Lee for rating companies. This group also recommended professional engineering schools.

3. Ethics: James Fairman leader: There should be curbs on local publicity in ethics cases while in test.

4. Technical issues: Bruno Weinschel leader: We need to get venture capital for small business. Task forces were set up to study the effects of limiting control by foreign investors, and to study the transfer of high technology outside the U.S. by multi-national companies.

5. Age Discrimination: Richard Weis leader: Portable benefits and affirmative action are necessary.

6. Legislative Action and Advisory: Gerald Goldenstein leader: It was suggested that the head of the group register as a lobbyist and that work be continued and expanded to regional level.

7. Communications: Herb Heller leader: Number one problem is to get the news to the rank and file that USAB is doing something. Also take note that 70% of all engineers are positive on USAB but that only 19% of our leaders are.

8. Service Contracts (Wage Busting): John Alexander leader: John reported his many attempts to contact Dr. Weinschel, the withdrawal of USAB's support of Congressman Corman's HR314 and the disastrous results, more attempts to contact USAB leaders, etc. USAB workers must keep track of the results of the procurement regulations changes and keep 314 on tap. We must also work through local NSPE groups.

– Faith Lee,

Opinion Survey

A detailed analysis of the U.S. Member Opinion Survey, conducted by the United States Activities Board's (USAB) survey task force, is available from the IEEE Service Center in Piscataway, N. J. The volume is listed as No. UH 0133-9 and costs $5 for members and $10 for non-members. The analysis compares the views of IEEE leaders and the general membership on controversial issues. It covers such subjects as what engineering managers or power engineering specialists think about regularly scheduled overtime and how both younger engineers and experienced practitioners desire project-assignment rotation so they can remain versatile and valuable.

Proposal To Evaluate Companies By Engineers

Since our PAC Meetings now have a larger turn out, we start to glean some of the benefits. One of these benefits includes meeting with other engineers to discuss companies and their policies and working conditions. We can provide you with some information on most companies in the area or at least give you a name to check with.

Gary Lee introduced the following more detailed proposal at the September PAC Workshop Meeting in L.A. It is printed here for your consideration. Your comments are most welcome.

A PROPOSED USAB PROJECT
by Gary Lee

INTRODUCTION

For years engineering employees have been evaluated by their employers for the purposes of hiring, salary increases, promotions and lay-offs. These evaluations serve the purpose of promoting and maintaining the best of the engineering labor resource. The employee on the other hand needs a similar system of scrutinizing employers such that the least desirable can be identified. To be effective, such a system can only be implemented by a national organization, among which the IEEE is most qualified.

The benefits are far reaching. Obviously they are immediate to those currently in the job market. Employed engineers will benefit from the knowledge of employment practices and improved practices brought about by competition among companies. Companies currently promoting sound practices will benefit with top ratings, whereas those with poor track records will be identified.

TASK

Evaluate by industry and rate engineering employers based on employment practices.

OBJECTIVE

Create an awareness on the part of engineers and their employers of the professional merits of employment.

SCOPE

*Identify the industries which employ a substantial percentage of EE's.

*Select 10 companies which comprise the industry.

*Identify employment practices and evaluation criteria.

*Determine method or methods of retrieving accurate data.

*Evaluate employers in the selected industry, publish the results and critique the evaluation system.

*Evaluate additional 5 industries.

1981

*Reevaluate the first industry and increase the list of companies.

*Evaluate additional industries.

1982 and subsequent years

*Reevaluate industries and increase the list of companies.

CANDIDATE INDUSTRIES

Aerospace	Semiconductor
Oil and mineral	Electrical Power
Communication	Service
Computers	Nuclear Power

CANDIDATE EMPLOYMENT PRACTICES

Salary – New college graduate salaries, 5 to 10 years salaries, Over 40 salaries, Inversion phenomena.

Working Hours – Flexible time, 4-day week, Clock punching, Over time, Compensatory time.

Professional Development – Educational assistance, Time off for seminars, Professional dues, Professional meetings.

Credential Requirements – Engineering degree; MS, PhD.; Science degrees, Engineering registration, Management degree, Experience, Education institution credentials.

Advancement Criteria – Experience, Credentials, Seniority, Promote from within.

