ABSTRAK

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Judul : **Nilai Ketakteraturan Total *Face* Pada Graf *Friendship* (F_m)**

Pelabelan-k total $\phi : V \cup E \cup F \rightarrow \{1,2,\dots,k\}$ dikatakan pelabelan-k total takteratur *face* dari graf G , jika 2 *face* yang saling terhubung $G = \{V, E, F\}$ memiliki bobot setiap *face* berbeda. Jika dua *face* yang berbeda f dan g maka bobot *face* keduanya $wt_f(f) \neq wt_f(g)$ dimana $\phi f\{v + e\} \neq g\{v + e\}$. Nilai minimum sehingga graf G memiliki pelabelan-k takteratur total *face* disebut nilai total ketakteraturan total *face* dari graf G. Dinotasikan dengan $tfs(G)$. Pada skripsi ini akan membahas mengenai nilai ketakteraturan total *face* pada graf *friendship* (F_m) dan akan membuktikan bahwa

$$tfs(F_m) = \frac{m+4}{5}, untuk\ m \geq 2$$

Kata Kunci : Pelabelan-k tak teratur total *face*; Nilai ketakteraturan total *face*; Graf *friendship*

ABSTRACT

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Title **: *Total face irregularity strength of friendship graphs (F_m)***

The total k-labeling $\phi : V \cup E \cup F \rightarrow \{1,2,\dots,k\}$ is called the total k-labeling of the irregular faces of graph G, if 2 face connected to each other $G = \{V, E, F\}$ have weights each face is different. If the two faces are different f and g then the weight of the face is both $wt_f(f) \neq wt_f(g)$ where $\phi f\{v + e\} \neq g\{v + e\}$. The minimum value such that the graph G has k-labeling of the total irregular faces of the graph is called the total irregularity of the faces of the graph G. Denoted by $tfs\ (G)$. In this thesis, we will discuss the total face irregularity value on the friendship graph (F_m) and will prove that

$$tfs(F_m) = \frac{m+4}{5}, for\ m \geq 2$$

Keyword : *total irregular face k-labeling*; *face total irregularity strength*; *friendship graph*s