



IEEE CSIT NEWSLETTER

COMMITTEE on SOCIAL IMPLICATIONS of TECHNOLOGY

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IEEE COMMITTEE on SOCIAL IMPLICATIONS of TECHNOLOGY

PURPOSES

1. Develop means to encourage and support professional and social responsibility in the practice of engineering.
2. Promote sensitivity to and understanding of the interaction between technology and society.
3. Foster study, discussion and appropriate action involving IEEE members and others.
4. Promote the conception of means and implement programs for predicting and evaluating the impact of technology on society.
5. Take appropriate action to implement programs.

FROM THE EDITOR

This first issue of the Newsletter reflects, to some degree, a new trend of thought emerging within the IEEE itself and in the awareness of concerned technical professionals everywhere. As the modern world becomes both smaller and more technologically sophisticated every day, it has become increasingly apparent that the isolated decisions made by scientists and engineers have repercussions far beyond the labs and drawing boards where they were originally conceived. The application or misapplication of our creative engineering energies and the confusion over social priorities has aroused controversy and concern among a growing number of members of the engineering fraternity. The IEEE has attempted to respond to this concern by creating such groups as the AdHoc Committee on the Application of Electro-technology to Social Problems, as well as by advocating changes in the present Constitution which would allow the Institute as a whole greater latitude in areas of professional interest. The AdHoc Committee on Social Implications of Technology, stemming originally from a petition signed by over 400 interested IEEE members, is the newest outgrowth of this effort. C-SIT is committed

to providing a forum in which all IEEE members, as well as other experts in non-technical fields such as law, economics and the social sciences, may express their thoughts concerning the social, ethical, medical, legal and moral implications of the present course of the engineering discipline. In the coming months such diverse issues as electronic warfare, environmental pollution, urban crime, communication and transportation, electronic surveillance, governmental and private data banks, and engineering and health problems will all be discussed. There will also be notices of meetings, lectures and discussion groups, publication of papers and articles, reviews of pertinent bibliographical data and finally, personal commentary. In some respects we recognize that this may be a new departure from the traditional role of a technical organization, but we feel that the time is ripe, and a new awareness of the responsibility of the engineer to his society, and to himself, is long overdue.

We invite you to join us.

Michael A. Pessah

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ACTIVITY AMONG THE CHEMISTS

The chairman of CSIT's Working Group on Bibliography, Ted Wernts, attended the national meeting of the American Chemical Society this summer. He reports on the new initiatives taken by that group in re-assessing the traditional relationships of the chemists to his employer, and to the effects his products has on the society as a whole:

ACS Meeting - 1972

The American Chemical Society held its National Meeting in New York City from Aug. 27 to Sept. 1, 1972. Some features of this meeting might be of interest to IEEE members:

A talk entitled ACS-THE CHEMIST'S OMBUDSMAN, was given by ACS staff member David Roethal. From the program it was noted that "The American Chemical Society is unique among technical societies in having a program directed at providing personal assistance to members confronted with problems of a professional nature. Such problems entail termination, job status situations, forced early retirement, publication credit, employment agreements, personal situations, health related matters, job references, pension problems, tax cases and others." Sample case histories and future implications of this ombudsman-type activity were all discussed. Another talk at this session described a plan for rating employers, along with the proposal that "we should give full publicity to such ratings with gentle hints to readers to consider these ratings as they make decisions on buying chemicals, supplies, consumer products, etc."

In addition, the ACS provided a newsletter containing a 2 page article on the Legal Rights of Professionals. The article examines both the Labor Management Relations Act and the Fair Labor Standards Act. It contains legal opinions of interest to those considering union organizing.

