

PART THREE INSTRUMENTATION

The raw materials for these applications were gathered, described, and explained in Part I. The configurations in which we have arranged those materials have all appeared and been analyzed in Part II . . . for all measurement is information conversion, and all such conversions fall into one class or another of data manipulation—computing, in its broadest sense.

This Anthology of well over 100 Circuits That Work has been culled (not without great pain) from the Augean files of our Applications Engineering and Development Engineering departments. Time and Space permitting, we might have gone on for at least another 100, without significant repetition or overlap, but our rule was to select a good example of each genus, rarely admitting more than one or two species, and almost never more than one specimen of each. Despite its imperfections, for which we apologize in advance, we believe this to be the largest and most panoramic collection of Operational Amplifier Instrumentation applications ever assembled and catalogued.

Some idea of the pace and vigor of this field may be gained from the fact that we have twice had to revise and expand this section, *in the year or so during which it was written*, to include new circuits that could not, in our judgment, be ignored.

One thought more about the nature of these circuits: only a few of them have been selected because they were—even in our opinion—the best of their kind. All are representative of good current practice, yes. In its class, each has been fashioned to enhance some one characteristic: economy, simplicity, accuracy, convenience, etc. The few that *are*, to our knowledge, very close to the limit of the current state of the Analog Art are so identified, at least by inference. As for the great majority of these circuits—use them with confidence, but do not despair if they are not adequate to the task you have set for them; instead, call on us to dip back into those files again. For every circuit you see here, we have a dozen variations in stock; one of them is almost sure to serve.

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