From the technical vice presidents

One of the principal functions of the IEEE Computer Society is to address the broad technical needs of its members. To this end, there are presently 19 technical committees which span the technical spectrum of society interests and which actively encourage interested individuals to participate in their functions. These TC's and their respective chairmen are listed on the roster, p. 2. The scope of each TC is briefly described below.

Usually, the TC's fulfill their requirements of service to the full society's membership through symposia and workshops, as well as sessions at major society conferences. In addition, the TC's have direct impact on other important aspects of the society, including standards, chapters, and education. Membership in the TC's is available to interested individuals through the various chairpersons.

Because the technical scopes of individual TC's within the Computer Society are necessarily pointed and slowly varying, it is necessary to have other organizations which track the dynamic nature and evolving needs of the computer engineering and science profession. In this way, gaps in the coverage of the society's technical spectrum can be identified and appropriate steps taken to satisfy existing demands. Thus, the technical interest councils were introduced this year to provide additional leadership and to serve the technical interests of the entire membership.

At present, there are two TIC's—the Software and Applications TIC and the Systems Technology TIC, each chaired by a vice-president of the Computer Society. The 19 TC's are appropriately divided into two groups and organizationally report to their respective TIC. A TIC is composed of the appropriate TC chairmen as well as several council members, each with a specific job function that supports the role of the TICs. The TC chairmen, therefore, are able to devote their efforts to the TC's, while the council members are responsible for the broader interests and activities of the TICs.

For example, the TICs, directly and through their TC's, provide support for the society's publications, promote conferences, meetings, and symposia, and generally act as a technical resource for other society functions and obligations. From the standpoint of TC management, the TICs are responsible for reviewing the activities of their respective TC's and initiating, merging, or terminating TC's as deemed appropriate.

In order for the Computer Society to meet its technical obligations to the full membership, many individuals must contribute their individual efforts. There are many opportunities to participate and help mold the character and substance of the Computer Society. The technical interest councils and the technical committees invite your participation.

E. A. Parrish
Second Vice President
Software and Applications TIC

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Vice President
Systems Technology TIC

Technical Committee Scopes

Computer Architecture. The TC on Computer Architecture is concerned with research and development in the integrated hardware and software design of both general-purpose and special-purpose digital computers.

Computer Communications. The TC on Computer Communications focuses primarily on those systems integrating computing functions and telecommunications facilities into networks. Within such systems, a broad scope is emphasized to allow communications of significant development in this rapidly developing field.

Computer Elements. Interests of this TC lie in the coordination between the characteristics and technologies of circuits and processes (such as signaling and transmission), devices, and subsystems considered as elements and requirements imposed on them by processes, devices, subsystems, and systems within the computer context.
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Computer Packaging. This committee is concerned with the physical design of computer and similar electronic systems, including the chip package, ceramic or reinforced plastic circuit boards and connectors, interconnection cabling, and related cabinet, power supply, and heat removal hardware.

Data Acquisition and Control. This committee is an applications-oriented group addressing itself to the hardware and software techniques of process and operator interfacing for on-line computer systems.

Data Base Engineering. This TC covers data structures and models, access strategies, access control techniques, data security and protection, design and implementation of data base software, data base related languages including data description languages and data manipulation languages, intelligent front ends, data base utilities, data translation techniques, and distributed data base problems and techniques.

Design Automation. The TC on Design Automation is concerned with the use of computer-oriented techniques to aid in all aspects of the design process, with particular emphasis on the design languages, logic synthesis, verification techniques (including digital simulation), physical design (partitioning, placement, wire routing, etc.), test pattern generation, fault simulation, manufacturing interface data, graphics, and data base management.

Fault-Tolerant Computing. This committee is concerned with theoretical and practical aspects of the design, analysis, diagnosis, and verification of computing systems that are subject to faults.

Machine Intelligence and Pattern Analysis. The scope of this TC includes theoretical research, methodology, applications, systems organization, and technology concerned with artificial intelligence and the processing of visual and time signal information.

Mass Storage. This technical committee is concerned with both the technology and the design of all aspects of computer mass storage.

Mathematical Foundations of Computing. The scope of this TC relates to the mathematics underlying the power, complexity, and design of computing devices, algorithms, and programs.

Microprogramming. The scope of this TC covers all aspects of microprogramming and its support tools.

Mini/Micro Computers. The scope includes the application, design, and implementation of minicomputer and microcomputer systems.

Oceanic Engineering. Emphasis and scope of the technical areas of this TC include utilization and application of all aspects of computers and computer technology to ocean-related matters.

Operating Systems. This committee is concerned with theoretical and practical aspects of operating system design, including system organization, resource allocation policies, measurement performance valuation, and system reliability (system verification, system testing, error detection, and error recovery).

Simulation. The TC on Simulation is the focal point for the promotion and dissemination of all aspects of research, development, and applications of both analog and digital computer simulation.

Software Engineering. The Software Engineering TC seeks to apply engineering methods and principles to the development of computer software and to synthesize better design and construction techniques for practical situations beyond present theory.

Test Technology. The areas of activity of this TC include those aspects of system, unit, board, and device testing as viewed from design, manufacturing, and field considerations, emphasizing computer-based concepts.

Security and Privacy. This TC seeks to address data encryption and standards, operating system security, data base security and privacy, and technological impact of privacy legislation.