Journal of Tan Alpha Pi

Volume XII - **XIII, 1988-1989**

Contents

Journal of Tan Alpha Pi

Executive Director/Secretary
Editor Frederick J. Berger

Tau Alpha Pi Journal is the official publication of Tau Alpha Pi, National Honor Society of Engineering Technologies. Write Professor Frederick J. Berger (Executive Director), Editor, P.O. Box 266, Riverdale, New York 10471. The opinions expressed are those of contributors and do not necessarily reflect those of the editorial staff of Tau Alpha Pi.

STATEMENT FROM THE EXECUTIVE DIRECTOR-SECRETARY

The 1988-1989 Tau Alpha Pi *Journal* is to be published. As in past issues, this one contains articles of interest to our members, chapter news, and a dii~ctoiy of active chapters. To make our *Journal* as informative as possible, we ask

chapters to forwani news of their activities, dates of initiations, and names of officers. Items of news and articles for publication should reach me no later than July 1. Group pictures should be black-white, if possible. Requests for keys and certificates should be made well in advance to allow three weeks for preparation and mailing. All correspondence should be sent to me at P.O. Box 266, Riverdale, New York 10471. I may be reached by phone at 212-884-4162.

Tau Alpha Pi is, as we know, the national honor society for the engineering technologies. It recognizes and honors the highest 4% of an institution's total engineering-technology enrollment. It is one of the three major national honor societies; the others are Phi Beta Kappa for the liberal arts and Tau Beta Pi for engineering science. Unlike the other two, Tau Alpha Pi is not centralized and is open to both associate-degree and baccalaureate candidates. Au three honor societies promote and recognize excellence in scholarship. You may encourage qualifying institutions that do not yet have a Tau Alpha Pi chapter to apply for one so that their deserving students may be appropriately honored.

Incidentally, allow me to emphasize that Tau Alpha Pi is an honor society, not a club. Initiation ceremonies must follow the official procedures. Although chapters are autonomous, their activities and policies must be in keeping with the letter and spirit of the umbrella constitution. Hazing, for example, is not permitted. Scholarly achievement, nobility of character, and qualities of leadership are to be maintained by members. Fund-raising activities must be worthy of an honor society and the monies raised must be by and for the chapter or for a worthy cause sponsored by the chapter. 1 ask our chapters to be sure that catalogues list them as an honor society, not college club, sorority, or fraternity.

We speak repeatedly of *excellence* and *honor* and *recognition.* If, however, these moving words are not to remain just words, we who are educators must inspire students to do their best and aspire to high achievement. There is no question that we are living in an age that may very well be labeled the Age of Technology. Nations are competing for a place among the technologically advanced. Our nation must be able to compete successfully. The task is ours to graduate men and women who are highly competent in the engineering technologies.

Tau Alpha Pi has a major role in inspiring students to achieve excellence. To do so, it has to be seen and heard on campus. The large key-monument on campus, the emblem-plaque appropriately and conspicuously mounted in the technology building, display cases, bulletin boards, the wearing of the key and of the two-inch pendant, and meaningful service to the institution are some ways to heighten the visibility of Tau Alpha Pi. I again remind chapters that duplication of the key and emblem must be precise and uniform. The key-monument is an *exact* enlargement of the one-inch key awarded to each initiate. To ensure uniformity I ask all chapters planning the construction of a key or plaque to forward specifications to me and await my approval. I wish to thank Dean Fred W. Emshousen (Purdue, West Lafayette) for preparing a print with precise measurements for the patterns from which castings of the key-monument will be made. Soon we hope to have a foundry, and chapters will have access to it. I shall inform the chapters as soon as the first casting is approved.

Faculty advisers are instrumental in guiding chapters. In the course of a year, some changes in assignment occur. To those advisers who served with dedication but recently left their positions, I want to say thanks and extend my best wishes to them in their future endeavors: Professor Franz Monssen (Beta Gamma), Dr. Louis DeAcetis and Professor

Stella Lawrence (Beta Delta), Professor Richard Hultin (Beta Iota), Professor Bernard Gleimer (Beta Nu), Professor ha J. Scheer (Gamma Epsilon), Dr. Lorin V. Waitkus (Gamma Upsilon), Professor Janet B. Van Doren (Gamma Eta), Professors Michael Pulliam and Jerry Monarch (Gamma Zeta), Professor Alan Hadad (Delta Alpha), Professor Edward Jarvis (Delta Beta), Drs. Robert L. Mason, Martin Parten, and C.E. Teske (Zeta Delta), Dr. Ronald J. Williams and Professor H. Holloway (Zeta Epsilon), Professor Alfred D. Talvola (Iota Beta, Beaver Campus), Professor T.D. Wilkinson (Iota Beta, Monte Alto Campus), Professor Bernard L. Guss (Iota Beta, New Kensington Campus), Dr. Jefferson F Lindsey (Nu Beta), Professor John Murphy (Nu Epsilon), Dr.
James W Savage (Xi Epsilon), Professors Endel Viga and Leslie Kovach (Omicron Zeta), Professor Robert English (Pi Alpha), Professor Lloyd Smith (Pi Gamma), Professor David Rose (Pi Delta), Dr. Don E. Cottrell and Professor Larry **0.** Womack (Rho Beta), Professor Gordon Nelson (Upsilon Beta), Professors James R. Driver, Leslie W. Carlson, Norris R. Gabriel (Psi Alpha), Professor Durward R. Huffman (Psi Beta), Professor Cathy Brochman (Omega Alpha), Professor Lawrence Mayan (Alpha Delaware), Professor John D. McLaren (Alpha Kentucky), Professor Mohammad H. Hosni (Gamma Louisiana), Professor Dimitri Diliani and Dr. Michael F Kavanaugh (Alpha Michigan), Professor Ruth Ann Cade (Alpha Mississippi), Dr. Craig B. Robison (Alpha Oklahoma).

Three advisers were taken from us by untimely death. They are a great loss. I want to thank them posthumously: Professor Leonard Hobbs (Theta Beta), Professor Ralph Bailey (Lambda Delta), Professor Martin Heifetz (Alpha Wisconsin).

To those advisers who assumed the responsibility of guiding their chapters, I want to say welcome and best wishes for success: Dr. Jack Prince (Beta Delta),

Professor Bridget Mueller (Beta Gamma), Professor Louis Gennaro (Beta Iota), Professor Robert E. Rees (Beta Xi), Dr. Frederick J. Kryman (Gamma Alpha), Professors Kathy Hathaway and Jim Drake (Gamma Upsilon), Professor John Edgerton (Gamma Eta), Professors Janet Wymyslo and Paul Costanzo (Gamma Zeta), Professor Charlene Solomon (Delta Alpha), Dr. John W. Hansberry (Delta Delta), Professor Lee Reynolds (Zeta Delta), Professor Drew Landman (Theta Beta), Professor Sandra A. Yost (Iota Beta, Beaver Campus), Professor Sam Bridwell
(Iota Beta, Monte Alto Campus), Professor Joan Begolly (Iota Beta, New Kensington Campus), Professor Judith Porter (Lambda Alpha), Professor Cyprian Ukah (Lambda Delta), Professors John B. Sallman, William T. Rivers and David N. Browne (Mu Alpha), Professor George W. Bruce (Mu Gamma), Professor Ron Marusarz (Nu Beta), Professor Jerome Haywood (Nu Epsilon), Dr. John P. Mattei (Xi Beta), Drs. ha Borbor and Ram Goyakwad (Xi Epsilon), Professors Ron Gieplik and Joseph Robinson (Omicron Zeta), Professor Bill Dalton (Pi Alpha), Professor Ron Emery (Pi Gamma), Professor Dennis Karchek (Pi Delta), Professor Robert Refior (Rho Alpha), Drs. Joseph K.C. Chang and Richard J. Greet and Professors Warren R. Hill and Robert V. Cobaugh (Rho Beta), Professor George Rowley (Rho Gamma), Professors Richard Lamerand and William H. Reed (Upsilon Beta), Professor Charles E. Kenny (Alpha Delaware), Professor Pat Grounds (Alpha Michigan), Professor Gary Johnsey (Alpha Mississippi), Professor Samuel I. Kraemer (Alpha Oklahoma), Dr. Charles T. Stephens (Alpha Oregon).

