

MESSAGE

Research is one of society's most fundamental tools for development. It sustains growth, it revitalizes current modes of thinking and it embodies man's search for truth and knowledge. It cannot therefore be alienated from the rest of human society's endeavors. In order for it to serve its purpose, it must reach out and address itself to the larger society upon which it derives support and recognition.

The researcher or the scientist does not exist in a vacuum. He has a responsibility to the larger community where he belongs. That community has the right to know what areas of research have been covered and the degree of success of such endeavors. For any research has to be evaluated not only in terms of its economic and technological value but in its social and cultural implications to society as well.

The objective of this compilation is, therefore, to attempt to reach the greater mass of society, not only to inform but also to elicit feedback. It is hoped that this compilation would perform such a function effectively and thus, justify itself.



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F O R E W O R D

Improved technological utilization and diffusion which are needed to accelerate the country's development and improve the well being of its constituents can only be achieved with a progressive research base particularly in areas considered to be vital in the overall development framework. Research in the field of engineering has been gaining more importance and greater attention is getting to be focused on its results due to a realization that its role is critical in the country's continuing efforts at national growth.

There is a need for a mechanism by which important sectors such as industry can avail of information on on-going and completed researches so that their results could be adequately promoted and utilized at a larger scale. As a national entity which exists to promote research, the National Engineering Center sees the publication of this compilation of engineering researches as a good opportunity to serve the two important sectors involved — the researchers and the users of research results.

This compilation is far from being complete although efforts were made to make it as exhaustive as possible. This is an effort to make a contribution and if it can generate reactions and suggestions intended to make researches in the field more effective, then this effort has not failed.

This special issue of the Philippine Engineering Journal is dedicated to all researchers in the field of engineering.

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