

Cambridge University Press 978-0-521-31217-2 - The Systematic Experiment: A Guide for Engineers and Industrial Scientists Edited by J. C. Gibbings Table of Contents More information

## **Contents**

Preface Acknowledgments		<i>page</i> vii	
		ix	
1	The place of the experiment in engineering	1	
2	The planning of experiments: part 1 – general		
	procedures	6	
3	The planning of experiments: part 2 – statistical		
	design of experiments	29	
4	The planning of experiments: part 3 – application		
	of dimensional analysis	61	
5	Observational and measurement techniques	79	
6	Photography in experiments	140	
7	Interfacing experimental equipment to		
	microcomputers	200	
8	Errors in experimentation	231	
9	Analysis and interpretation of results	238	
10	Communication of technical information	280	
Appendix 1: outline of dimensional analysis		299	
Appendix 2: outline of error analysis		303	
Аp	pendix 3: notation, units, laws, formulae, properties		
-	and constants	327	
Index		350	
v			