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(201) 981-0060

It is not necessary to inform the North Jersey Section when you change your mailing address. The NEWSLETTER and other section mailings use a list provided by IEEE's national headquarters in New York. This means the Section has no need to maintain a mailing list or addressing plates. Section membership records are changed when Headquarters notifies us.

SECTION OFFICERS

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Vice-Chairman - 1 Alex Brown
696-4695
Vice Chairman - 2 Frank Relotto
278-7759
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366-1100, X-221
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Member-At-Large John Abraham
Member-At-Large Robert LeLucia
Member-At-Large Eugene Niemiec
Jr. Past Chairman Ken Oexle

PAC Committee Seeks Input

The August PAC meeting is scheduled to discuss the 1979-1980 Program. Inputs from the general IEEE membership are requested.

Our meetings are open and informal. Please accept our invitation to participate or just drop in to meet some of your colleagues and enjoy the conversation and refreshments.

Time: 7:30 PM, Wednesday, August 20, 1980.

Place: ITT Conference Center, 500 Washington Ave., Nutley, N.J.

Pre-Meeting Dinner: 5:30 PM.

Call: Richard F. Tax, PAC Chairman
(201) 391-9075 for further information and dinner reservations.

Control Theory And Market Analysis

The conventional method of modeling economical systems is through the well known time invariant (static) supply and demand functions. However, in recent years, the dynamic behavior of the market has attracted the attention of economists and econometricians. Control theory provides suitable tools for the analysis of the dynamic market.

A linear dynamic model is chosen to obtain the optimum pricing policy of a firm that maximizes its revenue or profit for a given planning period. The

results are compared with the optimum pricing policy of the static market. Cases in which the choice of the dynamic model results in a significantly different optimum price from the one of the static model are discussed. The application of this type of modeling in other economics problems such as "optimum investment policy" is also discussed.

The speaker, Dr. Aminzadeh is associated with Bell Laboratories, Murray-Hill, N.J. as a member of the technical staff in the Service Economics Department.

Dr. Aminzadeh will present his lecture at 8 PM on Thursday, September 11, 1980 at Bell Laboratories, 600 Mountain Ave., Murray-Hill, N.J. This meeting is open to everyone who is interested. For further information please contact John F. Van Savage, Chairman, Control Systems Society, 328-4667 or Fred Aminzadeh, Vice Chairman, Control Systems Society, 582-7242 (to obtain details of lecture).

A pre-meeting dinner at 6:15 PM will be held at the MARCO POLO, 527 Morris Ave., Summit, N.J. Those wishing to meet the speaker socialize with the attendees are cordially welcome. Please contact Fred Aminzadeh so that he can make reservations.

Time: 8 PM, Thursday, September 11, 1980.

Place: Bell Laboratories, 600 Mountain Ave., Murray Hill, N.J.

Pre-Meeting Dinner: 6:15 PM, Call 582-7242 for reservations.

MTT/AP Planning Active 1980 Program

N.J. MTT/AP is planning a very active program for 1980-1981. Our first meeting will be held in October. A "name" speaker will be featured, with a topic generally related to "digital microwave" technology. We still have 2 unfilled meeting months and would appreciate suggested speakers/topics, that would tie in with the digital microwave theme. We are planning one IEEE member-spouse meeting.

Meetings will be held at the ITT conference auditorium facility, with our traditional pre-meeting dinner rotating between several local restaurants.

For further information, call Dick Snyder at (914) 939-8900 or Sever Anghel (201) 575-1116.

Power Society Lists 1980-81 Agenda

The newly elected officers of the North Jersey Power Engineering Society held their first meeting of the Executive Committee on June 20, 1980. Discussion centered upon plans for meeting topics for the 1980-81 year. Tentative plans include the following agenda:

September, 1980 — Tour - PSE&G Laboratory

October 15, 1980 — Joint meeting with ASME

Topic: Update on Professional Engineering in New Jersey

November, 1980 — Joint meeting with the Management Group (New York City)

January, 1981 — Student Activity

February, 1981 — Panel Discussion

Topic: Renewable Energy

March, 1981 — Topic: Proposed US - Canada, D.C. Cable Tie

April, 1981 — Past Chairmen's Dinner

May, 1981 — Topic to be selected

The officers are desirous of receiving input from members regarding their interest in subject matter for future meetings. We also welcome the involvement of members in setting up tours and meetings which will be of interest. Please call John A. Baka, our newly elected Chairman at his office, 455-8534.



