

Professional Group on Social Implications (IEEE)

Statement of Purpose

The purpose of this group is to explore the social consequences of technology, particularly those aspects of technology of interest to IEEE members, and to heighten the sense of professional responsibility on the part of members of the engineering profession.

Some pertinent examples are applications of electronics that might contribute to the alleviation of pollution problems, the dangers to privacy inherent in computer data banks or sophisticated electronic surveillance techniques, the problems involved in transferring engineering talent from space programs to research into terrestrial transportation problems, and the role of the government in technological development and research.

Ethical considerations and the professional status of engineers would also be pertinent matters for consideration.

Means to these ends are the holding of meetings for the reading and discussion of papers, the publication of articles and any other activities necessary, suitable and proper for the fulfillment of these objectives.

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Some pertinent ^{topics} examples are applications of electronics that might contribute to the alleviation of pollution problems, ^{the dangers} the right of ^{the establishment and usage of} to privacy inherent in computer data banks or sophisticated electronic surveillance techniques, the ^{effective utilization of} problems involved in transferring engineering talent ^{for both} from space programs to ^{and} research into terrestrial transportation ^{programs} problems, and the role of the government in technological development and research. ^{Actual and predicted impact} on society, ethical considerations and the professional status of engineers, ^{and the engineer's role as a private citizen are also} would also be pertinent matters for consideration.

→ Means to these ends are the holding of meetings for the reading and discussion of papers, the publication of articles and ^{by} any other activities necessary, suitable and proper for the fulfillment of these objectives. ^{In keeping with the broad interests implicit in the purpose of this group,} papers and articles shall be comprehensible by the reader who is not a specialist in the particular segment of technology.

The purpose of this group shall be pursued by encouraging research and study into social problems implicit in electrical and electronic technology, by the publication of the resulting reports and treatises, ^{by} the holding of meetings for the reading and discussion of papers,

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refers to

Professional Group on Social Implications of Technology (IEEE)

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Some pertinent topics are the application of electronics to the alleviation of pollution problems, the effects of energy consumption on the biosphere, effects on privacy of the establishment and use of data banks and of electronic surveillance techniques, the problems involved in applying engineering talent to urban problems and transportation, and the role of government in technological research and development. Ethical considerations, the professional status of engineers, and the engineer's application of his technical knowledge to community affairs are also to be considered.

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Professional Group on Social Implications of Technology (IEEE)

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The undersigned IEEE members (above student grade) hereby petition the Executive Committee of the IEEE to authorize the formation of a Professional Group on Social Implications of Technology as described below.

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Signature

Name (please print)

Affiliation

[illegible]

Draft 11/30/71

Dear Frank:

We are writing to ask you to support the attached request to the IEEE Executive Board that they authorize the formation of an IEEE Professional Group on Social Implications of Technology.

The time is surely ripe for such a step. The Aviation and Space Division of the ASME has a Technology and Society Committee, and within the IEEE Computer Society there is a Committee on Social Implications. Interest in this area on a broader level is evident in the pages of the Spectrum.

An IEEE Professional Group on Social Implications of Technology could play an important role in raising the level of discourse on this very important topic.

We hope you will not only sign the enclosed petition, but that you will also ask interested colleagues to sign it.

Yours truly,

Frank Kotasek, Sperry Rand

Stephen H. Unger, Columbia University

THE COMMITTEE FOR SOCIAL RESPONSIBILITY IN ENGINEERING

137a West 14th Street, New York, N.Y. 10011

December 3, 1971

Dear friend:

Working Committee:

Tony Agnello, CCNY
Prof. Ralph Akkoyunlu, SUNY
Dr. Aaron Ashkinazy, RCA
Prof. P.M. Brown, CCNY
Prof. Frank Collins, PIB
Prof. Douglas Davids, NYU
Dr. Albert Friedes, BTL
Dr. William Higinbotham, BNL
Alan Horowitz, IPE
Barry R. Horowitz, PIB
Elsa Horowitz, IBM
Lee M. Horowitz, NCE
Prof. George M. Katz, Col. Med.
Justin Kodner
Frank Kotasek, Sperry-Rand
Larry S. Liebovitch, CCNY
Brad Lyttle, WTR
Ted Mankovich, Col. U.
Prof. Seymour Melman, Col. U.
Prof. Marvin C. Paull, Rutgers
Rowan Hay Rifkin, PIB
Dr. Anthony Robbi, RCA
Dr. Harvey Rubin, BTL
Prof. Philip Sarachik, NYU
Paul Stoller, SUNY
Steve Tencer, Col. U.
Jack Tucker
Prof. Stephen H. Unger, Col. U.
Rod Wallace, Col. U.
Prof. Richard Wiener, CCNY
Prof. Sheldon Weinbaum, CCNY
David Wuchinich, Cooper Union

Coordinator:
Ted Werntz


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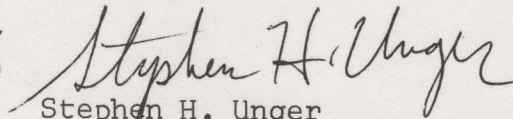
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Frank Kotasek
Sperry Rand



Stephen H. Unger
Columbia University

(Affiliations for
identification only)



BIONIC INSTRUMENTS, INC.

221 Rock Hill Road, Bala Cynwyd, Penna. 19004 • (215) Tennyson 9-3250

June 11, 1972

TO: Stephen Unger
Victor Klig
Ted Werntz

Dear Everybody:

Steve, thanks very much for your most comprehensive letter, most of which I have now acted on. I have followed your advice on most of the people that you have suggested, except that the IEEE people have indicated strongly that they feel things should be slanted more heavily toward industrial representatives rather than academic representatives; so I've not followed every single one of the academics. Enclosed is a copy of the letter that I've generally sent to most of the people.

Unfortunately, I can't round up Sam Mason; he is not at either of the numbers that you gave me in your letter, and I don't expect him in until September. However, I will certainly want to get in touch with him in the fall when he does get back, because I think he is a very valuable asset.

We are contacting fourteen people to start with; that should produce enough names to turn in something significant when IEEE needs it.

I had about a 45-minute, searching conversation with Jack Raper at GE in Syracuse, who is the chairman of the program committee. He seemed cooperative with regard to what we are trying to do, but indicated that with the session space dropped all the way back to 56 sessions total and the necessity for having programmatic that will "sell itself" to the employer who foots the bill for the engineer to come to the meeting, he feels that the chances are slim that we can get individual sessions. However, he has no objection to our submitting papers as parts of the other sessions already set up. I indicated to him that I was not satisfied with his judgement on the matter, though I could understand it, and that I would do what I could to continue pressing for direct sessions. He said that sometimes a session or two will open up as time goes on if the organizers are not able to get enough speakers lined up, and if that were the case, he would try to throw one or two our way. He then went on to add that perhaps I could tell from his accent that he came from England and that he felt that an American equivalent of Hyde Park was an important thing within the IEEE; in this way, he certainly gave lip service to our project.

Steve, in an unguarded moment during the Saturday meeting you indicated that you would make an effort to get Harry Larson and Richard Garwin to galk on "The Engineer and War Technology." If you could manage to do that, I would be quite grateful.

If any of you have further ideas for people, particularly in industry and particularly on the war issue, please let me know right away and we'll see what we can do.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mal", written in a cursive style.

J. Malvern Benjamin, Jr.

JMB:gbr
Enc.: Letter

Nov. 23, 1971

Dear Steve,

In a hastily convened meeting of the executive committee of N J CSRE a resolution was passed endorsing the notion of a PG SIT. We took the liberty of editing the statement and the enclosed version is the result. Were not confident that the first sentence expresses the right thing, but the original one was a little clumsy and had the feel of a catch-all.

With some effort we should be able to garner 25 or so signatures for the application.

We had an interesting experience at Temple U. IEEE banquet last night. Had fair success in reaching the students and alienating the dean and other faculty.

Toni
Aaron

P.S. Suggest group name say "social and humanitarian" rather than just "social." Will result in an acronym impossible to forget.

3/21/72

Meeting of IEEE Social Implications Group

7:00 A.M. → 8:30 A.M.

at Hilton Hotel, Dutch Tavern

Present {Victor Klig, Frank Kotasek, Norman Balabanian, S.H. Chye} for CSRG

Robert Tanner, Harold Chestnut, Richard Emberson, Joseph Willard, ? Guerrero

Disc drawn ^{by Tanner} between soc. implic. issues & economic issues tho we pointed out overlap.

we pointed additional signposts lying ~~over~~ ^{across} to between (510 - 580)

Willard wanted to know the methodology we prepared for tech. assessment.

we said that was to be developed.

we emphasized that the group would produce a forum for discussing & debating ideas & would not be an action organization. Tanner seemed to support this concept.

why should non-experts in a field tell the experts what to do - asked Willard.

we argued that "experts" might be too involved to see certain pts. & that none is an expert in all ramifications of complex systems. we would use experts to referee papers.

why should a small group dominate such an important area asked Guerrero; this should be a job of the whole IEEE. we argued everyone has an individual business as, as Tanner pointed out, in any event someone has to edit transactions etc. The "whole" IEEE never does anything. we will be invite all interested people to participate & of course many people ~~don't~~ join several groups. we will stimulate activity in SI in other groups.

Willard took a narrow view saying the EE's have nothing to say about other than purely EE aspects of problems. we gave counterexamples involving ~~and~~ biomedical engineering & medicine itself as well as CTV.

Reference made to poll of membership & indicating strong interest in economic aid. Suggestion made (Guerrero etc.) of a special journal sold to all members, put out ~~by~~ under direct aegis of exec. bd. we argued this omits other forms of group (meeting) - over -

& don't have reputation. we argued for actively group with fresh outlook. Reform made by them to design election system transaction which seems to be getting into very socio-political issues - (implanted transponder discussed). we mentioned ASME function of SI Division - confirmed by Willard. The probationary period of group was mentioned. All agreed that mostly in current IEEE rules would prevent a SI group being formed. Willard said ~~we~~ he gives all proposals of new groups a hard time.

After meeting (8:30) we talked further with Tamm, urging prompt action. He indicated he can say he missed talking to Willard who is rushed off to TAB OPCOM meeting of the spec. committee meets Saturday with ~~constituted~~ and constituted amendment on agenda (and to the board and of IEEE to include public welfare & ^(ref. aspects) equine welfare). He said that prior to meeting Rubin & me he thought we were [?] outside IEEE. Other one afraid of a radical transaction with "Nader type" stuff in it. He agreed a group is best idea organizationally. ~~reminded about~~ reversibility of action.

Tamm seems clearly with us. Embury said little - but that seemed on our side. Willard & Guerrero seemed opposed. Chestnut ~~seemed~~ didn't really indicate a position - tho I'd guess he was favorable.

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December 3, 1971

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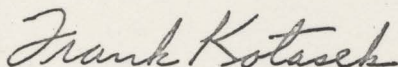
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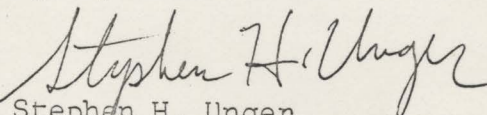
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Frank Kotasek
Sperry Rand



Stephen H. Unger
Columbia University

(Affiliations for
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Signature

Name (please print)

Affiliation

[illegible]



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

INDUSTRY AND GENERAL APPLICATIONS GROUP

Please address reply to:

I. N. Howell, Jr.
South Central Bell Telephone Company
P. O. Box 771
302 Central Bank Building
Birmingham, Alabama 35201
December 22, 1971

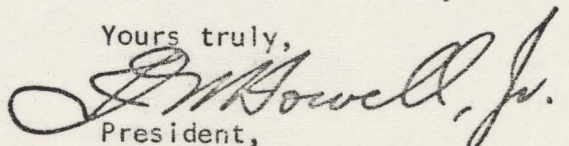
Mr. Frank Kotasek
The Committee for Social
Responsibility in Engineering
137a West 14th Street
New York, New York 10011

Dear Mr. Kotasek:

I am in receipt of your December 16, 1971, letter asking that I endorse the enclosed request to the IEEE Executive Board concerning an IEEE Professional Group on Social Implications of Technology. While I have no particular brief for a separate group within the IEEE structure dealing with Social Implications, it does not disturb me greatly to see such a group formed. It does, however, have many drawbacks that I believe will be overcome by allowing the individual Groups and Societies presently in existence to treat the subject within the scope of those Groups and Societies. You may or may not know that Dr. W. E. Cory is presently completing a rather extensive study through an AdHoc Committee on the Application of Electrotechnology to Social Problems. The findings of that Committee and its recommendations are soon to be released through an article in Spectrum, which is addressed to the entire IEEE membership.

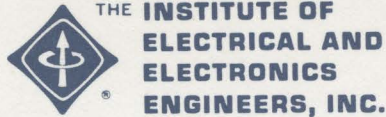
By copy of this to Dr. Emberson at IEEE Headquarters and to Dr. Cory, one or both may wish to contact you directly. It does not seem fitting at the moment that I sign your petition until a study of our AdHoc Committee has been finalized and published.

Yours truly,


President,
Industry Applications Society

Attachment

To: S. H. Unger
Frank Kotasek
cc: Dr. R. M. Emberson
Dr. W. E. Cory



345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

December 22, 1971

Mr. Stephen H. Unger
Columbia University

Mr. Frank Kotasek
Sperry-Rand

c/o The Committee for Social
Responsibility in Engineering
137a West 14th Street
New York, N.Y. 10011

Dear Sirs:

Your December 16 letter addressed to General Manager Fink has been referred to me, because it is my staff responsibility to try to work with members who are involved with the IEEE Groups and Societies, and technical activities and services.

I am very glad to see the petition you are circulating. I have had several telephone inquiries about it and will now be able to respond in a more knowledgeable fashion. Before going into some detail about the establishment of a new IEEE Group, I wish to respond to a couple of points in your letter. First, I hope you will understand that it is really not proper for staff members to sign petitions for new Groups, for essentially the same reasons we should not sign petitions for candidates for IEEE elective positions or for IEEE awards. We must at all times try to maintain an objective, arms-length attitude towards all such petitions or proposals. In my comments in subsequent paragraphs, the reasons for this attitude may become even clearer. Second, I will expand your comments about the Committee on Social Implications, established by the IEEE Computer Society, to say that about half of the IEEE Groups and Societies have taken equivalent steps.

Mr. Stephen H. Unger
Mr. Frank Kotasek

-2-

December 22, 1971

I am probably not the first to comment to you about the "Cory Report." About a year ago, the IEEE Vice President for Technical Activities, and Chairman of the Technical Activities Board, Dr. Harold Chestnut, responded to TAB interests by establishing an Ad Hoc Committee on the Impact of Electrotechnology on Socio-economic Problems. The Ad Hoc Committee Chairman was Dr. William E. Cory, Director, Electronic Systems Research, Southwest Research Institute, P. O. Drawer 28510, San Antonio, Texas. The charge to the Ad Hoc Committee was "(a) Determine the current IEEE activities in this area and suggest ways to better identify and publicize such activities; (b) Establish procedures for accumulating information on existing programs and identifying other resources needed to support special sessions or conferences; and (c) Recommend specifications IEEE should initiate to meet special problems." The Ad Hoc Committee has submitted its report and the IEEE officers for 1972 will have the findings, conclusions, and recommendations with them as we move into the new year. I believe a summary of the report is about to be published in Spectrum. Meanwhile, I enclose a copy of the fourth page, which is a list of recommendations. These are based on the present activities, some of which are carried forward independently by the 31 IEEE Groups and Societies and some are being done on a joint, coordinated basis. In the latter category are the TAB Committee on Transportation and the TAB Committee on Environmental Quality. Those responsible for acting on the recommendations must decide whether a simpler organizational structure warrants disruption of the existing joint Committees.

This now brings me to your petition, which contains a statement of scope. Among other areas, the statement mentions transportation. But I have already made reference to a joint coordinating Committee on Transportation, which derives its strength from the interests and programs of perhaps six of the IEEE Groups and Societies. Similarly, the Committee on Environmental Quality derives its strength from perhaps more than half of the Groups and Societies. It is not easy to imagine that these Groups and Societies would quickly and willingly transfer their interests and activities to the proposed new Group. Thus, the present statement of scope, despite its worthy purpose, would generate much argument and discord and almost certainly go down to defeat before TAB.

