

Table of Contents :-

Chapter – I : Introduction

Chapter – II : Stratified Fluid Flows

Chapter – III : Boundary Layer Effects on Stratified Fluid Flows

Chapter – IV : Flow of Viscous Fluid Through Circular Pipe

Chapter – V : MHD Fluid Flows

Chapter – VI : Flow of Viscous incompressible Fluid

References

Publications :

CONTENTS

Chapter – I	Introduction	1 - 23
Chapter – II	Stratified Fluid Flows	24-40
	PART ONE To Study the slip velocity for the flow of stratified fluid of variable viscosity past a porous bed under the action of pressure gradient.	
	2.1 Introduction	25-32
	2.2 Formulism	
	2.3 Solution of the problem	
	2.4 Discussion	
	PART – TWO Unsteady laminar stratified flow over a porous bed under the action of body force	
	2.5 Introduction	33-40
	2.6 Mathematical formulation of the problem and its solution	
	2.7 Discussion	
Chapter – III :	Boundary Layer Effects on Stratified Fluid Flows	41-60
	PART – ONE To study the boundary layer for MHD stratified fluid through a porous medium	
	3.1 Introduction	42-51
	3.2 Mathematical formulation of the problem and its solution	
	3.3 Discussion	
	PART- TWO To study the boundary layer for the flow of viscous stratified fluid past a porous bed	
	3.4 Introduction	52-60
	3.5 Mathematical formulation of the problem and its solution	
	3.6 Discussion	

Chapter – IV :	Flow of Viscous Fluid Through Circular Pipe	61-88
PART – ONE	Note on the flow of a viscous fluid between two porous concentric circular cylinders subjected to suction or injection	
	4.1 Introduction	62-72
	4.2 Formulation of the problem	
	4.3 Solution of the problem	
	4.4 Discussion of the result	
PART – TWO	Stratified fluid of variable viscosity past a permeable circular tube	
	4.5 Introduction	73-80
	4.6 Mathematical formulation of the problem	
	4.7 Solution of the problem	
	4.8 Discussion	
PART – THREE	Unsteady flow of viscous fluid through a long straight porous circular pipe due to time varying pressure gradient with an initial arbitrary velocity distribution.	
	4.9 Introduction	81-88
	4.10 Formulation of the problem	
	4.11. Solution of the problem	
	4.12 Particular case and discussion	
Chapter – V :	MHD Fluid Flows	89-108
PART – ONE	To study the flow of MHD flow through porous medium of different permeabilities under pressure gradient	
	5.1 Introduction	90-97
	5.2 Mathematical formulation of the problem	
	5.3 Solution of the problem	
	5.4 Discussion	
PART – TWO	To study the flow of viscous MHD fluid between two rotating cylinders.	
	5.5 Introduction	98-108
	5.6 Mathematical formulation of the problem	
	5.7 Solution of the problem	
	5.8 Discussion	

Chapter – VI :	Flow of Viscous Incompressible Fluid	109-143
PART – ONE	Slow steady flow of viscous incompressible fluid between two infinite co-axial circular cylinders with axial roughness.	
	6.1 Introduction	110-132
	6.2 Mathematical Formulation	
	6.3 Solution of the problem	
	6.4 Discussion	
PART – TWO	Generation of surface-wave in a semi-infinite viscous incompressible fluid due to ring load and disc load.	
	6.5 Introduction	133-143
	6.6 Mathematical Formulation	
	6.7 Discussion of the result	
REFERENCES :		144-147
PUBLICATIONS :		148-197