SPOTLITE ON NORTH JERSEY

Activities For The 1980-1981 Year

A new year of activity is being planned by the North Jersey and Metropolitan Joint Chapters of nineteen IEEE Groups, Societies, and Councils active in our area. The scope of available meetings, tours, and other activities is one of the largest in the country; from Aerospace and Electronic Systems to Vehicular Technology. It is possibly the existence of this great choice of meetings that results in the low attendance figures indicated in some of the reports featured in last month's Spotlight Column. "There'll be another meeting next week (or next month); maybe I'll go to that one."

Providing meetings on technical and professional subjects for the benefit of you, the membership, is one of the prime reasons for the existence of this 4700 member

North Jersey Membership in IEEE Groups/Societies/Councils (as of 29 Feb 80)

| RANK | ACTIVE MEMBERS | TYPE OF CHAPTER | GROUP/SOCIETY/COUNCIL |
|------|----------------|-----------------|--|
| 1 | 640 | No Jer | Computer |
| 2 | 340 | No Jer | Power Engineering |
| 3 | 307 | No Jer | Communications |
| 4 | 206 | No Jer | Industry Applications |
| 5 | 153 | Joint | Engineering Management |
| 6 | 147 | () | Circuits and Systems |
| 7 | 141 | Joint | Electron Devices |
| 8 | 128 | Joint | Aerospace and Electronic Systems |
| 9 | 121 | Joint | Instrumentation and Measurement |
| 10 | 115 | () | Broadcast, Cable, and Consumer Electronics |
| 11 | 112 | () | Acoustics, Speech, and Signal Processing |
| 12 | 89 | No Jer | Engineering in Medicine and Biology |
| 13 | 80 | () | Industrial Electronics and Control Instrumentation |
| 14 | 71 | No Jer | Microwave Theory and Technique |
| 15 | 67 | No Jer | Control Systems |
| 16 | 63 | Joint | Information Theory |
| 17 | 56 | () | Magnetics |
| 18 | 50 | No Jer | Reliability |
| 19 | 48 | No Jer | Systems, Man, and Cybernetics |
| 20 | 47 | Joint | Vehicular Technology |
| 21 | 45 | Joint | Components, Hybrids, and Manufacturing Technology |
| 22 | 44 | () | Electrical Insulation |
| 23 | 43 | No Jer | Antennas and Propagation |

North Jersey Section. Your attendance at these meetings is one of the prime means of evaluating our efforts.

If there are any topics of particular interest that you would like one of our local chapters to sponsor, and more so, one for which you would assist in its presentation, please contact me, Alan H. Stolpen, Chairman, or Dr. Robert Sinusas, Groups Coordinator, for further information and comments.

In evaluating the status of the various Groups, Societies, and Councils in the North Jersey Section, Dr. Sinusas compiled a list of those Groups/Societies having a North Jersey membership of over forty members. Twenty-three Groups/Societies fell into that category, and of those, seventeen have organized North Jersey or Metropolitan Joint Chapters servicing our membership.

The accompanying list highlights six Groups and Societies that as yet have no local Chapters. This year the North Jersey Section plans to sponsor Section-wide meetings covering several of those disciplines.

Any members or future members interested in taking part in the development of those meetings; suggesting topics, helping with the logistics, and/or being a guest speaker, please contact Alan H. Stolpen or Dr. Robert Sinusas at the addresses/phone numbers listed after the Groups/Societies/Councils Membership Table.

Alan H. Stolpen
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Union, N. J. 07083
201-687-9226

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Groups Coordinator
70 Westover Ave.
West Caldwell, N. J. 07006
201-228-3941

O'Grady Pushes Standards



ENERGY CONSCIOUS. . Standards are one answer for a more energy conscious world in the 80's was the message brought by Joseph G. O'Grady (left), Public Service Electric & Gas Research Corp., to the more than 300 attendees of the Energy Emphasis Committee Week sponsored by the American Society for Testing and Materials in New Orleans. Recognizing O'Grady's contributions to the meeting is Lendell E. Steele of the U. S. Naval Research Laboratory and co-chairman of the event which was held 14-18 January. O'Grady is a past-president of The North Jersey Section IEEE.