To the many loyal and dedicated advisers who continue to serve Tau Alpha Pi, I offer my deep gratitude.

Many thanks, also, to Alpha Michigan, to the chapter members, and to Professor Diliani and Mr. Schmitigal for the cast emblem in my honor. When the executive director of the Accreditation Board for Engineering and Technology (ABET) Dr.David R. Reyes-Guerra saw this emblem, he suggested that it be placed in the ABET office where many more people can view it and appreciate it.

Still, among those I wish to thank is Dr. Lillian Gottesman, who helped in the preparation of this *Journal.*

During the spring of 1989, I attended with pleasure the chartering ceremonies of Beta Michigan (Wayne State University), Gamma Iota (Sinclair Community College, Dayton, Ohio), and Sigma Delta (Florida A and M University). Conflict in schedule prevented me from personally attending the ceremonies of Sigma Epsilon (Embry-Riddle Aeronautical University). I thank Dr. William Byers of the University of Central Florida, Brevard Center, for representing me. Although not new, Mu Alpha (Midland Technical College, Columbia, S.C.) was formally re-activated on April 13, 1989, and received a new charter; we welcome Mu Alpha chapter among our active chapters. Alpha District of Columbia chapter celebrated its tenth anniversary on April 7, 1989. I could not attend this event, but sent my congratulations and best wishes. I regret that I was unable to attend the inaugurations of Dr. Frank Horton of the University of Toledo and Dr. John R. Campbell of Oklahoma State University on April 13, 1989. My appreciation and thanks to

Professor Richard L. Cunan at Toledo University and Dr. Raymond F Neathery and Professor Samuel I. Kraemer at Oklahoma State for representing me at these functions.

Frequently I am invited to attend special events in addition to chartering ceremonies. One such event was the re-activation and chartering of Iota Beta chapter at New Kensington Campus of Penn State on September 23, 1988. The chapter's officers and members extended a particular greeting to me by posting a welcoming message at the entrance to the campus. Subsequently I received a warm letter of thanks from the chapter's secretary who wrote: "Your words of wisdom were very rewarding to us. We will never forget this honor bestowed upon us."

Left to right: Beverly Lindsay (Chapter President), Executive Director Frederick J. Berger, Prof. Joan A. Begolly (Adviser).

On October 21, 1988 I was privileged, also, to be present at the dedication of the key-monument on the campus of Southern College of Technology (Alpha Alpha chapter). Alpha Alpha holds the distinction of being the founding Tau Alpha Pi chapter, having received its charter on January 29, 1953. As is usual, I was called upon to speak. I reviewed the significance of the Tau Alpha Pi key. In the course of the ceremonies, I presented an engraved Tau Alpha Pi pendant to Dr. Stephen R. Cheshier, President of Southern College of Technology, in recognition of his significant contribution to the Society. I presented to Alpha Alpha chapter an engraved charter (see centerfold) in commemoration of its thirty-fifth anniversary. President Cheshier then presented to me a plaque (see centerfold) in recognition of my "outstanding leadership in making Tau Alpha Pi a nationally recognized honor society."
This thirty-fifth anniversary brought to mmd some interesting facts and associations.

It was Professor Jesse DeFore who had the vision to serve as the founding executive secretary of Tau Alpha Pi for about twenty years. He saw the need to have a national honor society for the two-year engineering-technology students who, of course, were not eligible for either Phi Beta Kappa or Tau Beta Pi. He was enterprising in that he established the first national honor society to admit associate-degree students in engineering technologies. During his years as executive secretary, Tau Alpha Pi grew to nineteen active chapters. The beginning is almost always difficult, and, undoubtedly, the engineering technologies had to find their rightful professional niche. As a matter of fact, the establishment of Tau Alpha Pi as a national honor society evolved over a period of about five years from a local honor society founded in 1948 on the campus of Southern Tech. When in January, 1953, Tau Alpha Pi was formally chartered as a national honor society, the Southern Tech honor organization became it first affiliate chapter known as Alpha Alpha.

My association with Tau Alpha Pi dates back close to thirty years. I have been its executive director-secretary for the last sixteen years. I saw the need to honor all engineering-technology students, and to do so, I had to establish a restructured Society. I set into operation the mechanics of admitting both associate-degree and baccalaureate students. At present, Tau Alpha Pi is the only national honor society to operate this way. My years as a founding executive director-secretary witnessed the Society's growth from the nineteen chapters to one hundred and twenty active chapters. These years have been trying ones not only for educators, but for our nation. I felt deeply that our nation's future depends in good measure on its ability to compete technologically. The importance of the engineering

technologies loomed large. The need to inspire students to achieve and to honor those who did was more important than ever before. These thoughts motivated me to devote to Tau Alpha Pi all of my time and continuous attention so it could grow. As you realize, we are decentralized, and so my office does not receive annual dues or donations to pay for supportive services. The decentralized structure seemed to offer a more flexible arrangement to encourage the various colleges to apply for chapters. A chapter, once chartered, is on its own within the constitutional structure of Tau Alpha Pi. As executive director, I have made every effort to attend chartering ceremonies so that I could guide the new chapter in proper procedures and, as the keynote speaker, try to inspire initiates, faculty, and administrators to achieve the goals of the Society. Once a professor, always a professor, I suppose, and even as executive director, my role as I saw it was that of an educator seeking to promote excellence and emphasizing the pressing need for academic achievement. Often, letters of recognition came to me in which the writer noted: "Your presence added considerable luster to a very significant event... I also enjoyed the opportunity to talk with you about the development and future of engineering technology. Yours is an invaluable perspective and quite helpful to me as I work with the faculty to chart the course of the College." I have also repeatedly recommended that a chapter have a faculty adviser from each technological area in order to ensure continuity, to serve as an initiating

officer where necessary, and to be the special person whom students seek to emulate.

When, twenty-six years ago, I founded the Beta Delta chapter, I came to realize that scholarship alone, important as it is, is not enough. Equally important, at least, are character and leadership traits. Yet, while scholarship can be taught, character and leadership are not taught, but caught. I tried to be an adviser whom the members would respect and remember. I saw them reach the intellectual maturity when they asked no longer what the Society would do for them, but rather what they could do for it. They provided tutoring, established awards, and gave service to the college. I know that I touched them, and now and then came a letter from a student to tell me so: "As one grows older, he... takes the time to reflect upon the people he has encountered. ..He knows... most are but a vague memory now. He also knows that there were some... that gave direction and meaning to his life. .One of these rare individuals who has always given of himself so that others may benefit is Professor Frederick J. Berger."

At this juncture, I believe we have come a long way, and I have wished to share with you my feeling of progress. We still have much to do, but then Tau Alpha Pi is a young thirty-five years old. To move ahead, we must look back. Though the road was sometimes rough and the challenges many, I have found renewed inspiration in the words of Ralph Waldo Emerson: "The reward of a thing well done is to have done it."

Frederick J. Berger
Executive Director-Secretary

PROFESSIONAL REGISTRATION OF ET GRADUATES: HOW IMPORTANT IS IT?

