This Book, Oscillators and Advanced Electronics Topics, is the final book of a larger, four-book set, Fundamentals of Electronics. It consists of five chapters that further develop practical electronic applications based on the fundamental principles developed in the first three books. This book begins by extending the principles of electronic feedback circuits to linear oscillator circuits. The second chapter explores non-linear oscillation, waveform generation, and waveshaping. The third chapter focuses on providing clean, reliable power for electronic applications where voltage regulation and transient suppression are the focus. Fundamentals of communication circuitry form the basis for the fourth chapter with voltage-controlled oscillators, mixers, and phase-lock loops being the primary focus. The final chapter expands upon early discussions of logic gate operation (introduced in Book 1) to explore gate speed and advanced gate topologies.

Fundamentals of Electronics has been designed primarily for use in an upper division course in electronics for electrical engineering students and for working professionals. Typically such a course spans a full academic year consisting of two semesters or three quarters. As such, Oscillators and Advanced Electronic Topics, and the first three books in the series, Electronic Devices and Circuit Applications (ISBN 978-93-85909-21-4), Amplifiers: Analysis and Design (ISBN 978-93-85909-22-1), and Active Filters and Amplifier Frequency Response (ISBN 978-93-85909-23-8) form an appropriate body of material for such course.

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