Workers Needed

The North Jersey Control Systems Society is in the process of adding to it's operating staff. At present there are 68 Control Systems Society (CSS) members in the North Jersey Section. It is believed that CSS has an above average growth potential. It is known that there are many engineers out there who are working on systems control who are either not CSS members or IEEE members. Now is an opportune time to accomplish both objectives and to also participate in the activities of the operating staff.

These are growth possibilities which can supply personal satisfaction as well as being associated with your peers. The CSS operating staff consists of the following officers: Chairman, Vice Chairman, Secretary, and Treasurer. It also consists of the following committee members: membership, publicity, speaker and awards. Many of these positions are now open.

It is becoming more noticeable that control systems theory lends itself to solving engineering problems in other disciplines. Summarizing. . . if you desire (1) to become a member in IEEE, (2) join the Control Systems Society, (3) become a member of the CSS operating staff, or (4) advance in membership grade, please contact (telephone or write): John F. Van Savage, Chairman/Tel: (201) 328-4667/4843, 37 Partch Place, Edison, N.J. 08817, or Fred Aminzadeh, Vice Chairman/Tel: (201) 582-7242, 189 Summit Avenue, Summit, N.J. 07901.

1980 Pension Answers

We would like to update you briefly at this time on the current response to Question No. 19 of the "1980 Questionnaire - Employee Pension Plan", published in the April 1980 Newsletter. Question No. 19 read - Would you prefer that your employer provide a pension plan for you?

As of May 6, 1980, 52 members replied: 8 (15.4%) were not certain, 17 (32.7%) voted "yes" and 27 (51.9%) voted "no". If we do not consider the "cliff-hangers", then 17 (38.6%) voted "yes" and 27 (61.4%) voted "no".

PAUL KODAK, Pensions Chairman, PAC, North Jersey Section, IEEE

Electro/81 Leaders Named

Peter Lubell has been elected Chairman of the Board and Frank Tylinski Vice-Chairman for Electro/81, the East's largest high-technology convention and exhibition scheduled for New York next April 7-9.

Lubell, of AIL/Cutler Hammer, Deer Park, NY, and Tylinski, of the Frank Tylinski Company, Great Neck, NY, head a 14-man volunteer Board of Directors which will oversee the three-day Electro event. They were elected at the Electro organization's annual meeting in late June.

Other officers for the 1981 convention are Alex Gruenwald, Long Island Lighting,

Hicksville, NY, Convention Director; Donald H. Erickson, American Telephone, Basking Ridge, NJ, Show Director; and Arthur Hansen, Hansen & Hughes, Ridgewood, NJ, Treasurer.

Elected Directors were Dean Perron, Ray Perron & Company, Inc., Newton, Mass., and Hans Cherney, IBM Corp., Armonk, NY. They succeed respectively, Carroll G. Killen, Jr., Sprague Electric Co., and Jim Shepherd, Concord, Mass., who retired from the Board.

Named Chairman of the Planning Committee for Electro/82 in Boston was Dr. Allan Schell, RADC/Hanscom AFB, Bedford, Mass. Charles M. Sutherland, R. H. Sturdy Company, Inc., Wellesley Hills, Mass., and Dr. Brian Dale, GTE Labs, Waltham, Mass., were named Vice-Chairmen. Electro alternates

on an annual basis between New York and Boston and will return to Boston May 25-27, 1982.

Other Electro Board members are Harold S. Goldberg, Data Precision Corp., Danvers, Mass., Theodore S. Saad, Sage Laboratories, Natick, Mass., Richard L. Weaver, Hewlett-Packard Company, Rockville, Md., and Frank H. Williams, Servo Corporation of America, Hicksville, NY.

Electro/80 was the largest in the five-year history of the electronics convention and exhibition — attracting more than 32,000 (unaudited) persons to Hynes Auditorium and the Sheraton-Boston Hotel. The May 13-15 event featured displays by 364 exhibitors in 732 booths and nearly 150 technical presentations in the Professional Program.

PROFESSIONAL ACTIVITIES



PAC NEWS

By R. Tax

OPINION—EE Writes, “Why I Am Staying In the IEEE”

Deciding to join and maintain membership in any organization requires constant evaluation of an “ethical equation”: is the sum of what the organization will do for me and what I will do for it positive?