Mr. Stephen H. Unger
Mr. Frank Kotasek

-3-

December 22, 1971

To have a better chance of survival, the statement of scope must be edited or revised to take into account the interests of the existing Groups and Societies. With this in mind, I enclose a copy of a compilation of the scope statements of our 31 Groups/Societies. An examination of these statements at once reveals certain gaps, particularly in areas such as ethics, the status of engineers and employment, and the role of governments (local and national) in determining the direction of research and development programs.

Accordingly, I suggest that while signatures are being collected with the present petition, a parallel effort be started to revise the scope statement to eliminate the head-on confrontation with the existing Groups and Societies.

If you wish to call me, I will be glad to discuss any questions or problems the above comments may have raised in your mind. (762-6800 X535)

With best wishes,

Sincerely,

Richard M. Emberson

Richard M. Emberson
Director
Technical Services

RME:dr

Enc.

cc: D. G. Fink
J. M. Kinn
H. Chestnut
J. K. Dillard
R. H. Tanner
E. K. Gannett

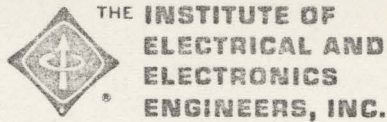
P.S. - Since preparing the above response to Mr. Fink's letter, I have found similar letters addressed to Mr. Kinn and myself, all of which are acknowledged.

III. RECOMMENDATIONS

It is recommended that:

1. A Socio-technological Areas Standing Committee be established with TAB to coordinate and stimulate IEEE activities in this societal problems area.
2. The TAB Ad Hoc Committees on (a) Application of Electro-Technology to Social Problems, (b) Environmental Quality and (c) Transportation become a part of this new TAB Standing Committee. Their functions would be to coordinate, stimulate and publicize "socio-technological" activities within IEEE and to coordinate IEEE participation with other Societies in this area.
3. This committee initiate action with RAB to encourage individual IEEE members and sections to interact with their local governmental organizations.
4. An Executive Committee of this new TAB Standing Committee be established to coordinate and stimulate IEEE organizations in this area. Particular attention should be given to increased professional activities with the various national and world governmental organizations.
5. A Public Relations sub-committee be appointed to aid this new standing committee in obtaining appropriate publicity of IEEE activities in this area both within and outside IEEE.
6. Action to be taken to establish a Washington D. C. Office to aid the IEEE in providing an effective communications link between the public, the government and the electrical and electronics engineering community.
7. Action be immediately taken to develop IEEE papers expressing the needs, problems, approaches, state-of-the-technology and forecasts in such areas as: Future Electrical Power Needs, Electrical Power Plant Siting, Privacy in Communications and in Computer Usage, Methods for Application of Electro-Technology to Developing Countries, and Detailed Analysis of IEEE's Role in the Environmental Quality Area.

(Revised 11/8/71)



COMMUNICATION TECHNOLOGY GROUP

December 22, 1971

Please reply to

Richard C. Kirby
Office of Telecommunications
U.S. Dept. Commerce
Boulder, Colorado 80302

Prof. Stephen H. Unger
Mr. Frank Kotasek
The Committee for Social Responsibility in Engineering
137a West 14th Street
New York, New York 10011

Dear Prof. Unger and Mr. Kotasek:

Thank you for your letter of December 16 and the invitation to sign the petition for formation of an IEEE Group on Social Implications of Technology.

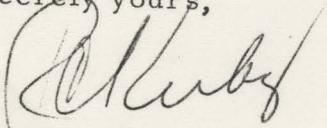
I am very interested in the objectives you outline, and believe the IEEE needs to direct more resources and membership activity on social implications of technology. We have in the IEEE Communications Society become increasingly conscious of the need with respect to the field of telecommunications. For example, a group under Professor Mischa Schwartz at PIB is developing a special issue of our Transactions on "Telecommunications and Society" (or an equivalent title).

However, I believe before a new IEEE Group is formed, it might be well to evaluate the alternatives. There has been some related activity in the Technical Activities Board under W. E. Cory, on Social Applications of Electrotechnology. I believe your goals and proposal ought to be discussed in the TAB forum.

I am not opposed to the idea of the new Group you suggest. It might be preferable if an ad hoc IEEE committee could succeed in stimulating active and competent attention to social implications among the principal existing Groups and Societies. To set up a new and separate Group on this subject might have the effect of deemphasizing it in the present Groups and Societies. However, it may well be that your Group proposal is the most effective way to go.

I would like to consider signing your petition after the subject has been discussed in TAB. Would you be agreeable to submitting the item for discussion at the next meeting which should be no later than March.

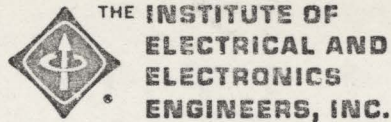
Sincerely yours,



Richard C. Kirby
President, IEEE Communications Society

cc:

H. Chestnut
J. Dillard
A. Culbertson
D. Atkinson
R. Emberson
J. Mulligan
R. Tanner
W. Cory
D. Schilling
M. Schwartz



NUCLEAR SCIENCE GROUP

Please address reply to:

January 2, 1972

Professor Stephen H. Unger and
Dr. Frank Kotasek
The Committee for Social Responsibility in Engineering
137a West 14th Street
New York, N. Y. 10011

Gentlemen:

In response to your letter of December 21, 1971, concerning the formation of an IEEE Professional Group on Social Implications of Technology, I have the following points of view as a member of the IEEE. These personal views have not been considered by the IEEE Nuclear Science Group, of which I am the current Chairman.

1. The IEEE has an obligation to evaluate the impact of electro-technology on society, to counsel its members on professional conduct in the interests of society, and to foster programs whereby the application of electrotechnology can alleviate problems of society, independent of whether these problems have been created by advances in science and technology.
2. It is not advisable to form a professional Group on Social Implications of Technology. The Institute is already plagued with the fragmentation of its professional activities into too many Groups/Societies. A Group on Social Implications of Technology would be orthogonal to the technical activities of a majority of the existing Groups/Societies. What is needed is an organizational structure whereby (a) the resources of the existing, and hopefully fewer, merged Groups and Societies can be mobilized for the solution of social problems, and (b) an awareness of social responsibility can be cultivated among the Institute's members.
3. I recommend that a permanent joint committee of the Regional and Technical Activities Boards be formed so that the resources of the technical groups can be mobilized, and that the potential solutions to social problems can be communicated and applied on both national and regional bases. Temporarily, until other alternatives can be

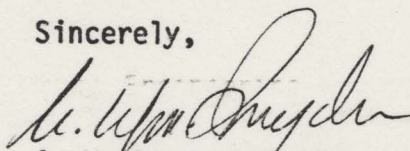
Professor Unger and
Dr. Kotasek

-2-

January 2, 1972

considered, publications regarding social implications and applications should continue to be published in the widely distributed Spectrum, rather than in the Transactions of the technical groups, which individually have relatively limited distributions. I am not suggesting that the Spectrum is the best permanent vehicle for such publications, but it is a better alternative than an additional Transactions, which would be subscribed to by a very limited number of Institute members who chose to join still another Group.

Sincerely,



A. W. Snyder, Chairman
Nuclear Science Group

Manager
High Temperature Materials
Research Department, 5320
Sandia Laboratories
Albuquerque, N. M. 87115

AWS:dc



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

Reply to: 1716 Hillman Ave.
Belmont, Ca. 94002

IEEE GROUP CORRESPONDENCE

4 January 1972

Stephen H. Unger

Frank Kotasek

The Committee for Social Responsibility
in Engineering
137a West 14th Street,
New York, N. Y. 10011

Subject: IEEE Group on Social Implications of Technology

Ref: Letter from Stephen H. Unger and Frank Kotasek to John B. Damonte
dated 21 December 1971.

Gentlemen:

I am completely unfamiliar with the goals and aims of the potential group that you are trying to organize. I am unacquainted with any of the people listed on the working committee.

Under the circumstances, I do not feel that I can endorse your request to the IEEE Executive Board to authorize the subject committee. If and when you can make more definitive information available, I will be pleased to review it and form an opinion as to whether or not it is in the best interest of IEEE.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'John B. Damonte', is written over the typed name.

John B. Damonte,
President,
Group on Antennas & Propagation
IEEE

JBD:mrs



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

OFFICE OF THE VICE PRESIDENT
~~TECHNICAL ACTIVITIES~~

January 7, 1972

Please reply to:

Professor Stephen Unger
Columbia University
137a West 14th Street
New York, New York 10011

Dr. Harold Chestnut
General Electric Company
Building 37, Room 577
1 River Road
Schenectady, New York 12305

Dear Prof. Unger:

I have your letter of December 16, 1971 in which you seek my endorsement to help form an IEEE Professional Group on Social Implications of Technology. I am interested that the IEEE be active in the area that you suggest but I am not yet persuaded that forming another group is the most useful way for this to be accomplished.

In my former role as IEEE Vice President for Technical Activities I set up an AdHoc Committee on the Application of Electrotechnology to Social Problems headed by Mr. W.E. Cory which last fall submitted a report which recommended committee rather than group activities in this area. My feeling is that it would be appropriate for you and your associates interested in the proposed group to discuss this matter with Dr. R.M. Emberson, Mr. J.K. Dillard, new V.P. for Technical Activities, and Dr. E.A. Wolff, Vice Chairman of T.A.B. In this way the pros and cons of the different approaches can be considered in terms of the interests of the IEEE members in such a proposed group, as well as the effects of such a group on the existing IEEE groups, societies and committees.

I really don't know what will be the results of such a discussion, but I feel that such a meeting would be well worthwhile before I would care to recommend such a group be formed. There is no doubt in my mind that the IEEE should be doing more in the area of social implications of technology, and vice versa, but I think it important that we spend a little time at the outset to figure out what looks like it is that holds the best chance of producing the most beneficial results.

If you so desire, I shall be glad to discuss this matter further for it affects my current IEEE interests in sectional and regional affairs. However, I also strongly urge that you discuss with those currently responsible for the IEEE Technical Activities.

Sincerely yours,

Harold Chestnut

Harold Chestnut, IEEE Vice President

cc: J.K. Dillard, R.M. Emberson, W.E. Cory, F. Kotasek, F.A. Wolff



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 PLAZA 2-6800

OFFICE OF THE PRESIDENT

P.O. Box 3511, Station C
Ottawa, Ontario, Canada
Tel: 613-828-2761

10 January 1972

Dr. S.H. Unger
The Committee for Social Responsibility
in Engineering
137A West 14th Street
New York, N.Y. 10011.

Dear Dr. Unger:

I am writing to reply to your letter of 21st December 1971 regarding the setting-up of an IEEE professional group on social implications of technology.

I hope you will understand that it would be somewhat inappropriate for the President to sign a petition for the setting-up of any new group within the Institute, since his signature might be used to bring undue pressure to bear on the Technical Activities Board which will be charged with the evaluation of your request. On the other hand, may I say that I am interested in your proposal since it may provide a much needed focus for the present fragmented activities on this subject within the Institute. These have very well been described to you by Dr. Emberson in his reply to a similar letter from you.

I will be discussing this matter with Mr. Joe Dillard, Vice-President for Technical Activities, during the coming week and will suggest that he takes step to bring together the various individuals and organizations concerned, with a view to reaching some mutually acceptable organization (which may well be a new IEEE group) for discussion and action on social implications.

Yours very truly,

A handwritten signature in dark ink, appearing to read 'R.H. Tanner', is written over a horizontal line.

Robert H. Tanner
President

RHT/ch

THE COMMITTEE FOR SOCIAL RESPONSIBILITY IN ENGINEERING

137a West 14th Street, New York, N.Y. 10011

January 12, 1972

Dr. Richard C. Kirby
Office of Telecommunications
U.S. Department of Commerce
Boulder, Colorado 80302

Working Committee:

Tony Agnello, CCNY
Prof. Ralph Akkoyunlu, SUNY
Dr. Aaron Ashkinazy, RCA
Prof. P. M. Brown, CCNY
Prof. Frank Collins, PIB
Prof. Douglas Davids, NYU
Dr. Albert Friedes, BTL
Dr. William Higinbotham, BNL
Barry R. Horowitz, PIB
Elsa Horowitz, IBM
Lee M. Horowitz, NCE
Prof. George M. Katz, Col. Med.
Larry S. Liebovitch, CCNY
Brad Lyttle, WTR
Ted Mankovich, Col. U.
Prof. Seymour Melman, Col. U.
Prof. Marvin Paull, Rutgers
Rowan Hay Rifkin, PIB
Dr. Anthony Robbi, RCA
Dr. Harvey Rubin, BTL
Prof. Philip Sarachik, NYU
Paul Stoller, IBM
Steve Tencer, Col. U.
Prof. S. H. Unger, Col. U.
Rod Wallace, Col. U.
Ed Walker, IBM
Prof. Richard Wiener, CCNY
Prof. Sheldon Weinbaum, CCNY
David Wuchinich, Cooper Union

Coordinator:

Ted Wernitz

(Affiliations for
identification only)

Dear Dr. Kirby:

Thank you for your December 22 letter regarding our petition to form an IEEE Group on Social Implications of Technology.

Our Committee is happy to accept your invitation to discuss the petition at the next TAB meeting. Please let us know the precise date so that we can make our arrangements.

We appreciate your point that it is desirable not to discourage activities pertaining to social implications within existing IEEE Groups and Societies. Our feeling is that the formation of a Group dedicated to this topic would by no means have such an effect. Many problems in this area cut across several subdisciplines. For example, the ABM controversy. Questions of professional ethics and responsibility, or the ordering of priorities relate to all areas of electrical engineering.

The formation of the proposed Group would be an appropriate way to focus attention on such broad issues and might be expected to stimulate intensive activity within existing Groups and Societies. Furthermore, a certain amount of overlap among various Groups and Societies is both healthy and not without precedent in the IEEE.

In closing, we might add that, judging from the response thus far to our petition campaign, there is very wide interest among IEEE members in the idea of having such a group.

We look forward to hearing from you again soon.

Yours truly,

Frank Kotasek
Frank Kotasek

Stephen H. Unger
Stephen H. Unger



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

IEEE GROUP CORRESPONDENCE

Department of Electrical Engineering
The Pennsylvania State University
University Park, Penna. 16802

January 19, 1972

Professor Stephen H. Ungar
Comm. for Social Responsibility in Engineering
137a W. 14th Street
New York, N. Y. 10011

Dear Professor Ungar:

In response to your request, I have contacted a number of people concerning your petition and am pleased to forward the enclosed list. I am personally very happy to see such a petition since I have long believed that social responsibility is a dimension that all too frequently is missing in engineering activities.

It was not clear to me whether you were after signatures from Penn State or the IEEE Control Systems Society. I chose the former, and suggest that you also consider similar requests to the officers and ADCOM members of the Society.

Sincerely,

John B. Lewis
mcw

John B. Lewis
President
IEEE S-CS

JBL/mar
Encl.



U.S. DEPARTMENT OF COMMERCE
Office of Telecommunications
Washington, D.C. 20230

January 31, 1972

Mr. Stephen H. Unger
and
Mr. Frank Kotasek
The Committee for Social Responsibility
in Engineering
137a West 14th Street
New York, N.Y. 10011

Dear Sirs:

Thanks for your letter of January 12.

While I still feel that your proposal ought to be discussed in TAB, please note that the Chairman (TAB) is Ed Wolff; I recommend you contact him if you wish the matter placed on the TAB agenda. I do not have the authority to do this. You could reach him via Dick Emberson, IEEE Headquarters, 345 East 47th Street, New York, N. Y. 10017.

Sincerely,

A handwritten signature in dark ink, appearing to read "R. Kirby", is written over the typed name.

Richard C. Kirby

GENERAL DYNAMICS

Convair Aerospace Division

P. O. Box 748, Fort Worth, Texas 76101 • 817-732-4811

1 February 1972

Dr. Stephen H. Unger
Columbia University
137A West 14th Street
New York, New York 10011

Dear Dr. Unger:

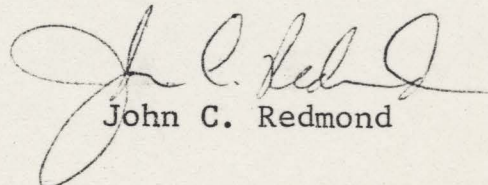
Please forgive me for being so tardy in replying to your letter of 21 December 1971 which requested indorsement of the formation of a Technical Group on the Social Implications of technology. I have done some research on how this subject is presently handled within the IEEE and have come to the conclusion that the Institute's efforts are properly directed.