Graduates of four-year engineering technology (ET) programs can seek registration as a Professional Engineer in thirty-eight of the fifty states.' Graduates with either a bachelor of science (BSET) or bachelor of engineering technology (BET) degree are eligible to take the Engineer-in-Training Exam and/or the Professional Engineer Exam in those thirty-eight states. However, experience requirements prior to each exam do vary among the states.[2]

Southern Illinois University (SIU) offers bachelor of science degree programs in both engineering and engineering technology. Engineering graduates are urged to seek professional registration and take the Engineer-in-Training Exam during their senior year or immediately following graduation. Engineering technology graduates are informed about professional registration, but are not encouraged to seek registration as a key step in their career. However, our ET

graduates often phone or write with questions and concerns about professional registration. Many of them are determined to become registered Professional Engineers since it is important to their employers and the advancement of their careers. To learn more about professional registration of ET graduates a survey of Southern Illinois University ET graduates was conducted in mid 1987.

The survey consisted of two questionnaires mailed to approximately eight hundred graduates. One questionnaire was to be completed by the graduate, and the other questionnaire was to be completed by his employer. The purpose of the survey was to determine:

(a) Are graduates and employers informed?
Do graduates and employers know about professional registration requirements for ET graduates? Do graduates and employers discuss registration and how it will (or will not) affect their careers?

(b) Are graduates registered?
Have graduates taken and passed state exams leading to registration as Professional Engineers?

(c) Is registration important to career advancement?

(d) What advice for ET students?
What advice should instructors give students concerning professional registration?

Approximately two hundred graduates and seventy-five employers responded to the survey. Forty- one percent were civil engineering technology graduates (CET); thirty-two percent were mechanical engineering technology (MET) graduates; and twenty-eight percent were electrical engineering technology (EET)

graduates. Graduates responding received their degrees in years ranging from 1966 to 1986. Approximately sixty percent of the responding graduates were from Illinois, a state which since 1978 does not allow professional registration of four-year ET graduates. Position titles of the responding graduates covered the entire spectrum of the technology field (e.g., technicians, technologists, engineers, supervisors, managers, and company owners). The employers (or companies) that responded had approximately two hundred eighty ET graduates employed by them. Twenty-eight percent of the engineering technology graduates employed were CET graduates; twenty percent were MET graduates; thirty percent were EET graduates; and twenty-two percent graduated in other ET disciplines. Results of the survey are summarized in the following paragraphs.

Are Graduates and Employers Informed?

Sixty-seven percent of the graduates did not know that ET graduates could seek registration in thirty-eight of fifty states. In addition, forty-eight percent of the graduates did not know whether or not the state in which they were employed allowed registration of ET graduates. Similarly, seventy-six percent of the employers did not know that ET graduates could seek registration in thirty-eight of fifty states. Employers were also asked their opinion on state laws which prevent ET graduates from seeking registration. Eighty percent of the employers were in favor of state laws being changed to allow registration of ET graduates. Both graduates and employers were asked whether they had discussed registration with their employer (or employee). Fifty-nine percent of employers said they did discuss registration with ET employees; however, only forty-seven percent of the ET employees said they had such discussions with their employers.

Are Graduates Registered?

Nineteen percent of all the graduates were registered Professional Engineers. The pass rate for either the Engineer-in Training Exam or the Professional Engineer Exam was ninety percent. Most of those registered, however, were civil engineering technology graduates. Among the CET graduates, twenty-three percent were registered Professional Engineers. Twelve percent of the MET graduates and nine percent of the EET graduates were registered. Among those graduates that were not registered, thirty-five percent indicated that they planned to seek registration. By discipline, fifty-two percent of the non-registered CET graduates, thirty-one percent of the non-registered MET graduates and twenty-five percent of the non-registered EET graduates planned to seek registration. The employers reported that among all the ET graduates employed by them eleven percent were registered and among those

registered, seventy-two percent were CET graduates, nineteen percent were EET graduates, and nine percent were MET graduates.

Is Registration Important?

Among those graduates that are registered Professional Engineers about eighty percent indicated that registration has been a key factor in their career advancement. By discipline, eighty-nine percent of CET graduates, seventy-one percent of MET graduates, and seventy-five percent of EET graduates indicated that registration was a

key factor in the advancement of the ET employees' careers.

Non-registered graduates were asked whether non-registration had hindered their career. Overall twenty-four percent of the non-registered graduates said yes; by discipline forty-seven percent of CET graduates said yes; sixteen percent of MET graduates said yes; and ten percent of EET graduates said yes. Forty percent of employers of non-registered ET employees indicated that non-registration hindered the advancement of the ET employee's career.

ET graduates were asked whether their employer considered Professional Registration to be a significant factor in the advancement of their careers. Overall, thirty-nine percent of the graduates said yes; by discipline, sixty-seven percent of CET graduates said yes; twenty-one percent of MET graduates said yes; and fourteen percent of EET graduates said yes. Similarly, the employers were asked for which ET discipline registration was most important. Forty percent indicated CET, twenty-six percent indicated MET, twenty-five percent indicated EET, and only nine prcent indicated that registration was not important for any ET discipline.

What Advice for ET Students?

ET graduates and employers were asked whether ET students should be encouraged to seek Professional Registration. Only forty percent of employers and twenty-four percent of graduates indicated that non-registration hindered career advancement. However, both employers and graduates strongly indicated that ET students should be encouraged by their instructors and advisers to seek registration. Seventy-four percent of employers recommended such encouragement while eighty-five percent of the ET graduates made the same recommendation. By discipline, ninety-six percent of CET graduates, eighty-four percent of MET graduates, and seventy-five percent of EET graduates made that recommendation.

Data indicate that most ET graduates do not become Registered Professional Engineers and that registration is not a requirement for success. However, registration can advance a career and is most important to CET graduates.

References

1. The following states do not permit P.E. or E.I.T. exams for four-year ET graduates: Florida, Hawaii, Illinois, Kentucky, Louisiana, Michigan, Minnesota, Missouri, North Dakota, Ohio, South Carolina, Tennessee. (See Tau Alpha Pi *Journal,* 1985, p.[28].)
2. "Registration of Engineering Technology Graduates" by R. Frank and T. Zeigler, *Journal of Engineering Technology.* Volume 1, No. 2 (1984).

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JOINING THE "INVISIBLE COLLEGE":

SOME CLUES TO WRITING AS A PROFESSIONAL

Administrators and teachers in engineering technology have long recognized the need for their students to be effective communicators. To that end, most engineering colleges now require at least one course in technical writing. These colleges are responding to surveys from professionals in the field who report that students in the engineering disciplines need to learn to write better, that writing is a crucial job skill.' More often than not, however, the teaching of communication skills is left entirely to the English department. Too few engineering technology professors follow the guidelines of the Accreditation Board for Engineering and Technology which state that "the development of communication skills should be demonstrated by student work in engineering classes."[2]

As teachers of technical writing, we see engineering technology students who have had little professional writing experience in their specialized areas.[3] Like their counterparts in other disciplines, they have written for one purpose only – to demonstrate to a professor what they have learned in class. They, therefore, have difficulty coming to terms with industry writing because writing as a professional requires the ability to analyze audience needs and to design a communication to meet those needs. Such ability is not easily acquired, and students need a good deal of practice developing this skill. Engineering technology professors can help by including in their classes some professional writing assignments. The letter of inquiry is an extremely useful way writing can be integrated into nearly any technology class.