The IEEE is, or should be, first and foremost an extended family comprised solely of engineers or practitioners of the engineering art. A family will always contain—and normally be tolerant of—diverse components. Aunt Edith may dislike Uncle Harold, but they still attend the wedding of a niece. The IEEE certainly includes its share of opposing view points. If these conflict with our own, they become potentially negative factors in the equation. In the positive sense, the IEEE functions as educator, insurer, general advocate—and perhaps most importantly, as a center for the synergistic professional gatherings necessary for advancement of the art. There are those who would make the IEEE into a common denominator. There are those who would have it perform only educational duties, or only industry oriented tasks—we have room for all of these points of view and others. However, any point of view worth having is worth supporting. Being a member allows an engineer to utilize all of the multi-dimensional facets of IEEE—at the same time, the engineer can channel his own ideas into the group, making IEEE more beneficial to all engineers. An engineering career requires nurturing. The IEEE family can provide this sustenance if its members contribute their fair share of intellectual, emotional and financial support.

For these reasons, I feel that for most of us, the “ethical equation” has a positive sum.

RICHARD V. SNYDER, Ringwood, N. J.

OPINION—For Upgrading Engineer

I totally agree with the resolution summarized in the July Newsletter article. BSET degrees cheapen the “engineering” profession due to the lack of mathematical training.

In my opinion, it should be possible to receive a BSEE without passing the EIT—But the new graduate should become an intern (non-practitioner) for a time period and until he has passed an EIT-like exam.

R. SNYDER

LERA Stalled In Congress

The LERA (Limited Employee Retirement Account) concept is once again pending before the House Ways and Means Committee. Of the several bills pending, HR-628, sponsored by Congressman James Corman (D-Cal) and cosponsored by 53 others, is strongly supported by IEEE. This bill would give employees who are legally “covered” by a qualified corporate retirement plan, but who are not yet fully vested in that plan, the opportunity to create their own tax sheltered IRA until they are vested in that plan.

The House Ways and Means Committee had hearings on the LERA bills on January 30, 1980, but has yet to report out a bill!

If you agree that a LERA bill is needed by engineers who move before vesting, IT IS IMPORTANT THAT YOU CONTACT YOUR CONGRESSMAN and ask for his support for the LERA concept, and for HR-628 in particular.

The name and address of your Congressman is listed below. Please contact him immediately, and send a copy of your correspondence to Tom Suttle, IEEE/USAB, 1111 19th Street NW, Washington, D.C. 20036.

Address All Correspondence:

The Honorable _____
U.S. House of Representatives
Washington, D.C. 20515

James A. Courter
Millicent Fenwick
James J. Florio
Edwin B. Forsythe
Frank J. Guarini*
Harold Hollenbeck
James J. Howard
William J. Hughes

Andrew Maguire
Joseph G. Minish
Edward J. Patten
Matthew J. Rinaldo
Peter W. Rodino, Jr.
Robert A. Roe
Frank Thompson, Jr.

*Member, House Ways and Means Committee

OPINION—Grass Roots Reaction Scuttles Bylaws Change

At its meeting in May the Board of Directors voted to rescind their proposed Constitutional amendment which would have required signatures of one percent of the voting members to place any proposed Constitutional amendment on the ballot. The existing percentage now remains at one third of one percent. The amendment would have further required that the one percent be obtained in each of a majority of regions. On the same occasion a bylaw requiring that the required percentage of signatures for nominating a President or Executive Vice President be obtained in a majority of regions was also voted down.

It is still not known what member or group of members of the Board was originally instrumental in introducing these measures and pushing for their passage. Furthermore, no rationale or motive for the action has been revealed. It is known that only three Board members voted against each of these measures originally and that the Vice President for Professional Activities, Dick Gowan, was not among them. Isn't it reasonable for us to expect the holder of this office to be member oriented? In fairness, we must note that on the front page of the March issue of the Institute the same Dr. Gowan was promising democracy. We also know that he was among the many who changed their minds at the May board meeting. Only the future will tell if this is the result of a significant conversion on his part or simply inconsistency.

Word of the Board's action provoked widespread reaction among organizational entities and individual members. The Florida Council, Long Island Section, Boston Section and Santa Clara Valley Section were some of the larger groups voicing their opposition. Among the individual reactions one of the best expressions came from Bill Rider, Vice Chairman of the Cedar Rapids Section. In a reasoned appeal to the Director of Region 4, Bill pointed out and expanded on the following points:

- The need for the amendment is not readily apparent.
- It discourages local member participation and initiative.
- It adds to the workload of IEEE volunteers.
- It is an unusual amendment question since it deals with the amendment process itself.

