (v): strong \ \frac{\mathcal{O}(NSHG)}{2} + 1 \text{-dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;} \\ (vi): connected \ \frac{\mathcal{O}(NSHG)}{2} + 1 \text{-dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable.} \end{array}$

is one and it's only S, a SuperHyperSet contains [the SuperHyperCenter and] the half of multiplying r with the number of all the SuperHyperEdges plus one of all the SuperHyperVertices. Where the exterior SuperHyperVertices and the interior SuperHyperVertices coincide.

Proposition 11. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph. The number of connected component is |V - S| if there's a SuperHyperSet which is a dual

- (i) : SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): Neutrosophic Failed SuperHyperStable;
- (v): strong 1-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (vi): connected 1-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 12. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph. Then the number is at most $\mathcal{O}(NSHG)$ and the neutrosophic number is at most $\mathcal{O}_n(NSHG)$.

Proposition 13. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph. Then the number is at most $\mathcal{O}(NSHG)$ and the neutrosophic number is at most $\mathcal{O}_n(NSHG)$.

Proposition 14. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph which is SuperHyperComplete. The number is $\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1$ and the neutrosophic number is $\min \Sigma_{v \in \{v_1, v_2, \cdots, v_t\}_{t > \frac{\mathcal{O}(NSHG:(V,E))}{2}} \subseteq V} \sigma(v)$, in the setting of dual

- (i) : SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

- $\begin{array}{l} (iv): (\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1) SuperHyperDefensive \ Neutrosophic \ Failed \ SuperHyperStable; \\ (v): strong (\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1) SuperHyperDefensive \ Neutrosophic \ Failed \ SuperHyperStable; \\ (vi): connected (\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1) SuperHyperDefensive \ Neutrosophic \ Failed \ SuperHyperStable. \end{array}$

Proposition 15. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph which is \emptyset . The number is 0 and the neutrosophic number is 0, for an independent SuperHyperSet in the setting of dual

- (i): SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv): 0-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (v): strong 0-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $(vi): connected \ 0-Super Hyper Defensive \ Neutrosophic \ Failed \ Super Hyper Stable.$

Proposition 16. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph which is SuperHyperComplete. Then there's no independent SuperHyperSet.

Proposition 17. Let NSHG (V, E) be a neutrosophic SuperHyperGraph which is SuperHyperCycle/SuperHyperPath/SuperHyperWheel. The number is O(NSHG:(V,E)) and the neutrosophic number is $\mathcal{O}_n(NSHG:(V,E))$, in the setting of a dual



(i) : SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

 $(iv): \mathcal{O}(NSHG:(V,E))$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(v): strong $\mathcal{O}(NSHG:(V,E))$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(vi) : connected $\mathcal{O}(NSHG:(V,E))$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 18. Let NSHG: (V, E) be a neutrosophic SuperHyperGraph which is SuperHyperStar/complete SuperHyperBipartite/complete SuperHyperMultiPartite. The number is $\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1$ and the neutrosophic number is $\min \Sigma_{v \in \{v_1, v_2, \cdots, v_t\}_{t > \mathcal{O}(NSHG:(V, E))}} \subseteq_V \sigma(v)$, in the setting of a dual

(i): SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(ii): strong SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(iii): connected SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(iv) : $(\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable; (v) : strong $(\frac{\mathcal{O}(NSHG:(V,E))}{2} + 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(vi) : connected $(\frac{\mathcal{O}(\hat{N}SHG:(V,E))}{2}+1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 19. Let NSHF: (V,E) be a SuperHyperFamily of the NSHGs: (V,E) neutrosophic SuperHyperGraphs which are from one-type SuperHyperClass which the result is obtained for the individuals. Then the results also hold for the SuperHyperFamily NSHF: (V, E) of these specific SuperHyperClasses of the neutrosophic SuperHyperGraphs.

Proposition 20. Let NSHG: (V,E) be a strong neutrosophic SuperHyperGraph. If S is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then $\forall v \in V \setminus S$, $\exists x \in S$ such that

- (i) $v \in N_s(x)$;
- (ii) $vx \in E$.

Proposition 21. Let NSHG: (V, E) be a strong neutrosophic SuperHyperGraph. If S is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then

- (i) S is SuperHyperDominating set;
- (ii) there's $S \subseteq S'$ such that |S'| is SuperHyperChromatic number.

Proposition 22. Let NSHG: (V, E) be a strong neutrosophic SuperHyperGraph. Then

- (i) $\Gamma \leq \mathcal{O}$;
- (ii) $\Gamma_s \leq \mathcal{O}_n$.

Proposition 23. Let NSHG: (V, E) be a strong neutrosophic SuperHyperGraph which is connected. Then

- (*i*) $\Gamma \leq \mathcal{O} 1$;
- (ii) $\Gamma_s \leq \mathcal{O}_n \sum_{i=1}^3 \sigma_i(x)$.

Proposition 24. Let NSHG: (V, E) be an odd SuperHyperPath. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_{n-1}\}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ and corresponded SuperHyperSet is $S = \{v_2, v_4, \cdots, v_{n-1}\}$;
- $\begin{array}{ll} (iii) \;\; \Gamma_s = \min\{\Sigma_{s \in S = \{v_2, v_4, \cdots, v_{n-1}\}} \Sigma_{i=1}^3 \sigma_i(s), \Sigma_{s \in S = \{v_1, v_3, \cdots, v_{n-1}\}} \Sigma_{i=1}^3 \sigma_i(s)\}; \\ (iv) \;\; the \; SuperHyperSets \; S_1 = \{v_2, v_4, \cdots, v_{n-1}\} \; and \; S_2 = \{v_1, v_3, \cdots, v_{n-1}\} \; are \; only \; a \; dual \; Neutrosophic \; is \; in the superHyperSets \; S_1 = \{v_2, v_4, \cdots, v_{n-1}\} \; and \; S_2 = \{v_1, v_3, \cdots, v_{n-1}\} \; are \; only \; a \; dual \; Neutrosophic \; is \; in the superHyperSets \; S_1 = \{v_2, v_4, \cdots, v_{n-1}\} \; and \; S_2 = \{v_1, v_3, \cdots, v_{n-1}\} \; are \; only \; a \; dual \; Neutrosophic \; is \; in the superHyperSets \; S_2 = \{v_1, v_3, \cdots, v_{n-1}\} \; and \; S_3 = \{v_1, v_3, \cdots, v_{n-1}\} \; and \; S_4 = \{v_1, v_3, \cdots, v_{n-1}\} \;$ Failed SuperHyperStable.

Proposition 25. Let NSHG: (V, E) be an even SuperHyperPath. Then

- (i) the set $S = \{v_2, v_4, \dots, v_n\}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ and corresponded SuperHyperSets are $\{v_2, v_4, \cdots . v_n\}$ and $\{v_1, v_3, \cdots . v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S = \{v_2, v_4, \dots, v_n\}} \Sigma_{i=1}^3 \sigma_i(s), \Sigma_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \Sigma_{i=1}^3 \sigma_i(s)\};$ (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_n\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Neutrosophic *Failed SuperHyperStable.*

Proposition 26. Let NSHG: (V, E) be an even SuperHyperCycle. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_n\}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ and corresponded SuperHyperSets are $\{v_2, v_4, \dots, v_n\}$ and $\{v_1, v_3, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S = \{v_2, v_4, \dots, v_n\}} \sigma(s), \Sigma_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \sigma(s)\};$
- (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_n\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Neutrosophic Failed SuperHyperStable.

Proposition 27. Let NSHG: (V, E) be an odd SuperHyperCycle. Then

- (i) the SuperHyperSet $S = \{v_2, v_4, \dots, v_{n-1}\}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ and corresponded SuperHyperSet is $S = \{v_2, v_4, \dots, v_{n-1}\}$;
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S = \{v_2, v_4, \dots, v_{n-1}\}} \Sigma_{i=1}^3 \sigma_i(s), \Sigma_{s \in S = \{v_1, v_3, \dots, v_{n-1}\}} \Sigma_{i=1}^3 \sigma_i(s)\};$ (iv) the SuperHyperSets $S_1 = \{v_2, v_4, \dots, v_{n-1}\}$ and $S_2 = \{v_1, v_3, \dots, v_{n-1}\}$ are only dual Neutrosophic *Failed SuperHyperStable.*

Proposition 28. Let NSHG: (V, E) be SuperHyperStar. Then

- (i) the SuperHyperSet $S = \{c\}$ is a dual maximal Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = 1$;
- (iii) $\Gamma_s = \sum_{i=1}^3 \sigma_i(c)$;
- (iv) the SuperHyperSets $S = \{c\}$ and $S \subset S'$ are only dual Neutrosophic Failed SuperHyperStable.