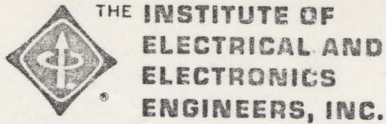
Essentially, the Institute has formulated two committees under the Technical Activities Board to cover this subject. They are: the Environmental Quality Committee headed by Mr. B. H. Manheimer of HUD and the Committee on the Impact of Electro-Technology on Social Problems headed by Dr. W. E. Cory of the Southwest Research Institute. Both of these committees were formulated to draw upon the talents of the many technical groups that now constitute the Technical Activities Board. In this manner, the committees can cover a broader field without competing with the present groups, each of which have specific and limited interests.

I would suggest that if you are interested, you might contact Mr. Manheimer or Dr. Cory to determine what is being done within the IEEE on the social implications of technology and perhaps offer your assistance to them.

Very truly yours,

cc: R. M. Emberson
B. H. Manheimer
W. E. Cory


John C. Redmond



TECHNICAL ACTIVITIES BOARD

Feb. 22, 1972

Mr. Victor Klig
The Committee for Social
Responsibility in Engineering
137a West 14th Street
New York, NY 10011

Dear Mr. Klig:

Your petition for the formation of an IEEE Group on Social Implications of Technology has been received and is being forwarded to Dr. Richard Emberson, Technical Activities Board (TAB) Secretary, in the New York IEEE office who will process it for you in accordance with IEEE procedures. The first formal consideration of the petition will be by the TAB Operating Committee (OpCom) which will not meet before the IEEE Convention in New York next month. I recommend you call Dr. Emberson to familiarize yourself with the procedures. You may want to prepare a statement explaining your objectives and approach in more detail to help OpCom reach a decision.

You should be aware of previous OpCom positions on questions akin to the proposed new Group. There appears to be an agreement in OpCom to separate the technical-interaction-with-society "societal" activities from "professional" activities designed to improve the economic and working conditions of engineers. The responsibility for societal activities has been accepted by the existing Groups and they are making plans for such activities in their respective areas. OpCom is still debating the problem of satisfying the professional needs of members.

Your petition seems to indicate that you contemplate a Group that would engage in both societal and professional activities. OpCom would be helped by a clarification of your field of interest.

Please feel free to contact me if I can be of any help.

Yours truly,

Edward A. Wolff
TAB Vice Chairman
1021 Cresthaven Drive
Silver Spring, MD 20903

cc: R. Emberson

2/28/74

DRAFT

This requires strong and careful editing, especially the last statement in paragraph 3. If satisfactory, then I believe that portions of it might be included in the letter to Spectrum in order to further prod IEEE and establish a proper basis for future events. In any case, a precise program including a detailed analysis of purposes and structure had better be formulated now, as the TAB will be neither naive nor unbiased. In this regard, a meeting including CSRE people (especially George Katz), a concerned person knowing IEEE structure and policies (i.e. Bob Schoenfeld), and a prominent member of the profession (i.e. Sam Mason) would be most useful.

February 28, 1972

Dear Dr.

I am in receipt of your reply to my letter submitting petitions for the formation of a new IEEE professional group, and herein enclose several hundred additional signatures. These and the previously submitted petitions comprise only a preliminary response, and it is believed that more petitions will be submitted at the time that our representatives appear before TAB. The relatively short period required to accumulate these signatures, coupled with conversations with a number of signatories, have confirmed the conclusions which led to the ~~initiation of the petitions~~ ^{PRECIPITATED THIS COURSE OF ACTION:}

1) That electrical engineers are, on a professional level, becoming increasingly concerned with the nature of their endeavor, the use to which it is put, the manner in which priorities are ascribed to selected areas of endeavor, and the environment in which they function - in short, all professional aspects of the interaction between electrical engineering and society, including areas within the profession itself;

2) That despite recent corrective steps, the role of the IEEE in this area has been inadequate and belated, although the situation has demanded strong, innovative, professional consideration and action for some time;

3) That especially in the areas cited, the membership has felt increasingly alienated from the organization, with little professional contribution feasible (excepting letters to Spectrum and a few isolated papers), and even less possible on an administrative or organizational level. Specifically, the petitioners desire a new professional group within the IEEE, established and administered by the membership, with no links to the past.

It should be clearly understood that this is what prompted our present course of action and does not constitute a statement of position.

The purposes and policies of this new group are precisely what should be discussed with TAB and with the membership. Above all, it is felt that, given past history and present attitudes on all sides, such a group would be in the best interests of the profession and IEEE.

It is already late. While it is felt that the convention provides a useful and timely setting for a meeting between our representatives and those of TAB, a meeting can be arranged shortly thereafter, should this not prove suitable to you. We hope to hear from you soon.

Sincerely,

WOLFF

March 2, 1972

Dr. Edward A. Wolff
TAB Vice Chairman
1021 Cresthaven Drive
Silver Spring, MD 20903

Dear Doctor Wolff:

I am in receipt of your reply to my letter submitting petitions for the formation of a new IEEE professional group, and herein enclose several hundred additional signatures. More signatures will be submitted at the time that our representatives appear before TAB. The relatively short period required to accumulate these signatures, coupled with conversations with a number of signatories, have confirmed the conclusions which precipitated this course of action:

1) That electrical engineers are, on a professional level, becoming increasingly concerned with the nature of their endeavor, the use to which it is put, the manner in which priorities are ascribed to selected areas of endeavor, and the environment in which they function - in short, all professional aspects of the interaction between electrical engineering and society, including areas within the profession itself;

2) That despite recent corrective steps, the role of the IEEE in this area has been inadequate and belated, although the situation has demanded strong, innovative, professional consideration and action for some time;

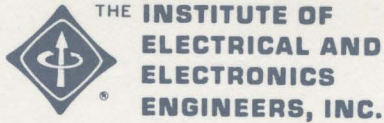
3) That especially in the areas cited, the membership has felt increasingly alienated from the organization, with little professional contribution feasible (excepting letters to Spectrum and a few isolated papers), and even less possible on an administrative or organizational level.

Specifically, the petitioners desire a new Group within the IEEE established and administered by members with a fresh outlook. Our concern in the professional sphere is with the aspects related to the engineer's obligation and ability to perform in a responsible manner with due regard for the public interest.

[While any related efforts by existing Groups and Societies, are certainly desirable, it is clear that this vital area cuts across all of our subdisciplines, and cannot be treated in a fragmented and incidental manner; it must receive the attention best provided by a Group dedicated to that purpose. Further, there is ample precedent within the IEEE for overlapping or parallel treatment of a subject which is of primary concern to a particular Group.

While it is felt that the convention provides a useful setting for a meeting between our representatives and those of TAB, a meeting can be arranged shortly thereafter should this not prove suitable to you. We hope to hear from you soon.

Sincerely,



TECHNICAL ACTIVITIES BOARD

March 7, 1972

Dr. Victor Klig
Albert Einstein College of Medicine
of Yeshiva University
1300 Morris Park Ave.
Bronx, NY 10461

Dear Dr. Klig:

Your letter of March 2nd with additional petitions is being forwarded to Dick Emberson in the New York office. Any additional petitions should be sent directly to him.

Dick Emberson composes the TAB OpCom agenda from instructions from the TAB Chairman, and you should check with him to be sure you are included for the March 21st meeting.

I personally feel that the efforts needed to help IEEE interact with society will not be generated in adequate measure within the existing Group/Society structure, and a separate Group is a logical way to address the problem.

Sincerely,

A handwritten signature in dark ink, appearing to read 'E. Wolff', is positioned above the typed name of the sender.

Edward A. Wolff
TAB Vice Chairman
1021 Cresthaven Drive
Silver Spring, MD 20903

cc: R. Emberson (with petitions)

THE COMMITTEE FOR SOCIAL RESPONSIBILITY IN ENGINEERING

137a West 14th Street, New York, N.Y. 10011

March 10, 1972

Working Committee:

Tony Agnello, CCNY
Prof. Ralph Akkoyunlu, SUNY
Dr. Aaron Ashkinazy, RCA
Prof. P.M. Brown, CCNY
Prof. Frank Collins, PIB
Prof. Douglas Davids, NYU
Dr. Albert Friedes, BTL
Dr. William Higinbotham, BNL
Alan Horowitz, IPE
Barry R. Horowitz, PIB
Elsa Horowitz, IBM
Lee M. Horowitz, NCE
Prof. George M. Katz, Col. Med.
Justin Kodner
Frank Kotasek, Sperry-Rand
Larry S. Liebovitch, CCNY
Brad Lyttle, WTR
Ted Mankovich, Col. U.
Prof. Seymour Melman, Col. U.
Prof. Marvin C. Paull, Rutgers
Rowan Hay Rifkin, PIB
Dr. Anthony Robbi, RCA
Dr. Harvey Rubin, BTL
Prof. Philip Sarachik, NYU
Paul Stoller, SUNY
Steve Tencer, Col. U.
Jack Tucker
Prof. Stephen H. Unger, Col. U.
Rod Wallace, Col. U.
Prof. Richard Wiener, CCNY
Prof. Sheldon Weinbaum, CCNY
David Wuchinich, Cooper Union

Professor S. Unger
Electrical Engineering Department
Columbia University
120 St. and Amsterdam Ave.
New York, NY 10027

Dear Professor Unger:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need of such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Coordinator:
Ted Wernitz

(Affiliations for
identification only)

Yours truly,

Victor Klig

CC: S. Mason
H. Rubin
A. Robbi
W. Higinbotham
V. Klig
F. Kotasek
N. Balabanian

March 10, 1972

Mr. W. Higinbotham
Applied Science Division
Brookhaven National Laboratory
Upton, NY 11973

Dear Mr. Higinbotham:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need for such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

VK:ewr

CC: S. Mason 4
H. Rubin 6
A. Robbl 5
V. Klig 2
S. Unger 7
F. Kotasek 3
N. Balabanian 1

March 10, 1972

Doctor A. Robbi
Radio Corporation of America Laboratories
Princeton, NJ 08540

Dear Doctor Robbi:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need for such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

VK:ewr

CC: S. Mason
H. Rubin
W. Higinbotham
V. Klig
S. Unger
F. Kotasek
N. Balabanian

March 10, 1972

Doctor Harvey Rubin
Bell Telephone Laboratories
Holmdel, NJ 07783

Dear Doctor Rubin:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEE for consideration, it is felt that the need for such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

VK:ewr

CC: S. Mason
A. Robbi
W. Higinbotham
V. Klig
S. Unger
F. Kotasek
N. Balabanian

March 10, 1972

Professor S. Mason
Electrical Engineering Department
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02318

Dear Professor Mason:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need for such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

VK:ewr

CC: H. Rubin
A. Robbi
W. Higinbotham
V. Klig
S. Unger
F. Kotasek
N. Balabanian

March 10, 1972

Professor N. Balabanian
Department of Electrical Engineering
111 Ling Hall
Syracuse University
Syracuse, NY 13210

Dear Professor Balabanian:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need of such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

CC: S. Mason
H. Rubin
A. Robbl
W. Higinbotham
V. Klig
F. Kotasek

P.S. - Many thanks for your offer of help, the contribution, and the signatures.

March 10, 1972

Professor S. Unger
Electrical Engineering Department
Columbia University
120 St. and Amsterdam Ave.
New York, NY 10027

Dear Professor Unger:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need of such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

It is hoped that you, along with several others (see below), would sign the letter. As time is pressing, we will attempt to contact you by telephone, and also ask that you return a signed copy of the letter to us, should you be so disposed.

Yours truly,

CC: S. Mason
H. Rubin
A. Robbi
W. Higinbotham
V. Klig
F. Kotasek
N. Balabanian

March 10, 1972

Mr. F. Kotasek
Sperry Rand Corporation

Dear Mr. Kotasek:

As you probably know, CSRE has been circulating a petition to form a new IEEE Professional Group on Social Implications of Technology. While the response has been well beyond either our expectations or the minimal requirements of IEEE for consideration, it is felt that the need of such a group should be made clear to the entire membership. It is proposed that a letter be published in the Forum section of Spectrum, at the earliest possible date, presenting the facts, and asking the membership to similarly petition TAB. The draft letter, all the correspondence between CSRE and TAB, the petition, and the initial covering letter are enclosed.

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Yours truly,

CC: S. Mason
H. Rubin
A. Robbi
W. Higinbotham
V. Klig
N. Balabanian

DRAFT

March 11, 1972

Mr. D. ~~DeWitt~~ *christiansen*
Editor, IEEE Spectrum
Institute of Electrical and Electronics Engineers
345 East 47 Street
New York, NY 10017

Dear Sir:

Several months ago the Committee for Social Responsibility in Engineering instituted a petition requesting that the IEEE establish a new Professional Group on Social Implications of Technology. During this period, over four hundred member signatures were collected and submitted to the Technical Activities Board (TAB). The relatively short period required to accumulate these signatures, coupled with conversations with a number of signatories, have confirmed the conclusions which precipitated this course of action:

1) That electrical engineers are, on a professional level, becoming increasingly concerned with the nature of their endeavor, the use to which it is put, the manner in which priorities are ascribed to selected areas of endeavor, and the environment in which they function - in short, all professional aspects of the interaction between electrical engineering and society, including areas within the profession itself;

2) That despite recent corrective steps, the role of the IEEE in this area has been inadequate and belated, although the situation has demanded strong, innovative, professional consideration and action for some time;

3) That especially in the areas cited, the membership has felt increasingly alienated from the organization, with little professional contribution feasible (excepting letters to Spectrum and a few isolated papers), and even less possible on an administrative or organizational level.

in 1) above

vague

possible on whose part:

the members or the administrators?

Specifically, the petitioners desire a new Group within the IEEE established and administered by members with a fresh outlook. Our concern in the professional sphere is with the aspects related to the engineer's obligation and ability to perform in a responsible manner with due regard for the public interest.

While any related efforts by existing Groups and Societies, are certainly desirable, it is clear that this vital area cuts across all of our subdisciplines, and cannot be treated in a fragmented and incidental manner; it must receive the attention best provided by a Group dedicated to that purpose. Further, there is ample precedent within the IEEE for overlapping or parallel treatment of a subject which is of primary concern to a particular Group. Moreover, the subject is not unique to IEEE. A technology and society committee within an ASME Division, has been in existence for some time, and it is understood that ASME is presently considering establishment of a division in this area.

The petition states

"The undersigned IEEE members (above student grade) hereby petition the Executive Committee of the IEEE to authorize the formation of a Professional Group on Social Implications of Technology as described below.

The purpose of this group is to promote among IEEE members a sensitivity to the impact of their technology on society, and to conceive means to predict and evaluate that impact.

Some pertinent topics are the application of electronics to the alleviation of pollution problems, the effects of energy consumption on the biosphere, effects of data banks and electronic surveillance techniques on privacy, the application of engineering talent to urban problems and transportation and the role of government in technological research and development. Ethics, the professional status of engineers, and the engineer's application of his technical knowledge to community affairs are also to be considered.

These purposes shall be pursued by encouraging research and study, by the publication of the resulting reports and treatises, by the holding of meetings for the reading and discussion of papers, and by any other activities necessary, suitable and proper for the fulfillment of these objectives. In keeping with the broad interests implicit in the purposes of this group, papers and articles shall be comprehensible to the non-specialist reader engineer."

We urge all members to write the TAB secretary (Dr. R. Emberson, Secretary, TAB, Institute of Electrical and Electronics Engineers, 345 East 47 Street, New York, N. Y. 10017) and add their names in support of this petition.

Anthony D. Roch-

March 16, 1972

Mr. Donald Christiansen
Editor, IEEE Spectrum
Institute of Electrical and Electronics Engineers
345 East 47 Street
New York, NY 10017

Dear Sir:

Several months ago the Committee for Social Responsibility in Engineering instituted a petition requesting that the IEEE establish a new Professional Group on Social Implications of Technology. During this period, over four hundred member signatures were collected and submitted to the Technical Activities Board (TAB). The relatively short period required to accumulate these signatures, coupled with conversations with a number of signatories, have confirmed the conclusions which precipitated this course of action:

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Mr. Christensen - page 2

it must receive the attention best provided by a Group dedicated to that purpose. Further, there is ample precedent within the IEEE for overlapping or parallel treatment of a subject which is of primary concern to a particular Group. Moreover, the subject is not unique to IEEE. A technology and society committee within an ASME Division, has been in existence for some time, and it is understood that ASME is presently considering establishment of a division in this area.