There can be no doubt that the many actions by individuals and groups within the Institute had considerable influence on the Board's unanimous decision to rescind its previous action. Another factor in the decision was the fact that no one was able to compose a logical statement in favor of the change. Doubtless there was a fear that a weak presentation would have assured a loss for the proposal.

In retrospect there is a strong feeling of incredibility with respect to the whole affair. However, it does serve to emphasize the importance of much greater member attention to the selection of candidates for Institute offices.

Frank Lord

OPINION—The Subversion Of The United States Activities Board

When your demands caused the United States Activity Board (USAB) to be established, your intentions were that it would act to benefit the individual engineer, the profession and the United States. To achieve these goals you were willing to pay an extra ten dollars in dues. Many had reservations about opening this Pandora's Box that could lead to great harm to the profession, because given the past performance of the clique that runs the IEEE, there was no basis to expect that it would do anything to benefit engineers or the country. To everyone's surprise, at the start the USAB seemed to perform as expected.

In hindsight, the progress of the first few years was merely a sop to keep the members quiet while under the guise of "outward directed activities" the USAB has been subverted and progress visible in only those areas that in the word of IEEE President Leo Young "make the rich richer". The working philosophy of the USAB is that of Charlie "Engine" Wilson (Eisenhower's Secretary of Defense) "What is good for General Motors is good for the country". To keep the grunts happy the USAB puts on an act that it is working on pensions, sex and age discrimination, professional development, work climate, patent serfdom and other such trivia, but you can be certain that there will be no progress this year, next year or the next. . . Lets look at some of the notable activities of the USAB.

The USAB has come out in favor of oil price deregulation. The explanation for this posture was given by Bruno Weinschel, Chairman of the USAB, as "If we stay away from those issues which undercut our industrial employers, who will advocate policy? (The Institute V3, #11, Nov. 1979, pg. 3)". Yes friends our money is going the support the poor oil companies that cannot fend for themselves.

Taking a stand on public issues, presenting the best engineering estimates and advice in the public interest has a noble ring to it. Certainly, it represents the highest professional virtue, that of selfless service to the public by those having special talent and training. To keep the virtuous honest, the Romans developed a simple test that is till valid today - "cui bono?", which means for whose benefit? If one looks at the USAB activities the "cui bono?" is self evident. The explanation that such activities mayhap result in short or long range benefit to engineers merely exposes the moral leprosy of those involved. How does one get to serve on the USAB or the various committees involved in public issues? Lets face the fact that the "voluntary" IEEE is run by an "old boys network" and the only criterion is having "the right views" and not competence or willingness to serve. Therefore, it should come as no surprise that the IEEE position on energy is indistinguishable from that of the utilities. Anything that does not increase profits, such as conservation or solar cells to make every building energy independent, will receive a pious mention and nothing more.

If there is a cost-benefit tradeoff to be made, you may be certain that it will not be in favor of the public. In the light of these considerations, it is surprising to see a headline proclaiming "Suran and Energy Committee at Odds Over Energy Testimony to Congress ('The Institute', V3, #12, Dec., 1979, pg. 1)". Apparently Suran's testimony was so biased that it even upset some of the Energy Committee members. Dr. J. Suran, past president of the IEEE, is an employee of a company manufacturing nuclear reactors.

Then there is USAB's pet project -Technology policy. Technology policy is nothing more than an attempt to make self fulfilling prophecies of great benefit to the insiders. You decide what you want to do next, you get the USAB to endorse it, you give expert testimony as to why it is an absolute necessity for the country. The day after the decision is made to go ahead you walk in with detailed proposals to make the future happen now and having the insiders knowledge you get the project. There are some drawbacks: Since this is a public project, you must disclose some of the information acquired, but then you get the USAB to lobby for a patent bill (S 414) that will let you keep the knowhow acquired. You have to hire a few engineers but even there, there is a silver lining — you get to keep their pension money after they are fired and you also can increase your productivity by firing the slackers that do not want to put in 40 hours of free overtime, get rid of the older ones and the chronic complainers that want challenging assignments to avoid obsolescence.