Proposition 29. Let NSHG: (V, E) be SuperHyperWheel. Then

- (i) the SuperHyperSet $S = \{v_1, v_3\} \cup \{v_6, v_9 \cdots, v_{i+6}, \cdots, v_n\}_{i=1}^{6+3(i-1) \leq n}$ is a dual maximal SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- $\begin{array}{ll} (ii) \ \Gamma = |\{v_1, v_3\} \cup \{v_6, v_9 \cdots, v_{i+6}, \cdots, v_n\}_{i=1}^{6+3(i-1) \le n}|;\\ (iii) \ \Gamma_s = \Sigma_{\{v_1, v_3\} \cup \{v_6, v_9 \cdots, v_{i+6}, \cdots, v_n\}_{i=1}^{6+3(i-1) \le n}} \Sigma_{i=1}^3 \sigma_i(s);\\ \end{array}$
- (iv) the SuperHyperSet $\{v_1,v_3\} \cup \{v_6,v_9\cdots,v_{i+6},\cdots,v_n\}_{i=1}^{6+3(i-1)\leq n}$ is only a dual maximal SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 30. *Let* NSHG : (V, E) *be an odd* SuperHyperComplete. Then

- (i) the SuperHyperSet $S=\{v_i\}_{i=1}^{\lfloor \frac{n}{2}\rfloor+1}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$;
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S} \Sigma_{i=1}^3 \sigma_i(s)\}_{S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}; }$ (iv) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor + 1}$ is only a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 31. Let NSHG: (V, E) be an even SuperHyperComplete. Then

- (i) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$;

- (iii) $\Gamma_s = \min\{\Sigma_{s \in S}\Sigma_{i=1}^3 \sigma_i(s)\}_{\substack{S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor};\\ (iv)}};$ (iv) the SuperHyperSet $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor}$ is only a dual maximal SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 32. Let NSHF: (V, E) be a m-SuperHyperFamily of neutrosophic SuperHyperStars with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S = \{c_1, c_2, \cdots, c_m\}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable for NSHF;
- (ii) $\Gamma = m \text{ for } \mathcal{NSHF} : (V, E);$
- (iii) $\Gamma_s = \sum_{i=1}^m \sum_{j=1}^3 \sigma_j(c_i)$ for $\mathcal{NSHF}: (V, E)$;
- (iv) the SuperHyperSets $S = \{c_1, c_2, \cdots, c_m\}$ and $S \subset S'$ are only dual Neutrosophic Failed SuperHyperStable for NSHF: (V, E).

Proposition 33. Let NSHF: (V,E) be an m-SuperHyperFamily of odd SuperHyperComplete SuperHyperGraphs with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S=\{v_i\}_{i=1}^{\lfloor\frac{n}{2}\rfloor+1}$ is a dual maximal SuperHyperDefensive Neutrosophic Failed SuperHyperStable for \mathcal{NSHF} ;
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor + 1$ for $\mathcal{NSHF}: (V, E)$;
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S} \Sigma_{i=1}^3 \sigma_i(s)\}_{\substack{S = \{v_i\}_{i=1}^{\lfloor n \rfloor} 1 \text{ are only a dual maximal Neutrosophic Failed SuperHyperStable for}} \{(v) \text{ the SuperHyperSets } S = \{v_i\}_{i=1}^{\lfloor n \rfloor 1 \text{ are only a dual maximal Neutrosophic Failed SuperHyperStable for}} \}$ $\mathcal{NSHF}:(V,E).$

Proposition 34. Let NSHF: (V,E) be a m-SuperHyperFamily of even SuperHyperComplete SuperHyperGraphs with common neutrosophic SuperHyperVertex SuperHyperSet. Then

- (i) the SuperHyperSet $S=\{v_i\}_{i=1}^{\lfloor \frac{n}{2}\rfloor}$ is a dual SuperHyperDefensive Neutrosophic Failed SuperHyperStable for NSHF : (V, E);
- (ii) $\Gamma = \lfloor \frac{n}{2} \rfloor$ for NSHF : (V, E);
- (iii) $\Gamma_s = \min\{\Sigma_{s \in S} \Sigma_{i=1}^3 \sigma_i(s)\}_{\substack{S = \{v_i\}_{i=1}^{\frac{n}{2}} \\ i=1}}^{\lfloor \frac{n}{2} \rfloor} \text{ for } \mathcal{NSHF} : (V, E);$ (iv) the SuperHyperSets $S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ are only dual maximal Neutrosophic Failed SuperHyperStable for } S = \{v_i\}_{i=1}^{\lfloor \frac{n}{2} \rfloor} \text{ ar$ $\mathcal{NSHF}:(V,E).$

Proposition 35. Let NSHG: (V, E) be a strong neutrosophic SuperHyperGraph. Then following statements hold:

- (i) if $s \geq t$ and a SuperHyperSet S of SuperHyperVertices is an t-SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then S is an s-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) if $s \le t$ and a SuperHyperSet S of SuperHyperVertices is a dual t-SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then S is a dual s-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 36. Let NSHG: (V, E) be a strong neutrosophic SuperHyperGraph. Then following statements hold;

- (i) if $s \ge t + 2$ and a SuperHyperSet S of SuperHyperVertices is an t-SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then S is an s-SuperHyperPowerful Neutrosophic Failed SuperHyperStable;
- (ii) if $s \le t$ and a SuperHyperSet S of SuperHyperVertices is a dual t-SuperHyperDefensive Neutrosophic Failed SuperHyperStable, then S is a dual s-SuperHyperPowerful Neutrosophic Failed SuperHyperStable.

Proposition 37. Let NSHG: (V, E) be a [an] [r-] SuperHyperUniform-strong-neutrosophic SuperHyperGraph. Then following statements hold;

- (i) if $\forall a \in S$, $|N_s(a) \cap S| < \lfloor \frac{r}{2} \rfloor + 1$, then NSHG: (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S$, $|N_s(a) \cap S| > \lfloor \frac{r}{2} \rfloor + 1$, then NSHG: (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) if $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG : (V, E) is an r-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG : (V, E) is a dual r-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 38. Let NSHG: (V, E) is a[an] [r-]SuperHyperUniform-strong-neutrosophic SuperHyperGraph. Then following statements hold;

- (i) $\forall a \in S$, $|N_s(a) \cap S| < \lfloor \frac{r}{2} \rfloor + 1$ if NSHG : (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S$, $|N_s(a) \cap S| > \lfloor \frac{r}{2} \rfloor + 1$ if NSHG: (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is an r-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is a dual r-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 39. Let NSHG: (V, E) is a[an] [r-]SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is a SuperHyperComplete. Then following statements hold;

- (i) $\forall a \in S$, $|N_s(a) \cap S| < \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$ if NSHG: (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S$, $|N_s(a) \cap S| > \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$ if NSHG: (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is an $(\mathcal{O} 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is a dual $(\mathcal{O} 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 40. Let NSHG: (V, E) is a[an] [r-]SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is a SuperHyperComplete. Then following statements hold;

- (i) if $\forall a \in S$, $|N_s(a) \cap S| < \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$, then NSHG: (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S$, $|N_s(a) \cap S| > \lfloor \frac{\mathcal{O}-1}{2} \rfloor + 1$, then NSHG : (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) if $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG: (V, E) is $(\mathcal{O} 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG: (V, E) is a dual $(\mathcal{O} 1)$ -SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 41. Let NSHG: (V, E) is a[an] [r-]SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is SuperHyperCycle. Then following statements hold;

- (i) $\forall a \in S$, $|N_s(a) \cap S| < 2$ if NSHG: (V, E)) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) $\forall a \in V \setminus S$, $|N_s(a) \cap S| > 2$ if NSHG : (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;

(iv) $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$ if NSHG: (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

Proposition 42. Let NSHG: (V, E) is a[an] [r-]SuperHyperUniform-strong-neutrosophic SuperHyperGraph which is SuperHyperCycle. Then following statements hold;

- (i) if $\forall a \in S$, $|N_s(a) \cap S| < 2$, then NSHG: (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (ii) if $\forall a \in V \setminus S$, $|N_s(a) \cap S| > 2$, then NSHG : (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iii) if $\forall a \in S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG : (V, E) is an 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable;
- (iv) if $\forall a \in V \setminus S$, $|N_s(a) \cap V \setminus S| = 0$, then NSHG : (V, E) is a dual 2-SuperHyperDefensive Neutrosophic Failed SuperHyperStable.

4. Neutrosophic Motivation and Neutrosophic Contributions

In this research, there are some Neutrosophic ideas in the featured Neutrosophic frameworks of Neutrosophic motivations. I try to bring the Neutrosophic motivations in the narrative Neutrosophic ways.

Question 1. How to define the Neutrosophic SuperHyperNotions and to do research on them to find the "Neutrosophic amount of Neutrosophic" of either individual of Neutrosophic cells or the Neutrosophic groups of Neutrosophic cells based on the fixed Neutrosophic cell or the fixed Neutrosophic group of Neutrosophic cells, extensively, the "Neutrosophic amount of Neutrosophic" based on the fixed Neutrosophic groups of Neutrosophic cells or the fixed Neutrosophic groups of Neutrosophic group of Neutrosophic cells?

Question 2. What are the best Neutrosophic descriptions for the "Cancer's Neutrosophic Recognitions" in Neutrosophic terms of these messy and dense Neutrosophic SuperHyperModels where Neutrosophic embedded notions are Neutrosophicly illustrated?

It's Neutrosophic motivation to find Neutrosophic notions to use in this dense Neutrosophic model is titled "Neutrosophic SuperHyperGraphs". Thus it motivates us to define different types of "Neutrosophic" and "Neutrosophic" on "SuperHyperGraph" and "Neutrosophic SuperHyperGraph".