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We urge all members to write the TAB secretary (Dr. R. Emberson, Secretary, TAB, Institute of Electrical and Electronics Engineers, 345 East 47 Street, New York, N. Y. 10017) and add their names in support of this petition.

N. Balabanian
V. Klig
F. Kotasek
S. Mason
A. Robbi
H. Rubin
W. Higinbotham
S. Unger



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

MEMORANDUM

To H, Chestnut, J. K. Dillard V. Klig, F. Kotasek Date 3/17/72
J. J. Guarrera, R. H. Tanner S. H. Unger ✓

From Richard M. Emberson *RME*

SUBJECT: Breakfast Meeting, Tuesday, March 21

1. This confirms that we will meet at 7 a.m., Tuesday morning, March 21, in the New York Hilton basement restaurant (Taveerne). I will arrange a table in the room at the far left (south) of the entrance.
2. RAB meets at 8:30 a.m. (Chestnut and Guarrera) and TAB OpCom meets at 9 a.m. (Dillard and Emberson) so we should meet promptly and proceed at once to discuss the petition for the establishment of a new IEEE Group on the Social Implications of Technology. I believe all have had copies of previous correspondence; for convenience I append a copy of the petition.
3. There is a possibility that Prof. Norman Balabanian may join Messrs. Klig, Kotasek, and Unger on behalf of the petitioners . . . depending on travel, and other commitments, from Syracuse.

RME:gd

DRAFT

April 20, 1972

FRIEND

Dear Member;

Your support of the petition to establish a new IEEE Group on Social Implications of Technology is gratefully acknowledged. To date, over six hundred signatures from members in over eighty schools and companies, have been sent to the IEEE Technical Activities Board (TAB) - the required amount is one hundred. While the size and nature of the response exceeded our best expectations, there is no assurance that the proposed group will be created or that its purpose or structure will not be limited by IEEE. However, there has been some movement.

After submission of the first hundred signatures to TAB, an exchange of letters and submission of an additional two hundred signatures resulted in an informal meeting during the IEEE Convention with Mr. Tanner, Dr. Chestnut, Mr. Guerera (District 6), Mr. Delland (TAB chairman) and Dr. Emberson (TAB secretary). The rationale for, and purposes of the proposed group were put forth and defended, and it soon became clear that there was a multifactional split in the IEEE leadership. Some felt that the present organizational structure was adequate to deal with most issues, that engineers have no special competence in social areas and that these issues might pertain to the profession but could not be presented on a technical or professional level. Others felt that social issues should be specially considered, but at a regional level and with constraints in scope. Still others recognized the responsibility of IEEE to its members and their interests, and that a clear need did exist for a new group (along the lines we proposed).

We pointed out that member interest is a sufficient condition for a new group, and that such groups as

Nuclear Science and Engineering in Medicine and Biology would never have started if expertise was the sole criterion. Further, that the group was to serve as a forum for the broadest range of ideas pertinent to the profession and society, that the constitution would not only guarantee turnover of leadership, but would assure maximum participation by the membership and that administration and editorial boards would be an outgrowth of strong activities on a local level. Moreover, that the IEEE's past efforts were minimal, that those most fearful of dissent seemed to be locked into these past practices, that a new group staffed by people with a fresh outlook would serve as a stimulus to other groups, and that there was ample precedent for overlap between groups. CSRE, while having taken positions on a number of other issues, would play a major role in the establishment of the new group.

It is difficult to speculate on what IEEE is presently doing, the issue is under consideration although it is felt that the machinery is cumbersome at best. However, it was felt that this matter was of sufficient importance that it should be considered by the entire membership. Accordingly, a letter was sent to Spectrum (it will appear in the May issue with a response from Mr. Tanner) outlining the issues, presenting the body of the petition, and requesting the membership to send letters to TAB supporting the petition.

It is strongly felt that the IEEE must be responsive and accountable to the membership, and it is for this reason that you are urged to now go beyond the signing of the petition. Many signers from universities will work in industry this summer and the petition should be circulated and discussed there. Moreover, consideration should now be given to the establishment of local groups, as well as the level and nature of the activities to be undertaken. Finally, it is important to hear your ideas as to what should be done.

April 27, 1972

Dr. Richard M. Emberson
Director, Technical Services
Institute of Electrical and Electronics Engineers
345 East 47 Street
New York, New York 10017

Dear Dr. Emberson:

Enclosed are additional signatures on our petition for the formation of an IEEE Group on Social Implications of Technology. The cumulative total of signatures we have received is now 620.

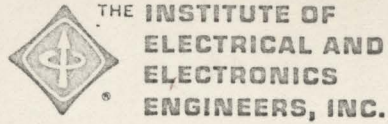
Unfortunately, due to a mix-up in our record keeping, some of the enclosed petitions (those stapled together with an attached note), may duplicate some that we previously submitted. We regret any inconvenience that this may cause.

We hope to hear soon about favorable action on this matter by the Board.

Thank you for your cooperation.

Yours truly,

Stephen H. Unger



TECHNICAL ACTIVITIES BOARD

May 8, 1972

Dr. Victor Klig
Albert Einstein College of Medicine
Yeshiva University
1300 Morris Park Ave.
Bronx, NY 10461

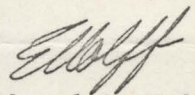
Dear Dr. Klig:

The TAB Chairman has asked me to arrange for the initiation of activities concerning the electrotechnology/society interface by organizing a TAB Committee. I would appreciate receiving the following suggestions from you:

1. Your interest and ability to serve on the Committee.
2. The interest and ability of others you know to serve on the Committee (please send resumes).
3. The scope of such a Committee.
4. The goals for the first year.
5. A plan for implementing the first-year goals.
6. Results that can be expected after one year.

Any additional comments would be welcome.

Yours truly,


Edward A. Wolff
TAB Vice Chairman
1021 Cresthaven Drive
Silver Spring, MD 20903

cc: J. Dillard
R. Emberson

ALBERT EINSTEIN COLLEGE OF MEDICINE
OF YESHIVA UNIVERSITY

1300 MORRIS PARK AVENUE, BRONX, N. Y. 10461 • CABLE:EINCOLLMED, N. Y.

INTERDISCIPLINARY PROGRAM

PHONE: (212) 430-2000

May 30, 1972

Dr. Edward A. Wolff
TAB Vice Chairman
1021 Cresthaven Drive
Silver Spring, MD 20903

Dear Doctor Wolff:

Thank you for your letter of May 8. I apologize for the delay in replying; however the point you raised required discussion with a number of other people.

There are several key issues in the wording of the petition, in our correspondence with you, and in the letter in the May issue of "Spectrum", which serve as a basis for a future direction.

1. A new Professional Group on Social Implications of Technology should be quickly established;
2. This group and its precursors would deal with all professional aspects of the interaction between electrical engineering and society, including areas within the profession itself;
3. This group would serve as a broad based forum for all interested members of the profession;
4. Active member participation is considered essential;
5. The group's precursors should be staffed by members with a fresh outlook.
6. The group's constitution and procedures should facilitate these aims by guaranteeing frequent turnover of all levels of administration and editorial boards, and by requiring incumbent officers and editors to return to the membership for a fixed period before again participating on an administrative or editorial level.

These goals should be reflected in the composition and future actions of the TAB committee. The committee should serve three functions: organization, referral, and creation of a draft constitution for consideration by the interested members.

Referral implies a means by which members in a given locality can obtain information and communicate with one another. In this regard, committee members,

(geographically distributed) should initially serve as referral points; so that requests or notices of local activity can be responded to in an efficient manner. Committee members should jointly publish a newsletter, in which typical information requests and ongoing activities are included. Within a nine month period, these activities should be turned over to volunteer members reporting directly to each committee member. The committee activities and member response should be well publicized by the submission of articles, news items, and progress reports to Spectrum. The TAB secretary should be kept informed of all activities and ~~should compile~~ lists of interested members.

Organizational activities should include: the establishment of session-workshops on specific aspects of social implications of technology at IEEE ~~national~~^{national}, regional and group conferences; the publication of a special issue of the Proceedings containing numerous short articles on various aspects of Social Implications of Technology, within 18 months of the onset of committee activities; the channeling of any local activities into a loose knit structure after the first year and prior to a series of sessions on a draft constitution.

Deliberation on a draft constitution should begin toward the end of the first year's operations.

The scope of these activities is formidable, and the enormity of the work load is well appreciated. It is for this reason that Committee membership should be relatively large and that many activities, once begun, should be turned over to interested members reporting directly to the committee. Indeed, in the referral activities, membership participation in these projects should be encouraged.

A list of those members willing to serve is attached.

Certain activities can begin immediately with the publication in Spectrum, of a notice informing the membership of the existence of the committee and its purposes, and including a list of its members for referral purposes. This can be composed within two weeks. It is suggested that because of vacation schedules, the main body of work begin in late August and progress be marked from that point. This also allows time for member feedback.

Please let us know what questions you might have, and what resources are to be made available. We hope to hear from you soon.

Sincerely,

DATE

5/18

TO

Prof. A. J. J. J. J.

FROM

F. Collins - Boby
T. J. J.

SUBJECT

APPROVAL		INVESTIGATION
ACTION		FILE
COMMENTS		NOTE AND RETURN
✓ INFORMATION		PLEASE SEE ME
SIGNATURE		

REMARKS:

(OVER)

May 15, 1972

Dr. Martin Perl
Stanford University
SLAC, P.O. Box 4349
Stanford, California 94305

Dear Martin:

Thank you for your letter and your suggestions. I read your letter over the telephone to Ted Werntz and Stephen Unger, who are coordinators for CSRE. Stephen Unger is a EE professor at Columbia and has been the driving force behind the IEEE petition. We all very much appreciate your suggestions and offers of help. I think we will need them. Tanner, who is President of IEEE, seems to be very sympathetic to the implementation of the petition, but the chairman of the Technical Advisory Board is quite hostile to it. Steve suggests that a letter from you to Tanner suggesting a meeting of relevant people might have substantial impact. We shall be considering the best strategy and I'll be in touch with you about it soon.

I had been previously aware of the Forum on Physics and Society as I am a member of the American Physical Society. I have previously sent in my application for membership.

CSRE showed the Leonard Henny movie last night in which you appeared. The committee is considering the purchase of the film.

Best wishes,

FC/eh

Frank Collins

STANFORD UNIVERSITY

STANFORD LINEAR ACCELERATOR CENTER

May 15, 1972

Mail Address

SLAC, P. O. Box 4349

Stanford, California 94305

Professor Frank Collins
Polytechnic Institute of Brooklyn
333 Jay Street
Brooklyn, New York 11201

Dear Frank:

I have just read the Spring 1972 issue of SPARK and liked your article very much.

As you know, the American Physical Society now has an official division called the Forum on Physics and Society. Is there anything the Forum can do to help encourage the IEEE to form the group on Social Implications of Technology, as discussed in SPARK? I am Vice-Chairman of the Forum and in charge of liaison with other technical societies.

To give you a feeling for Forum activities, I have enclosed a copy of a News of the Forum which appeared in the last APS Bulletin and of a copy for a proposed later issue of the APS Bulletin. The latter should not be circulated until it is officially accepted by the publication staff of the APS Bulletin.

Would it help if some APS Forum officials met with some IEEE people to explain how the Forum works? The Forum Chairman, Earl Callen, lives in Washington, D.C. and is very competent and knows how to work with professional societies.

Regards,

Martin

Martin Perl

MLP/ms
Enclosures

News of the Forum on Physics and Society

FORUM BUSINESS

This is a report of the business transacted at the Executive Committee and Business Meetings of the Forum at the April 24-27 APS Meeting in Washington. Recognizing that the Forum is a new venture for the Physical Society, the Executive Committee regards many of the decisions taken at these meetings as provisional; these decisions and policies may be changed as required by experience and by the opinions and interests of the membership. As an aid in determining these opinions and interests, a Poll is attached to the end of this report. It is hoped that all APS members, not just Forum members, will fill out and return this Poll.

ENLARGING THE FORUM

The Executive Committee strongly urges that APS members who have not yet joined the Forum do so in the near future; the present Forum membership is about 1000. The Committee believes that a large Forum membership will ensure that all points of view on questions of physics and society are represented in the Forum. In particular it is hoped that there will be increased participation in the Forum by physicists associated with industry and with the government. To encourage membership, a space for joining the Forum has been placed at the bottom of the Poll.

FORUM PROGRAMS

A Forum Program Committee (Chairman-Brian Schwartz, National Magnet Laboratory, Massachusetts Institute of Technology, Cambridge, Mass.) is being appointed. In September, this Committee will begin to set up the Forum Programs for the APS Meetings of the coming year. Please send to the Program Committee, through Brian Schwartz, suggestions for topics and speakers. Volunteers to help set up the programs are also needed. The Program Committee emphasizes that every effort will be made to have a variety of programs and to have all points of view represented. The Committee reports that there has been difficulty in the past in obtaining speakers to represent more conservative (in the political sense) view-

points and in obtaining speakers to represent official policies of the Federal government. The Committee hopes that physicists associated with industry will indicate, or will set up, programs of particular interest to their group.

FORUM CONTRIBUTED PAPER SESSIONS

The Forum plans to hold two sessions of contributed papers at the 1973 New York Meetings of the APS. Such papers should be submitted at the appropriate time for the New York Meeting and should be designated for the Forum sessions. The Executive Committee hopes that these contributed paper sessions will accomplish two purposes. First, through these short papers the interests and opinions of the APS members on questions of physics and society will be presented to the APS. Thus all points of view can be presented. Second, many of these short papers will hopefully contain reports of scholarly work on physics and society questions. In that way, the APS membership can learn of progress in that field.

To focus these contributed paper sessions, the Program Committee may designate some topics as of particular interest; although all papers falling within the area of physics and society will be accepted, following the rules of the APS on contributed papers. Some topics which have been suggested are: Employment and Professional Standards Problems in Physics; Racial Minorities in Physics; Physics in Industry-Problems and Promise. Suggestions should be sent to the Program Committee through Brian Schwartz.

NEWS OF THE FORUM AND THE FORUM NEWSLETTER

For the immediate future, two ways of reporting and discussing Forum activities have been selected. First, News of the Forum, such as this report, will appear in many of the APS Bulletin. (The first News of the Forum appeared on page 426 of the April, 1972 Bulletin.) This news is assembled by the Forum Vice Chairman, Martin Perl, SLAC, Stanford, Calif. 94305; and suitable news items should be sent to him eight weeks before the first of the month in which the Bulletin will appear.

Second, a Forum Newsletter containing letters, comments and opinions, as well as news, will be sent to all Forum members about three times each year. Material for this Newsletter should be sent to the Newsletter Committee Chairman-Jay Orear, Physics Department, Cornell University, Ithaca, New York. (A copy should be sent to M. Perl.) The Newsletter Committee will select material for the Newsletter and ensure that all points of view, which wish to be represented, are represented.

Some questions in the Poll relate to the Newsletter and News of the Forum, and to the provisional way in which the contents of these two publications have been designated. One of the purposes of the Poll is to determine how the APS members think on these questions. Since letters to the Newsletter will constitute one of the main ways in which the opinions of APS members on physics and society questions are communicated, two such letters are appended to the Poll.

FORUM COMMITTEE ON COURSES IN PHYSICS AND SOCIETY

A Forum Committee on Courses in Physics and Society is being appointed. Marc Ross, Physics Department, University of Michigan, Ann Arbor, Mich., is Chairman and Dietrich Schroeer, Physics Department, University of North Carolina, Chapel Hill, North Carolina, is Vice-Chairman. This Committee, through a number of sub-committees, plans to study the possible contents of about a half dozen courses on different aspects of physics and society. The sub-committees will devise course outlines, compile lists of resource material and compile bibliographies. The first purpose is to stimulate education in the field of physics and society; but it is also hoped that an expansion of education in this field will provide additional employment opportunities for physicists. On all appropriate matters the Committee will consult with the AAPT. The Committee also plans to hold Forum Programs on this subject at which both contributed and invited papers will be presented.

