ABSTRAK

Spektrum gelombang laut diperlukan untuk mengetahui karakteristik dari gelombang di permukaan laut. Bentuk-bentuk spektrum gelombang laut dapat digunakan untuk menentukan periode puncak gelombang dan panjang gelombang. Pada tugas akhir ini akan dibahas mengenai bentuk-bentuk spektrum gelombang laut. Spektrum gelombang laut yang sering digunakan antara lain spektrum Pierson Moskowitz, spektrum Generalized Pierson-Moskowitz (spektrum Bretschneider atau spektrum Modified Pierson-Moskowitz), spektrum JONSWAP (Joint North Sea Wave Project) dan spektrum Phillips. Bentuk spektrum gelombang laut dapat diketahui melalui data periode gelombang. Dengan merumuskan data frekuensi gelombang yang dapat dihitung dari periode gelombang ke dalam masing-masing fungsi kerapatan spektral, maka dapat diperoleh periode puncak spektrum. Melalui persamaan gelombang yang memberikan hubungan antara panjang gelombang dan suatu periode gelombang maka diperoleh panjang gelombang pada saat periode gelombang puncak.

This document is Undip Institutional Repository Collection. The author(s) or copyright owner(s) agree that UNDIP-IR may, without changing the content, translate the submission to any medium or format for the purpose of preservation. The author(s) or copyright owner(s) also agree that UNDIP-IR may keep more than one copy of this submission for purpose of security, back-up and preservation:
(http://eprints.undip.ac.id)

ABSTRACT

The wave spectrum is needed to know the characteristic of sea surface wave. The shape of wave spectrum can used to determine the peak period and the length of wave. In this paper we will talk about the shape of wave spectrum. The wave spectrum wich commonly used are Generalized Pierson-Moskowitz spectrum (Bretschneider spectrum or Modified Pierson-Moskowitz spectrum), JONSWAP spectrum (Joint North Sea Wave Project) dan Phillips spectrum. The shape of wave spectrum can determined through the data of wave period. Consider the data of wave frequency wich are computed from wave period into each spectral density function, than we can get the peak period of spectrum. Trough the wave equation that give the relation between the length of wave and a wave period we can determined the length of wave at the peak period of wave.

This document is Undip Institutional Repository Collection. The author(s) or copyright owner(s) agree that UNDIP-IR may, without changing the content, translate the submission to any medium or format for the purpose of preservation. The author(s) or copyright owner(s) also agree that UNDIP-IR may keep more than one copy of this submission for purpose of security, back-up and preservation:
(http://eprints.undip.ac.id)