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Located at the
Murrough Center for
Engineering Professionalism
Texas Tech University

NIEE RELOCATES HEADQUARTERS TO LUBBOCK, TEXAS

Effective August 2, 1999, the National Institute for Engineering Ethics (NIEE) Board of Directors authorized relocation of the NIEE Headquarters from their interim office in Webb City, Missouri to the Murrough Center for Engineering Professionalism at Texas Tech University in Lubbock, Texas. The agreement extends through December 2001, and defines the relationship between NIEE and the Murrough Center as an "association" which builds on the foundation of the two organizations' shared interests and goals in engineering ethics.

NIEE is an independent not-for-profit [IRS 501(c)(3)] educational corporation established to promote the study and application of ethics in our nation's engineering schools and throughout the engineering profession. NIEE was created by the National Society of Professional Engineers (NSPE), Alexandria, Virginia, in July 1988. As a strategic and logical step in NIEE's growth, NIEE separated from NSPE in 1996.

NIEE President, Philip E. Ulmer, P.E. sees the relationship between NIEE and the Murrough Center as a means to further develop NIEE and accomplish their mission to promote engineering ethics: "I believe I speak for the entire Board of Directors of NIEE when I say that we are pleased we have reached this point in our growth as an Institute. The agreement reached with the Murrough Center has been the culmination of over eight months of intensive study and negotiation. NIEE now has an official headquarters and administrative staff that will assure the Institute's members, participating engineering societies and institutional members will be faithfully served."

NIEE's relationship with Texas Tech University is not new. Tech Professor Jimmy Smith, P.E., Director for the Murrough Center, served as president of NIEE from 1994-1995, and has been on the NIEE Board of Directors since 1990.

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*NIEE Headquarters,
Texas Tech University
Campus, Lubbock, Texas*

MESSAGE FROM NIEE PRESIDENT PHIL ULMER, P.E.



As I conclude my second one year term as the NIEE President, I am pleased to report that the Institute continues to make progress in its efforts to be the premier engineering association dedicated to the promotion of engineering ethics. In critically examining the progress this past year, I conclude that NIEE's viability to promote engineering ethics is strong, however the next five years will be critical to the Institute's ability to fulfill its corporate mission.

Of prominent importance, this year we entered into our first agreement to secure administrative services when the Board approved the contract with the Murdough Center in Lubbock, Texas. This action culminated extraordinary preliminary work by our subcommittee of Bill Cox and Bob Nichols, who worked closely with Dr. Jimmy Smith of the Murdough Center in the initial negotiation efforts. Our joint agreement, effective August of 1999, now allows NIEE to engage in more activities that will utilize consistent day-to-day administrative oversight. With Executive Director Bill Lawson and Administrative Assistant Patti Harper, NIEE now has a central headquarters staff to handle the administrative oversight of the Institute.

I believe all of us on the Board of Directors, and especially myself, owe a tremendous debt of gratitude to our immediate Past President Bob Nichols for the tremendous service he personally performed as our acting Interim Executive Director. Bob personally assured basic "Executive Director" services were maintained until NIEE secured permanent services. This included assuring a smooth transition of activities and funds from NSPE, setting up initial interim bank accounts and sending many letters to individuals, institutions and corporations. Bob did this at great sacrifice of his personal time and, I am sure, with a lot of his own personal expense. As NIEE continues to grow in future years, these initial years with its struggles and challenges will fade from peoples' memories. As for me though, I will not forget the dedication of Bob Nichols to assure things "got done".

NIEE is still a small professional institute. Our financial base for the promotion of activities is understandably limited. Membership is critical to our long term efforts. Our membership stands as follows:

Individual members:	779
Corporate members:	10
Institutional members:	19
Participating societies:	6

The financial figures for 1999 will be included in reports given at the Board meeting, but to summarize, it appears we will have a small end-of-year budget surplus. Our projected FY2000 budget assumes some challenging goals for financial growth that I support and urge the Board to adopt.