April 1, 1972

NEWS OF THE APS DIVISIONS

News of the Forum on Physics and Society

1972 FORUM OFFICERS

The following officers were elected for 1972.

Chairman—Earl Callen, Physics Department, American University, Washington, D. C. Vice Chairman—Martin Perl, SLAC, Stanford University, Stanford, Calif. Secretary-Treasurer—Ralph Llewellyn, Physics Department, Indiana State University, Terre Haute, Ind. Forum Counsellor—Seymour Koenig, IBM Research Center, Yorktown Heights, N. Y.

The following Executive Committee members were elected: Barry Casper, Physics Department, Carleton College, Northfield, Minn. Leo Kadanoff, Physics Department, Brown University, Providence, R. I. Philip Morrison, Massachusetts Institute of Technology, Cambridge, Mass. Jay Orear, Physics Department, Cornell University, Ithaca, N. Y. Brian Schwartz, National Magnet Laboratory, Massachusetts Institute of Technology, Cambridge, Mass.

The following Executive Committee members were appointed by the APS Council: Vernon Hughes, Physics Department, Yale University, New Haven, Conn. Eugen Merzbacher, Physics Department, University of North Carolina, Chapel Hill, N. C.

FORUM SESSIONS AT APS MEETING

To set up Forum Sessions at APS meetings contact the Program Coordinator, Brian Schwartz. Help is needed with the smaller meetings.

BUSINESS TRANSACTED AT SAN FRANCISCO

At the Forum's first business meeting in San Francisco, the following guidelines were developed. Committees, study groups, and other Forum activities should be started

primarily on a test basis. Then the Forum membership can evaluate these activities and decide which should be continued. Activities can be initiated outside of the business meetings by consultation with the officers and Executive Committee of the Forum. Forum committees or study groups should be set up so that their members can work together closely and rapidly. They should not have to depend upon the national meetings of the APS to get together. Thus, the membership of the Forum should interact with and work with each other between APS meetings.

At San Francisco the following activities were initiated (contact the people listed for further information): (1) Committee on Economic and Social Problems of the Profession (to report at Washington meeting)—Earl Callen, Brian Schwartz; (2) Study Group on Congressional Scientific Interns—Barry Casper; (3) Speakers Bureau—Alvin Saperstein, Physics Department, Wayne State University, Detroit, Mich; (4) Tapes of Forum Talks—B. Kent Harrison, Physics Department, Brigham Young University, Provo, Utah; (5) Liaison with Science and Society divisions of other societies—Martin Perl, David Wetstone.

BUSINESS TO BE TRANSACTED AT WASHINGTON

The Business Meeting of the Forum at the Washington Meeting of the APS will be held immediately after the Tuesday morning Forum session. Forum members should try to get together the day before to formulate proposals, and should try to meet together in working groups for the 2½ days after the business meeting.

1972

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June 16, 1972

Dear Dr. Wolff:

Enclosed are resume's & statements
by two more people on the list we
submitted, Harvey Citroni and George
Ellery, as well as a resume' of
Ted Wernitz, who also wishes to
participate.

Yours truly,

Stephen H. Unger

6/14/72

Dear Dr. Wolff:

Enclosed are resumes &
statements of interest by
3 more individuals on the
list we submitted earlier.

Y truly,
Stephen H. Chyer

Shimizu (statement only)

Kotaseki

Perschke

Copy

6/19/72

Wm Dr. Wolff:

School is interested for Drs. Rabbie & ad Freund
pertaining to the 6/24 meeting.

I have been informed by Mr. Keith Bore that he has
allowed his IEEE membership to lapse and so is ~~not~~
therefore not eligible for the committee.

Yours truly

Hyman K. K.

enclosed for Rabbie

essay on tech. & soc. interface

group should establish lines of communication. with like groups
in other tech. soc., ~~and~~ corp. associations, political entities &
public at large. rather inform rev. & need to
use that enhance, not contract
freedom.

Wm Freund of Freund - born 3/44 Ph.D. U. Illinois

now with Data Communications System Group
RCA, Camden.

June 13, 1972

Dr. Edward A. Wolff
1021 Cresthaven Drive
Silver Springs, MD 20903

Dear Dr. Wolff:

We have received the meeting notice for the June 24 conference, including your summary of scope, goals, mode of implementation, and results. In line with our previous conversation, those people interested in actively working on the committee are listed below. Their resumes have been sent to you (except for IEEE fellows - F). Those intending to come to the conference are starred. Several of the West Coast people will need transportation expenses (T).

F	Norman Balabanian	Syracuse University
*	J. Malvern Benjamin	Bionic Instruments Inc., Philadelphia
*	Keith Bose	Suffolk County Dept. of Labor, Long Island, N.Y.
*	Harvey Citrin	Sperry Rand, Long Island, N. Y.
T *	George Ellery	Massey-Ferguson Co., Detroit
*	Harvey Freeman	RCA Corp., Camden, N. J.
T *	William A. Gross	Ampex Corp., Redwood City, CA
F *	William Higinbotham	Brookhaven National Laboratories
*	Victor Klig	Einstein College of Medicine, New York City
*	Frank Kotasek	Sperry Rand, Long Island, N. Y.
*	Michael Pessah	Montefiore Hospital, New York City
*	Anthony Robbi	RCA Laboratories, Princeton
T *	Jack Sklansky	University of California, Irvine
*	Lawrence Tate	Arthur D. Little Inc., Cambridge, Mass.
	Carl Barus	Swathmore College
	Wayne Chen	University of Florida
	Carl Dreher	Brewster, N. Y.
	John B. Lewis	Pennsylvania State University
	Samuel J. Mason	Massachusetts Institute of Technology
	Marvin C. Pauli	Rutgers University
	Harvey Rubin	Bell Telephone Laboratories
	David V. Vandellinde	Johns Hopkins University
	Aaron Wyner	Bell Telephone Laboratories

A summary of each person's aims and views should be in your hands in the next few days. The diversity and pertinence of these views, and the asserted degree of

Dr. Wolff - page 2

commitment, augur well for a good beginning. Over the past several months (and especially in the last few day's contacts) a number of central ideas emerged in relation to the committee, and are herein enclosed. It is strongly urged that your agenda and summary, this letter, and the enclosed suggestions for proposed structure, be sent to all those concerned. Should this prove difficult, we are prepared to assist in the distribution.

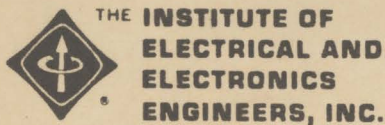
Sincerely,

Victor Klig

Frank Kotasak

Steven Unger

Enc.



*Rec'd about
June 19*

6 June 1972

OFFICE OF THE REGIONAL DIRECTOR

William E. Cory
Department of Electronic Systems Research
Southwest Research Institute
P.O. Drawer 28510
San Antonio, Texas 78284

Tel: (512) 684-5111

Dr. E. A. Wolff
1021 Cresthaven Drive
Silver Spring, Md. 20903

Dear Ed:

Regarding the "Social Implications" committee I offer the following thoughts:

1. Scope

I feel that the purpose that was stated in the petition "to promote among IEEE members a sensitivity to the impact of their technology on society, and to conceive means to predict and evaluate that impact" is a proper IEEE function. Most of the "pertinent topics" are in order though some are being handled by other TAB organizations. The areas of "Ethics" and "the professional status of engineers" are not proper topics for this committee.

2. First Year Goals

a. Develop methods by which the IEEE Societies/Groups can evaluate the impact of their technology on society.

b. Outline program to determine methods by which realistic impact predictions can be made.

3. Approach

a. Organize basic committee.

b. Identify the specific tasks that must be performed in accomplishing 2. a.

c. Establish working subcommittees to determine the specific methods to be followed in each of the identified tasks (3. b.).

d. In cooperation with one of the Societies (or Groups) apply the methods (3. c.) to determine their suitability (revise as required).

e. Based upon the results of 3. a-d, outline an approach to be followed to develop impact predict methods.

4. First Year Achievements

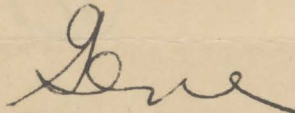
a. Improve IEEE Society/Group awareness of the impact of their technology on society through TAB participation.

b. Formalize (or at least initiate the formalization of) the methods for assessing the impact of electro-technology on society.

Attached are the letters that I have received as a result of the February 1972 SPECTRUM article (EE's and Public Needs: A Recommendation). I would appreciate your forwarding them to the appropriate Societies and Groups for their action. I think we can use the help of at least some of these "volunteers" and hope that the Society/Group will at least contact them. I have also forwarded copies of the letters from Friedman, Herzog, Jacobowitz and Schlosser to John Guarrera and Don Fink for use as they see fit. I have also attached a copy of Professor Welch's Course Syllabus which I think you will find interesting.

Hope some of this will be of some help to you.

Sincerely,



William E. Cory, Director
Region 5

WEC:mrr
Enclosures

ARIZONA STATE
UNIVERSITY

COLLEGE OF ENGINEERING SCIENCES

TEMPE, ARIZONA 85281

(602) 965-3421

June 6, 1972

Dr. Edward Wolff
1021 Cresthaven Drive
Silver Spring, Maryland 20903

Dear Dr. Wolff:

I am enclosing copies of two letters written last year which give some of my thinking on the "Applications of Electrotechnology to Social Problems." I will, in this letter, address myself to your specific requests for scope of activities, first year goals, activities for the first year and results expected.

1. Scope

A. General

1) Concentrated effort on the development of effective patterns of communication across disciplinary boundaries.

Comment: This item has top priority and is prerequisite to the following two items. The objective is to create an environment among scholars, professionals and practitioners which will enhance the identification of areas in which interaction and cooperation will result in fruitful action. (Practitioners is meant to include: politicians, social workers, union leaders, etc., who may or may not be classified as professionals or scholars).

2) Those activities of electrical and electronic research and development which specifically involve the application of electrical phenomena to the needs of society and for which definition of objectives, goals and specification of system performance characteristics involve interaction between the engineer with knowledge of the electrical or electronic system and nonengineer with knowledge of the social system.

Question: Should the social system include the human system? For example: In the design of biomedical instrumentation, displays, or computer control panels an understanding of characteristics and capabilities of the human being is involved--aside from social issues. I suggest that the answer to this question be, no, in order to provide some limitation to a potentially enormous scope of activity.

Comment: The intent of this item is to include those items which involve electrical or electronic hardware and system development and application and to exclude those which do not. For example: Development of computers capable of handling the problems of city government would be included; Jay Forrester's Urban Dynamics would not.

3) Those activities which involve the application of knowledge which has matured in application to electronic and electrical systems to

- a) analagous social systems or,
- b) nonelectrical systems having impact on social systems

and for which cooperation between the electrical or electronic engineer and the non-electrical-or-electronic engineer is essential.

Comment: For example: This would include, Forrester's, Urban Dynamics, application of detection, information and decision theory to social problems, modelling of transportation systems, and application of potential and diffusion theory to air and water pollution problems.

B. Specific

1) Priority activities identified in the context of a refined matrix similar to that in the following page. (See Zelby's letter for discussion of this matrix.)

Comment: An example might be activities involving the relationship between air traffic and airport congestion, urban design, economic and social aspects of air transportation and the future design of air traffic control systems.

2) Activities involving primarily coordination among IEEE groups and activities not unnecessarily duplicating efforts of other IEEE groups.

Comment: The example given above, for example, is of specific interest to several IEEE groups.

3) Activities primarily involving cooperative effort or exchange of ideas and information with other professional or scholarly organizations, societies and institutions.

Comment: All engineering organizations such as ASEE, NSPE, ASME, etc., are very active in similar projects. Similarly organizations of social scientists, historians, geographers, geologists, zoologists, etc., are concerned with social and environmental issues.

4) Activities designed to inform realistically educators and, through them or directly, the younger generation of the relationship of electrotechnology to social issues with emphasis on the preuniversity level.

Comment: "Realistic" means both to convey a more realistic image of the impact of technology on society (there is good as well as bad effect) and to develop an understanding that jobs for engineers will continue to exist and grow in number with a change in emphasis from the past without overselling in needed or unneeded specializations.

THEORIES	Electrical and Material Phenomena						
	Fields and Waves						
	Passive and Active Devices						
	Circuits and Guided Wave Propagation						
	Detection and Information						
	Decision and Systems						
PROBLEMS		SYSTEMS					
		Energy Conversion and Distribution	Communications	Control	Information Processing	Instrumentation	Devices
	Overpopulation						
	Natural Resource Depletion						
	Environmental Pollution						
	Urban Congestion						
	Air and Surface Traffic						
	Productivity Gap						
	Economic Exploitation						
	Excessive Affluence						
	Ideological Tension						
	Societal Conflict						
	Societal Domination						
	Inadequate Health Care Systems						
	Unemployment and Dislocation						
	Unequal Educational Opportunity						
	Psychological Stress						

2. First Year Goals

- A) Establish agreement on, and better definition of, categories defining general scope of activity. Above are suggestions to be compared and consolidated with others.
- B) Establish agreement on, and better definition of, categories defining specific scope of activity. Above are suggestions to be compared and consolidated with others.
- C) Begin definition, to the next level of detail, of the specific scope of activity in terms of the categories agreed upon.
- D) Begin an inventory of parallel efforts in IEEE, other engineering organizations and other nonengineering groups including names of principals involved.
- E) Establish reciprocal agreements between IEEE and other organizations on programs for effective communication across disciplinary boundaries.
- F) Establish agreement on a statement of purpose for IEEE activity relative to "Applications of Electrotechnology to Social Problems."

Comment: This has top priority in my estimation. In my vocabulary purpose precedes objectives, objectives precede definition of scope and goals, and goals precede action. I suggest the following:

The purpose of the Committee on the "Application of Electrotechnology to Social Problems" is twofold:

a) To develop an awareness in the membership of IEEE which anticipates social needs, which may be satisfied through the application of electrotechnology, and social problems, which may result from the application or lack of application of electrotechnology.

b) To develop an awareness in the nonelectrical-and-electronic engineering community which leads to realistic and objective evaluation of the impacts of electrotechnology on society.

This does not preclude analysis of the past or the present, which is essential to prediction of the future, but places the emphasis on positive future outlook which foresees potential for problems before the problems occur and results in anticipative action rather than corrective reaction.

3. Activities--First Year

Comment: Whatever the activities planned for the first year they should be realistically limited to a scope matched to the energies of interested IEEE Membership.

They should be selected with due regard for priority and feasibility of producing desired results or impact. There should be general agreement among the committee that both of these criteria are satisfied. In this context, the following are suggest for consideration:

A) Begin a continuing series of articles in Spectrum addressed to specific examples of electrotechnological impact on society.

Comments: These should be high quality articles, future oriented with reasonably in-depth treatment of both technical and social aspects and clearly showing the interrelationships. Before starting such a series, a backlog of commitments should be obtained in order that it may become a "feature" to be anticipated from month-to-month.

Example topics might be:

- 1) Possibilities for load-levelling among power generation stations throughout the United States by intertie with remote control of dispatching.
- 2) Reduction of traffic congestion by traffic control systems.
- 3) Communications applied to increased highway safety, accident prevention and response to emergencies.
- 4) Impact of communications on the development of underdeveloped nations.
- 5) Electronics in health care systems.
- 6) Increasing airport capacity by new approaches on improvements to air traffic control systems.
- 7) Potential for underground power distribution.
- 8) Instrumentation for monitoring the environment and controlling pollution.
- 9) Possibilities for a public data processing system. (In the true sense-- like public telephone system.)
- 10) Possibilities for genuine benefits of computer aided instruction (not gimmicks).
- 11) Electricity in the agricultural industry (a tremendous amount used but not generally known to IEEE Membership).
- 12) What is the communication satellite really doing for the world?

ARIZONA STATE UNIVERSITY
College of Engineering Sciences

Dr. Edward Wolff

-5-

June 6, 1972

- 13) Job markets for electrical and electronic engineers related to social problem solving. (Not pie-in-the-sky but real potential with numbers.)
- 14) Electrotechnology in the urban environment.
- 15) System, decision, information and detection theory applications to nonelectrical and/or social systems.
- 16) Legislation and regulatory agencies affecting electrotechnology.
- 17) Humanization of automation.

