

目 录

PART ONE

Lesson 1	The Evolution of Mechanical Engineering	3
Lesson 2	Fundamentals of Machine Design	10
Lesson 3	Engineering Materials	17
Lesson 4	Basic Concepts in Mechanics	24
Lesson 5	Hydraulics	31
Lesson 6	Engineering Graphics	37
Lesson 7	Mechanical Parts	44
Lesson 8	Lathes and Lathe Operations	50
Lesson 9	Metal Forming	57
Lesson 10	The Welding and Welding Arc	64
Lesson 11	Injection Molding Machines	71

PART TWO

Lesson 12	Mechatronics	81
Lesson 13	Microcontroller Overview	89
Lesson 14	Introduction to PLC	95
Lesson 15	Industrial Robots	101
Lesson 16	Pro/Engineer	107
Lesson 17	Numerically Controlled Machine Tools	114
Lesson 18	Computer-Aided Process Planning	120
Lesson 19	Flexible Manufacturing Systems	126
Lesson 20	Virtual Manufacturing	133

PART THREE

Lesson 21	Solar Power	141
Lesson 22	Wind Power (I)	146
Lesson 23	Wind Power (II)	152
Lesson 24	How to Write a Scientific Paper	158

附录一	科技英语翻译技巧	167
附录二	参考译文	175
参考文献		215