All association presidents will see things that they could have done better. I am no different. I regret that I never got a viable membership committee going this year, nor did I initiate the Advisory Council and the various commissions that are referenced in our Bylaws. I had a lot of good intent and ideas, but just could not get those first steps taken. One concern I had was the necessary "headquarters oversight and administrative support" that I believe these entities would need or require. Knowing that we would eventually be securing these services sometime in my term, I delayed setting them up until I was sure NIEE had the capabilities for administrative support.

Our video project (remake of Gilbane Gold) continues to make some progress. We still have some initial funding in our corporate assets that will allow us to begin some limited work, but we need to get the balance of the entire funding that will be necessary...

NIEE this year became a supporter and sponsor of the Online Ethics Center Help-Line. This activity brings visibility to our Institute and does not require initially any outlay of NIEE funds. The Help-Line is just now "up and running". NIEE provides a person to assist in advising engineers who make inquiries on ethics issues. Initially, I made the decision to assume that role on behalf of NIEE in lieu of appointing another Board member to assume that responsibility. The primary reasoning for my action was that I was not comfortable asking another Board member to do this until I fully understood the time commitment it would entail.

I have appreciated being your President for the last two years. I believe we continue to progress – taking many more "forward steps" than steps backwards. I am proud to be a member of NIEE in its early stages of existence and look forward to continuing to serve on the Board of Directors into the year 2000. I appreciate the support given to me by the membership, the Board of Directors and the headquarters staff.

Philip E. Ulmer, P.E.
President, NIEE

Excerpted from
President's Report to the Board of Directors
National Institute for Engineering Ethics
Board of Directors Meeting
November 5, 1999

NIEE Resource Guide Update

by

Jennifer A. Brandt and Michael C. Loui
University of Illinois at Urbana-Champaign

In 1997, the NIEE published the second edition of "Professional Ethics and Engineering: A Resource Guide." This guide is available on the Web at

<http://www.niee.org/resource.htm>

The NIEE plans to keep the resource guide current as worthy new publications appear, and to make the resource guide more useful by including brief annotations.

Here are four titles that did not appear in second edition of the resource guide.

- Barbour, Ian G. *Ethics in an Age of Technology*. Vol. 2. Great Britain: SCM Press, 1992.

Divided into three main parts. Part one, Conflicting Values, includes views of technology, human values, and environmental values. Part two, Critical Technologies, addresses agriculture, energy, and computers. Part three, Technology and the Future, discusses emerging issues such as environmental degradation, genetic engineering, nuclear weapons, control of technology, and sustainable consumption. Provides Biblical perspectives on several issues. Thorough and scholarly.

- Davis, Michael. *Thinking Like an Engineer: Studies in the Ethics of a Profession*. New York: Oxford University Press, 1998.

Examines the qualifications of software engineers to be called engineers, professional autonomy, technical decision-making, and avoiding whistle-blowing. Explains the value of a code of ethics in the practice of engineering. Discusses conflicts of interest in engineering. Includes a brief history of engineering in the United States.

- Fleddermann, Charles B. *Engineering Ethics*. Upper Saddle River, NJ: Prentice Hall, 1999.

A short textbook that discusses professionalism and codes of ethics, the rights and responsibilities of engineers, and ethics in research and experimentation. Addresses understanding of ethical problems, ethical problem-solving techniques, and risk, safety, and accidents. Mentions whistle-blowing and computer ethics. Includes detailed accounts of many cases, such as the Intel Pentium Chip case and the Challenger case.

- Herkert, Joseph R., ed. *Social, Ethical, and Policy Implications of Engineering*. New York: IEEE Press, 2000.

An anthology of articles from *IEEE Technological Society Magazine*. Addresses technology, values, and society; the social context of engineering; moral dilemmas in engineering; and frameworks for engineering ethics. Discusses risk

and product liability, engineering and sustainable development, and engineering in a global context. Includes articles on technology and health care and on information technology.

NIEE ANNUAL BOARD MEETING

The National Institute for Engineering Ethics held its annual board meeting on November 5, 1999 at the Wingate Inn in Irving, Texas. The following information is excerpted from the meeting minutes.