The letter of inquiry assignment is useful for many reasons. First, it allows the teacher to insist that students attend to professional standards of writing, editing, punctuation, format, and appearance. Students are usually eager to correct the drafts of their letters when they realize a potential employer or colleague might read them. Second, the letter is fertile ground for discussing audience analysis. Students must anticipate the technical background of their potential readers and adjust the wording and vocabulary of their letters accordingly. Third, the letter of inquiry can bring the student crucial information which can serve as the basis of a research project for the course. This information is even more up to date than the most recent journal article which often takes several months from the time it is received until the time it is published. The letter may also uncover information which many times would not get published or disseminated elsewhere. Fourth, the letter of inquiry can be a pivotal assignment out of which others naturally arise. For example, to compose the letter, students must become familiar with problems

in their fields and new developments which are being used to solve these problems. They will, therefore, learn to use technical resources (abstracts, indexes, conference proceedings, government documents) and, perhaps for the first time, become introduced to scholarly and trade journals in their specialized fields. Fifth, the letter of inquiry helps connect students to the "invisible college," that special network of professionals who work in the same areas, read each other's reports or publications, and attend conferences or conventions together. For many, the letters and responses are the first glimpse of the work world they soon will enter.

In the rest of our paper, we offer steps in composing the letter of inquiry. We list the steps as questions, the types of questions our engineering students frequently ask. The list can later be used by instructors as a checklist for evaluating the inquiries. Also included is a sample letter.

STEPS in COMPOSING of INQUIRY

1. **To whom shall I write?**

The audience for the letter is the specialist or the experienced professional who has the specific knowledge the student needs. Likely audiences are the following:

a) Authors of the articles and books students have already found when they have conducted a search through published materials. (Many times these articles or books will include a brief biography of the writer as well as the organization for whom he or she works.)

b) Professors engaged in research at universities or a person doing work in a private facility, laboratory, or company.

c) A company that is trying out a new product or process. (Only a firm which has first-hand experience with a product can really assess its workability, its true cost savings, or its performance in comparison with similar products. Writing to a firm which uses a product may be more revealing than contacting the firm which manufactures it.)

Students should address the letter to a specific individual within the organization. If students cannot find the exact name of someone to whom to address the letter (for example, if they know only the name of a company which is trying out a new product), they should *not* address the inquiry to "Dear Sir" or "Gentlemen." Such a term is not only outdated but also sexist, excluding the possibility that a woman may receive the letter. Use of sex-biased language can offend the audience and create a negative image of professional naiveté before the letter is read. If an exact name is not available, students should address the letter with a non-sexist role identification: Director of Research and Development, Public Relations Officer, Director of Personnel, and so on. If a woman is the appropriate recipient, students should use her

professional title rather than a term which denotes her marital status: Dr. Smith or Supervisor Mary Smith rather then Miss Smith or Mrs. Smith. If a person's gender is known, but not the professional title, "Mr." for men and "Ms." for women are appropriate.

2. How should I begin?

Because the letter is not expected, students must provide the context in which they are writing. This involves more than simply supplying their name. They should describe *what they are trying to do.* Abrief statement of how the information they are requesting fits into their overall project or investigation is important to include so that the respondent can grasp the goals and aims of the student and perhaps supply information the student does not yet know will be useful. The most important fact readers will want to know early in the letter is *why the student has chosen them to be the resource.* Students should let readers know how they obtained their names. If students read one of the reader's publications, they should say so by referring directly to it.

3. What type of questions should I ask?

Questions should demonstrate that students have already done some research. If students ask for information that has already been published, they indicate that they have not adequately done their homework. Questions should be precise. The easiest questions to answer are ones which ask for facts. If students ask for a specific brand name, a result, a specific calculation or formula, the chances of getting the answers they need are good. The more difficult questions to answer ask the reader to interpret or judge. Though experts certainly are capable of interpreting and judging, they are sometimes reluctant to go on record (which they are doing when they respond) about a certain product or procedure. Students can certainly ask for the reader's opinion, for example, on which method he or she has found to be the most reliable, economical, or maintenance free, and so forth, and can expect a gracious response. If, however, they ask the reader to render an opinion about the students' situation ("Which method do you think *I* should use?"), they ask for another level of responsibility on the responder's part. Students should not expect the reader to render such expert opinion.

Questions should neither overburden the audience nor be questions which can be answered simply with a "yes" or "no" unless students will be satisfied with those answers. Students should phrase questions which require that the answer deliver the necessary information.

4. How should I ask the questions?

Questions should be limited to a reasonable number (five maximum) and be separated from the rest of the body of the letter. They should be numbered with space between each. By numbering and separating questions, the student

does not force the reader to read the entire letter to remember what was

asked. Busy professionals often answer the questions in the spaces provided.

5. **What is the appropriate tone for a letter of inquiry?**

The proper tone for letters of inquiry is difficult to achieve because students are asking for something on the one hand and trying to present themselves as knowledgeable colleagues on the other. An imperious tone is totally inappropriate. And students should not present their need for the information in personal terms. Even though they might desperately desire the information, they should write as one colleague to another. Appeals to pity or misery are out of place in a letter of inquiry.

6. How do I close?

After the questions, a short paragraph expressing appreciation is appropriate and expected. Students might offer to send either the results of their final project or a copy of the document which includes this information. Because the document most likely synthesizes the most recent information on the topic in which the reader is also interested, such an offer somewhat balances the indebtedness created by the inquiry. However, students should not offer to send a copy if they really do not intend to do so. A good strategy is for students to say they would be willing to send a copy of the completed work if the reader so desires. This statement puts the responsibility back on the reader's shoulders and further enhances the professional ethos the student is trying to create.

If it is not already clear from the letter's opening, the student should specify how the reader's responses will be handled. Are they going to be published? Who is going to see them? Many times the answer to these questions will affect the quality and depth of the response.

Students may also offer to defray expenses that the reader or reader's organization might incur in preparing the answers. If students are willing to pay for reports or for xeroxing, they should say so. Many times inquirers are told that materials (such as maps, orthographic drawings, programs) are available at certain costs. But students must spell out precisely what they are willing to do and not simply say they will cover all cost; they may be committing themselves to more than they want, expect, or can afford.

7. How much time should I allow for a response?

Students should indicate a time frame for their project or indicate a date by which they would like to receive the information. If they do not indicate any due date, the reader might well postpone his or her response by putting the letter at the bottom of the work pile. With a date, if the student has not crowded the reader into an unreasonable time frame, chances are enhanced for getting the needed response on time. Students should not feel that they are pressuring the reader. Professionals are used to deadlines and, if given enough lead time, will honor them.

8. **What can I expect?**

Students can expect a response if they have included sufficient information to enable the person to contact them. A complete inside address and phone number are needed. Many times a respondent will find it easier to answer questions orally. He or she may find that a clarification is needed, or may just want to chat with the student about this topic of common interest. Nearly every letter of inquiry written by one professional to another is answered in some way. Even when the writer is a student, we have found that approximately ninety percent of letters of inquiry receive responses. Many companies are very cooperative and send in-house reports as well as other references which the student can use to expand his or her data base. Often the letter of inquiry opens doors for writers which they did not expect. Several of our students have been asked to submit resumés and letters of application for employment after a firm became aware that they were interested in one of the firm's projects. Our students have also received programs and even computer disks through the mail.

Response to students' letters of inquiry have been informative and exciting. We have seen first-hand how these letters bridge the gap between classroom and industry and help students see clearly how writing is a necessary and integrated facet of professional responsibility. We strongly recommend their use in technical classes.[4]

References

1 Richard M. Davis, "Technical Writing: Who Needs it? *Engineering Education* (November, 1977), 68(2): 209-211; William R. Kimel and Milford E. Mansees, "Engineering Graduates: How Good Are They?" *Engineering Education* (November, 1979), 70(2): 210-212.

2 Quoted in Jack D. Bakos, Jr., "A Departmental Policy for Developing Communication Skills of Undergraduate Engineers," *Engineering Education* (November, 1986), 77(2): 101.

3 Although some students have written lab reports, a very small percentage have experience with more industry-related writing such as proposals, feasibility studies, progress reports, product descriptions, and customer letters. 4 A version of this article appeared in *Engineering Education* (April, 1988), 78(7): 695-699.