Articles on many of these subjects have appeared in the past few years of, Spectrum and other electrical journals. In most cases, however, the technical problem was emphasized or the social impact was generalized. In any event, this committee could become the official "clearing-house" and stimulus for the future (selective invited papers, for example).

B) Associated with above, begin a one page feature of the "News in Brief" variety reporting on activities related to social problems.

C) As a development from the above, or already existing periodical literature, produce an anthology in the IEEE press series (similar to The Impact of the Clean Air Act on Technology).

D) Develop a series of sessions for the annual New York or WESCON meeting (or both) around a technological system base. (In order to attract segments of the membership with specialization based interest.) For example, referring to the preceding matrix,

- Energy Conversion and Distribution Technology and Social Problems
- Communications Technology and Social Problems
- Control Technology and Social Problems
- Information Processing and Social Problems
- Instrumentation Technology and Social Problems
- Device Technology and Social Problems

The last item "Device Technology and Social Problems" might take the form of a session on "Devices Needed" for the other five systems.

E) Establish two or three pilot reciprocal arrangements with, for example, sociology, political science and historical societies or journals.

Comment: A first step could be reprinting articles originally published in, Spectrum in the appropriate nonengineering journal and vice-versa, or trading appearances on the forum of national meetings. The number of occasions at which engineers talk to engineers and political scientists talk to political scientists has led to too much "I've heard this before" comment and too little resolution of conflicting points of view.

F) It may be premature to think of a professional group or journal devoted to this topic, and it may not be the right approach, but it is worth discussing. You may be aware of the Society for the History of Technology and its magazine, Technology and Culture. In general, this magazine focuses on the past rather than current issues. The MIT publication, Technology Review, does focus on current issues and largely those with social impact. We should consider seriously the availability of quality material for a quarterly before taking a step which commits us to a regular publication on Electrotechnology and Social Problems.

G) Develop a program at section level designed to communicate with pre-college educators.

H) Develop a program through membership at universities, designed to communicate with colleges of education.

4. Results Expected

Comment: This, again, depends upon the amount of effort which can be committed by the committee and the response of the membership. There was a considerable amount of interest displayed at the New York meeting. (I attended most of the pertinent sessions and there were several.) Three general comments apply to these sessions. First: they suffered from not being specific (with some exceptions). Second: they were engineers talking to engineers (with very few exceptions). Third: there was a defensive atmosphere surrounding much of what was said (which may be appropriate).

A) A shift in emphasis from analysis of existing problems to synthesis of alternative solutions.

Comment: I have heard too often the details of environmental pollution, urban congestion, product safety, etc. What are we going to do about these problems?--as an organization and as individuals.

B) Formalization of relationships with nonengineering societies and journals which will lead to development of mutual understanding and sharing of ideas.

Comment: As I have said before, this has top priority. It will not be easy and will not produce immediate impact but it is essential to progress. Communication must be established before cooperative action can result. (A truism.)

C) Improvement of quality of presentations and publications through more critical and professional review of papers.

Comment: Standards similar to those used by reviewers of strictly technical papers should be established. It is conceivable that as a part of (B) above, affiliate reviewers from other disciplines could be used--and vice-versa--for articles they receive related to technology. I have found, for example, that economists studying the load-leveling problem by intertie in power systems are completely unaware of the control problem and potential for large blackouts.

ARIZONA STATE UNIVERSITY
College of Engineering Sciences

Dr. Edward Wolff

-7-

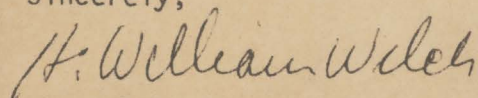
June 6, 1972

D) Development of a forum for the membership which brings attention to more specific examples of Application of Electrotechnology to Social Problems.

In summary, it is my assertion that the major system activities of electrical and electronic engineers, as I have defined them in the matrix, are primarily positive in their impact on society. This is obvious in the case of energy conversion and distribution, control, communication, information processing and instrumentation. In the case of devices, it can be simply stated that they make the other systems possible with a minimum consumption of energy--our most critical natural resource.

These suggestions are intended to expand upon or supplement the report published by Bill Cory in the February issue of, Spectrum. I have gone into some detail since it is unlikely that I will be able to make a trip east for a meeting in the coming month.

Sincerely,



H. William Welch
Assistant Dean
Professor of Engineering

HWW:ab

P. S. I am also enclosing information on my course, Technology, Society, and Human Values.

Enclosures: Course Syllabus
Copy of Dr. Zelby's letter
Copy of Dr. Palmer's letter with attached
Summary: Challenges of Increasing Productivity

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.
UPTON, L.I., N.Y. 11973
TEL. AREA CODE 516 YAPHANK 4-6262

REFER:

July 10, 1972

AdHoc Committee on Social
Implications of Technology

Gentlemen:

At our meeting on June 24, much time was spent on definitions and the necessary arrangements to get started. At the last moment the matter of topical committees came up and I was assigned to scope them, or whatever. This assignment appears as item J, "Matrix" on page 6 of the official minutes.

The group assembled ran off a list of possible topics ranging from energy to environment to data banks and surveillance.

As I see it, my task is to guess what subjects will appeal to our potential membership as deserving of study to the extent that viable committees can be formed. Further, we chairmen are requested to estimate what IEEE resources each activity listed on page 6 may require.

I do not feel that I can do a responsible job of selecting topics all by myself and so am writing to the rest of you for suggestions. Prior to the June 24 meeting, each of us was requested to suggest one or a few topics, appropriate for consideration in this context and of particular interest to the individual concerned. What I ask is that each of you repeat this operation. I don't have these. The committee is a good cross section of socially concerned IEEE members, I hope. I think that a shopping list is not very helpful where- as the topics dear to each of you should shed some light on what the general membership is likely to support.

Don't make a project out of this, don't dally. I can read longhand.

Please drop me a note as soon as possible.

Sincerely yours,

Willy

William A. Higinbotham

WAH/bs

CC:

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Silver Spring, Maryland
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as of 6/21 then 6/24 unit

Balabanian

Benjamin

Freeman no show

Higginbotham

Klig

Kotasek

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Robbi

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Euberson

~~x~~ ~~Stollen~~

Peter Edmonds

Joe Coxy

7/13/72

229 Cambridge Ave.
Englewood, N.J. 07631

Dr. William A. Higinbotham
Brookhaven National Lab.

Upton, L.I., N.Y. 11973

Dear Dr. Higinbotham:

I'm taking you at your word that you can
read longhand!

Along with Frank Koterek & Victor Klig, I've
already submitted a list of possible subcommittees
based on topic (see attachment F, section 3 of the
minutes of the June 24 meeting). I am particularly
interested in and have thought about in some detail
items 3.3, 3.4, 3.5 and 3.6. (These are respectively,
social responsibility in engineering - ethics etc., information
transmission & processing, national defense, education).
Under inf-transmission & processing I include and am
particularly interested in uses of technology to facilitate
citizen participation in government. Under national
defense, in addition to current abuses I am interested
in non-violent methods. Under education, I have
been for several years been teaching a course on
technology of society to under-graduate engineers.

Yours truly,

Stephen H. Unger

July 12, 1972

Dr. Edward A. Wolff
1021 Cresthaven Drive
Silver Springs, Maryland 20903

Dear Dr. Wolff:

Enclosed is a set of recommendations by the Working Group on Publications of our IEEE SIT Committee.

Professor Arthur Bernstein of the Computer Science Department of the State University of New York at Stony Brook has agreed to be vice-chairman of the Working Group on Publications. Professor Bernstein is currently an associate editor of the SIAM Journal on Computing. His office phone number is (516) 246-4081 and home phone number (516) 751-6757.

I look forward to our next meeting.

Yours truly,

SHU:ss

Stephen H. Unger

cc. Professor Arthur Bernstein
Computer Science Department
State University of New York
Stony Brook, Long Island, N.Y.

IEEE Ad Hoc Committee on Social Implications of Technology

Recommendations of Working Group on Publications

The following recommendations concern the publication of material generated by the SIT Committee in existing IEEE organs. It is assumed that the role of the Committee's own newsletter will be dealt with in a separate report by the appropriate working group.

Two IEEE journals have been selected for consideration: The Spectrum and the Proceedings. The following two proposals should be regarded, at least initially as alternatives.

1. A Monthly Series in the Spectrum

The idea here is to have an arrangement whereby our committee can obtain space in the Spectrum on a monthly basis for the equivalent of one paper. (In some cases the space might be used for several short papers or rebuttals of previously published papers).

The mechanism might be as follows:

- (a) The SIT Committee nominates one of its members to serve as SIT editor.
- (b) The nominee is then submitted for approval to the editor and/or the editorial board of Spectrum (whatever is the appropriate procedure for appointing an associate editor).
- (c) Articles on subjects within the scope of the SIT Committee are then solicited thru the pages of Spectrum, the SIT Committee newsletter, the working groups of the SIT Committee, the publications of IEEE Groups and Societies, or other appropriate channels.
- (d) Such articles are then processed by the SIT editor in the usual manner, making use of knowledgeable referees (perhaps 3 for each paper).
- (e) Since controversial viewpoints are to be expected, the editor should strive to obtain, or even to explicitly solicit high quality papers representing a variety of approaches to the various problems. Short rebuttals of particular arguments made in earlier published papers should be particularly encouraged.

2. A Special Issue of the Proceedings

This proposal involves the production of a special issue of the IEEE Proceedings by the SIT Committee. The mechanism would parallel that for the first proposal with respect to the selection of the editor and the procedure for soliciting and accepting papers.

3. Discussion

Both proposals outlined here would seem to be efficient ways of reaching large numbers of IEEE members, with the first having a distinct advantage due to the larger circulation of the Spectrum. A further advantage of the first proposal lies in the fact that the distribution of articles in time may lead to a build-up of reader interest and also facilitates a dialogue with the readers thru letters and rebuttal articles. An advantage of the second approach is that the resulting publication would be a compact resource available for university courses or special seminars.

On the whole, it would appear that the first proposal is preferable. It would incidentally be consonant with a general trend in the pages of Spectrum to deal with many of the issues within the SIT area.

Neither proposal should be considered as in any way being a substitute for a newsletter and/or transactions of the SIT Committee. Such publications are important for the exchange of special information and somewhat less developed ideas among those with a particular interest in various topics within the scope of the Committee.

Stephen H. Unger
7/5/72

SHU:cw

IEEE Ad Hoc Committee on Social Implications of Technology

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Stephen H. Unger
7/5/72

SHU:cw



BIONIC INSTRUMENTS, INC.

221 Rock Hill Road, Bala Cynwyd, Penna. 19004 • (215) Tennyson 9-3250

July 11, 1972

The IEEE has recently formed an Ad Hoc Committee on Social Implications of Technology" whose task is to spark IEEE members into a greater awareness of the social consequences of their professional work.

One effort of this committee is to place several papers on the program at the March, 1973, Annual Meeting of the IEEE, to be held in NYC. The papers will be organized around three themes:

- A) "The Ethical Relationship Between the Engineer and his Employer."
- B) "The Engineer and War Technology."
- C) "The Effects of Information Technology on the Democratic Process."

We believe that there are many IEEE members who would like very much to hear your views on "The Effects of Information Technology on the Democratic Process."

Although it is still too early to have individual slots assigned for papers or to be assured of separate sessions, the Program Committee needs basic information from us quite soon. I would greatly appreciate a prompt reply (hopefully favorable!).

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Malvern Benjamin, Jr.", written in a cursive style.

J. Malvern Benjamin, Jr.

JMB:gbr

PS: It would be helpful to have your Curriculum Vitae if that would be convenient.

ATTENDEES

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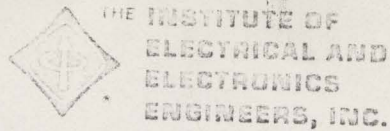
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TECHNICAL ACTIVITIES BOARD

TECHNOLOGY / SOCIETY INTERFACE COMMITTEE

Meeting Notice

The first meeting will be held as follows:

Date: Saturday, June 24, 1972
Time: 9:00 AM to 4:00 PM (lunch will be served)
Place: Studio Room 115
Commodore Hotel
42nd Street and Park Avenue
New York, NY

Note; Please notify

Dr. Edward A. Wolff
1021 Cresthaven Drive
Silver Spring, Maryland 20903
Office phone: 301-982-2265
Home phone: 301-439-1152

if you plan to attend so adequate hotel arrangements can be made.

Agenda

1. Introductions
2. Review of IEEE actions and present organizational arrangement.
3. Formulation of
 - a. ~~Name~~ Purpose
 - b. Scope
 - c. First year goals
 - d. First year activities
 - e. First year results
 - (suggestions attached) f. ~~Purpose~~ Name
4. Committee organization
5. Other business



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

TECHNICAL ACTIVITIES BOARD

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THE INSTITUTE OF
ELECTRICAL AND
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ENGINEERS, INC.

TECHNICAL ACTIVITIES BOARD

Technology/Society Interface Committee

May 23, 1972

SCOPE

1. Examine effects of present technology on society.
Lack of engineering for environmental preservation, good communications, weather satellites.
2. Examine effects of probable new technology on society.
Energy needs, broadcast satellites, cable to home, low-cost telephone, low-cost computer services, earth resources satellites, physiological monitoring, environmental monitoring, automobile electronics, electronic mail
3. Determine new technology needed to solve society problems.
Mass-produced housing, effective mass-transit, pollution sensors
4. Determine attitudes of society toward engineering.
Attitude surveys
5. Conduct programs to explain technology to society.
Position papers for society, information for congress, PR function (examine different groups in society and approaches thereto)
6. Conduct programs to explain society needs and concerns to IEEE members.
7. Identify IEEE resources in technology areas interfacing with society and develop programs to utilize these resources.
8. Monitor other activities directed at the technology/society interface.
(gov't, universities, industry, other societies, IEEE)

FIRST YEAR GOALS

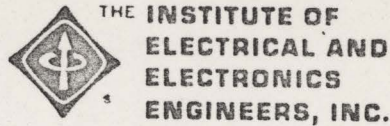
1. Document existing efforts directed at the technology/society interface.
2. Design programs appropriate to IEEE.
3. Identify IEEE resources available and required for the programs.

FIRST YEAR ACTIVITIES

1. Compile a summary of existing activities directed at the technology/society interface being undertaken by IEEE, other societies, government, education and industry both in the U.S. and abroad.
2. Compile a list of areas of technology that now or will interface with society; interface with IEEE Groups & Societies.
3. Compile a preliminary list of technological needs of society.
4. Compile a list of resources within IEEE knowledgeable in the interface areas that might be utilized by this committee and develop plans for such use.
5. Design a program for documenting attitudes of society toward engineering
6. Design a program for communicating technology to society and a program for communicating society needs and desires to IEEE members.

RESULTS OF FIRST YEAR ACTIVITIES

1. Lists of existing activities, areas of technology, technology needed, and resources needed.
2. Plans for programs to document society attitudes and to communicate with society and IEEE members.



6 June 1972

OFFICE OF THE REGIONAL DIRECTOR
William E. Cory
Department of Electronic Systems Research
Southwest Research Institute
P.O. Drawer 28510
San Antonio, Texas 78284

Tel: (512) 684-5111

Dr. E. A. Wolff
1021 Cresthaven Drive
Silver Spring, Md. 20903

Dear Ed:

Regarding the "Social Implications" committee I offer the following thoughts:

1. Scope

I feel that the purpose that was stated in the petition "to promote among IEEE members a sensitivity to the impact of their technology on society, and to conceive means to predict and evaluate that impact" is a proper IEEE function. Most of the "pertinent topics" are in order though some are being handled by other TAB organizations. The areas of "Ethics" and "the professional status of engineers" are not proper topics for this committee.

2. First Year Goals

- a. Develop methods by which the IEEE Societies/Groups can evaluate the impact of their technology on society.
- b. Outline program to determine methods by which realistic impact predictions can be made.

3. Approach

- a. Organize basic committee.
- b. Identify the specific tasks that must be performed in accomplishing 2. a.