Fringe Benefits – Time off (vacation, sick leave, jury duty, military leave, sabatticals, leave w/o pay). Economic – (profit sharing, investment plans). Insurance plans – (life, medical, dental, disability).

Office Conditions – Private office, Work bays, Office supplies, Telephone Service, Secretarial Service, Bull Pen.

Engineering Functions – Grade level, Responsibilities.

Company Policies – Reduction in force (separation allowance, notification period, rating policy, frequency, magnitude). Business travel (expense account, per diem, personal time/company time, compensation).

Management Ethics

Unionization – Teamsters, SPEEA, Etc.

Patent Rights

Recruitment Policies – Interviews, Truthfulness, Industrial relations interface, Hiring manager interface.

Age Discrimination

Sex Discrimination

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SPOTLITE ON NORTH JERSEY

This month our Spotlite shines not just on North Jersey, but on the whole world of engineering. What follows is the text of a talk presented by Mr. G. C. Hurlbert, president of Westinghouse Electric Corporation Power Systems Company, to a group of engineers from the electric utility industry:

In the beginning, God created heaven and earth. He made darkness and light on the first day, and the sky on the second day. Then on the third day, He made land. And on succeeding days, the stars, the sun, the moon, animals, and man.

And on the seventh day, He was hit with a class-action suit for failing to file an environmental impact report.

The question that God then faced was whether to continue with the whole snake-infested idea. . .or to see what He could accomplish on Mars.

Thank God, God decided to continue. And He is still hanging in there, despite the general ingratitude of that final act of His creation, Man.

I would like to suggest that you and I can do no less.

Think about that: You expected a speech. . .and instead you get a sermon.

A sermon it is, then. From Genesis to Generation. My text is progress. My theme is long suffering. My moral is. . .well, I'll save the moral for the big ending.

Progress may become a dirty word in our time. The restlessness and ambition that threw bridges across rivers, stacked up great cities, and reached the moon may have to wane now. Small minds have gained loud voices. And the Timid are more than halfway toward inheriting the land.

People are listening to the loud voices because they are afraid. Events seem to be out of hand.

People are now buying small cars for large-car prices. Their children marry but can't afford homes unless both husband and wife work, and so children have become a luxury for some, and a foolishness for others. Teachers labor in the classroom by day, and in the restaurant at night, just to get along.

The Loud Voices say that we must all settle for less. Conservation is salvation. Progress is perdition.

They don't, of course, give their sermons from a mount. They give them from air-conditioned, carpeted, expenses-paid offices. When you want to stop progress, you must take care to be comfortable while doing it.

If you look at all these trends in our times, you can become discouraged very quickly. Probably the worst place to look at them is from an engineer's desk anywhere in the electric utility industry. Or in the manufacturing segment of that industry.

An engineer, after all, is a trained mind and hand. He or she can make. . .build. . . invent. . .and dream. Those are the tools of progress. Their edges are in danger of dulling.

What a contradiction this is! Not only our country but our times have been created by engineers. What the mathematicians, physicists, chemists, and biologists have theorized, we have made real. We have given the world its mobility, comfort, and communications.

And we have done something far more fundamental. Something that the Loud Voices, with their small perceptions, have failed to comprehend. Something that links the engineer and the world's people in an uncuttable bond.

Engineers have in a handful of generations lifted Western man from general poverty

Gut Issues

We will meet to discuss the gut issues that effect the engineers from our Section and other sections of the U.S. Efforts will be concentrated in areas that are considered to have the highest priority. You decide. Subjects considered are listed. There are others. - Under-employment, Poor Pensions, Upaid Overtime, Wage-busting, Salary Compression, Deceptive Student Recruiting, Employment Guidlines/Practice, Age Discrimination, Patent Rights, Surplus of Engineers, Working Conditions, Employer Evaluation, Student Awareness, Ethics (now apply to all members, not only engineers).

All EEs and Section members are invited to attend and participate. Coffee and refreshments will be served.

Time: 7:30 PM, Wednesday, December 13, 1978.
Place: ITT Conference Center, 500 Washington Ave. (at the foot of the Tower), Nutley, N. J.

