

Foreword

IN THESE DAYS of overabundance of specialized technical conferences, it might be appropriate for both organizers and participants to consider the function and to appraise the value of such events. What is the function of a meeting devoted to a growing segment of science and technology?

First, a conference provides those in the field with an organized opportunity to inform and to be informed on recent ideas, activities and developments. This *informative* function is important because it promulgates the state-of-the-art, prevents excessive duplication and reinvention of established techniques, "levels" the knowledge of geographically and organizationally separated investigators and thereby contributes to a more efficient growth of the Art.

But the updating of colleagues should not be the only function of a conference intended to play a pioneering role in a rapidly growing field. An effective conference will also indicate overall trends and sketch a perspective of the future by underscoring areas having the greatest potential. This second, *anticipative* function is enhanced by including in the program papers dealing with unproven promising areas (selectively, to avoid confusing the audience with often sensational, but ephemeral curiosities) and by bringing to the attention of the participants the thoughts and hunches of leading investigators. If this is done thoroughly and with judgment, the conference assumes a third function—the *catalytic* or *causative* one, stimulating the participants to apply their efforts towards worthwhile objectives. Thus the conference may contribute actively to the growth of the Art.

With these considerations in mind, it may be of interest to review the development of our Conference. The first, held in 1954, was organized by a few enthusiastic people who believed that a meeting dedicated to novel transistor circuits could accelerate and spread a better understanding of the transistor. Called the "Transistor Circuits Conference," it was well attended and received, and it was decided to develop it into an annual event. In the 1956 Conference the organizers recognized the trend of the *Art* and George Haller, Conference Chairman, in his opening address, called for an expansion of the scope of future Conferences to include, besides transistors, applications of other new and forthcoming solid-state devices, if the Conference was to retain its pioneering character. The 1957 and 1958 Conferences, known as "Transistor and Solid-State Circuits Conferences," featured several papers and discussions dealing with novel solid-state applications. The change was gradual and cautious (as indicated by the redundant title) but, frankly, only few really significant contributions related to entirely new areas were available and important advances were still being made in the field of transistor circuits. The next step was made by Jack Morton's 1959 Conference Committee: Transistor circuit papers, which, with the maturing of the field, had an increasing tendency to deal with specific design problems, were relegated to a secondary position, the program was based on a variety of new solid-state applications and the name of the Conference became simply "Solid-State Circuits Conference." To our surprise, this "high-brow" change did not slow down the fairly regular year-to-year increase in the number of participants and a record attendance exceeding 2,000 resulted.

No major shift in program structure appeared to be needed this year, but two innovations have been included. The Conference has been extended to three days (to reduce the participants' burden of choice between parallel sessions) and, in recognition of the significance of solid-state activities in several foreign countries, an attempt has been made to expand its geographic base beyond the boundaries of the United States. Here, again, a slow start is indicated; while several outstanding foreign speakers are on the program, the majority of the talks originate in the United States. We hope that future Conferences will attract increasing international participation. The program should, however, continue to be composed of the best available papers, without subordinating quality to national origin.

In the past two years, to intensify the anticipative and catalytic character of the Conference, extensive use has been made of two means: Informal evening discussion sessions featuring panels of leaders in various areas, as well as deliberate program emphasis on one or two very promising new activities. For 1960, Tudor Finch and his Program Committee increased the number of discussion sessions and gave tunnel diodes major prominence in the Program.

In the light of this historical sketch, are we really entitled to believe that the Solid-State Circuits Conference contributes to the Profession and to the advancement of the Art? The deciding word rests with Conference participants. May their judgment be merciful.

Arthur P. Stern
Conference Chairman