1999 COMMITTEE AND STATUS REPORTS

Financial Report

Executive Director, Bill Lawson gave a brief overview of NIEE's financial situation. He pointed out that NIEE funds have been transferred multiple times (from NSPE to Bob Nichols to Bill Lawson) as NIEE's headquarters was being set up. NIEE's Balance Sheet for October 31, 1999, shows that NIEE has available working capital of \$12,463 and \$29,940 allocated for the new video project. As part of the headquarters agreement, Texas Tech University contributed \$19,248 to NIEE in matching and other funds.

Ethics Video Report

Herb Koogle chairs the Ethics Video Committee (charged with developing another video to follow the successful *Gilbane Gold*). The Ethics Video Committee consists of two sub-committees: one for the storyline and one for finance.

Steve Nichols reported that the Storyline Subcommittee discussed the feedback received from certain proposed scenarios and the committee decided not to follow the storyline of the original *Gilbane Gold* video. They will probably keep the name Z-Corp to alleviate the need to go through company research efforts again, however. The committee agreed this video should include an international focus. Steve explained a possible storyline scenario that deals with designing a product to market in a foreign country (the exact product not being of great importance). The point is, ethical decisions are commonly made in the design process.



Phil Ulmer chaired the video finance subcommittee. He noted that NIEE currently has \$30,000 collected toward the video (consisting of \$15,000 NIEE funds and a \$15,000 grant from Victor O Schinnerer (who sponsored the first video). Phil has submitted letters requesting funding from the foundations of some 14 of the largest Fortune 500 Companies. The response has been favorable, and the process is underway but takes roughly 2 years.

NIEE Resource Guide

Michael Loui is in the process of reviewing the 389 entries in the current NIEE Resource Guide. His goal is to update, organize and annotate the entries. He is currently being assisted by an undergraduate student and welcomed any additional help.

Statement of Ethics Principles

NIEE will not attempt to develop and issue a consensus-based “code of ethics” applicable to all engineering disciplines, but it is appropriate for NIEE to propose a uniform statement of ethics principles.

Newsletter – Engineering Ethics Update

The NIEE Board voted to establish a newsletter committee to focus on the goals and assist with assembling articles for the newsletter.

Website

Jimmy Smith reported that the website is up and running but still has some glitches. There is room for improvement; the quality of the website is only average at best.

Membership

Growth in NIEE membership in 1999 has been mostly due to the efforts of Bob Nichols. A membership committee was not appointed for 1998-99 but will be of critical importance for FY 2000.

1999-2000 NIEE INITIATIVES

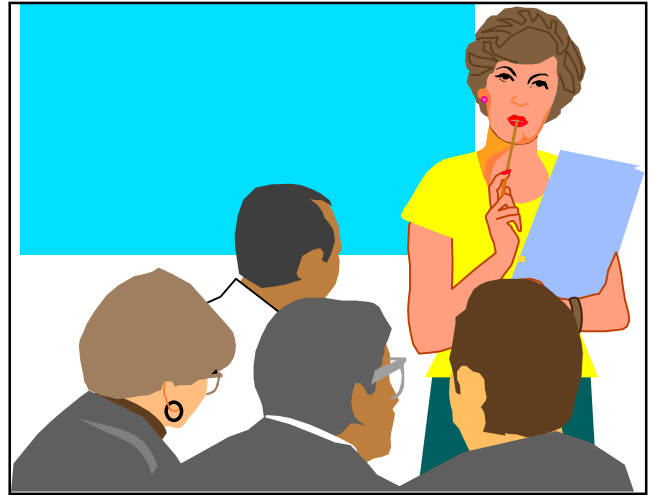
Membership Recruitment

Bill Lawson noted that NIEE is sending out and collecting its own dues for the first time in its history. This is a critical issue for NIEE, and if NIEE has revenue next year it will only be because of work done by our Board to gain and keep members.

NIEE’s main membership categories are

- Individual
- Corporate
- Institutional
- Participating Societies

Bob Nichols pointed out that there should be some form of increased commitment on the part of the participating societies. In this regard, he asked that the Board consider his memorandum and language in a “Participating Society Agreement.”



