CONTENTS

PREFACE TO THE IEEE PRESS EDITION .................. ix

PREFACE .............................................. x

ERRATA ................................................ xi

CHAPTER 1. INTRODUCTION ......................... 1


CHAPTER 2. PROBABILITY ......................... 5


CHAPTER 3. RANDOM VARIABLES AND PROBABILITY DISTRIBUTIONS ....... 19


CHAPTER 4. AVERAGES ............................ 45


CHAPTER 5. SAMPLING ............................ 76

5-1. Introduction, 5-2. The Sample Mean, 5-3. Convergence of the Sample Mean, 5-4. The Central Limit Theorem, 5-5. Relative Frequency, 5-6. Problems

CHAPTER 6. SPECTRAL ANALYSIS ................. 87

CHAPTER 7. SHOT NOISE . . . . . . . . . . . . 112

CHAPTER 8. THE GAUSSIAN PROCESS . . . . . . . . . . 145

CHAPTER 9. LINEAR SYSTEMS. . . . . . . . . . . . . 171

CHAPTER 10. NOISE FIGURE . . . . . . . . . . . . . 204
10-1. Definitions, 10-2. Noise Figure, 10-3. Cascaded Stages, 10-4. Example, 10-5. Problems

CHAPTER 11. OPTIMUM LINEAR SYSTEMS . . . . . . . 219

CHAPTER 12. NONLINEAR DEVICES: THE DIRECT METHOD . . . . . . . . . . . . . . . . . . . 250

CHAPTER 13. NONLINEAR DEVICES: THE TRANSFORM METHOD . . . . . . . . . . . . . . . . . . . 277