Dean G. Hall, Director of Technical Writing
and
Bonnie A. Nelson, Asst. Prof. of English
Kansas State University

Example Letter

1026 Osage Street
Manhattan, KS 66502
16 February, 1988

*Mr R.S.Brown
*ABC Corporation Torrance, CA 90503

Dear Mr. Brown:

lam a graduating senior in Mechanical Engineering Technology at Kansas State University. For a technical writing course, I am doing a study on Site Specific Crop Management. Researchers at Kansas State are developing a system for mapping grain yield at various locations throughout a field. The map can be used to treat specific low-production areas without treating the entire field. This system will offer farmers a way to increase yields and reduce operating costs.

Site Specific Crop Management requires a navigation system to pinpoint tractor location within a field. Your company's work on navigation systems prompted me to seek the following information from you. My project will be due May 1.

1. Your Loran-C system has been widely and successfully used in the shipping industry. Can it effectively be used in the midwest?

2. Where can I obtain a list of Loran-C manufacturers?

3. What are the advantages of Loran-C over the Global Positioning System you are currently working on?

4. When will the Global Positioning System be operational?

Any other information (especially cost and reliability data) that you can provide would be greatly appreciated. Since these navigation systems are new, very little published information is available. All information received will be shared only with my professor and classmates. If you like, I would be happy to send you a copy of my final report. I can be reached evenings at 913-532-0003.

Thank you. Sincerely,
*Tom White

Student explains briefly who he is and what he is doing.
Student explains why he is writing to this audience and gives a due date for his project.
Student demonstrates he knows something about this company, that he has done some basic research.
Questions are specific and will not require very long lesponses.

Student realizes some information may be proprietary and assures audience what will be done with information sent. Student's offer to send report

helps balance his indebtedness.
*Fictitious names

ON THE EVOLUTION
• OF ENGINEERING TECHNOLOGY

Eight years ago when Jimmy Carter and Ronald Reagan met in debate, Reagan stole the show by following many of Jimmy Carter's comments with a shake of his head and the retort, "Well, there he goes again." Well, her engineering technology goes again. We are asking the quarter-century-old questions again: What is the relationship between engineering technology and engineering? What is the future of engineering technology? Asking these questions is a criticism of our accomplishments over the past twenty years.Technology is twenty-five years or more old. And we have yet to conclude our debate over existential issues. For twenty years, since 1968, we have grappled with the application and validity of a definition – a definition imposed on engineering technology and unaffected by truth or practice a definition which few comprehend, with which few agree, which encumbers us as educators, and which distorts the reality of the utilization of our graduates within industry. Those of us in engineering technology appear to me like the thinkers of the Middle Ages who took great pains to describe the physics of the universe as a system of crystal celestial spheres and proceeded to argue about the nature of the boundary between continuous spheres. In light of the knowledge that was available to them and what we now accept as scientific fact about the universe, they look foolish. In light of what we know about engineering technology and engineering and what is accepted as industrial practice, I suggest that we look no less foolish. The concept of crystal spheres was smashed by Copernicus in his treatise *On the Revolutions of Heavenly Spheres,* but it took 200 years for the authorities to accept Copernicus.

This analog applies to engineering technology. Like the medieval philosophers, we continue to refine a model that is disconnected from reality and in conflict with the evidence before us. We work ceaselessly to resolve the issue with rhetoric grayed by the last quarter century. It's time for a new approach. First, let me remind you of the entrenched positions regarding engineering technology. After twenty years there are essentially three points of view:

The Caste System: The baccalaureate engineering-technology graduate is merely a super technician, a sub-professional, without standing.

The Egalitarian View: Engineering and engineering technology are two distinct manifestations of one discipline and should be treated equally. Egalitarians see engineering as a continuum ranging from engineering science through applied engineering. In this view technologists and engineers are like medical doctors with different specialties.

The Jim Crow School of Thought: Engineering and engineering technology must be separate.

I suggest that to hammer away at one of these positions will not resolve the conflict. So, I propose to examine our plight through the eyes of an historian. My intent is to remind you of history and show how history provides a context in which this unseemly twenty-year-old argument must be resolved. Recorded history begins with the date 4,241 B.C. That is the date of the earliest cities that have been found in Mesopotamia. So, recorded history as dated extends from 4,241 B.C. to 1988 A.D., for a total of 6,229 years.

Now, let's take a quick run through history and see what our ancestors accomplished. This quick enumeration is meant to be representative, not exhaustive. During antiquity here's what happened:

4241 B.C.	Earliest cities founded in Mesopotamia.
4000	Sumerians writing on clay tablets.
3500	Egyptian and Mayan cultures used numbers.
3000	Egypt introduced the 365-day year.
	Weaving appeared in Europe, and animal skins were on the way out as standard clothing.
1500	Sun dials in Egypt showed time.
	Contraceptives used in Egypt.
1200	The Trojan War.

700 Horseshoes in Europe.
600 The zenith of wisdom in the ancient world was reached:
In the Middle East: Zoroaster and the Jewish Prophets.
In China: Confucius and Lao-Tse. Greece entered the prime
of the Hellenic era; poetry, art, philosophy and science flourished. 500 Coins used as money.
Viticulture in France and Italy.
400 Rome used catapults for war.
350 Greeks invented perspective in art.
250 Parchment paper appeared.
200 Gears were invented, and oxen drove water wheels for irrigation.
105 The first college of technology founded at Alexandria, Egypt.
100 Julius Caesar was born.
4A.D. Jesus was born.
43 London founded.
50 Romans learned the use of technology from the Gauls. They also began to use soap.

I think you will agree that all of these are important contributions to society. But it took 4,300 years worth of human effort to produce them.
Let's take a trip through the next thousand years:

248 Rome celebrated its 1,000th anniversary.
271 The Chinese invented the compass; a thousand years later the
.. Europeans reinvented it.
451 Venice founded by refugees from Attila' s Huns.
507 Wooden coffins appeared in Europe.
577 The first paddle wheel boat appeared with animal drive.
600 Book printing in China; 800 years later the Europeans invented it.
604 First church bell in Rome.
650 India developed surgery.
720-750 Moorish Spain flourished with math, astronomy, optics and chemistry. While western civilization was destroying the knowledge of the classical era, Moorish Spain was preserving and advancing knowledge.
750 Hops were used for beer-making in Bavaria.
810 Algebra introduced by the Arabs.
850 Arab physicians described the mechanics of infectious disease and f ertilization.
851 Crossbow in France.
963 Arab scientists described astronomical nebula.
Universities founded at Salerno and Canto.

Let us continue our survey:

1050 The Astrolabes arrived in Europe, an Arab invention.
1090 First water driven clock.
1119-1411 Universities founded in Oxford, Cambridge, Siena, Vicenza, Naples, Toulse, Pisa, Grenoble, Cologne, Vienna, St. Andrews,
Leipzig, Montpellier, etc.
1125 Europeans caught up with the 1000-year-old Chinese invention
and created the compass.

1252 The inquisition determined that the most expedient way to truth
is through pain and adopted torture as a standard practice of

interrogation.
1277 Roger Bacon imprisoned for hearsay.
1298 Marco Polo jailed in Genoa.
1441 Portuguese explored West Africa.
1492 Columbus located the New World.

1500 Columbus arrested.
First commercial colleges founded in Venice.

The next block of time leads to the modern era. It also lays the basis for our world of technology and the need for engineering technology as an academic pursuit.