6 June 1972

c. Establish working subcommittees to determine the specific methods to be followed in each of the identified tasks (3. b.).

d. In cooperation with one of the Societies (or Groups) apply the methods (3. c.) to determine their suitability (revise as required).

e. Based upon the results of 3. a-d, outline an approach to be followed to develop impact predict^{ion} methods.

4. First Year Achievements

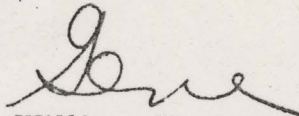
a. Improve IEEE Society/Group awareness of the impact of their technology on society through TAB participation.

b. Formalize (or at least initiate the formalization of) the methods for assessing the impact of electro-technology on society.

Attached are the letters that I have received as a result of the February 1972 SPECTRUM article (EE's and Public Needs: A Recommendation). I would appreciate your forwarding them to the appropriate Societies and Groups for their action. I think we can use the help of at least some of these "volunteers" and hope that the Society/Group will at least contact them. I have also forwarded copies of the letters from Friedman, Herzog, Jacobowitz and Schlosser to John Guarrera and Don Fink for use as they see fit. I have also attached a copy of Professor Welch's Course Syllabus which I think you will find interesting.

Hope some of this will be of some help to you.

Sincerely,



William E. Cory, Director
Region 5

WEC:mrr
Enclosures

ARIZONA STATE
UNIVERSITY

TEMPE, ARIZONA 85281

COLLEGE OF ENGINEERING SCIENCES

(602) 965-3421

June 6, 1972

Dr. Edward Wolff
1021 Cresthaven Drive
Silver Spring, Maryland 20903

Dear Dr. Wolff:

I am enclosing copies of two letters written last year which give some of my thinking on the "Applications of Electrotechnology to Social Problems." I will, in this letter, address myself to your specific requests for scope of activities, first year goals, activities for the first year and results expected.

1. ScopeA. General

1) Concentrated effort on the development of effective patterns of communication across disciplinary boundaries.

Comment: This item has top priority and is prerequisite to the following two items. The objective is to create an environment among scholars, professionals and practitioners which will enhance the identification of areas in which interaction and cooperation will result in fruitful action. (Practitioners is meant to include: politicians, social workers, union leaders, etc., who may or may not be classified as professionals or scholars).

2) Those activities of electrical and electronic research and development which specifically involve the application of electrical phenomena to the needs of society and for which definition of objectives, goals and specification of system performance characteristics involve interaction between the engineer with knowledge of the electrical or electronic system and nonengineer with knowledge of the social system.

Question: Should the social system include the human system? For example: In the design of biomedical instrumentation, displays, or computer control panels an understanding of characteristics and capabilities of the human being is involved--aside from social issues. I suggest that the answer to this question be, no, in order to provide some limitation to a potentially enormous scope of activity.

Comment: The intent of this item is to include those items which involve electrical or electronic hardware and system development and application and to exclude those which do not. For example: Development of computers capable of handling the problems of city government would be included; Jay Forrester's Urban Dynamics would not.

3) Those activities which involve the application of knowledge which has matured in application to electronic and electrical systems to

- a) analagous social systems or,
- b) nonelectrical systems having impact on social systems

and for which cooperation between the electrical or electronic engineer and the non-electrical-or-electronic engineer is essential.

Comment: For example: This would include, Forrester's, Urban Dynamics, application of detection, information and decision theory to social problems, modelling of transportation systems, and application of potential and diffusion theory to air and water pollution problems.

B. Specific

1) Priority activities identified in the context of a refined matrix similar to that in the following page. (See Zelby's letter for discussion of this matrix.)

Comment: An example might be activities involving the relationship between air traffic and airport congestion, urban design, economic and social aspects of air transportation and the future design of air traffic control systems.

2) Activities involving primarily coordination among IEEE groups and activities not unnecessarily duplicating efforts of other IEEE groups.

Comment: The example given above, for example, is of specific interest to several IEEE groups.

3) Activities primarily involving cooperative effort or exchange of ideas and information with other professional or scholarly organizations, societies and institutions.

Comment: All engineering organizations such as ASEE, NSPE, ASME, etc., are very active in similar projects. Similarly organizations of social scientists, historians, geographers, geologists, zoologists, etc., are concerned with social and environmental issues.

4) Activities designed to inform realistically educators and, through them or directly, the younger generation of the relationship of electrotechnology to social issues with emphasis on the preuniversity level.

Comment: "Realistic" means both to convey a more realistic image of the impact of technology on society (there is good as well as bad effect) and to develop an understanding that jobs for engineers will continue to exist and grow in number with a change in emphasis from the past without overselling in needed or unneeded specializations.

THEORIES	Electrical and Material Phenomena						
	Fields and Waves						
	Passive and Active Devices						
	Circuits and Guided Wave Propagation						
	Detection and Information						
	Decision and Systems						
PROBLEMS		SYSTEMS					
		Energy Conversion and Distribution	Communications	Control	Information Processing	Instrumentation	Devices
	Overpopulation						
	Natural Resource Depletion						
	Environmental Pollution						
	Urban Congestion						
	Air and Surface Traffic						
	Productivity Gap						
	Economic Exploitation						
	Excessive Affluence						
	Ideological Tension						
	Societal Conflict						
	Societal Domination						
	Inadequate Health Care Systems						
	Unemployment and Dislocation						
	Unequal Educational Opportunity						
	Psychological Stress						

2. First Year Goals

- A) Establish agreement on, and better definition of, categories defining general scope of activity. Above are suggestions to be compared and consolidated with others.
- B) Establish agreement on, and better definition of, categories defining specific scope of activity. Above are suggestions to be compared and consolidated with others.
- C) Begin definition, to the next level of detail, of the specific scope of activity in terms of the categories agreed upon.
- D) Begin an inventory of parallel efforts in IEEE, other engineering organizations and other nonengineering groups including names of principals involved.
- E) Establish reciprocal agreements between IEEE and other organizations on programs for effective communication across disciplinary boundaries.
- F) Establish agreement on a statement of purpose for IEEE activity relative to "Applications of Electrotechnology to Social Problems."

Comment: This has top priority in my estimation. In my vocabulary purpose precedes objectives, objectives precede definition of scope and goals, and goals precede action. I suggest the following:

The purpose of the Committee on the "Application of Electrotechnology to Social Problems" is twofold:

a) To develop an awareness in the membership of IEEE which anticipates social needs, which may be satisfied through the application of electrotechnology, and social problems, which may result from the application or lack of application of electrotechnology.

b) To develop an awareness in the nonelectrical-and-electronic engineering community which leads to realistic and objective evaluation of the impacts of electrotechnology on society.

This does not preclude analysis of the past or the present, which is essential to prediction of the future, but places the emphasis on positive future outlook which foresees potential for problems before the problems occur and results in anticipative action rather than corrective reaction.

3. Activities--First Year

Comment: Whatever the activities planned for the first year they should be realistically limited to a scope matched to the energies of interested IEEE Membership.

They should be selected with due regard for priority and feasibility of producing desired results or impact. There should be general agreement among the committee that both of these criteria are satisfied. In this context, the following are suggest for consideration:

A) Begin a continuing series of articles in Spectrum addressed to specific examples of electrotechnological impact on society.

Comments: These should be high quality articles, future oriented with reasonably in-depth treatment of both technical and social aspects and clearly showing the interrelationships. Before starting such a series, a backlog of commitments should be obtained in order that it may become a "feature" to be anticipated from month-to-month.

Example topics might be:

- 1) Possibilities for load-levelling among power generation stations throughout the United States by intertie with remote control of dispatching.
- 2) Reduction of traffic congestion by traffic control systems.
- 3) Communications applied to increased highway safety, accident prevention and response to emergencies.
- 4) Impact of communications on the development of underdeveloped nations.
- 5) Electronics in health care systems.
- 6) Increasing airport capacity by new approaches on improvements to air traffic control systems.
- 7) Potential for underground power distribution.
- 8) Instrumentation for monitoring the environment and controlling pollution.
- 9) Possibilities for a public data processing system. (In the true sense-- like public telephone system.)
- 10) Possibilities for genuine benefits of computer aided instruction (not gimmicks).
- 11) Electricity in the agricultural industry (a tremendous amount used but not generally known to IEEE Membership).
- 12) What is the communication satellite really doing for the world?

- 13) Job markets for electrical and electronic engineers related to social problem solving. (Not pie-in-the-sky but real potential with numbers.)
- 14) Electrotechnology in the urban environment.
- 15) System, decision, information and detection theory applications to nonelectrical and/or social systems.
- 16) Legislation and regulatory agencies affecting electrotechnology.
- 17) Humanization of automation.

Articles on many of these subjects have appeared in the past few years of, Spectrum and other electrical journals. In most cases, however, the technical problem was emphasized or the social impact was generalized. In any event, this committee could become the official "clearing-house" and stimulus for the future (selective invited papers, for example).

B) Associated with above, begin a one page feature of the "News in Brief" variety reporting on activities related to social problems.

C) As a development from the above, or already existing periodical literature, produce an anthology in the IEEE press series (similar to The Impact of the Clean Air Act on Technology).

D) Develop a series of sessions for the annual New York or WESCON meeting (or both) around a technological system base. (In order to attract segments of the membership with specialization based interest.) For example, referring to the preceding matrix,

- Energy Conversion and Distribution Technology and Social Problems
- Communications Technology and Social Problems
- Control Technology and Social Problems
- Information Processing and Social Problems
- Instrumentation Technology and Social Problems
- Device Technology and Social Problems

The last item "Device Technology and Social Problems" might take the form of a session on "Devices Needed" for the other five systems.

E) Establish two or three pilot reciprocal arrangements with, for example, sociology, political science and historical societies or journals.

Comment: A first step could be reprinting articles originally published in, Spectrum in the appropriate nonengineering journal and vice-versa, or trading appearances on the forum of national meetings. The number of occasions at which engineers talk to engineers and political scientists talk to political scientists has led to too much "I've heard this before" comment and too little resolution of conflicting points of view.

F) It may be premature to think of a professional group or journal devoted to this topic, and it may not be the right approach, but it is worth discussing. You may be aware of the Society for the History of Technology and its magazine, Technology and Culture. In general, this magazine focuses on the past rather than current issues. The MIT publication, Technology Review, does focus on current issues and largely those with social impact. We should consider seriously the availability of quality material for a quarterly before taking a step which commits us to a regular publication on Electrotechnology and Social Problems.

G) Develop a program at section level designed to communicate with pre-college educators.

H) Develop a program through membership at universities, designed to communicate with colleges of education.

4. Results Expected

Comment: This, again, depends upon the amount of effort which can be committed by the committee and the response of the membership. There was a considerable amount of interest displayed at the New York meeting. (I attended most of the pertinent sessions and there were several.) Three general comments apply to these sessions. First: they suffered from not being specific (with some exceptions). Second: they were engineers talking to engineers (with very few exceptions). Third: there was a defensive atmosphere surrounding much of what was said (which may be appropriate).

A) A shift in emphasis from analysis of existing problems to synthesis of alternative solutions.

Comment: I have heard too often the details of environmental pollution, urban congestion, product safety, etc. What are we going to do about these problems?--as an organization and as individuals.

B) Formalization of relationships with nonengineering societies and journals which will lead to development of mutual understanding and sharing of ideas.

Comment: As I have said before, this has top priority. It will not be easy and will not produce immediate impact but it is essential to progress. Communication must be established before cooperative action can result. (A truism.)

C) Improvement of quality of presentations and publications through more critical and professional review of papers.

Comment: Standards similar to those used by reviewers of strictly technical papers should be established. It is conceivable that as a part of (B) above, affiliate reviewers from other disciplines could be used--and vice-versa--for articles they receive related to technology. I have found, for example, that economists studying the load-leveling problem by inertia in power systems are completely unaware of the control problem and potential for large blackouts.

ARIZONA STATE UNIVERSITY
College of Engineering Sciences

Dr. Edward Wolff

-7-

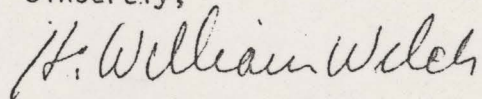
June 6, 1972

D) Development of a forum for the membership which brings attention to more specific examples of Application of Electrotechnology to Social Problems.

In summary, it is my assertion that the major system activities of electrical and electronic engineers, as I have defined them in the matrix, are primarily positive in their impact on society. This is obvious in the case of energy conversion and distribution, control, communication, information processing and instrumentation. In the case of devices, it can be simply stated that they make the other systems possible with a minimum consumption of energy--our most critical natural resource.

These suggestions are intended to expand upon or supplement the report published by Bill Cory in the February issue of, Spectrum. I have gone into some detail since it is unlikely that I will be able to make a trip east for a meeting in the coming month.

Sincerely,



H. William Welch
Assistant Dean
Professor of Engineering

HWW:ab

P. S. I am also enclosing information on my course, Technology, Society, and Human Values.

Enclosures: Course Syllabus
Copy of Dr. Zelby's letter
Copy of Dr. Palmer's letter with attached
Summary: Challenges of Increasing Productivity

A Proposed Plan for the First (Interim) Year of the
new IEEE GROUP ON THE SOCIAL IMPLICATIONS OF TECHNOLOGY

by Paul Stoller
Ted Werntz

The first task of the new IEEE Group on the Social Implications of Technology should be to collect and analyze information on the status of the field. These surveys will provide a basis on which on-going activities can be planned in detail. They will also facilitate the orientation of new members into the activities of the group.

It is recommended that this initial survey consist of several parts:

1. a Bibliography and Reading List of published material should be assembled and made available to the membership-at-large. In the interest of making this bibliography as complete as possible a notice should appear in Spectrum soliciting recommendations from any IEEE member. After finishing this bibliography, the Engineering Societies Library at the United Engineering Center should be asked to publish this bibliography as part of its series of bibliographies. It should also be asked to see that its holdings include all items on the bibliography.

2. a Survey of Other Technical Societies should be made. Some have recently implemented plans to address themselves to the problems of the Social Implications of Technology. The new group should contact every technical society to establish what has already been accomplished and what plans have been made for future progress. The results of this survey should be suitable for publication in Spectrum and would provide a basis for organizing a session on this topic at the 1973 IEEE International Convention. The invited speakers would naturally be people who have already gained experience in working in this area within other technical societies. Reports on these experiences would be valuable to IEEE members.

3. a Survey of Engineering Schools should be made to determine the scope and depth of the recent trend in engineering schools to address themselves to the problems of the Social Implications of Technology. (see June '71 Fortune). This survey should be addressed to both Engineering Colleges and Electrical Engineering Departments, and should be suitable for publication in Spectrum. The report would prepare the basis on which suitable sessions could be organized and the respondents to the survey would provide a pool of knowledgeable panel participants.

4. a Survey of IEEE Activists should be conducted by direct mail. The approach to these activists should be that though it is likely that their present commitments will leave them little time to become deeply involved with the activities of the new group, their opinions and suggestions would be welcomed. It should also be suggested that their opinions are being solicited because of the practical experience they have already gained working within the IEEE. This experience would be useful in estimating time, effort and cost in carrying out various programs. The results of this survey should be published in the form of a working paper and distributed on request.

5. a Survey of the IEEE membership should be instituted by inviting suggestions from all IEEE members via Spectrum. The emphasis here should be on encouraging a wide variety of suggestions, with no limit placed on their immediate practicality. This would provide a short term outer bound on the scope of the new group's activities. The results of this survey should be circulated as a working paper.

SUMMATION OF THE SURVEYS.

At the conclusion of these five surveys it would be expected that the new group would have 5 finished reports plus a large amount of raw material. This material would provide an excellent data base for a Spectrum staff writer to use in preparing an exhaustive overview of the status of thought and action within engineering toward the social implications of technology.

OPERATING PROCEDURES.

It is recommended that during the interim period in which these surveys are being prepared, that the Group on Social Implications of Technology will consist of five or more relatively autonomous working groups, each producing one survey. Each working group should be allowed the freedom to develop its own organizational structure. Overall direction should reside in a liaison committee made up of one representative from each working group. Working groups should be encouraged to nucleate around specific locations such as New York, Boston, Washington etc. The experience gained during the Interim period by the five or so working groups would allow for an intelligent dialog on how to structure the final group at the end of the interim period.

KICK-OFF.