How does Congress view these USAB efforts? We have another headline "IEEE Labeled 'Naive' for Opposing AT&T Breakup ('The Institute', V3, #10, Oct. 1979, pg. 1)". While members of congress may not be bright, they sure can spot another self interest pressure group. If it walks like a duck, quacks like a duck, and looks and behaves like a duck it is reasonable to assume that it is a duck. Why should the IEEE be considered anything else but a company union acting as a front for the corporations? The fine reputation of electrical engineers built over the decades is ruined in a few years. In a few more years no one will listen even when the IEEE is not pleading corporate causes. Certainly it is profitable to exploit the reputation of the IEEE, but it is really a tragedy for the IEEE to acquire the reputation as a puppet. What is desperately needed is a conflict of interest code with big and sharp teeth. There should never arise even the slightest suspicion that personal gain is involved in the public positions taken by the IEEE. Even beyond a code, what is needed is people with integrity. If the IEEE cannot find people with integrity to represent the profession, then we should not take a public position.

BOB SINUSAS— Groups Coordinator

NEWS FROM USAB

"News From USAB" is reprinted from the May, 1980 Issue of "IMPACT".



For those of you who have been regular readers of *IMPACT*, you may have been wondering what happened. The last issue from last year was published in February and the first issue for 1980 was mailed in May. Put simply, publication of *IMPACT* is behind schedule.

In January, I called for the establishment of a Professional Activities Committee in every United States section and each society. Under the tremendous leadership of Bob Barden and with outstanding staff support from Sandee Blair, we have made major strides in developing a new PAC program. A new PAC Sourcebook has been published and is being distributed. This book is the result of meetings with regional and divisional PAC coordinators and reflects the emphasis on our PAC program to provide:

- a. Improved member professional activity services.
- b. Increased awareness of members and their communities to problems in areas of our competence.
- c. A minuteman program for effective communication with each congressman and legislator.

Bob Barden and I have enjoyed the opportunity to visit with regional and sectional leadership and discuss the new PAC program. Our goal is to have the program up and running over the summer so that you can have full use of the materials available by August.

I ask your help and support in trying to develop a Professional Activities Program that will provide you and the other 160,000 members in the United States with the opportunity to participate in the Professional Activities Program. In January, I thought the job of Vice President for Professional Activities would be a tough job. In February, I found out that it was going to be a harder job than I thought it would be. In March, I began to understand that it takes tremendous support to be able to get anything done. In April, I have found that support is not always there when needed.

Yet, our goal of developing a Professional Activities Program is an important goal and I know that the over-

whelming majority of the members that I have visited with share my desire to reach the goal of having a strong and effective Professional Activities Program. I ask your help and support so that we can put the program back on schedule and realize the type of program we so very much need.

—R. Gowan

Coordinator Meetings Report

Dick Gowen, Chairman of the United States Activities Board, and Bob Barden, National Chairman of the USAB Professional Activities Committees, met with the PAC Regional Coordinators and PAC Divisional Coordinators on March 1 and March 15 respectively.

The Coordinators were told that they were to set their own management goals based on the needs and desires of their member populations. The USAB leadership is to be used as a goals resource; a source of suggestions. Dick Gowen then reviewed the 1980 USAB Management Goals and Objectives.

He encouraged the Coordinators to assist in attaining these goals by increasing the flow of information between the members and the leadership. He asked them to help "... strengthen the democratic process to make sure that programs are meaningful and effective." One suggestion to the Coordinators was that they submit proposals to USAB, which have been developed from input of their entity members.

Several years ago the leadership began to realize that Society as well as Section involvement was needed to insure that members received their money's worth of services and assistance. It was hoped that the Divisional Coordinators would increase the input from Divisions for the structuring of USAB programs.

Another way to increase communication is to print professional activities articles and regular columns in all section and society newsletters. Special mailings of USAB articles are automatically sent to IEEE newsletter editors. If there are no aspiring writers in the Section or Society PAC, the editors can be encouraged to print selections from the special mailings.

A discussion of project funding procedures during the Regional PAC Coordinators meeting lead to the comment that money will not be spent unless there are leaders. Dick Gowen said that he saw Section and Society PAC Chairmen as the main operating source for future USAB leadership. There needs to be a continuity of leadership which would be provided by a structured leadership ladder. A recent deliberate effort to promote this concept was the call to PAC Chairmen requesting that they submit names of active PAC leaders in nomination to the USAB member-at-large position.

Elements of promoting member involvement were discussed. These included:

1. Identifying people who have reached that critical point in their career when they are willing to become involved.
2. Present yourself to potential volunteers as being personally involved and enthused.
3. Immediately get the newly interested person something to do.