NIEE Board Meeting Photo

Bob Nichols observed that corporate and institutional members pay \$100 dues. One benefit to them is the opportunity to participate in an Advisory Council. Bob Nichols will head up this initiative.

Ethics Video

The Committee has been charged with completing the storyline/ storyboard within 90 days of the meeting date. President Ulmer challenged the Board to begin the project and raise the additional funds needed for the video and get it under production in FY 2000.

Niee Bylaws & Commissions

The NIEE Commissions have been inactive the past year. Dave Dorchester will appoint the Chairs to the NIEE Commissions as provided in the Bylaws when he assumes the role of president of NIEE in January 2000.

Online Ethics Center Help-Line

NIEE is co-sponsor the Online Ethics Center Help Line (with Carolyn Whitbeck at Case Western Reserve University). Phil reported that the help-line is functioning with no financial outlay on the part of NIEE. However, there is a time outlay on the part of NIEE’s representative to fulfill NIEE obligations.

Website

Jimmy Smith will lead efforts to update, develop and enhance NIEE’s website. Additions could include a

chat room, web conference capability, and the possibility of distance learning through the web.

Statement of Ethics Principles

Dave Dorchester advised adopting NAFTA language as a basis for a NIEE statement of ethics principles. NIEE will develop and propose a uniform statement of ethics principles.

BOARD ADMINISTRATIVE MATTERS

Proposed Budget for FY 2000

The NIEE Board approved a Year 2000 budget showing revenues of \$193,600 and expenses of \$174,333. The budget anticipates significant NIEE activity in 1999, including \$100,000 estimated for the Video Project, and \$5,000 for an ethics workshop.

Phil Ulmer stressed that NIEE must not only maintain current membership, but must increase that membership. This will require all the Board members embrace an entrepreneurial spirit and use their influence, network and energy to build NIEE's membership. This cannot be overstated.

Nominations/Election of Officers

Bob Nichols, as chair of the nominating committee, delivered a slate of New Board members and officers for election by the Board of Directors.

Officers for 2000 are:

Dave Dorchester	President
Donald Hiatte	President-elect
Steve Nichols	Treasurer

New board members are:

- Andrew Liston
- Carl Skooglund

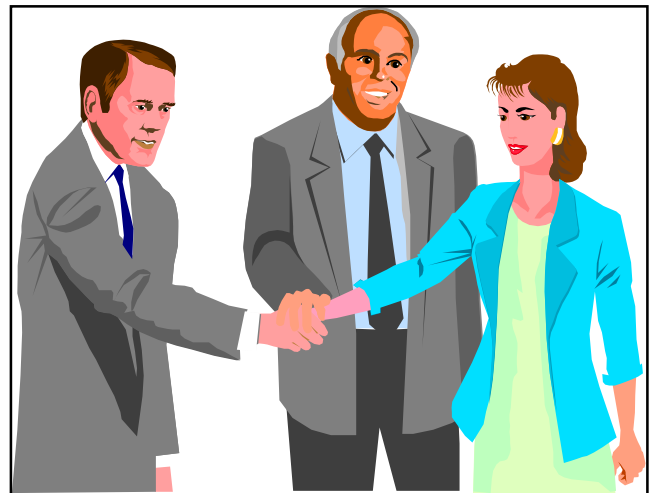
Routine Administrative Policy Issues

The NIEE Board adopted standard policy for several membership issues, including:

1. Partial year memberships, new members
2. Partial year memberships, renewing members (late)
3. Receipts for membership dues
4. Membership certificates

It was noted that the Board voted to increase individual membership dues from \$20 to \$30 in 1998,

but this was not done for the 1999 fiscal year. The increase will go into effect in January 2000.



NSPE Interaction with NIEE

Alan Wortley asked Art Schwartz to convey NSPE's wish to interact with NIEE regarding the Board of Ethical Review. Consensus was that this was a good idea and that Dave Dorchester, as a member of the Board of Ethical Review, will be the NIEE liaison.