1504 Venice proposed the Suez Canal to Turkey.
1551 daVinci invented the turbine.
1580 First circumnavigation of the globe.
1596 Galileo invented the thermometer.
1600 Dutch invented the telescope.
1608 Catholic Church prohibited Galileo from scientific work.
1619 Harvey discovered circulation of the blood.
1643 Italians invented the barometer.
1654 Pascal developed the science of probability.
1657 Dutchman Huygens designed the first pendulum clock.
1665 Englishman Newton invented calculus.
1729 Englishman Gray postulated conductors and insulators.
1747 Englishman Benjamin Robins wrote on the physics of a spinning projectile.
1764 Englishman James Watt invented the condenser which led to the steam engine.
1773 First iron bridge in England.
1777 American invented the torpedo.
1780 American invented the fountain pen.
1793 American invented the cotton gin.
1800 Italian Volta invented the battery.
1823 Englishman Babbage designed the first computer.
1824 Portlan cement invented.
1827 Ohm's law of electricity formulated.

How well would you and I do in the world that our ancestors knew? They lived without indoor plumbing, hot water, electric fans, cars, microwaves, radio, TV, typewriters, personal computers, VCR's, word processors, movies, trips to outer space, telephones, heart transplants, satellite communications. In fact, they could not have conceived that we would live with and take these things for granted. The point of this lengthy chronology is that most of what we live with in science and technology has been created by the last four generations. Most of what organizes our political, religious, educational, moral, and social thought was created by the first one hundred generations.

What conclusions can be drawn from this history that are useful to our debate on engineering technology? There are four and they fit under the topics of communications, knowledge, the free flow of ideas, and human culture and nations.

COMMUNICATIONS

If the chronology shows nothing else, it shows the necessity of good corn- munications. Look at the outrageous delay over the centuries in invention.

The reason for these lengthy delays was the lack of communications-technology and the absence of someone in another culture to communicate with. Today our world has rapid communications capability.

KNOWLEDGE

Until about 1400 A.D. there were few universities existing in the world. Within only a few generations, the universities had changed

the world. We were exploring the globe, inventing new tools, describing the physics of the universe, and rethinking philosophy and social contracts.

- **THE FREE FLOW OF IDEAS**

...

History shows that rulers like the populace to embrace their ideas and not be independent thinkers. Rulers have given us war, torture, the inquisition,
and imprisonment. Academic freedom is a twentieth-century notion.

HUMAN CULTURE AND NATIONS

Perhaps through these remarks you have heard the flow of nations in the progress of mankind. No nation, no people, no race, no religion owns the torch of human culture. That light is passed from people to people.

Here are some interesting questions. Why do nations fade from the forefront of development? Why is it that the great Greek philosophers are no more? Where are those leading-edge British physicists? What happened to Italian art? Where did Arab science go?

The answer lies in how a culture views, adopts, and creates change. The Dutch are the most succinct example. During the early colonial period of America, the Dutch colonized the world. They had some of the best scientists, Leeuwenhoek and Huygens. They had art: Rembrandt and van Eyck. They created the modern science of horticulture with the tulip. They explored the globe and their commerce spread over the world. Remember, New York City was a Dutch settlement. But suddenly, in less than two generations, the Dutch declined. What happened? The Dutch collective will changed from wanting progress to wanting to prevent change. They sought to ensure the status quo, to do everything to ensure that tomorrow would be just like today. In doing so, they destroyed the engine of their accomplishments. They locked out new ideas, new people, new structures, and they locked out progress.

How does this history connect to engineering technology? What can we
learn from it that may help us resolve our differences? Let's look at each of the

four headings, line up what history tells us against current practice in engineering technology, and determine how we must proceed.

COMMUNICATIONS

History has established that to advance, good reliable multilateral communications are essential. It is accurate to conclude that the state of communications between engineering technology and engineering is poor.

KNOWLEDGE

It seems unnecessary to prove that colleges and universities are a necessary condition for the advancement of civilization. If you accept the notion that knowledge is a necessary condition for advancement of human culture, if you recognize the need for a continuum of knowledge, then you must see that a construct which separates engineering technology from engineering is both artificial and detrimental to the goals of both. The present unnatural division between engineering technology and engineering prevents us from realistically clarifying the role of engineering technology; confuses the nontechnical public; and precludes the team-building that should occur between the two groups of students, between the two faculties, and within the work force of what is finally a single subject.

THE FREE FLOW OF IDEAS

History clearly demonstrates that wherever ideas are stifled so too is progress. How many of you have witnessed the genuine free flow of ideas between engineering and engineering technology? It seems to me that the concept of the free flow of ideas is totally absent from current practice in engineering technology and engineering education. Continuing this behavior is a hazard to both engineering technology and engineering. Certainly it does nothing to benefit our students or the industrial public we are pledged to serve.

HUMAN CULTURE AND NATIONS

History presents compelling evidence to accept the notion that the capacity to cause, accept, and adapt to change is the essence of human advancement. The corollary is, of course, not to cause, or accept, or adapt to change is to withdraw from both the cultural and technical dimensions of human development. Protecting the status quo means not recognizing engineering technology as a professional career path. Locking out new ideas means rejecting engineering technology as a viable alternative pattern to careers in applied engineering. Preventing change means depriving engineering-technology graduates from professional registration and civil service careers.

Is this criticism too harsh? Take a good look at America. We do science better than any other nation on earth. No country consistently has as many Nobel Laureates as the United States. But we seem unable to translate the science into commercial products. We succeed on paper and in theory. We excel in the laboratory and with prototypes. We fail in the nitty-gritty of production design and manufacturing. What nations beat us? Germany and Japan, nations where engineering education looks like engineering-technology

education in America, nations which value applied engineering on a par with engineering science. The lesson is graphic. It is that to make progress

you must make room for engineering technology, and you must nurture it as something understandable by our public; you must nurture it as applied engineering. Anything less convicts engineering-technology graduates to a second-class status and stunted careers. Worst of all, maintaining the step-child role of engineering technology spends the precious resources of America on arrogance at the cost of effectiveness. So long as we focus on trivia such as accreditation teams reviewing catalogs to ensure that the word "engineering" is not used as a noun in the publication of a school of engineering technology we demean ourselves, lie to the general public, squander our resources, and prepare to pass the torch to other nations.

It is only fair to tell you where I stand on the matter. Of the three schools of thought – the Caste System, the Egalitarian School, and Separate but Equal Notion, I count myself an Egalitarian. I firmly believe that engineering and engineering technology are two distinct manifestations of one discipline and deserve equal recognition and treatment. I see engineering as a continuum ranging from engineering science through applied engineering. I see engineering

and engineering technology as having separate knowledge bases with significant overlap. My reading of history tells me something very grave about engineering technology. It tells that the truth is important and that rejecting truth has a price in the end. It tells that change is essential to existence. It tells that engineering technology's future rests on being able to tell the truth about itself and being allowed to adapt to the changing needs of a

technological society. We do not have those freedoms now. Without them I question

- the long term viability of engineering technology. How will we attract an adequate number of students from the declining poo1. How can we continue to place them in careers under the arcane notion of "technologist"? Too many refuse the conclusions that history brings us. We do so at our future peril. I think our circumstances are clear, and history tells us what decisions are essential. We need to recognize that engineering-technology education produces applied engineers who are co-professionals with engineers. We need to create a continuum in engineering that spans from science to manufacturing, that brings together the engineering scientist and the applied engineer.