The Divisional Coordinators discussed the need for in-

volvement of volunteers in the development of position papers, monitoring critical legislation and the need to provide expert testimony to Congress. The comment was made that engineers can be found who have significant contacts in Congress, but they are found by chance. Why leave it to chance? A suggestion was to identify the key issues in each society, then interest members in working on Society subcommittees.

Bob Barden told the Coordinators that the USAB leadership may never have 100 percent of what they need to do their jobs because "... we are shooting at a moving target." He asked them to continue communicating their needs.

Dick Gowen asked the Coordinators to look to the whole USAB budget as "as . . . your monies . . .," and provide USAB with feedback on that basis. "USAB can separate noise from signals," he said, "but cannot make decisions in a vacuum."

—Report to USAB 5/8/80

Overseas Recruitment

Editor:

I would like to comment on the recent attempts to change the foreign recruitment engineering classification from H-2 to H-1. This would relieve the prospective employer from showing that there is a shortage of the skill being imported.

This term "shortage" can be quite misleading. Shortage at what salary? There is a "shortage" of any skill at low enough salaries. If there were a real shortage of engineers, then their real salaries (in constant dollars) would be increasing. Actually they are decreasing. In September 1979, *The Institute* published a chart showing that the middle-income IEEE member was earning \$18,600 in 1972. This figure increased in the ensuing seven years, but inflation increased faster. By 1979, the middle income dropped to \$18,119 in 1972 dollars. A salary survey in the April 1980 issue of *Production Engineering* indicates that during this seven year period, hourly workers received a forty percent greater increase than engineers.

An engineering shortage would exist only if it were impossible for an organization seeking engineering services to obtain technically responsible bids. I do not believe that this has ever happened when knowledgeable buyers are involved. A price that does not match some preconceived notion of what the service should cost or some ill conceived budget figure has no bearing on the question of shortage. The laws of economics apply in this situation just as they do in those other situations that managers are more fond of citing.

In addition to an increase of real dollars in engineering salaries, there are other indicators that would accompany a real shortage of engineers. These would include an increase in the ratio of support to engineering personnel. I have seen no evidence of such a trend.

Engineers still find it economically advantageous to be do it yourselves with respect to home and automobile, hardly a sign that the price being paid for their skills is indicating a shortage. Pressures are still applied to coerce engineers to work uncompensated extra time. If an organization was really prepared to hire and pay the engineers they claim to be short of, why can't they compensate the ones they have for extra time. The engineer

needs some of his own free time for technical study and advancement. If he does not further his career goals with such a course, he will suffer economically, and we lose a valuable resource.

A sad comment is that the decline in real engineering salaries would have been greater if many middle aged and older engineers hadn't left the field. It is well known that the current rapid rate of technological change obsolesces much of their experience. Many able over-40 engineers have been replaced by younger and foreign engineers at initially lower salaries. Many of these foreign engineers are educated in the United States with expenditures that are lower than actual costs. Thus, Americans are contributing taxes and endowment funds to undermine employment opportunities for themselves or fellow Americans.

These comments are not to be construed as a personal depreciation of foreign born U.S. engineers. They are as competent and congenial a group as any and they certainly have made their contributions. I suggest, however, that there can be too much of a good thing. When the overall real income of the profession is declining, then we have reached and passed that point.

I suggest that the IEEE investigate this matter with the following steps:

1. Estimate the number of older engineers who have been forced out of the field. One approximate method would be to compare the sizes of past EE graduation classes with the IEEE age profile and allow for the normal mortality rate.

2. From this and other pertinent data, determine how many immigrating engineers would be best for the profession.

3. From this same data, determine how many foreign EE students would be desirable. We should consider that many remain here after graduating and those returning help to export our technology to competitors. We must also consider if the United States is being properly compensated for the education provided to foreigners.

4. Consider helping the American Engineering Association in its current lawsuit against 7 aerospace companies and 3 federal agencies to halt the import of lower salaried engineers. The AEA points out that they are being hired at about 20 percent less than their U.S. counterparts.

Name withheld on request.

USAB

Interested people are still needed to fill openings on USAB Task Forces. At this time the Manpower Activities Task Force needs several members, and other Task Forces are being surveyed on their needs.

If you can help, address Dick Backe, vice-chairman of USAB, c/o IEEE Washington Office, 1111 19th St., N.W. Washington, DC 20036.