Professional Body Of Knowledge

Data Base - A Compilation Model

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ABSTRACT: *This paper compiles the beginning of a data base body of knowledge in the engineering professional area. Over a dozen subject areas are addressed listing several references and publication sources. With such a data base listing available, interested parties are encouraged to contribute to the advancement of professional aspects of engineering.*

INTRODUCTION

The headquarters staff of IEEE stated to the author in February 1973 that before the Society could move aggressively to form a group or even a newsletter in the Professional Activities area, that a body of knowledge was needed first. This paper initiates the compilation of that data base so that all interested in furthing the new Professional Activities of the IEEE may be able to easily find source material, facts, data, and position papers on the various professional subjects.

The paper identifies over one dozen Professional Activity categories, discusses what their purpose and scope is, lists numerous references and summarizes several key works to emphasize certain important aspects.

It is hoped, that along with information, material, and motivation derived from companion programs during this conference, the participant or reader will augment that with reference reading material given in the paper.

Irwin Feerst, IEEE's past presidential candidate, once stated that he "believes the Electrical Engineer to be the best educated person in the world." Then by examining reports, facts, data, and position papers, the writer believes the engineer will find the proper solutions to problems presently facing him in the professional areas of his chosen career. This paper's purpose is merely to show the engineer where he may find such information for examination, to equip him to draw his independent conclusions.

PROFESSIONAL TOPIC CATEGORIES

Table 1 lists the data base subject areas of engineering professionalism chosen for inclusion in this initial offering. The listing is not to be considered all inclusive; however, it does represent those topic areas which are given consideration since the Orlando Section — IEEE Professional Activities Committee, and the author as its first Chairman, were authorized to begin functioning on December 6, 1972. At that early time, the first effort undertaken was to conduct a literature search to see what factual data existed. Surprisingly, quite a lot of material was found, located in a wide range of source documents ranging from engineering and science to education, business and management periodicals and trade magazines.

It was this problem of dealing with a wide source of material which, along with IEEE Headquarter's position, prompted the author to pull together in a semi-logical classification manner, what material had been found. Now over a year later, continued searching has increased the quantity and quality of material and has necessitated the exclusion of the less significant works due to space limitation. The author wishes to strongly encourage others to continue the search for pertinent professional data sources, add them to this list, and publish an update next year and each succeeding year. Anyone who chooses to do additional study in the new IEEE professional area can depart from a higher level than the author did in late 1972 by using this data base.

It is further hoped, that IEEE Headquarters will now give its official recognition of the existence of a Professional Activities Data Base Body of Knowledge and initiate those actions leading to the formation and functioning of a Professional Activities Society, Board or Group.

It is recommended for IEEE to establish sub-regional organizations to correspond with state legislative boundaries. It is becoming increasingly important to be able to arrive at a Statewide IEEE consensus in order to affect state legislation. It is recommended to establish the Area Director as the State IEEE leader, assisted with boards and committees, made up from members of that state's Sections. Here in Florida, the Area Director could then effectively represent the 11 State of Florida IEEE Sections on the Florida Council of Engineering Societies.

Number	Subject Area
1.	The Profession of Engineering
2.	Professional Engineering Registration and Certification Law
3.	Code of Ethics — Conflicts of Interests
4.	System/Product Safety and Liability
5.	Engineering Title Protection
6.	Society Certification Programs
7.	Professional Education of Engineering Professionals
8.	Engineer Employee — Employment Guidelines
9.	Engineering Management Practices
10.	Engineering Manpower Forecasts
11.	Equal Employment Opportunities
12.	Salary and Fringe Benefit Surveys
13.	Obsolescence, Performance, Productivity and Aging of Engineers
14.	Pensions for Engineers
15.	IEEE Professional Activities
16.	National Society of Professional Engineers (NSPE)

Table 1 Engineering Professional Subject Areas

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