5. Neutrosophic Failed SuperHyperStable in Some Neutrosophic Situations for Cancer without any names or any Neutrosophic specific classes

Example 1. Assume the neutrosophic SuperHyperGraph s in the Figures 1–20.

• On the Figure 1, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. E₁ and E₃ neutrosophic Failed SuperHyperEdge and E₄ is a neutrosophic SuperHyperEdge. Thus in the terms of neutrosophic SuperHyperNeighbor, there's only one neutrosophic SuperHyperEdge, namely, E₄. The neutrosophic SuperHyperVertex, V₃ is isolated means that there's no neutrosophic SuperHyperEdge has it as an endpoint. Thus neutrosophic SuperHyperVertex, V₃, is contained in every given neutrosophic Failed SuperHyperStable. All the following SuperHyperSet of neutrosophic SuperHyperVertices is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. {V₃, V₁, V₂}. The SuperHyperSet of neutrosophic SuperHyperVertices, {V₃, V₁, V₂}, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperSet of the neutrosophic SuperHyperSet of the neutrosophic Failed SuperHyperStable I(NSHG) for a neutrosophic SuperHyperGraph NSHG: (V, E) is the maximum neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only three neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up.

The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet **includes** only **one** neutrosophic SuperHyperVertex. But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a neutrosophic Failed SuperHyperStable $\mathcal{I}(\mathsf{NSHG})$ for a neutrosophic SuperHyperGraph NSHG : (V, E) is the SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and they are corresponded to a neutrosophic Failed SuperHyperStable. Since it's the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $\{V_3, V_1, V_2\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is the SuperHyperSet, $\{V_3, V_1, V_2\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E). It's interesting to mention that the only obvious simple type-SuperHyperSet of the neutrosophic neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the neutrosophic Failed SuperHyperStable, is only $\{V_3, V_4, V_2\}$.

 On the Figure 2, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. E_1 and E_3 neutrosophic Failed SuperHyperStable are some empty neutrosophic SuperHyperEdges but E_2 is a loop neutrosophic SuperHyperEdge and E_4 is a neutrosophic SuperHyperEdge. Thus in the terms of neutrosophic SuperHyperNeighbor, there's only one neutrosophic SuperHyperEdge, namely, E_4 . The neutrosophic SuperHyperVertex, V_3 is isolated means that there's no neutrosophic SuperHyperEdge has it as an endpoint. Thus neutrosophic SuperHyperVertex, V3, is contained in every given neutrosophic Failed SuperHyperStable. All the following SuperHyperSet of neutrosophic SuperHyperVertices is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. $\{V_3, V_1, V_2\}$. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a neutrosophic Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a neutrosophic SuperHyperGraph NSHG: (V, E) is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only <u>three</u> neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only <u>one</u> neutrosophic SuperHyperVertex. But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_1, V_2\}$, is corresponded to a neutrosophic Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a neutrosophic SuperHyperGraph NSHG: (V, E) is the SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and they are corresponded to a neutrosophic Failed SuperHyperStable. Since it's the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_3, V_1, V_2\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic

- Failed SuperHyperStable, $\{V_3, V_1, V_2\}$, is the SuperHyperSet, $\{V_3, V_1, V_2\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E). It's interesting to mention that the only obvious simple type-SuperHyperSet of the neutrosophic neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the neutrosophic Failed SuperHyperStable, is only $\{V_3, V_4, V_1\}$.
- On the Figure 3, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. E_1, E_2 and E_3 are some empty neutrosophic SuperHyperEdges but E_4 is a neutrosophic SuperHyperEdge. Thus in the terms of neutrosophic SuperHyperNeighbor, there's only one neutrosophic SuperHyperEdge, namely, E_4 . The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_2\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_2\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only two neutrosophic SuperHyperVertex *inside* the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable *is* up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_2\}$, doesn't have less than two neutrosophic SuperHyperVertex inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_2\}_{i,\underline{i}s}$ the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_2\}$, is corresponded to a neutrosophic Failed SuperHyperStable $\mathcal{I}(NSHG)$ for a neutrosophic SuperHyperGraph NSHG:(V,E) is the SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> they are neutrosophic Failed SuperHyperStable. Since it's the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSets, $\{V_3, V_2\}$, Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_3, V_2\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_3, V_2\}$, is the SuperHyperSet, $\{V_3, V_2\}$, don't include only more than one neutrosophic SuperHyperVertex in a connected neutrosophic SuperHyperGraph NSHG: (V, E). It's interesting to mention that the only obvious simple type-SuperHyperSets of the neutrosophic neutrosophic Failed SuperHyperStable amid those obvious simple type-SuperHyperSets of the neutrosophic Failed SuperHyperStable, is only $\{V_3, V_2\}$.
- On the Figure 4, the neutrosophic SuperHyperNotion, namely, a neutrosophic Failed SuperHyperStable, is up. There's no empty neutrosophic SuperHyperEdge but E_3 are a loop neutrosophic SuperHyperEdge on $\{F\}$, and there are some neutrosophic SuperHyperEdges , namely, E_1 on $\{H, V_1, V_3\}$, alongside E_2 on $\{O, H, V_4, V_3\}$ and E_4, E_5 on $\{N, V_1, V_2, V_3, F\}$. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only three neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex since it doesn't form any kind of pairs titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_4, V_1\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_4, V_1\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic

Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_4, V_1\}$, is the SuperHyperSet S of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's <u>neutrosophic Failed SuperHyperStable</u>. Since it's <u>the maximum neutrosophic cardinality</u> of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_2, V_4, V_1\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_4, V_1\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_4, V_1\}$, is a SuperHyperSet, $\{V_2, V_4, V_1\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).

- On the Figure 5, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're not only one neutrosophic SuperHyperVertex inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex thus it doesn't form any kind of pairs titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (\overline{V}, E) . But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, **is** the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. <u>and</u> it's neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, is a SuperHyperSet, $\{V_2, V_6, V_9, V_{15}, V_{10}\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E) is mentioned as the neutrosophic SuperHyperModel NSHG: (V, E) in the Figure 5.
- On the Figure 6, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the maximum neutrosophic cardinality of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're not only one neutrosophic SuperHyperVertex inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex doesn't form any kind of pairs titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

<u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a <u>neutrosophic Failed SuperHyperStable</u>. Since it's <u>the maximum neutrosophic cardinality</u> of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

Thus the non-obvious neutrosophic Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, \$$

 $V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$

is a SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E) with a illustrated neutrosophic SuperHyperModel ing of the Figure 6.

- On the Figure 7, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There's only <u>one</u> neutrosophic SuperHyperVertex <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable <u>is</u> up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E) of depicted neutrosophic SuperHyperModel as the Figure 7.
- On the Figure 8, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There's only <u>one</u> neutrosophic SuperHyperVertex <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_9, V_7\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. Since it's the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is up.

The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_9, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_9, V_7\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E) of dense neutrosophic SuperHyperModel as the Figure 8.

• On the Figure 9, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the maximum neutrosophic cardinality of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only only neutrosophic SuperHyperVertex inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only one neutrosophic SuperHyperVertex doesn't form any kind of pairs titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

 \underline{is} the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a <u>neutrosophic Failed SuperHyperStable</u>. Since it's <u>the maximum neutrosophic cardinality</u> of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\}.$$

Thus the non-obvious neutrosophic Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

is a SuperHyperSet,

$$\{V_2, V_4, V_6, V_8, V_{10}, V_{22}, V_{19}, V_{17}, V_{15}, V_{13}, V_{11}\},$$

doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic neutrosophic SuperHyperGraph NSHG:(V,E) with a messy neutrosophic SuperHyperModel ing of the Figure 9.

- On the Figure 10, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is **the maximum neutrosophic cardinality** of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're not only <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_8\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}_{is}$ the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_8, V_7\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_2, V_5, V_8, V_7\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_8, V_7\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_8, V_7\}$, is a SuperHyperSet, $\{V_2, V_5, V_8, V_7\}$, doesn't include only more than one neutrosophic SuperHyperVertex in a connected neutrosophic SuperHyperGraph NSHG:(V,E) of highly-embedding-connected neutrosophic SuperHyperModel as the Figure 10.
- On the Figure 11, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, {V₂, V₅}, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, {V₂, V₅, V₆}, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic

SuperHyperEdge in common. There're not only less than one neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices don't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_2, V_5, V_6\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is a SuperHyperSet, $\{V_2, V_5, V_6\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).

- On the Figure 12, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is the maximum neutrosophic cardinality of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're not only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG : (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_4,V_5,V_6,V_9,V_{10},V_2\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and they are neutrosophic Failed SuperHyperStable. Since it's the maximum neutrosophic cardinality of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, is a SuperHyperSet, $\{V_4, V_5, V_6, V_9, V_{10}, V_2\}$, doesn't include only more than one neutrosophic SuperHyperVertex in a connected neutrosophic SuperHyperGraph NSHG: (V, E) in highly-multiple-connected-style neutrosophic SuperHyperModel On the Figure 12.
- On the Figure 13, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The

SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're not only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices don't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable *is* up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_2, V_5, V_6\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_2, V_5, V_6\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_2, V_5, V_6\}$, is a SuperHyperSet, $\{V_2, V_5, V_6\}$, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).