G. Willi
am Troxler
President,
Capitol
College

Excerpted from address to Engineering-Technology Leadership Institute (ETLI), Nashville, Tenn. Nov. 8-10, 1987

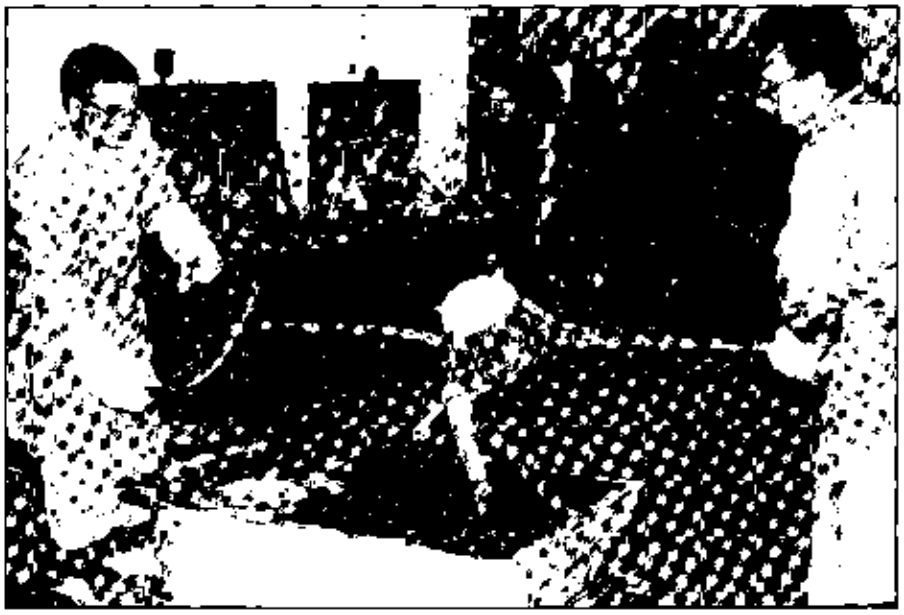
CONSTRUCTION OF 14-INCH ALUMINUM TAU ALPHA P1 EMBLEM

The first step in making a casting of an aluminum emblem is to make a sand print of the pattern of the emblem. The pattern is laid down, and a white releasing powder is sprinkled on it to help it pull away from the sand later. Sand is placed over the pattern and is pounded and packed. Layers are added until the desired depth is reached. The pattern is turned over and removed from the sand, leaving a print in the forming sand. Channels are then cut into the sand on all sides of the print, both for the flow of molten aluminum and for the ventilation of air and gases. A solid sand top is then made for the back of the pattern and placed on top of the sand print. Pouring holes are cut in the solid top which line up with the channels cut in the sand print.

The next step is the heating of the aluminum in a furnace. The aluminum is produced and then lifted out of the furnace. The crucible is carried over sand print, and the molten aluminum is poured into a V-neck pipe, as shown in picture 1, which directs the molten aluminum to both sides of the solid sand top and pours through the sand top into the sand print. A small amount of excess aluminum will sometimes burn its way through the wooden frame between the sand print and the solid sand back and catch fire. The excess aluminum in the crucible is poured into ingots to cool and to be used later.

p

Picture I – Left to right: Dan Kinney, Mr. Conrad Schmitigal (Laboratory Instructor)



After the pouring has cooled for two to three hours, the sand top is removed and the casted emblem is lifted out with the casted channels still connected to the sides of the casted emblem. The channels are then cut off, the edges are filed, and the emblem is cleaned and brushed, and any small bubble holes which were caused by gas bubbles are filled and sanded.

Several emblems were poured in the beginning when experimenting with our different pouring methods until we found the right method. Then two castings were made. One bears the name of Lake Superior State University around the top of the outer ring and Alpha Michigan Chapter around the bottom of the lower ring. The casting was then painted with dull aluminum paint. The emblem itself was painted gold and green to resemble the emblem on the cover of the annual *Journal.* The other casting was made to bear the name of Frederick J. Berger, Executive Director, as shown in picture 2, which was presented to him in recognition of his dedicated service to Tau Alpha Pi.

The chapter extends its thanks to mechanical lab instructor Mr. Conrad Schmitigal, without whose help and expertise this achievement would not be possible. The chapter thanks also Dan Kinney, lab assistant; Professor Dimitri Diliani, adviser; and Gordon Waggoner, member and emblem painter.

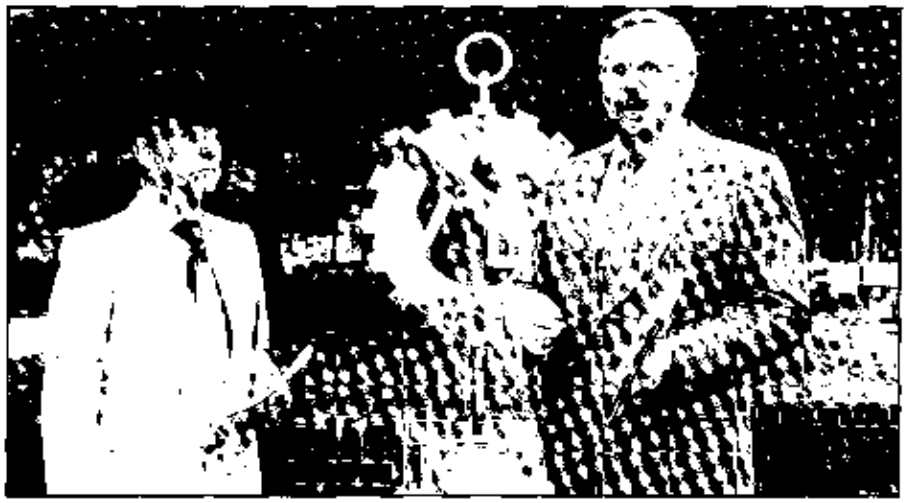
Alpha Michigan Chapter

Picture 2

CHAPTER NEWS

ALPHA ALPHA (Southern College of Technology): The chapter held initiation ceremonies on June 5, 1987. At the annual banquet, the guest speaker was Roy Richards, Vice-President of Southwire Company in Carrolton, Georgia, who spoke on "Quality Assurance." The chapter has continued to present Certificates of Academic Excellence to full-time students who earn a 4.0 GPA for the quarter. The chapter offers, also, graduation awards to students with the highest GPA at the bachelor and associate-degree levels. Future plans include having plaques with the names of the highest GPA students each year. These plaques will be prominently displayed. On October21, 1988, Southern College of Technology dedicated a key-monument on its campus. The key-monument is in honor of Alpha Alpha, the first chapter of Tau Alpha Pi. Executive Director Frederick J. Berger attended the ceremony and was the keynote speaker. Professor Berger also presented President Stephen R. Cheshier with an engraved Tau Alpha Pi key pendant, and in commemoration of the thirty-fifth anniversary of Alpha Alpha chapter he presented an engraved charter. Piusident Cheshier commented on the significance of the occasion and presented Professor Berger with a plaque in honor of his contributions to the growth of Tau Alpha Pi and for his outstanding leadership in directing Tau Alpha Pi to national prominence as the professional honor society for engineering technologies. Professor Wojnowiak, faculty adviser, noted the achievements of Alpha Alpha chapter. Officers (1987-88): Martin Medders (President); Robert Bartlett (Vice-President); Tamre Alexander (Secretary); Leslie Cowart (Treasurer). Officers (1988-89): Robert Bartlett (President); Carol Dawson (Vice-President); Bruce Mattys (Secretary); Christopher Rogers (Treasurer).

President Cheshier (right) presents award to Executive Director Frederick J. Berger. The inscription on the key-monument's plaque reads as follows: Alpha Alpha Chapter. Tau Alpha Pi National Honor Society, Engineering Technologies. Southern College of lèchnology. Birthplace of Tau Alpha Pi. January 29, 1953. Dedicated October 21, 1988.



ALPHA BETA (DeVry Institute of Technology, Decatur, Georgia): The chapter held its initiation and banquet on March 24, 1988. The chapter participated in several school and community sponsored projects. Members assisted the Georgia Public Television in a fund raiser to aid the Cerebral Palsy Foundation in the purchase of new software. The chapter also sponsored a trip to NASA Space Center in Huntsville, Alabama. Two members Stephen Carl King and Judson Hines Stubbs co-edited the school newspaper. Officers: Michael Ackerson (President); Dennis Roebuck (Vice-President); Scott Dolon (Secretary-Treasurer), Craig Nelson (Sergeant-at-Arms).

