

Review of Existing Art: The basic function of all electrical control devices is simply that of switching, modulating or otherwise directing the flow of current to serve some useful purpose. In reviewing the history of existing types of control components, however, it is quite apparent that each possesses certain inherent limitations.

Electromagnetic-mechanical switching devices still present problems of wear and malfunctioning of linkages and contacts. Magnetic amplifiers are still too large, bulky and expensive to be widely used for large current carrying applications. Tubes are still limited by their fragility, lack of capacity and reliability. And even transistors—most promising development in the past decade of static control and semi-conductor research—are still confronted with temperature sensitivity and circuitry problems, as well as cost and load-carrying limitations when modulated.

In view of the above—and because the switching operation is an almost universal function in all types of commercial, industrial and military equipment and systems, it has long been felt that an entirely new approach to static control means would be required to realize the full future capabilities of present-day technology.

Nerve Cell Analogy: As you will see demonstrated, such a new and unique concept has been developed—inspired in part by a theoretical study of the electrochemical dynamics of the human nervous system. For, according to all modern theory of the metabolism and function of the neuron, this highly efficient and ultra reliable “control component” is surrounded by a semi-permeable membrane which is charged positively on the outside and negatively on the inside. When a stimulus reaches the surface of this membrane, its permeability to certain ions increases with a corresponding decrease in resistance—and its surface becomes activated by a spreading wave of potential. This change in permeability during passage of an impulse is accompanied by impedance changes on the membrane—thus effectively controlling the “output” of the large energy potential.

We hope that you will be able to attend the preview demonstration of static control devices utilizing these principles.

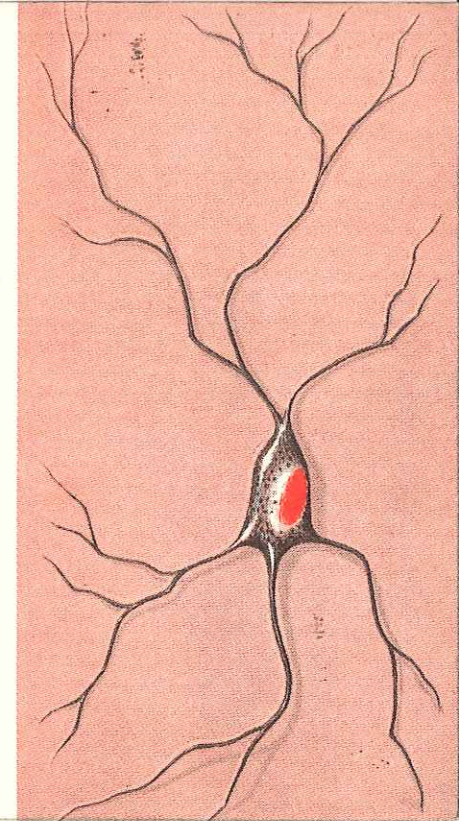
STANFORD R. OVSHINSKY
President

HERBERT C. OVSHINSKY
Vice-President

For the Board of Directors: C. ROBERT ALLEN, III
Associate of Allen & Co., N. Y.

 **Ovitron** CORPORATION

14830 SCHAEFER HIGHWAY • DETROIT 27, MICHIGAN



You are cordially invited

to witness a demonstration and disclosure
of an important new concept of static control
in which the basic nerve cell phenomena of

electro-ionic surface impedance changes

are analogously applied to achieve ultra
reliability in switching and modulating high
wattage ac circuits by small signal means.

10:30 a.m. Wednesday, July 8, 1959
Canadian Club—18th Floor
Waldorf-Astoria Hotel
Park Avenue, New York City
Cocktails and Luncheon: 12-Noon

R. S. V. P.
(Please use enclosed card)