On the Figure 14, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_1\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable is The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_3, V_1\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_3, V_1\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_3, V_1\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_3, V_1\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_3, V_1\}$, is a SuperHyperSet, $\{V_3, V_1\}$, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).

- On the Figure 15, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable <u>is</u> up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only less than two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG:(V,E). But the SuperHyperSet of neutrosophic SuperHyperVertices , $\{V_5, V_2, V_6, V_4\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_5, V_2, V_6, V_4\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $\{V_5, V_2, V_6, V_4\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_5, V_2, V_6, V_4\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_5, V_2, V_6, V_4\}$, is a SuperHyperSet, $\{V_5, V_2, V_6, V_4\}$, doesn't include only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E) as Linearly-Connected neutrosophic SuperHyperModel On the Figure 15.
- On the Figure 16, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG : (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, **is** the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common and it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices inside the intended

- SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).
- On the Figure 17, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable **is** up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet includes only less than two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG:(V,E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a neutrosophic Failed SuperHyperStable. the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E) as Linearly-over-packed neutrosophic SuperHyperModel is featured On the Figure 17.
- On the Figure 18, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than two neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable <u>is</u> up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG : (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, doesn't have less than two neutrosophic SuperHyperVertices inside the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, <u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the

neutrosophic SuperHyperVertices, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a <u>neutrosophic Failed SuperHyperStable</u>. Since it's <u>the maximum neutrosophic cardinality</u> of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$. Thus the non-obvious neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, is a SuperHyperSet, $\{V_1, V_3, V_7, V_{13}, V_{22}, V_{18}\}$, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: $\{V, E\}$

• On the Figure 19, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices,

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\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
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is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices,

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\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
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is **the maximum neutrosophic cardinality** of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than \underline{two} neutrosophic SuperHyperVertices \underline{inside} the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable \underline{is} up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet $\underline{includes}$ only less than \underline{two} neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices,

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\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}
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doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices,

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\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}
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<u>is</u> the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices ,

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\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
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is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a <u>neutrosophic Failed SuperHyperStable</u>. Since it'<u>s</u> the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet,

 $\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges}.$

Thus the non-obvious neutrosophic Failed SuperHyperStable,

 $\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}$

is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable,

 $\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}$

is a SuperHyperSet,

 $\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}$

does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG:(V,E).

• On the Figure 20, the neutrosophic SuperHyperNotion, namely, neutrosophic Failed SuperHyperStable, is up. There's neither empty neutrosophic SuperHyperEdge nor loop neutrosophic SuperHyperEdge. The SuperHyperSet of neutrosophic SuperHyperVertices,

```
\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
```

is the simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. The SuperHyperSet of the neutrosophic SuperHyperVertices,

```
\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
```

is <u>the maximum neutrosophic cardinality</u> of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. There're only less than <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious neutrosophic Failed SuperHyperStable <u>is</u> up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable is a SuperHyperSet <u>includes</u> only less than <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled to <u>neutrosophic SuperHyperNeighbors</u> in a connected neutrosophic SuperHyperGraph NSHG: (V, E). But the SuperHyperSet of neutrosophic SuperHyperVertices,

```
\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
```

doesn't have less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet. Thus the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable <u>is</u> up. To sum them up, the SuperHyperSet of neutrosophic SuperHyperVertices,

```
\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges} ,
```

 \underline{is} the non-obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable. Since the SuperHyperSet of the neutrosophic SuperHyperVertices,

```
\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges\ ,}
```

is the SuperHyperSet Ss of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common <u>and</u> it's a <u>neutrosophic Failed SuperHyperStable</u>. Since it's <u>the maximum neutrosophic cardinality</u> of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex



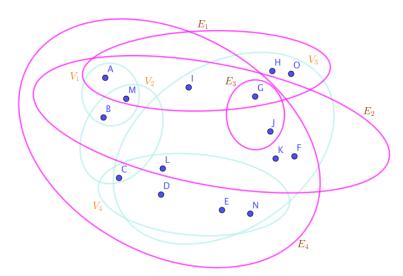


Figure 1. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

to have a neutrosophic SuperHyperEdge in common. There aren't only less than two neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet,

 $\{interior\ neutrosophic\ Super Hyper Vertices\ \}_{the\ number\ of\ neutrosophic\ Super Hyper Edges}.$

Thus the non-obvious neutrosophic Failed SuperHyperStable,

 $\{interior\ neutrosophic\ SuperHyperVertices\ \}_{the\ number\ of\ neutrosophic\ SuperHyperEdges\ ,}$

is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable,

{interior neutrosophic SuperHyperVertices } the number of neutrosophic SuperHyperEdges ,

is a SuperHyperSet, does includes only less than two neutrosophic SuperHyperVertices in a connected neutrosophic SuperHyperGraph NSHG: (V, E).

Proposition 43. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). Then in the worst case, literally, $V \setminus V \setminus \{x, z\}$, is a neutrosophic Failed SuperHyperStable. In other words, the least neutrosophic cardinality, the lower sharp bound for the neutrosophic cardinality, of a neutrosophic Failed SuperHyperStable is the neutrosophic cardinality of $V \setminus V \setminus \{x, z\}$.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V\setminus V\setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have **the maximum neutrosophic cardinality** of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V\setminus V\setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it **doesn't do** the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled

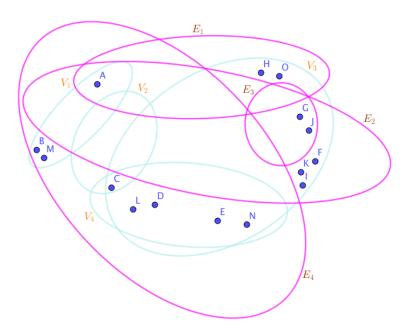
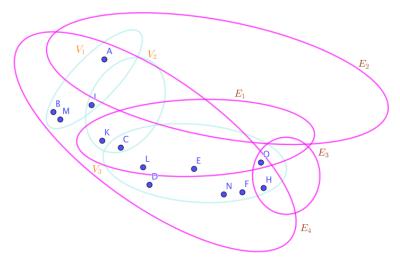


Figure 2. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1



 $\label{eq:Figure 3.} \textbf{Figure 3.} \ \ \textbf{The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1}$

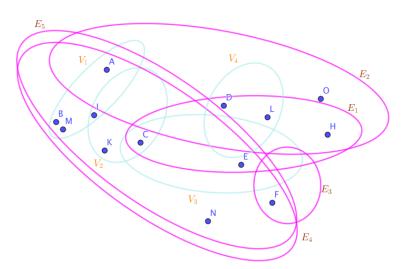


Figure 4. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

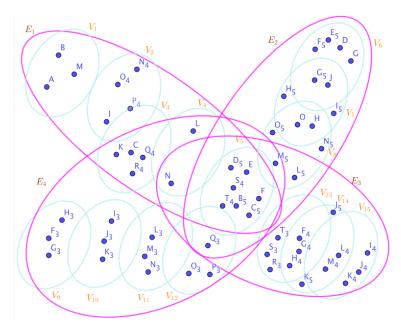


Figure 5. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

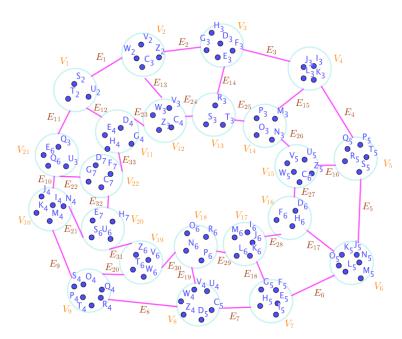
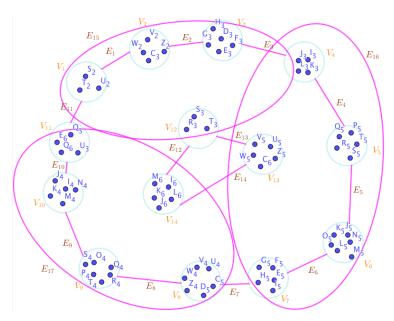


Figure 6. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1



 $\label{eq:Figure 7.} \textbf{Figure 7.} \ \ \textbf{The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1}$