Recognition of Outgoing Officers/Board Members

Phil Ulmer presented a plaque to Bob Nichols acknowledging Bob's work as President and Interim Executive Director of NIEE. Phil stressed that Bob put in countless volunteer hours for NIEE and, together with the Board, publicly recognized those efforts.

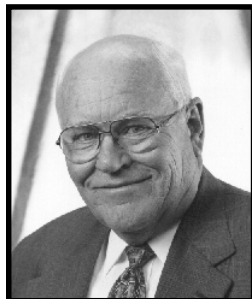
Bill Lawson presented Phil Ulmer with a plaque acknowledging Phil's work as President.

NIEE Past President's Photo

At the request of Bill Cox, the Board observed a moment of silence in memory of former Board member Joe Paul Jones.

IN MEMORIAM

Joe Paul Jones, P.E., NIEE Board Member, past president of TSPE and NSPE, fellow engineer, and long-time friend, died of cancer on July 24, 1999. Joe Paul was to assume the chairmanship of the Texas Board of Professional Engineers in September 1999. Joe Paul's untimely death gives us reason to pause and consider his many contributions to the engineering profession and to mankind, in Texas and the nation.



WINNING ENTRY

1999 NSPE

Board of Ethical Review Ethics Contest

Submitted by: *Angela Forrest*
Kansas State University
Student Chapter

FACTS:

Engineer A, a structural designer of a large commercial building, incorporates new and innovative design concepts. After construction is complete and the building is occupied, he finds an omission in the calculations which could result in its collapse under severe, but not unusual wind conditions. The collapse would not only jeopardize the occupants and their immediate surroundings but could possibly cause a "domino" effect threatening a much larger area.

Engineer A advises the architect and client of the problem. After consultation with the architect, the client, and the city engineer, all agree upon remedial construction which can be accomplished over the next few months. A storm monitoring system and contingency evacuation plan for the building and surrounding neighborhood are developed for the time before construction is complete.

Both the client and architect strongly agree that the situation should be kept secret, with construction accomplished during the evening hours when the building is unoccupied. Engineer A is confident that the construction will completely rectify any structural concerns and that the evacuation plan has a reasonable chance of success. Engineer B, the city engineer, has concern for the public especially the office workers in the building and their right to know, but the architect and the client maintain that right is superseded by the consequences of a possible public panic resulting from any notification.

QUESTIONS

Is it ethical for Engineer A, the structural engineer, to comply with the client's and the architect's desire for secrecy?

Is it ethical for Engineer B, the city engineer, to maintain the secrecy?

REFERENCES

NSPE Code of Ethics for Engineers:

Section I.1. Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health and welfare of the public.

Section II.1.a. If engineer's judgement is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.

Section II.1.c Engineers shall not reveal facts, data or information without the prior consent of the client or employer except as authorized or required by law or this Code.

Section III.3 Engineers shall avoid all conduct or practice that deceives the public.

BER Case 89-7. "Duty to Report Safety Violations"

DISCUSSION

The facts presented in this case highlight the ethical dichotomy facing engineers today: their obligation to be faithful to the client and their obligation to hold paramount the safety, health, and welfare of the public.

In BER case 84-5, the Board determined that Section II.1.a and Section II.1.c should be read in conjunction with each other. The former section refers to the primary obligation of the engineer to protect the interests and welfare of the public. The latter section refers to the obligation of the engineer to refrain from revealing "confidential" information or facts



concerning the actions of the client without the client's consent. In accordance with this decision, the Board concluded that because an engineer's obligation to public safety is "paramount", it must take precedence over all client requests. This reasoning directly applies to the case at hand, both for Engineer A and Engineer B.

Engineer A realized that, because the structure carried a risk of collapse, the safety and welfare of the public were in jeopardy. Therefore, Engineer A suggested that remedial construction should begin, in accordance with the number one canon of a Professional Engineer. The moment that the client and architect suggested accomplishing the remedial construction in secret, without even alerting the workers in the building, Engineer A had an ethical obligation to take additional steps to address the situation, including a "...paramount professional obligation to notify the appropriate public authority if his/her professional judgement is overruled under circumstances where the safety of the public is endangered", similar to the decision of the Board in BER case 89-7. Because the safety of the public should be held in higher regard than the desire of the client and architect to keep the remedial construction secret, Engineer A is obligated to notify the public authority and to not comply with the request of the client's and architect's desire for secrecy.

