INTRODUCTION

The following short course on conveyors is intended to give some insight to engineers with little or no experience of conveyors, as to how conveyors operate and how their various components are designed. At the end of the course, the reader will by no means be an expert conveyor designer, but will almost certainly be able to solve common problems associated with these machines. The course is intended to allow engineers to become aware of certain pitfalls regarding the operation of conveyors and how to avoid them.

Graham Shortt originally wrote most of the material in the notes for one or other presentation. The balance was re-worked from papers made available from other sources and adapted for the purpose of this document.

The course papers are divided in to 25 chapters as follows

Chapter 1	Why use belt conveyors
Chapter 2	Minimising losses
Chapter 3	Cross-sectional Area determination
Chapter 4	Basic Tension Calculations
Chapter 5	The Design and Selection of Idlers
Chapter 6	Vertical Curves
Chapter 7	Holdback Sizing
Chapter 8	Vibrations and belt flap
Chapter 9	Take-up Determination
Chapter 10	Pulley shafts
Chapter 11	Transition distances
Chapter 12	Belt cover wear and life prediction
Chapter 13	Installation tolerances
Chapter 14	Installation, operation and maintenance
Chapter 15	Guarding of conveyors
Chapter 16	Storage of belting
Chapter 17	Commissioning procedure
Chapter 18	Alignment and the use of self-aligning idlers
Chapter 19	Conveyor belt protection devices
Chapter 20	Splicing the Belt
Chapter 21	Estimating Conveyor Operating costs
Chapter 22	The Trajectory of the Material
Chapter 23	The Design of Belt Conveyor Skirtboards
Chapter 24	The Design of Conveyor Stringers
Chapter 25	Conveyor starting and coasting