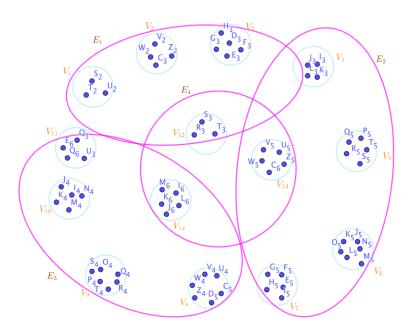


Figure 8. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

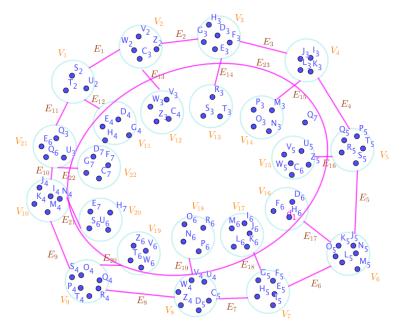


Figure 9. The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

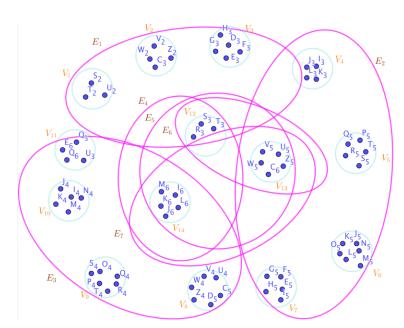


Figure 10. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

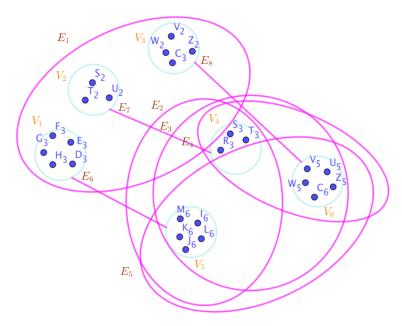


Figure 11. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

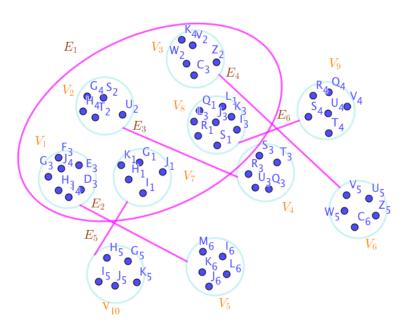
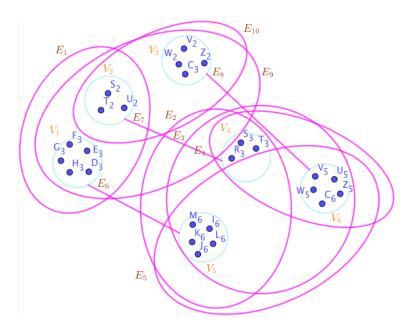


Figure 12. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1



 $\label{thm:condition} \textbf{Figure 13.} \ \ \textbf{The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1}$

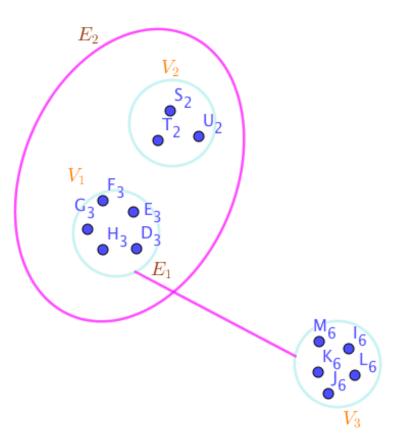
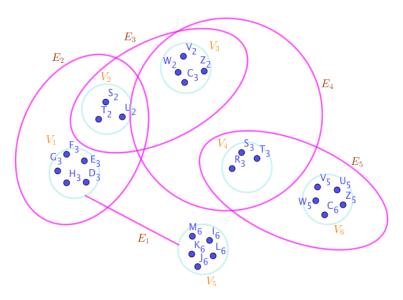


Figure 14. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1



 $\label{thm:condition} \textbf{Figure 15.} \ \ \textbf{The neutrosophic SuperHyperGraph s Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1}$

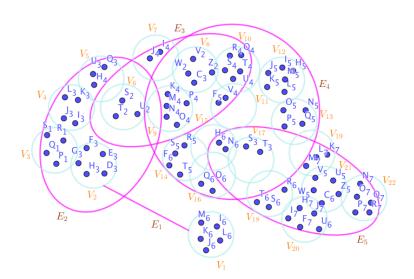


Figure 16. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

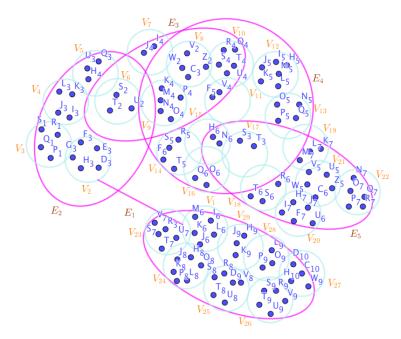


Figure 17. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

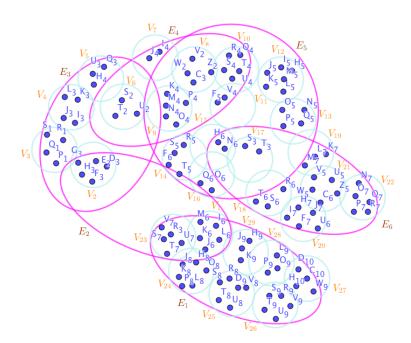


Figure 18. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

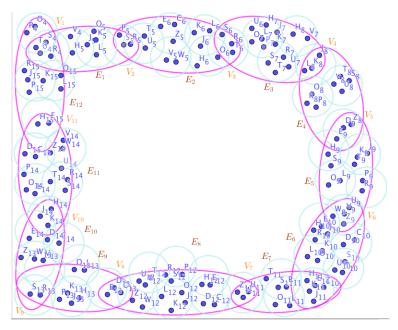


Figure 19. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

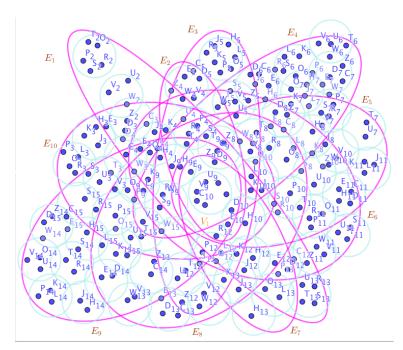


Figure 20. The neutrosophic SuperHyperGraph's Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 1

its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only $\underline{\mathbf{two}}$ neutrosophic SuperHyperVertices $\underline{\mathbf{inside}}$ the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, $\underline{\mathbf{is}}$ a SuperHyperSet, $V \setminus V \setminus \{x,z\}$, $\underline{\mathbf{includes}}$ only $\underline{\mathbf{two}}$ neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V,E). Since the SuperHyperSet of the neutrosophic SuperHyperSet S of neutrosophic SuperHyperVertices S of neutrosop

Proposition 44. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). Then the neutrosophic number of neutrosophic Failed SuperHyperStable has, the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality, is the neutrosophic neutrosophic cardinality of $V \setminus V \setminus \{x,z\}$ if there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. The SuperHyperSet of the neutrosophic SuperHyperVertices $V\setminus V\setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have **the maximum neutrosophic cardinality** of a SuperHyperSet S of neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V\setminus V\setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it **doesn't do** the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three

neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph NSHG: (V, E), the neutrosophic number of neutrosophic Failed SuperHyperStable has, the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality, is the neutrosophic neutrosophic cardinality of $V \setminus V \setminus \{x, z\}$ if there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality . \Box

Proposition 45. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). If a neutrosophic SuperHyperEdge has z neutrosophic SuperHyperVertices, then z-2 number of those interior neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge exclude to any neutrosophic Failed SuperHyperStable.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). Let a neutrosophic SuperHyperEdge has z neutrosophic SuperHyperVertices. Consider z-2 number of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x, z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices <u>such that</u> V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperEdge has z neutrosophic SuperHyperVertices, then z-2

number of those interior neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge exclude to any neutrosophic Failed SuperHyperStable. \Box

Proposition 46. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). There's only one neutrosophic SuperHyperEdge has only less than three distinct interior neutrosophic SuperHyperVertices inside of any given neutrosophic Failed SuperHyperStable. In other words, there's only an unique neutrosophic SuperHyperEdge has only two distinct neutrosophic SuperHyperVertices in a neutrosophic Failed SuperHyperStable.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider some numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices . Consider there's neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have **the maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it $\underline{doesn't\ do}$ the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x,z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x,z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph NSHG: (V, E), there's only one neutrosophic SuperHyperEdge has only less than three distinct interior neutrosophic SuperHyperVertices inside of any given neutrosophic Failed SuperHyperStable. In other words, there's only an unique neutrosophic SuperHyperEdge has only two distinct neutrosophic SuperHyperVertices in a neutrosophic Failed SuperHyperStable . □

Proposition 47. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). The all interior neutrosophic SuperHyperVertices belong to any neutrosophic Failed SuperHyperStable if for any of them, there's no other corresponded neutrosophic SuperHyperVertex such that the two interior neutrosophic SuperHyperVertices are mutually neutrosophic SuperHyperNeighbors with an exception once.

Proof. Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed

SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it <u>doesn't do</u> the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x,z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet S of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph NSHG:(V,E), the all interior neutrosophic SuperHyperVertices belong to any neutrosophic Failed SuperHyperStable if for any of them, there's no other corresponded neutrosophic SuperHyperVertex such that the two interior neutrosophic SuperHyperVertices are mutually neutrosophic SuperHyperNeighbors with an exception once.

Proposition 48. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). The any neutrosophic Failed SuperHyperStable only contains all interior neutrosophic SuperHyperVertices and all exterior neutrosophic SuperHyperVertices where there's any of them has no neutrosophic SuperHyperNeighbors in and there's no neutrosophic SuperHyperNeighborhoods in with an exception once but everything is possible about neutrosophic SuperHyperNeighborhoods and neutrosophic SuperHyperNeighbors out.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common.