A session organized and sponsored by Scientists and Engineers for Social and Political Action, (SESPA), using a hall supplied by the ACS featured a talk by

Tony Mazzochi, Legislative Director of the Oil, Chemical and Atomic Workers Union, AFL-CIO. This "counter session" was well covered by Chemical and Engineering News (C&E News), the ACS equivalent of Spectrum, which had previously published a guest editorial by Mr. Mazzochi.¹ SESPA also had a table at the conference which carried material on the use of chemical and biological warfare in Viet Nam, as well as reprints of an article by Pfeiffer and Westin, similar to the one they published in Scientific American,² dealing with the ecological damage in Indochina. At this same SESPA table reprints of a piece from Science For the People magazine, entitled "Women in Chemistry - Part of the 51% Minority," was available and widely distributed.

An additional table held a continuous running audio-visual display on the Air War in Indochina. The Committee for Social Responsibility in Engineering (CSRE) which provided the display also sold copies of its magazine Spark, and copies of a recent book on the Air War in Indochina.

1. C&E News, May 1, 1972.
2. Sci. Amer., May, 1972.

Literature describing the accomplishments of the ACS Seed Program told of the implementation of a 1968 ACS Council resolution which called "for appropriate steps to be taken to help the nations disadvantaged persons overcome the handicaps of underemployment and inadequate education."

Lastly, The ACS Council Committee on Nominations and elections continued the experiment it initiated last year by holding Meet the Candidates Night, which provided an "opportunity for interested members to hear the views of, and direct questions to the three candidates for President-Elect."

Inexpensive housing for out-of-town conferees, arranged at a local college, by SESPA, was publicized by C&E News.

AREAS OF CONCERN

The activities described in the introduction to this Newsletter will be successful only insofar as they stimulate personal involvement on the part of the IEEE members. It is important therefore to find out what the membership considers appropriate for discussions and study and how many are interested enough to really participate. Following is a list of general topics and specific sub-topics. It is recognized that the short titles are subject to various interpretations and that other IEEE organs are already studying some of them. In order to get started, however, we request that you scale each of the 12 categories from 1 to 5, in the order of your special interest and in which you believe you have skills which can and should be brought to bear on behalf of society; note that 1 signifies

definite interest, 5 none at all. Please star any of the sub-topics of special appeal. You may also wish to add a note suggesting any additional topics; negative as well as positive responses are, of course, invited.

The plan is to form working groups to study those topics for which substantial interest is indicated. Hopefully, the products of the study groups will be articles and IEEE positions papers.

Please tear out the questionnaire, fold and send to:

