Accepted Manuscript

The influence of Thomson effect and inclined loads in an electro-magneto-thermoelastic solid with voids under Green-Naghdi theories

Elsayed M. Abd-Elaziz, Mohamed I.M. Hilal

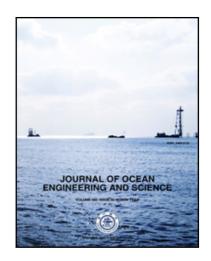
PII: S2468-0133(18)30094-9

DOI: https://doi.org/10.1016/j.joes.2018.08.003

Reference: JOES 84

To appear in: Journal of Ocean Engineering and Science

Received date: 25 June 2018
Revised date: 6 August 2018
Accepted date: 14 August 2018



Please cite this article as: Elsayed M. Abd-Elaziz, Mohamed I.M. Hilal, The influence of Thomson effect and inclined loads in an electro-magneto-thermoelastic solid with voids under Green-Naghdi theories, *Journal of Ocean Engineering and Science* (2018), doi: https://doi.org/10.1016/j.joes.2018.08.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights (for review)

- 1 The present investigation is aimed at the study of the general plane strain problem of generalized electro-magneto-thermoelastic half-space solid with voids subjected to inclined loads and Thomson effect.
- 2. The generalized theory of thermoelasticity in the context Green-Naghdi of type
- II and III is used to solve this problem.
- The normal mode analysis technique is used to obtain the components of stress, strain, temperature, induced magnetic field and change in volume fraction field.
- 4. The effect of Thomson parameter on all the studied fields is very much significant.
- 5. Significant difference in values of the studied fields is noticed for different values of the angle of inclination.
- 6. The results are plotted with MATLAB software to show the effect of Thomson parameter, angle of inclination.

Download English Version:

https://daneshyari.com/en/article/10153038

Download Persian Version:

https://daneshyari.com/article/10153038

<u>Daneshyari.com</u>