[there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x, z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperGraph NSHG: (V, E), the any neutrosophic Failed SuperHyperStable only contains all interior neutrosophic SuperHyperVertices and all exterior neutrosophic SuperHyperVertices where there's any of them has no neutrosophic SuperHyperNeighbors in and there's no neutrosophic SuperHyperNeighborhoods in with an exception once but everything is possible about neutrosophic SuperHyperNeighborhoods and neutrosophic SuperHyperNeighbors out. \Box

Remark 2. The words "neutrosophic Failed SuperHyperStable" and "SuperHyperDominating" both refer to the maximum type-style. In other words, they both refer to the maximum number and the SuperHyperSet with the maximum neutrosophic cardinality.

Proposition 49. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). Consider a SuperHyperDominating. Then a neutrosophic Failed SuperHyperStable is either out with one additional member.

Proof. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). Consider a SuperHyperDominating. By applying the Proposition 48, the results are up. Thus on a connected neutrosophic SuperHyperGraph NSHG: (V,E), and in a SuperHyperDominating, a neutrosophic Failed SuperHyperStable is either out with one additional member. \Box

6. Neutrosophic Results on in Some Specific Neutrosophic Situations Neutrosophicly Titled Neutrosophic SuperHyperClasses

Proposition 50. Assume a connected neutrosophic SuperHyperPath NSHP: (V, E). Then a neutrosophic Failed SuperHyperStable-style with the maximum neutrosophic SuperHyperCardinality is a SuperHyperSet of the interior neutrosophic SuperHyperVertices.

Proposition 51. Assume a connected neutrosophic SuperHyperPath NSHP: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices from the common neutrosophic SuperHyperEdges excluding only two interior neutrosophic SuperHyperVertices from the common neutrosophic

SuperHyperEdges . A neutrosophic Failed SuperHyperStable has the number of all the interior neutrosophic SuperHyperVertices minus their neutrosophic SuperHyperNeighborhoods plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all -the-SuperHyperVertices -minus-SuperHyperNeighborhoods-plus-one SuperHyperSets of the SuperHyperVertices | min | the SuperHyperSets of the SuperHyperVertices with only two exceptions in the form of interior SuperHyperVertices excluding one from common SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperPath NSHP: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x,z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperPath NSHP: (V,E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior

neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices from the common neutrosophic SuperHyperEdges excluding only two interior neutrosophic SuperHyperVertices from the common neutrosophic SuperHyperEdges . A neutrosophic Failed SuperHyperStable has the number of all the interior neutrosophic SuperHyperVertices minus their neutrosophic SuperHyperNeighborhoods plus one. Thus,

Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all-the-SuperHyperVertices}
-minus-SuperHyperNeighborhoods-plus-one
SuperHyperSets of the
SuperHyperVertices | min | the
SuperHyperSets of the SuperHyperVertices with only
two exceptions
in the form of
interior
SuperHyperVertices

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively. \Box

SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }

Example 2. In the Figure 21, the connected neutrosophic SuperHyperPath NSHP: (V, E), is highlighted and featured.

By using the Figure 21 and the Table 1, the neutrosophic SuperHyperPath is obtained.

The SuperHyperSet, $\{V_{27}, V_2, V_7, V_{12}, V_{22}, V_{25}\}$, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperPath NSHP: (V, E), in the neutrosophic SuperHyperModel 21, is the neutrosophic Failed SuperHyperStable.

Table 1. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperPath Mentioned in the Example 2

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges ine

excluding one from common

The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

Proposition 52. Assume a connected neutrosophic SuperHyperCycle NSHC: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices from the same neutrosophic SuperHyperNeighborhoods excluding one neutrosophic SuperHyperVertex. A neutrosophic Failed

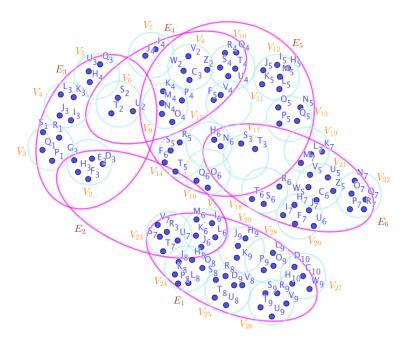


Figure 21. A neutrosophic SuperHyperPath Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 2

SuperHyperStable has the number of all the neutrosophic SuperHyperEdges plus one and the lower bound is the half number of all the neutrosophic SuperHyperEdges plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all -the-SuperHyperEdges -plus-one SuperHyperSets of the SuperHyperVertices | min | the SuperHyperSets of the SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices excluding one neutrosophic SuperHyperVertex from same neutrosophic SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperCycle NSHC: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic

SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it <u>doesn't do</u> the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only <u>two</u> neutrosophic SuperHyperVertices <u>inside</u> the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, <u>is</u> a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, <u>includes</u> only <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,z\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices <u>such that</u> V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperCycle NSHC: (V, E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices from the same neutrosophic SuperHyperNeighborhoods excluding one neutrosophic SuperHyperVertex. A neutrosophic Failed SuperHyperStable has the number of all the neutrosophic SuperHyperEdges plus one and the lower bound is the half number of all the neutrosophic SuperHyperEdges plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all -the-SuperHyperEdges -plus-one SuperHyperSets of the SuperHyperVertices | min | the SuperHyperSets of the SuperHyperVertices with only all exceptions in the form of interior SuperHyperVertices excluding one neutrosophic SuperHyperVertex from same neutrosophic SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively. \Box

Example 3. In the Figure 22, the connected neutrosophic SuperHyperCycle NSHC:(V,E), is highlighted and featured.

By using the Figure 22 and the Table 2, the neutrosophic SuperHyperCycle is obtained.

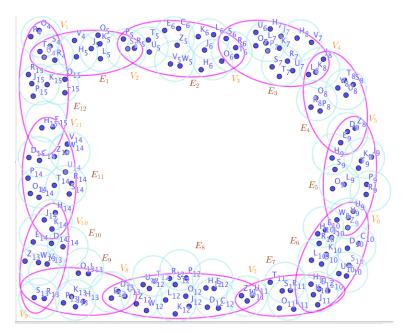


Figure 22. A neutrosophic SuperHyperCycle Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 3

The obtained SuperHyperSet, by the Algorithm in previous result, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperCycle NSHC: (V, E), in the neutrosophic SuperHyperModel 22,

$$\{\{P_{13}, J_{13}, K_{13}, H_{13}\}, \\ \{Z_{13}, W_{13}, V_{13}\}, \{U_{14}, T_{14}, R_{14}, S_{14}\}, \\ \{P_{15}, J_{15}, K_{15}, R_{15}\}, \\ \{J_{5}, O_{5}, K_{5}, L_{5}\}, \{J_{5}, O_{5}, K_{5}, L_{5}\}, V_{3}, \\ \{U_{6}, H_{7}, J_{7}, K_{7}, O_{7}, L_{7}, P_{7}\}, \{T_{8}, U_{8}, V_{8}, S_{8}\}, \\ \{T_{9}, K_{9}, J_{9}\}, \{H_{10}, J_{10}, E_{10}, R_{10}, W_{9}\}, \\ \{S_{11}, R_{11}, O_{11}, L_{11}\}, \\ \{U_{12}, V_{12}, W_{12}, Z_{12}, O_{12}\}, \\ \{S_{7}, T_{7}, R_{7}, U_{7}\}\},$$

is the neutrosophic Failed SuperHyperStable.

Table 2. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperCycle Mentioned in the Example 3

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges ine The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

Proposition 53. Assume a connected neutrosophic SuperHyperStar NSHS: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only all exceptions in the form of interior neutrosophic SuperHyperVertices from common neutrosophic SuperHyperEdge, excluding only one neutrosophic SuperHyperVertex. A neutrosophic

Failed SuperHyperStable has the number of the neutrosophic cardinality of the second SuperHyperPart plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all -the-neutrosophic-cardinality-of-second-SuperHyperPart-plus-one SuperHyperSets of the SuperHyperVertices | min | the SuperHyperSets of the SuperHyperVertices with only two exceptions in the form of interior SuperHyperVertices, excluding one SuperHyperVertex and the SuperHyperCenter, from any given SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperStar NSHS: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x, z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of

neutrosophic SuperHyperVertices <u>such that</u> V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperStar NSHS:(V,E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only all exceptions in the form of interior neutrosophic SuperHyperVertices from common neutrosophic SuperHyperEdge, excluding only one neutrosophic SuperHyperVertex. A neutrosophic Failed SuperHyperStable has the number of the neutrosophic cardinality of the second SuperHyperPart plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all -the-neutrosophic-cardinality-of-second-SuperHyperPart-plus-one SuperHyperSets of the SuperHyperVertices | min | the SuperHyperSets of the SuperHyperVertices with only two exceptions in the form of interior SuperHyperVertices, excluding one SuperHyperVertex and the SuperHyperCenter, from any given SuperHyperEdge. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively. \Box

Example 4. In the Figure 23, the connected neutrosophic SuperHyperStar NSHS:(V,E), is highlighted and featured.

By using the Figure 23 and the Table 3, the neutrosophic SuperHyperStar is obtained.