W. A. Higinbotham
Brookhaven National Lab.
Upton, New York 11973

A Questionnaire

<p>1. <u>Ethics</u> _____</p> <p style="margin-left: 20px;">a. Code of Ethics for Engineers _____</p> <p style="margin-left: 20px;">b. Personal Responsibility for One's Products _____</p> <p style="margin-left: 20px;">c. Role of Professional Societies _____</p> <p style="margin-left: 20px;">d. EE's Responsibility re The Viet Nam War _____</p> <p>2. <u>Environment</u> _____</p> <p style="margin-left: 20px;">a. Instrumentation for Monitoring _____</p> <p style="margin-left: 20px;">b. Engineering Methodology in Envir. Protection _____</p> <p style="margin-left: 20px;">c. Development of National Energy Policy _____</p> <p style="margin-left: 20px;">d. Fossil vs. Nuclear Power (resources, pollution) _____</p> <p style="margin-left: 20px;">e. New Sources: Solar, Geothermal, Fusion _____</p> <p style="margin-left: 20px;">f. Transmission of Electricity _____</p> <p>3. <u>Urban Technology</u> _____</p> <p style="margin-left: 20px;">a. Transportation _____</p> <p style="margin-left: 20px;">b. Traffic Control _____</p> <p style="margin-left: 20px;">c. Urban Public Safety _____</p> <p>4. <u>Communications</u> _____</p> <p style="margin-left: 20px;">a. Impact of on Developing Nations _____</p> <p style="margin-left: 20px;">b. " " " A Divided World _____</p> <p style="margin-left: 20px;">c. For Greater Involvement of Public in Government _____</p> <p>5. <u>National Security</u> _____</p> <p style="margin-left: 20px;">a. D.O.D. R&D _____</p> <p style="margin-left: 20px;">b. Electronics in limited warfare _____</p> <p style="margin-left: 20px;">c. " " strategic warfare _____</p> <p style="margin-left: 20px;">d. " and arms control _____</p> <p style="margin-left: 20px;">e. Conversion from Military to Civilian Engineering _____</p> <p>6. <u>Data Banks and Electronic Surveillance</u> _____</p> <p style="margin-left: 20px;">a. To Detect and Prevent Crime _____</p> <p style="margin-left: 20px;">b. Threats to Privacy _____</p> <p style="margin-left: 20px;">c. Classification and the Public Need-to-know _____</p>	<p>7. <u>Socio-economic Employment Issues</u> _____</p> <p style="margin-left: 20px;">a. Professional Status for Engineers _____</p> <p style="margin-left: 20px;">b. Employment Problems for EE's _____</p> <p style="margin-left: 20px;">c. Retraining of EE's _____</p> <p style="margin-left: 20px;">d. Job Security _____</p> <p style="margin-left: 20px;">e. Opportunities for Social Problem Solving _____</p> <p>8. <u>Education</u> _____</p> <p style="margin-left: 20px;">a. Courses in Technology and Society for EE's _____</p> <p style="margin-left: 20px;">b. Lectures or Courses on Technology/Society for Non-Technical Students and Citizens _____</p> <p style="margin-left: 20px;">c. Electrotechnical Aids to Education _____</p> <p style="margin-left: 20px;">d. Computer Assisted Instruction _____</p> <p>9. <u>Bioelectronics (Medical Engineering)</u> _____</p> <p style="margin-left: 20px;">a. Social and Ethical Problems Implied by New Technology _____</p> <p>10. <u>Applications of Systems Engineering and Information Theory to Social Systems</u> _____</p> <p>11. <u>Humanization of Automation</u> _____</p> <p>12. <u>Other</u> _____</p> <p style="margin-top: 20px;">Remarks: _____</p>
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CALL FOR BIBLIOGRAPHY SUGGESTIONS

The Working Group on the Bibliography, is assembling material to be published by the IEEE as a bibliography on the Social Implications of Technology.¹ The immediate need is for items for inclusion - will all interested members please submit any title or titles they feel would be valuable. No decision has been made on whether the bibliography should be annotated, and any suggestions as to format would be welcome.

Any members interested in working on this project are urged to communicate with:

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The next meeting of the Working Group will be Tuesday, December 19, 1972 at 7:00 P. M. at Ted Werntz's home.

1. The AAAS Bibliography, "Science and Society," (1971) is a possible Working Model. \$1.

CSIT at INTERCON '73

The Working Group in Intercon, headed by Dr. Mal Benjamin has been given the difficult task of developing ideas and speakers on the technology/society interface for Intercon '73, and then finding space for them - all in the short time remaining for such arrangements. As of now two of the leading topics selected for discussion are: "The Engineer and War Technology" and "National Security and Reconversion."

Late word has it that the technical sessions are already over-booked and nothing new can be added - also there will be no technical presentations at the Coliseum for INTERCON-73. However, there may still be the possibility of setting up an evening "workshop" in a smaller room in the hotel, allowing half the available time for a panel of speakers to bring up questions of interest and leaving the other half reserved for a no-holds-barred discussion (over beers, perhaps). Also, the film theater is still open for contributions.

A novel idea that has surfaced is that of a "Hyde Park at the Coliseum". A booth and a table would be stationed at the Coliseum, and anyone wishing to speak on any relevant engineering/society theme could put up his name, the subject, and the time desired. Literature would also be available at the table. Of course, an IEEE disclaimer would be displayed to the effect that the IEEE as such does not endorse any points of view aired.

Any members wishing to suggest either films of interest, discussion subjects or panel names can get in touch with Dr. Benjamin at:

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