

DIGRAPHS (GRAPH THEORY).

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KONSTRUKSI DIGRAPH EKSENTRIS DENGAN MATRIKS ADJACENCY

SKRIPSI



MILIK
PERPUSTAKAAN
UNIVERSITAS AIRLANGGA
SURABAYA

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JURUSAN MATEMATIKA
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
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Sebagai Salah Satu Syarat Untuk Memperoleh
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Agus Yasin Kurniawan, 2004. Construction of Eccentric Digraph with Adjacency Matrix, Dra. Rini Semiati and Dra. Yayuk Wahyuni, M.Si are advisers of this thesis, Mathematics Department, Faculty of Mathematics and Natural Science, Airlangga University.

ABSTRACT

The objective of this thesis is to find the connection between adjacency matrix of digraph and adjacency matrix of its eccentric digraph, and algorithm for constructing eccentric digraph from digraph based on the connection.

The connection between adjacency matrix of digraph and adjacency matrix of its eccentric digraph is found by ascertaining the eccentric vertex from every vertex based on adjacency matrix of digraph. Therefore, laid hold of eccentric digraph from digraph. Then acquired adjacency matrix of eccentric digraph. Adjacency matrix of eccentric digraph from cycle digraph is transpose of adjacency matrix of the cycle digraph. Whereas the connection between adjacency matrix of complete multipartit digraph and adjacency matrix of its eccentric digraph is divided by 3 case. First, if the number of vertex at every partition is one. Second, if there is partition which the number of vertex is one and partition which the number of vertex is more than one. Third, if the number of vertex at every partition is more than one.

Based on every connection above, it is piled up algorithm for constructing eccentric digraph from digraph.

Key Word : adjacency matrix, distance, eccentricity, eccentric vertex, eccentric digraph.