P. E. Exam Review Course

The Power & Industrial Div. of the New York & Long Island Section has scheduled their Spring 1979 P.E. Review Study Groups, to begin Jan. 8, 1979, and to be completed prior to the New York Professional Engineering license exam in April.

These study groups will be held at Ebasco Services, 2 Rector St., N.Y.C. The fee per study group is: $65 (members IEEE, ASME & NYSSPE); $80 (all others).

For more information contact: Bill Perlman, Chairman, Education Committee, at (212) 986-0803.

EKG Electrodes

The Metropolitan New York Chapter of the IEEE Engineering in Medicine and Biology Society announces its program, Technical Aspects of EKG Electrodes, will be held on Wednesday, December 6, 1978 at 7:30 PM, at Rockefeller University. The speaker will be Mr. Carl Hays, Technical and Clinical Evaluation Director for NDM Corp.

Further Information: Al Wald, (212) 694-2575 (Columbia-Presbyterian Medical Center).

to general security. Most people now eat well. Most are healthy. Most have shelter and warmth and the ability to go where they wish to go. It was not always so. Slavery and serfdom died in America and Europe little more than a century ago. Officially, they were proclaimed out of existence. But long before that, progress. . .engineering progress. . .had made their end inevitable.

The century of growing abundance that followed has made a few men wealthy, and raised all men to the level of kings.

Engineers, by and large, did all that. Engineers and their incredible structures and machines.

Now, the Loud Voices say: Enough. But none of the Loud Voices lives in a ghetto, or the inner city, or down a dusty back road. None of them is father or mother to children who must be told that they were born after the Golden Age.

And what do engineers say?

They seem to be silent.

But let's listen more closely. Because, my friends, if we note more of what is done . . .and less of what is said. . .we may find that today's engineers are still. . .like their predecessors. . .stirring up revolutions. . .revolutions to raise the hopes of people everywhere.

Back in 1971, the headlines roared about a bomb which dissidents exploded in the Senate wing of the Capitol. But by way of counter-balance, Apollo 15's crew explored the moon that year, Mariner 9 became the first man-made object to orbit another planet. . .and on earth, a utility brought on line the first 800-megawatt TC four-flow nuclear unit.

If the bomb at the Capitol had any lasting effect, it is not recorded. But for seven years, that 800-megawatt power plant has been lighting homes and running machine tools. . .making jobs and helping to control the cost of energy.

That's not the stuff of headlines. But it is what engineer do.

In 1972, police arrested five men at 2:00 a.m. in the Democratic National Headquarters somewhere in Washington. What a parade of headlines started there. But that was also the year that Connecticut Yankee quietly hummed past the 20 billion kilowatt-hour mark. . .without headlines.

1973 brought the Arab oil embargo, and energy. . .long thought of as a commonplace like air and water. . .became a crisis. Much sound and fury flowed from that. But off in a corner of page 32, home edition, it was noted here and there that the first 1000-megawatt TC six-flow nuclear unit had gone on line, and the first multi-megawatt superconducting generator had been built.

We shared those accomplishments with the utility industry. And we shared the total anonymity that attended them.

But a question nags at me. . .way in the back of my mind:. Will history, some generations from now, remember the Arab bid for quadrupled prices. . .or will it note the birth of superconductivity in power generation?

If it remembers the latter. . .will it not be with some sense of gratitude? The first event slowed progress for all but those few nations. The second event could be a significant step in the effort to maintain an energy supply that everyone can afford.

The past five years have seen a continuation of the pattern of the early '70s. On the one hand. . .bannered by headlines. . .we have had the resignation of a President. . . the longest recession since World War II the end of a country called South Vietnam. . . and arrival of the 50-cent cup of coffee.

We have even been regaled with the continuing saga of Patty Hearst.

But quietly, the engineering revolution has continued. We have seen photographs taken on the surface of Mars. We've seen Skylab. . .Concorde. . .the defeat of Ralph Nader and the anti-nuclear forces in a California referendum (Oh, those California referendums!). . .the opening of the Trans-Alaska pipeline. . .and the declaration by the British that there was no clear case just yet for wind-powered generation of electricity.

