Fayoum University

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Degree: PhD.
Title of Thesis: Study of Some Problems of Fluid Flow with Heat Transfer Using Numerical Methods

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ABSTRACT

Complete analysis for flow of Newtonian and Non-Newtonian fluids for different geometry is given. The objective is to solve the Momentum and Energy equations for the fluids that flow in different geometry (Parallel plates, circular pipes, and rotating disk).

In this thesis; four different problems for non-Newtonian fluid flow are studied. Mathematical numerical solution method is used to solve partial differential equations (PDEs) that represent the velocity of flow and Temperature distribution based on the linearity status of these PDEs.

The summary not more than 500 words