The obtained SuperHyperSet, by the Algorithm in previous result, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperStar NSHS:(V,E), in the neutrosophic SuperHyperModel 23,

$$\begin{split} & \{\{V_{14}, O_{14}, U_{14}\}, \\ & \{W_{14}, D_{15}, Z_{14}, C_{15}, E_{15}\}, \\ & \{P_3, O_3, R_3, L_3, S_3\}, \{P_2, T_2, S_2, R_2, O_2\}, \\ & \{O_6, O_7, K_7, P_6, H_7, J_7, E_7, L_7\}, \\ & \{J_8, Z_{10}, W_{10}, V_{10}\}, \{W_{11}, V_{11}, Z_{11}, C_{12}\}, \\ & \{U_{13}, T_{13}, R_{13}, S_{13}\}, \{H_{13}\}, \\ & \{E_{13}, D_{13}, C_{13}, Z_{12}\}, \} \end{split}$$

is the neutrosophic Failed SuperHyperStable.

Table 3. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperStar Mentioned in the Example 4

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

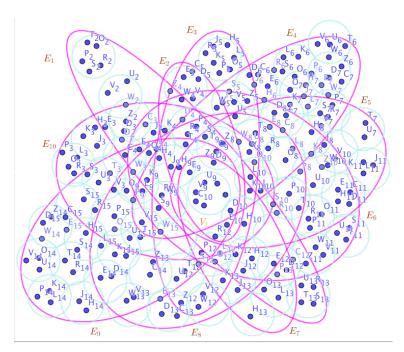


Figure 23. A neutrosophic SuperHyperStar Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 4

Proposition 54. Assume a connected neutrosophic SuperHyperBipartite NSHB: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices titled neutrosophic SuperHyperNeighbors with only one exception. A neutrosophic Failed SuperHyperStable has the number of the neutrosophic cardinality

of the first SuperHyperPart multiplies with the neutrosophic cardinality of the second SuperHyperPart plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all-the-SuperHyperVertices}
-of-neutrosophic-cardinality-of-first-SuperHyperPart-multiplies-second-one-plus-plus
SuperHyperSets of the SuperHyperVertices | min |
the SuperHyperSets of the
interior neutrosophic
SuperHyperVertices,
with only all
exceptions in the form
of SuperHyperNeighbors
excluding one,
from same
SuperHyperEdge.
|neutrosophic cardinality amid those SuperHyperSets.}
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperBipartite NSHB: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have **the maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG: (V, E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x,z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,z\}$, is the maximum neutrosophic cardinality of

a SuperHyperSet S of neutrosophic SuperHyperVertices <u>such that</u> V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperBipartite NSHB:(V,E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only all exceptions in the form of interior neutrosophic SuperHyperVertices titled neutrosophic SuperHyperNeighbors with only one exception. a neutrosophic Failed SuperHyperStable has the number of the neutrosophic cardinality of the first SuperHyperPart multiplies with the neutrosophic cardinality of the second SuperHyperPart plus one. Thus,

```
Neutrosophic neutrosophicFailedSuperHyperStable = {The number-of-all-the-SuperHyperVertices}
-of-neutrosophic-cardinality-of-first-SuperHyperPart-multiplies-second-one-plus-plus
SuperHyperSets of the SuperHyperVertices | min |
the SuperHyperSets of the
interior neutrosophic
SuperHyperVertices,
with only all
exceptions in the form
of SuperHyperNeighbors
excluding one,
from same
SuperHyperEdge.
|neutrosophic cardinality amid those SuperHyperSets.}
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Example 5. In the Figure 24, the connected neutrosophic SuperHyperBipartite NSHB: (V, E), is highlighted and featured.

By using the Figure 24 and the Table 4, the neutrosophic SuperHyperBipartite NSHB: (V, E), is obtained. The obtained SuperHyperSet, by the Algorithm in previous result, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperBipartite NSHB: (V, E), in the neutrosophic SuperHyperModel 24,

$${V_1, \{C_4, D_4, E_4, H_4\},$$

 ${K_4, J_4, L_4, O_4\}, \{W_2, Z_2, C_3\}, \{C_{13}, Z_{12}, V_{12}, W_{12}\},$

is the neutrosophic Failed SuperHyperStable.

Table 4. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperBipartite Mentioned in the Example 5

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

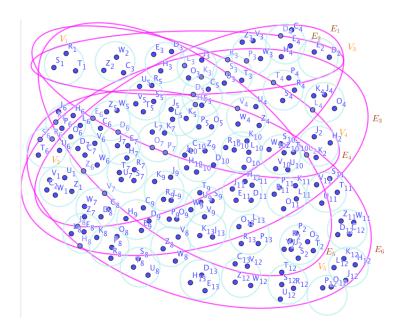


Figure 24. A neutrosophic SuperHyperBipartite Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 5

Proposition 55. Assume a connected neutrosophic SuperHyperMultipartite NSHM: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only one exception in the form of interior neutrosophic SuperHyperVertices from a SuperHyperPart and only one exception in the form of interior neutrosophic SuperHyperVertices from another SuperHyperPart titled "neutrosophic SuperHyperNeighbors" with neglecting and ignoring one of them. A neutrosophic

Failed SuperHyperStable has the number of all the summation on the neutrosophic cardinality of the all SuperHyperParts form distinct neutrosophic SuperHyperEdges plus one. Thus,

```
Neutrosophic neutrosophic Failed Super Hyper Stable = \{the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-number-of-all-the-numbe
summation-on-the-
neutrosophic-
cardinality-of-the-all-
  SuperHyperParts-form-
distinct-neutrosophic-
SuperHyperEdges-
plus-one
SuperHyperSets of the SuperHyperVertices | min | of the interior
neutrosophic
SuperHyperVertices
with only one
exception in the
form of interior
neutrosophic
SuperHyperVertices
from a SuperHyperPart
and only one
exception in the form
of interior
neutrosophic
SuperHyperVertices
from another
SuperHyperPart titled
  "neutrosophic
SuperHyperNeighbors " with
  neglecting and
 ignoring one of them.
 | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperMultipartite NSHM:(V,E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG:(V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V\setminus V\setminus \{z\}$ is a SuperHyperSet S of neutrosophic

SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x,y,z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it <u>doesn't do</u> the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only two neutrosophic SuperHyperVertices inside the intended SuperHyperSet, $V \setminus V \setminus \{x, z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x,z\}$, <u>is</u> a SuperHyperSet, $V \setminus V \setminus \{x,z\}$, <u>includes</u> only <u>two</u> neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperMultipartite NSHM:(V,E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices with only one exception in the form of interior neutrosophic SuperHyperVertices from a SuperHyperPart and only one exception in the form of interior neutrosophic SuperHyperVertices from another SuperHyperPart titled "neutrosophic SuperHyperNeighbors " with neglecting and ignoring one of them. a neutrosophic

Failed SuperHyperStable has the number of all the summation on the neutrosophic cardinality of the all SuperHyperParts form distinct neutrosophic SuperHyperEdges plus one. Thus,

 $Neutrosophic \ neutrosophic \ Failed \ Super \ Hyper \ Stable = \{ the-number-of-all-the-number-of-al$

summation-on-the-

neutrosophic-

cardinality-of-the-all-

SuperHyperParts-form-

distinct-neutrosophic-

SuperHyperEdges-

plus-one

SuperHyperSets of the SuperHyperVertices | min | of the interior

neutrosophic

SuperHyperVertices

with only one

exception in the

form of interior

neutrosophic

SuperHyperVertices

from a SuperHyperPart

and only one

exception in the form

of interior

neutrosophic

SuperHyperVertices

from another

SuperHyperPart titled

"neutrosophic

SuperHyperNeighbors " with

neglecting and

ignoring one of them.

| neutrosophic cardinality amid those SuperHyperSets. }

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively. \Box

Example 6. In the Figure 25, the connected neutrosophic SuperHyperMultipartite NSHM:(V,E), is highlighted and featured. By using the Figure 25 and the Table 5, the neutrosophic SuperHyperMultipartite NSHM:(V,E), is obtained.



The obtained SuperHyperSet, by the Algorithm in previous result, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperMultipartite NSHM: (V, E),

$$\{\{\{L_4, E_4, O_4, D_4, J_4, K_4, H_4\},$$

 $\{S_{10}, R_{10}, P_{10}\},$
 $\{Z_7, W_7\}, \{U_7, V_7\}\},$

in the neutrosophic SuperHyperModel 25, is the neutrosophic Failed SuperHyperStable.