The publication of the overview article in Spectrum (possibly in March of 1973) and the firm initiation of the new IEEE Group on the Social Implications of Technology should encourage the IEEE to provide a highly visible kick-off. This would emphasize the IEEE's commitment to its new undertaking. It is suggested that the kick-off take three forms:

1. That the IEEE's 1973 convention have as its featured speaker a well known, articulate spokesman for this new direction. The obvious candidate is Ralph Nader.

2. That the IEEE be asked to initiate a program of activities that would illuminate the ideas and actions of Charles Proteus Steinmetz, the "father of electrical engineering" who was an outspoken leader in his time in developing ideas and practice on the Social Implications of Technology.

3. That the IEEE International Convention of 1973 should hold a major session on the most pressing problem that has faced us in the past 10 years. This session should be entitled THE ENGINEER AND THE WAR IN VIETNAM. It is recommended that the IEEE President be sought as session chairman. The invited speakers should include;

a. A representative from the Defense Dept. who will be expected to explain the Administration's policies and the use it has made of engineering talents in Vietnam.

b. A representative of a large military oriented electronics firm, preferably one which is heavily involved in the design and manufacture of anti-personnel weapons for use in Vietnam. A suggestion would be James Binger, President of the Honeywell Corp.

c. A spokesman for those engineers who object strongly to the role played by engineering in supporting the war in Vietnam, such as Anthony Russo, engineer and co-supplier of the Pentagon Papers.

d. A spokesman who will provide a critical analysis of the US involvement in Indochina, with emphasis on the mis-use of technology; such as Noam Chomsky.

It is essential that the IEEE explore the growing sentiment among engineers over the use of technology in the continuing air war in Vietnam. This session would provide a forum for the expression of a broad spectrum of attitudes, sentiments and ideas related to this complex question.

It is assumed that this three-pronged KICK-OFF at the 1973 IEEE International Convention of the IEEE's new group on the Social Implications of Technology will provide the impetus for meaningful ongoing activities. It is also recommended that the final organizing business meeting of the new group occur during this convention.

By demonstrating a willingness to boldly address itself to significant and controversial problems, immediately upon its creation, the new group will have taken a significant step in establishing its credibility in the eyes of the typical IEEE member. This should encourage the active participation of many members who would otherwise be turn-off by a weasel-worded, timid approach. Bold, innovative approaches, whether in landing a man on the moon, or addressing "unsolvable" problems, has become the hallmark of present day engineering. It is hoped that the IEEE Group on the Social Implications of Technology will maintain this tradition.

Proposed Structure for IEEE Committee on Social
Implications of Technology

This outline is intended as a basis for discussion.

(See also the statement of purpose of the proposed IEEE Group on Social Implications of Technology.)

1. The purpose of the committee is to provide a forum for the interchange and promulgation of ideas. Care should be taken to keep the forum open to a variety of viewpoints, and to involve as many people as possible in the process.

Organizationally there should be a governing board, local chapters, topical and functional subcommittees, and the usual set of officers. Terms of office should be short and not renewable without a break. Continuity can be attained by means of overlapping terms.

2. Suggested Functional Subcommittees

2.1 Publications

To handle procedural matters having to do with the production of a newsletter and/or other such publications to be issued by the committee. To arrange for publication in other IEEE publications of material generated by the committee.

2.2 Meetings and Speakers

To deal with procedural aspects of workshops, meetings or sessions organized by the committee or to provide assistance in such matters as requested by local chapters of the committee.

To organize a speaker's bureau on topics within the scope of the committee to serve IEEE local or student chapters, and perhaps other organizations.

2.3 Liason

To maintain contact with and, where appropriate, coordinate activities with social implications committees within IEEE Groups and Societies or within other technical societies such as ASME or ACM. To assist in and promote the formation of local chapters of the committee.

2.4 Membership

To actively seek new members.

2.5 Group Formation

To prepare a constitution for an IEEE Group on Social Implications of Technology and to recommend appropriate steps leading to the formation of such a group.

3. Suggested Topical Subcommittees (Descriptive statements merely suggest the scope and should not be considered as definitive. Nor should the list be considered as necessarily complete.)

3.1 Environment.

Matters involving the effects of technology (principally electrical) on the environment, and how constructive changes can be made leading toward a stabilized ecology.

3.2 Urban Technology.

Problems involving urban transportation, crime, energy distribution, etc. The application of system theory to social problems.

3.3 Social Responsibility in Engineering.

Codes of ethics for engineers, extent of personal, group and corporate responsibility, roles of professional societies, relations with non-engineering co-workers, the rights of employed engineers.

3.4 Information Transmission and Processing

Social consequences of data processing, CTV, satellite communications systems, etc.

3.5 National Defense.

Analyses of various alternative strategic assumptions and concepts as well as particular weapons systems or non-violent techniques with respect to military security, economic and other effects.

3.6 Education.

Consideration of curriculum changes in engineering schools to better serve society's needs. Courses in technology and society for engineers. Student participation might be encourage on this subcommittee.

3.7 Health Systems.

Social and ethical problems implied by new technology.

Victor Klig

Frank Kotasek

Stephen H. Unger

IEEE NEWS RELEASE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

345 East 47th Street, New York, N. Y. 10017

Area Code (212) 752-6800



FOR IMMEDIATE RELEASE

From: J. M. Kinn
212 752-6800 Ext. 631

RALPH CLARK JOINS IEEE STAFF TO HEAD
NEW WASHINGTON OFFICE

New York, N. Y. ----- In a move designed to increase the effectiveness of IEEE communication with U. S. government agencies in areas of common technical interest, a Washington, D. C. office has been established by the Institute. Dr. Ralph L. Clark, who has had a career of 37 years of active government service, has been appointed Manager of the new office.

In making the appointment, Donald G. Fink, IEEE's Executive Director, said: "It will be the task of this new IEEE Office to develop liaison with the Congress and agencies of the Federal Government, to make the resources of the Institute available in the solution of the complex technical problems which face this country today. We are fortunate to have available Ralph Clark's years of experience in working in the Washington scene. I am confident that, as our plans for activities in this office develop, he will provide the IEEE with highly effective technical communication to and from the Federal Government."

One of Mr. Clark's first tasks is to establish the location of the office. In the interim a temporary base of operations is being established in Arlington.

One of Mr. Clark's immediate areas of technical concern will be the possible interaction of the IEEE and interested government bodies in Technological Forecasting. In addition, Mr. Clark will look into areas of new technical opportunities in which the Institute might effectively participate. He will also provide the Institute management with much needed first hand information on actions being taken or contemplated in Washington which could have an affect on Electrical/Electronics technology and on the engineers who develop it.

Mr. Clark's last position was as Acting Associate Director, International Telecommunications, Office of Telecommunications Policy, Executive Office of the President. Prior to that he had served from 1962 as Special Assistant to the Director of the predecessor office, the Office of Telecommunications Management.

He was born June 2, 1908, in East Jordan, Michigan. He was graduated from Michigan State College (now Michigan State University) in 1930, with a Bachelor of Science degree in Electrical Engineering.

Between 1930 and 1942, Mr. Clark was employed successively by the Department of Commerce, the Federal Radio Commission, the Federal

Communications Commission and as a partner in the Consulting Engineering firm of Ring and Clark.

From 1942 to 1946, during which he advanced from Lieutenant to Commander in the U. S. Naval Reserve, Mr. Clark was assigned to the Bureau of Aeronautics of the Navy Department, where he planned and organized the Navy's airborne countermeasures program. For this he was awarded the Navy's Commendation Medal.

Between 1946 and 1962, Mr. Clark was employed successively as Director, Programs Division, Research and Development Board; Staff Director, President's Committee on Telecommunications Policy and Organization; Manager, Washington Office, Stanford Research Institute; and Assistant Director, Defense Research and Engineering (Communications and Data Processing), Department of Defense.

In December 1962, Mr. Clark joined the Office of Telecommunications Management as Special Assistant to the Director for International Communications.

Mr. Clark was a member of the Joint Technical Advisory Council of the IEEE from 1958 to 1962; Chairman of the Council from 1960 to 1962; and a member of the USIA Scientific Advisory Group from 1960 to 1962. He is a Fellow of the IEEE and the American Association for the Advance-

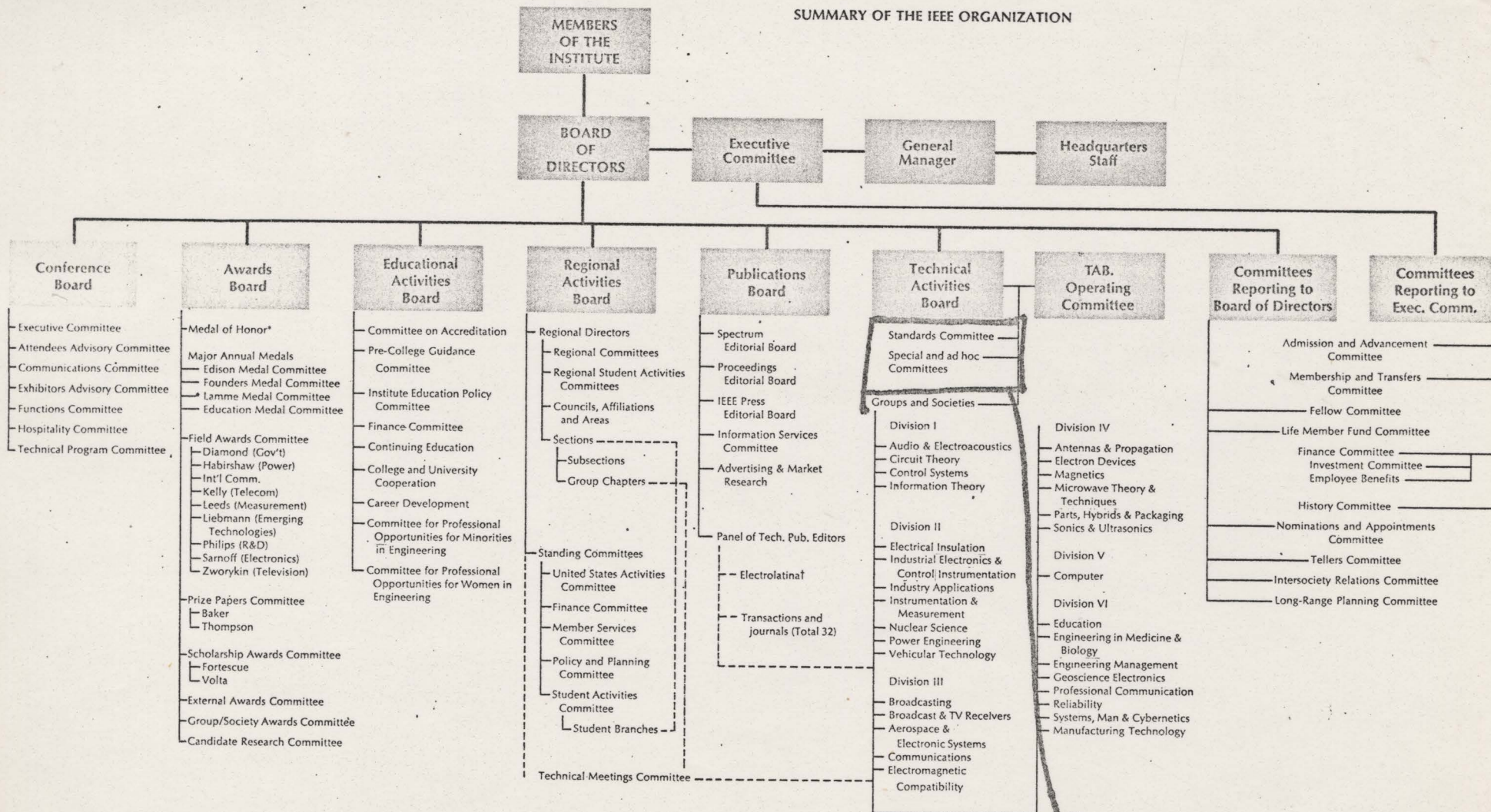
ment of Science; and a member of the Council on Foreign Relations,
of the American Academy of Political and Social Science, and of the
Armed Forces Communications-Electronics Association.

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(Photographs are available upon request.)

SUMMARY OF THE IEEE ORGANIZATION



*Committee consists of the Awards Board

†Reports to the Region 9 Committee

ADHOC COMMITTEE ON SOCIAL IMPLICATIONS OF TECHNOLOGY.

THE COMMITTEE FOR SOCIAL RESPONSIBILITY IN ENGINEERING

137a West 14th Street, New York, N.Y. 10011

March 3, 1972

Dear friend:

Working Committee:

Tony Agnello, CCNY
Prof. Ralph Akkoyunlu, SUNY
Dr. Aaron Ashkinazy, RCA
Prof. P.M. Brown, CCNY
Prof. Frank Collins, PIB
Prof. Douglas Davids, NYU
Dr. Albert Friedes, BTL
Dr. William Higinbotham, BNL
Alan Horowitz, IPE
Barry R. Horowitz, PIB
Elsa Horowitz, IBM
Lee M. Horowitz, NCE
Prof. George M. Katz, Col. Med.
Justin Kodner
Frank Kotasek, Sperry-Rand
Larry S. Liebovitch, CCNY
Brad Lyttle, WTR
Ted Mankovich, Col. U.
Prof. Seymour Melman, Col. U.
Prof. Marvin C. Paull, Rutgers
Rowan Hay Rifkin, PIB
Dr. Anthony Robbi, RCA
Dr. Harvey Rubin, BTL
Prof. Philip Sarachik, NYU
Paul Stoller, SUNY
Steve Tencer, Col. U.
Jack Tucker
Prof. Stephen H. Unger, Col. U.
Rod Wallace, Col. U.
Prof. Richard Wiener, CCNY
Prof. Sheldon Weinbaum, CCNY
David Wuchinich, Cooper Union

We are writing to ask you to support the enclosed request to the IEEE Executive Board that they authorize the formation of an IEEE Professional Group on Social Implications of Technology.

The time is surely ripe for such a step. The Aviation and Space Division of the ASME has a Technology and Society Committee, and within the IEEE Computer Society there is a Committee on Social Implications. Interest in this area on a broader level is evident in the pages of the Spectrum.

An IEEE Professional Group on Social Implications of Technology could play an important role in raising the level of discourse on this very important topic.

We hope you will not only sign the enclosed petition, but that you will also ask interested colleagues to sign it.

Yours truly,

Frank Kotasek

Frank Kotasek
Sperry Rand

Stephen H. Unger

Stephen H. Unger
Columbia University

Coordinator:
Ted Werntz

(Affiliations for
identification only)

The undersigned IEEE members (above student grade) hereby petition the Executive Committee of the IEEE to authorize the formation of a Professional Group on Social Implications of Technology as described below.

The purpose of this group is to promote among IEEE members a sensitivity to the impact of their technology on society, and to conceive means to predict and evaluate that impact.

Some pertinent topics are the application of electronics to the alleviation of pollution problems, the effects of energy consumption on the biosphere, effects of data banks and electronic surveillance techniques on privacy, the application of engineering talent to urban problems and transportation, and the role of government in technological research and development. Ethics, the professional status of engineers, and the engineer's application of his technical knowledge to community affairs are also to be considered.

These purposes shall be pursued by encouraging research and study, by the publication of the resulting reports and treatises, by the holding of meetings for the reading and discussion of papers, and by any other activities necessary, suitable and proper for the fulfillment of these objectives. In keeping with the broad interests implicit in the purposes of this group, papers and articles shall be comprehensible to the non-specialist reader engineer.

Signature

Name (please print)

Affiliation

[illegible]



Exhibit II

AMERICAN SOCIETY OF CIVIL ENGINEERS
CONSTRUCTION DIVISION

Committee on Social and Environmental Concerns in Construction

PURPOSE

To obtain, formulate, and disseminate to the members of our Society, to the construction industry and to the public: guidelines to define and to establish acceptable standards of construction as they affect the environment, aesthetics and society.

In order to attain these objectives we propose: to attempt to eliminate and prevent undesirable construction practices affecting society and the environment consistent with the needs of society; to encourage and aid and defend those persons and groups seeking to attain these objectives; to work with other Divisions of the Society and with pertinent related professions, using international exchanges and communications, to aid, and to enlist aid, from others in these objectives; to encourage the counsel from citizens, non-member advisors, organizations, communities, and governments, and to offer advice to these entities.