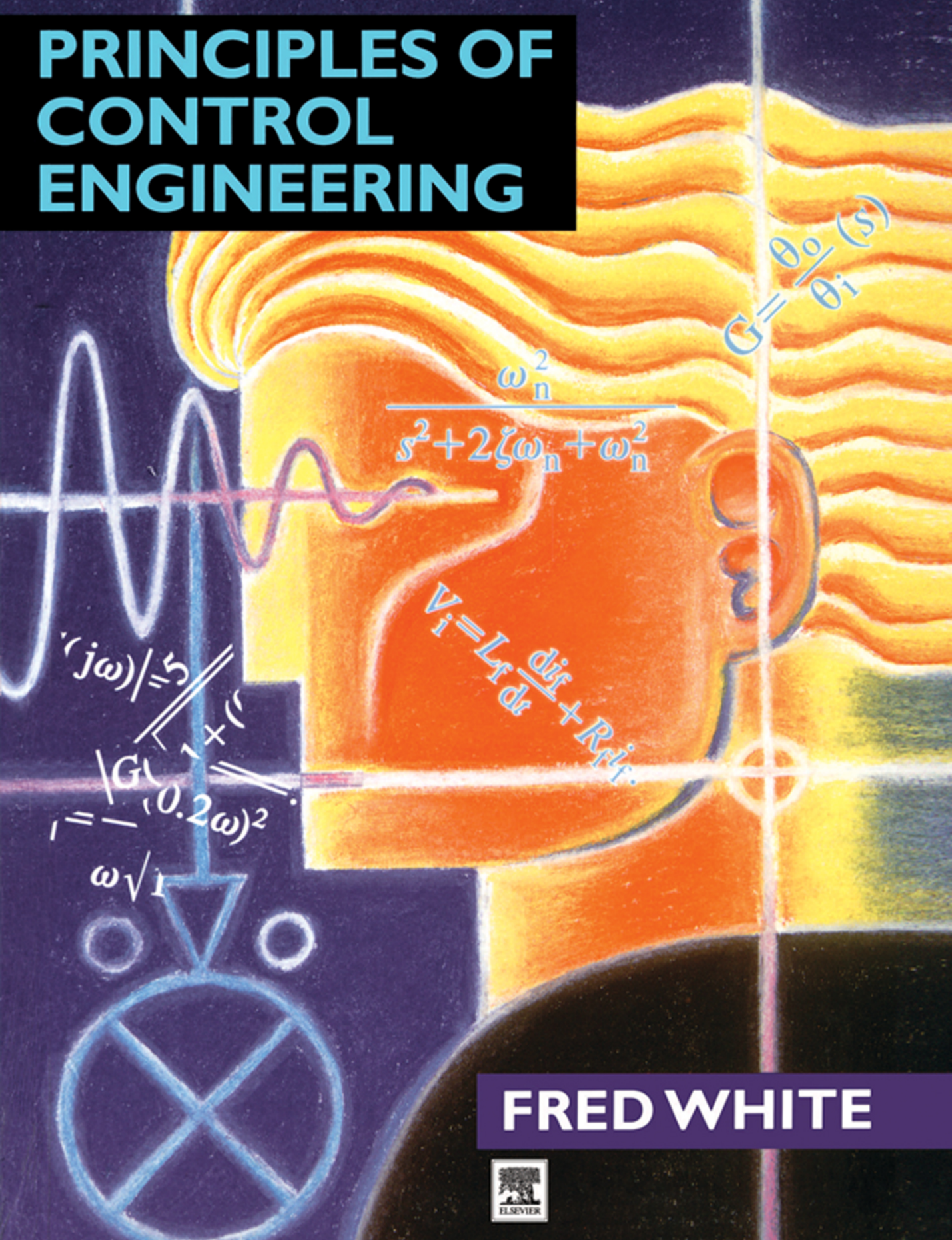
# PRINCIPLES OF CONTROL ENGINEERING




FRED WHITE

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# Principles of Control Engineering

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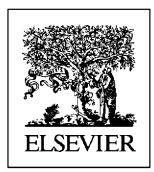

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# Preface

This book has been prepared as a support text for BTEC HNC/HND and undergraduate Linear Control Engineering modules. This book will also be of use to those practising engineers who need to refresh their knowledge or to open-learning students.

Students are often apprehensive of this topic, especially when confronted by differential or integral calculus beyond their experience. I have consciously minimised the use of mathematics to that level experienced by ONC/OND students until well into the text.

I am convinced that all engineering students should have exposure to this subject and an insight into Control Engineering methods will help an overall perception to develop. Another great asset to the engineering student is **CO**ntrol **D**esign **A**nd Simulation (CODAS) software, available for the PC, which can be used to demonstrate the methods as they are introduced. Throughout this book I have used CODAS for this purpose and would strongly advise any engineering student to attempt to use it, or at least something similar.

To the mathematician, or even the great Red-Pen himself, I make no apology for leaving out proofs which are not required in most modules and only serve to confuse many students.

Finally, I would like to thank my wife Brenda and my colleagues from Havering College of Further and Higher Education for their support and assistance throughout the writing of this book.

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