Table 5. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperMultipartite NSHM: (V, E), Mentioned in the Example 6

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges ine The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

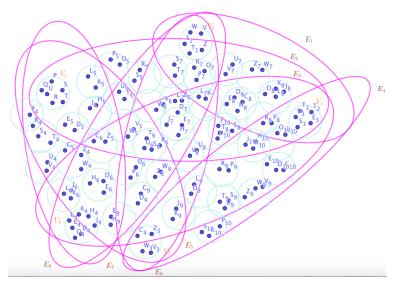


Figure 25. A neutrosophic SuperHyperMultipartite Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 6

Proposition 56. Assume a connected neutrosophic SuperHyperWheel NSHW: (V, E). Then a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in the form of interior neutrosophic SuperHyperVertices from same neutrosophic SuperHyperEdge with the exclusion once. A neutrosophic Failed SuperHyperStable has the number

of all the number of all the neutrosophic SuperHyperEdges have no common neutrosophic SuperHyperNeighbors for a neutrosophic SuperHyperVertex with the exclusion once. Thus,

```
Neutrosophic Failed SuperHyperStable = { The-number-of-all-the-neutrosophic-SuperHyperEdges-have-no-common-neutrosophic-SuperHyperNeighbors-for-a-neutrosophic-SuperHyperVertex-with-the-exclusion-once SuperHyperSets of the SuperHyperVertices | min | SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in the form of interior neutrosophic SuperHyperVertices from same neutrosophic SuperHyperEdge with the exclusion once. | neutrosophic cardinality amid those SuperHyperSets. }
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively.

Proof. Assume a connected neutrosophic SuperHyperWheel NSHW: (V, E). Let a neutrosophic SuperHyperEdge has some neutrosophic SuperHyperVertices. Consider all numbers of those neutrosophic SuperHyperVertices from that neutrosophic SuperHyperEdge excluding more than two distinct neutrosophic SuperHyperVertices, exclude to any given SuperHyperSet of the neutrosophic SuperHyperVertices. Consider there's a neutrosophic Failed SuperHyperStable with the least neutrosophic cardinality, the lower sharp bound for neutrosophic cardinality. Assume a connected neutrosophic SuperHyperGraph NSHG: (V,E). The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{z\}$ is a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't have the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. The SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, y, z\}$ is the maximum neutrosophic cardinality of a SuperHyperSet S of neutrosophic SuperHyperVertices but it isn't a neutrosophic Failed SuperHyperStable . Since it doesn't do the procedure such that such that there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. [there'er at least three neutrosophic SuperHyperVertices inside implying there's, sometimes in the connected neutrosophic SuperHyperGraph NSHG:(V,E), a neutrosophic SuperHyperVertex, titled its neutrosophic SuperHyperNeighbor, to that neutrosophic SuperHyperVertex in the SuperHyperSet S so as S doesn't do "the procedure".]. There're only **two** neutrosophic SuperHyperVertices **inside** the intended SuperHyperSet, $V \setminus V \setminus \{x,z\}$. Thus the obvious neutrosophic Failed SuperHyperStable, $V \setminus \{x,z\}$. $V \setminus \{x,z\}$, is up. The obvious simple type-SuperHyperSet of the neutrosophic Failed SuperHyperStable, $V \setminus V \setminus \{x, z\}$, is a SuperHyperSet, $V \setminus V \setminus \{x, z\}$, includes only two neutrosophic SuperHyperVertices doesn't form any kind of pairs are titled neutrosophic SuperHyperNeighbors in a connected neutrosophic SuperHyperGraph NSHG: (V, E). Since the SuperHyperSet of the neutrosophic SuperHyperVertices $V \setminus V \setminus \{x, z\}$, is the **maximum neutrosophic cardinality** of a SuperHyperSet *S* of neutrosophic SuperHyperVertices such that V(G) there's a neutrosophic SuperHyperVertex to have a neutrosophic SuperHyperEdge in common. Thus, in a connected neutrosophic SuperHyperWheel NSHW: (V, E), a neutrosophic Failed SuperHyperStable is a SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in

the form of interior neutrosophic SuperHyperVertices from same neutrosophic SuperHyperEdge with the exclusion once. a neutrosophic Failed SuperHyperStable has the number of all the number of all the neutrosophic SuperHyperEdges have no common neutrosophic SuperHyperNeighbors for a neutrosophic SuperHyperVertex with the exclusion once. Thus,

```
Neutrosophic Failed SuperHyperStable = { The-number-of-all-the-neutrosophic-SuperHyperEdges-have-no-common-neutrosophic-SuperHyperNeighbors-for-a-neutrosophic-SuperHyperVertex-with-the-exclusion-once SuperHyperSets of the SuperHyperVertices | min | SuperHyperSet of the interior neutrosophic SuperHyperVertices, excluding the SuperHyperCenter, with only one exception in the form of interior neutrosophic SuperHyperVertices from same neutrosophic SuperHyperEdge with the exclusion once.|neutrosophic cardinality amid those SuperHyperSets.}
```

Where σ_i is the unary operation on the SuperHyperVertices of the SuperHyperGraph to assign the determinacy, the indeterminacy and the neutrality, for i = 1, 2, 3, respectively. \Box

Example 7. In the Figure 26, the connected neutrosophic SuperHyperWheel NSHW: (V, E), is highlighted and featured.

By using the Figure 26 and the Table 6, the neutrosophic SuperHyperWheel NSHW: (V, E), is obtained. The obtained SuperHyperSet, by the Algorithm in previous result, of the neutrosophic SuperHyperVertices of the connected neutrosophic SuperHyperWheel NSHW: (V, E),

$$\{V_5,\$$
 $\{Z_{13}, W_{13}, U_{13}, V_{13}, O_{14}\},\$
 $\{T_{10}, K_{10}, J_{10}\},\$
 $\{E_7, C_7, Z_6\}, \{K_7, J_7, L_7\},\$
 $\{T_{14}, U_{14}, R_{15}, S_{15}\},\$

in the neutrosophic SuperHyperModel 26, is the neutrosophic Failed SuperHyperStable.

Table 6. The Values of Vertices, SuperVertices, Edges, HyperEdges, and SuperHyperEdges Belong to The Neutrosophic SuperHyperWheel NSHW: (V, E), Mentioned in the Example 7

ine The Values of The Vertices ine The Values of The SuperVertices ine The Values of The Edges ine The Values of The HyperEdges ine The Values of The SuperHyperEdges The Number of Position in Alphabet The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Vertices The maximum Values of Its Endpoints

7. Open Neutrosophic Problems

In what follows, some "Neutrosophic problems" and some "Neutrosophic questions" are Neutrosophicly proposed.

The Failed SuperHyperStable and the neutrosophic Failed SuperHyperStable are Neutrosophicly defined on a real-world Neutrosophic application, titled "Cancer's neutrosophic recognitions".

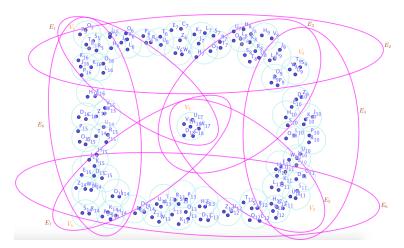


Figure 26. A neutrosophic SuperHyperWheel Associated to the Notions of neutrosophic Failed SuperHyperStable in the Example 7

Question 3. Which the else neutrosophic SuperHyperModels could be defined based on Cancer's neutrosophic recognitions?

Question 4. Are there some neutrosophic SuperHyperNotions related to Failed SuperHyperStable and the neutrosophic Failed SuperHyperStable?

Question 5. Are there some Neutrosophic Algorithms to be defined on the neutrosophic SuperHyperModels to compute them Neutrosophicly?

Question 6. Which the neutrosophic SuperHyperNotions are related to beyond the Failed SuperHyperStable and the neutrosophic Failed SuperHyperStable?

Problem 7. The Failed SuperHyperStable and the neutrosophic Failed SuperHyperStable do Neutrosophicly a neutrosophic SuperHyperModel for the Cancer's neutrosophic recognitions and they're based Neutrosophicly on neutrosophic Failed SuperHyperStable, are there else Neutrosophicly?

Problem 8. Which the fundamental Neutrosophic SuperHyperNumbers are related to these Neutrosophic SuperHyperNumbers types-results?

Problem 9. What's the independent research based on Cancer's neutrosophic recognitions concerning the multiple types of neutrosophic SuperHyperNotions?

8. Neutrosophic Conclusion and Closing Remarks

In this research, the cancer is chosen as a Neutrosophic phenomenon. Some Neutrosophic general approaches are Neutrosophicly applied on it. Beyond that, some general Neutrosophic arrangements of the Neutrosophic situations are Neutrosophicly redefined alongside detailed-oriented illustrations, clarifications, analysis on the featured dense Neutrosophic figures. The research proposes theoretical Neutrosophic results on the cancer and mentioned Neutrosophic cases only give us the Neutrosophic perspective on the theoretical Neutrosophic aspect with enriched Neutrosophic background of the the mathematical Neutrosophic framework arise from Extreme Failed SuperHyperClique theory, Neutrosophic Failed SuperHyperClique theory, and (Neutrosophic) SuperHyperGraphs theory. In the Table 7, the literatures of this research on what's happened and what will happen are pointed out and figured out.

Table 7. The Literatures of This Research On What's Happened and What will Happen

ine Happened
ine 1. New Generating Neutrosophic SuperHyperGraph
2. Failed SuperHyperStable
3. Neutrosophic Failed SuperHyperStable
4. Neutrosophic Scheme of Cancer's Neutrosophic Recognitions
5. New Neutrosophic Reproductions
ine
ine Will Happen
ine 1. Overall Neutrosophic Hypothesis
2. Cancer's Neutrosophic SuperHyperNumbers

3. Neutrosophic SuperHyperFamilies-types ine

Author Contributions:

Funding:

Acknowledgments:

Conflicts of Interest:

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