The same professional obligation holds for Engineer B as for Engineer A. Not only should Engineer B realize that the safety of the public supercedes the covert desires of the client and architect, but he or she invariably understands that if the building does collapse, and any person is injured, all peoples involved in misleading the public will be held legally liable. As a public official, Engineer B is obligated to inform all those at risk of injury from the possible collapse of the structure, despite the protests of the client and architect.

CONCLUSION

It would be unethical for Engineer A to comply with the client's and the architect's desire for secrecy.

Furthermore, it is Engineer A's ethical responsibility to refuse to continue to work on the project unless the public is alerted to the building's collapse risk.

Similarly, it would be unethical for Engineer B to maintain the secrecy. Doubly so because Engineer B is a public official, an "engineer for the people".

NIEE MEMBERSHIP DUES RENEWAL

The National Institute for Engineering Ethics invites you to **renew your annual membership!**

As you know, in past years the standard procedure to join NIEE or renew your membership involved checking off a dues payment box on your National Society of Professional Engineers (NSPE) membership dues invoice, and you simply included the NIEE dues amount with your NSPE payment.



NOT ANY LONGER! With NIEE's relocation to the Murdough Center, NSPE no longer provides dues collection service for NIEE. This is yet another step in NIEE's growth toward independence as a professional society.

To join NIEE or to renew your membership, please do the following:

1. Fill out the membership application on **page 7** of this newsletter.
2. Place the membership application and your membership dues payment in the enclosed stamped envelope.
3. Return your renewal application and payment to NIEE by December 31, 1999!

Please note *that we will not send you a separate dues invoice.* This is your formal membership renewal notice!

NIEE Membership Application

Membership Status (01/01/2000-12/31/2000)

- New
- Renewing

Member Information

Name _____ PE ?
Firm _____
Address _____

Phone _____
Fax _____
Email _____
Other Professional Memberships _____
Engineering Discipline _____
Alma Mater _____

Member Dues Type (Check One)

- Individual (\$30/year)
- Corporate (\$100/year)
- Institutional (\$100/year)
- Student (\$10/year)
- Participating Society – contact NIEE headquarters for information regarding Participating Society Membership

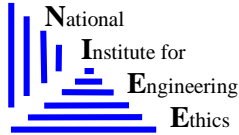
Payment Method

Check Enclosed
 Visa Mastercard
Credit Card No. _____
Expiration Date _____
Signature _____

Return to

National Institute for Engineering Ethics
Box 41023
Lubbock, TX 79409-1023
Fax 806-742-0444
Phone 806-742-NIEE (6433)
Email ethics@niee.org

Eisenhower quote...



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Visit the NIEE web site at:
www.niee.org

National Institute for Engineering Ethics Headquarters
Located at Murdough Center for Engineering Professionalism



ABOUT NIEE

NIEE is an independent not-for-profit [IRS 501(c)(3)] educational corporation established to promote the study and application of ethics in our nation's engineering schools and throughout the engineering profession.

The principal thrusts of NIEE are communication, program development, education, and practice applications in the area of engineering ethics. One of the primary roles of the Institute is to encourage cooperation among individuals, universities, professional and technical societies and business organizations with regard to engineering ethics and professionalism issues.

NIEE developed and distributed the highly successful engineering ethics video, "Gilbane Gold," which has been used at most engineering colleges in the nation as well as in industry and society presentations.

NIEE currently has about 800 individual members and some 30 institutional and corporate members. The goal is to grow and serve the engineering profession in the area of engineering ethics.

NIEE is structured to serve as an independent liaison organization to promote engineering ethics among all engineering disciplines. Viewed as a cooperative effort among many engineering organizations with potential for far-reaching influence and impact, NIEE can and should bridge the various disciplines within the engineering profession.

NATIONAL INSTITUTE FOR ENGINEERING ETHICS

www.niee.org