During the same period, the first 600-megawatt hydrogenerator in history was installed at Grand Coulee. Good old Connecticut Yankee slid without fanfare past the 30 billion kilowatt-hour mark. . .San Onofre Number One became the first nuclear unit to produce power for more than 200 days continuously. . .only to be outdone the next year by the Maine Yankee unit, which completed 345 days of continuous service.

Along the way. . .in 1976. . .Lou Harris conducted a poll which asked the American people the question: "Do you favor or oppose the building of more nuclear power plants?"

Sixty-three percent were in favor of more nuclear power plants. Only 19% opposed . . .with 18% not sure. That was the most comprehensive poll on the subject ever taken. And two-thirds of the people. . .far from the headlines and into the teeth of the Loud Voices. . .said "Yes" to the newest form of commercial power generation. "Yes" to progress.

You might almost come to the conclusion that there exists a kind of quiet conspiracy between the engineers of the Nation. . .including you and us, everyone. . . and the people of the Nation.

You might just come to the conclusion that it is the Loud Voices which are out of tune with our times.

It would be absurd, my friends, to genuinely expect Americans. . .or people anywhere on this not-yet-completed earth. . .to stop here. Only the unimaginative can ever believe that their particular span of life is the culmination of life. The Loud Voices of our times would, in other days, have bequeathed to you and me a world of candles and carriages. How much more efficient, after all, such advances were over what had existed before.

Yes, indeed. . .and how much less efficient they were than what the bold minds of engineers have since conceived and built.

Charlie Brown likes to ask the question: "Who will care 200 years from now?"

I can answer that for you and me and our mutual function in society.

In 200 years, everyone will care. That's the moral of my story.

The availability of efficient, affordable energy has lifted a mountain from the back of mankind. And among the forms of energy, electricity has done the most of all.

We have to keep faith in the importance—the indispensability—of what we are doing. We can't let a few tough years. . .or a thousand tiny minds. . .truncate our ability to do the wonderful thing that engineers do.

Progess.

We are its parents. Fostering it is our continuing share in the act of creation.

So what if we do have to file an environmental impact report? Remember. . .it usually takes an engineer to do that, too.

Hang in there. And. . .thank you.

Instrumentation Interfacing

The New York, North Jersey, and Long Island Joint Chapter on Instrumentation and Measurements is sponsoring a one-day seminar, "Instrumentation Interfacing".

The seminar will feature presentations on: How to read instrument manufacturers' specifications better; what are the pitfalls. Instrument to Instrument Interfacing. Instrument to Computer Interfacing. Instrument to Personal Computer Interfacing. Instrument to Communications Systems Interfacing.

This seminar will be held Tuesday, January 9, 1979, at the New Jersey Institute of Technology, Newark, N. J. Lunch will be provided as part of the admission price; ample parking is available.

For reservations contact Randolph D. Grossberg, Con Edison, 4 Irving Place - Room 1300, New York, N. Y. 10003; (212) 460-4020.

Name: _____

Address: _____

Preregistration:	IEEE Member	$30 ☐
(Dec. 31, 1978 cutoff)	Non-Member	$40 ☐
	Student	$10 ☐

Registration at door: $10 more than above prices; Student $10.

PAC NEWS

Lee Reports On PAC

The National PAC Workshop held in Los Angeles, September 10 and 11 was well attended and continued in the vein that was started at previous meetings this year.

The two gut issues of wage busting and pension reform were left off the agenda completely. Although may engineers protested, Dr. Weinschel restored the topic of wage busting to the program only after a member of the board of directors intervened. Pensions never did get into the act, although the majority of engineers have no pension and probably never will according to present statistics. 80% of IEEE members change jobs every 6 - 8 years. The typical corporate pension plan calls for 10 years vesting.

The eight work groups at the workshops were reported on as follows:

1. Manpower Activities: Robert Rivers leader: We should stabilize the supply of engineers and push for registration. There is no shortage of engineers and particularly of B.S.E.T. graduates. Professional schools of engineering are recommended.

2. Employment Guidelines: Esther Mayfield leader: The guidelines should be disseminated widely, although they are very mild. A more practical outline for employment practices was proposed as an attachment by Mayfield. Also attached was a proposal by Gary