BETA GAMMA (Queensborough Community College): The chapter's initiation ceremony on January 19, 1988 was followed by a dinner reception. Faculty Adviser Franz Monssen delivered the address on "Engineering and the Human Factor." During the semester, each new member provided fifteen hours of free tutoring to fellow students. A total of seventy-five hours was contributed. Lectures included "Building a Computer Using 58K Microprocessor," "Life after College," "Use of Computer in Power Industry," and "Robotics." Following the initiation on June 3, 1988 Professor Monssen spoke on "The Lack of Professionalism in Industry and Its Outcome." In conjunction with IEEE, members toured the Shoreham Nuclear Plant. Officers (1987-88): Joseph A. Biagiotti (President); Marcos Paz y Mino (Vice-President); Lokesh Nagpol (Secretary); Anthony K.C. Chang (Treasurer); Brian M. Dillion (Public Relations). Officers (1988-89): Donald Cavaioli (President); Anthony Chang (Vice-President); Lokesh Nagpol (Secretary); John Schill (Treasurer).

BETA IOTA (Rochester Institute of Technology): The chapter held initiations on February 16, 1988 and on May 3, 1988. On April 26, 1988 Tau Alpha Pi sponsored a professional engineering registration seminar for engineering-technology students and attracted a standing-room crowd. Officers: (1988-89): Stanley Bolinsky (President); Joseph Darby (Vice-President); David Bechtol (Secretary); Scott Bishopp (Treasurer). Officers (1987-88): Dean Palmer (President); Douglas Buddle (Vice-President); Philip Faluotico (Secretary); Charles Allgeier (Treasurer); Mark Fischer (2nd Vice-President).

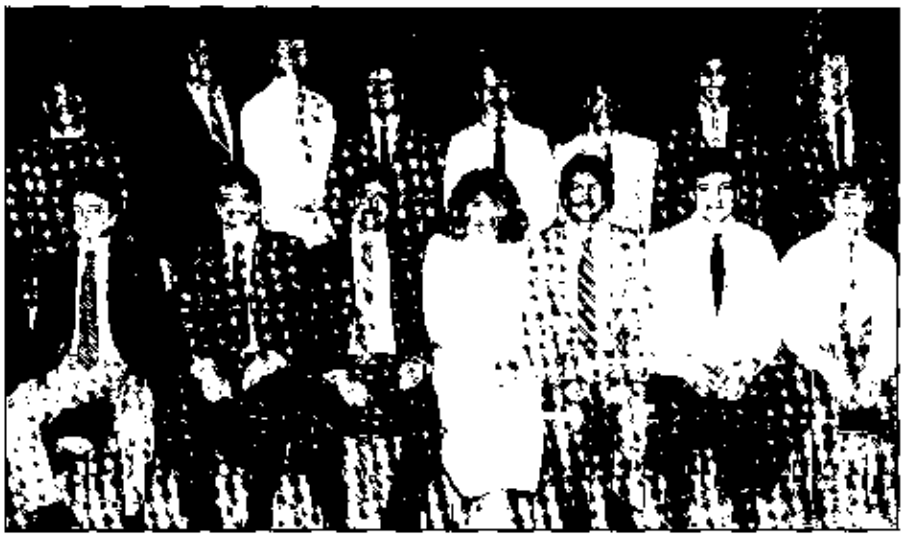
Le.~ to right, seated: Anthony Chang, – r, Lokesh _,,~jl, Prof. **t~ tin Gayle, Brian M. Dillion. Standing: Joseph Biagiotti, Savas Saviou, John Schill, Robert Woodrum, Peter Novak, Marcos Pez y Mino.**

ft Elvis Rovel Nagnd Franz Monssen, Mary

BETA XI (College of Technology at Alfred): The chapter held its initiation and banquet on April 7, 1988. The keynote speaker was Mr. John Harnly, President of Foundation Design (and also Engineer of the Year), Rochester. Members participated in a seminar last February that was given by Dr. Pat Fogarty of the College Council. Next year the chapter plans to have seminars on leadership in technology. Officers: John Trentini (President); Daniel Hayden (Vice-President); Terry Vossler (Secretary); Stephen Miller (Treasurer).

GAMMA BETA (University of Dayton): On March 26, 1988 the chapter held initiation and a banquet at the Engineers' Club of Dayton. Among the inductees were two honorary members: Brother Raymond L. Fitz, SM, president of the University of Dayton and an electrical engineer; and Mr. Richard A. Anduze, a member of the faculty of chemical processes technology. The featured speaker was Mr. Glenn Opp, a teacher from Toledo, who delivered an entertaining talk. Richard Kiko, chapter president, 1987-88, received the Robert L. Mott Award for outstanding chapter senior member. The L. Duke Golden Award to the outstanding graduating senior of 1987-88 was given to Edward Johnson, who earned a 4.00 GPA in industrial engineering technology. The chapter appreciates the outstanding guidance of its new adviser – Professor James Courtright. Future plans include fund-raising. Officers (1987): Richard Kiko (President); Scott Daniels (Vice-President); Susan Sliwa (Secretary); William Hagan (Treasurer). Officers (1988): Steve Berg (President); Jon Tangeman (Vice-President); Kathy Murphy (Secretary); Vince DiCaprio (Treasurer). Officers (1989): Kevin Moeder (President); Charles Cardone (Vice-President); Monica Pepiot (Secretary); Steve Adama (Treasurer).

Left to right, front row: Daniel Deming, Stephen Meissner, Alan Scanandoah, Pamella Smith, Albert Neveu, Frank Perry, Daniel Tuttle. Back row: Peter Artz, Daniel Damon, Jeffrey Klajbor, Robert Karinchak, John Harding, Donald Schweizer, Steven Schipp, Joseph Gifford.



GAMMA ALPHA (OMI College of Applied Science, Cincinnati): On October 12, 1987 the chapter inducted Dean Fritz Kryman of OMI College of Applied Science as an honorary member. On May 27, 1988 the chapter held its annual initiation ceremony and also presented Professor George B. Marketos with its Academic Achievement Award for his outstanding efforts in teaching mathematics to the students of OMI College of Applied Science. Since the college is moving to a new campus in the fall of 1989, the chapter is planning to fund and erect the Tau Alpha Pi key-monument on the new site. Tutoring students and presenting the Academic Achievement Award to deserving faculty will continue. Officers:
Jennifer Kegg (President); George A. Spaeth (Vice-President); Matthew M. Scheid (Secretary).
GAMMA EPSILON (DeVry Institute of Technology, Columbus, Ohio): The chapter held its 1987 initiation and banquet on September 23, 1987. Mr. Ed Steward, Director of Graduate Placement, delivered the keynote talk, and Dean Jim Bryand (E.E.T.) congratulated the initiates. On September 22, 1988 the chapter held its 1988 initiation and banquet. Honorary membership was extended to Dr. Shakti Chatterjee for his excellence in instruction and student relations. Mr. Paul Salopek of General Dynamics, Columbus, was the guest speaker. Future plans include the creation of display cases that will illustrate the meaning and responsibility of Tau Alpha Pi membership. Also displayed will be plaques bearing names of past and present members. Officers (1987-88): Dane Hubbard (President); Bob Femald (VicePresident); Jack Kiatitanannrm (Secretary); Jeff Loose (Treasurer). Officers (1988-89):
Christopher Logan (President); Lynette Zelin (Vice-President); Lisa Lumpkins (Secretary); Richard Fischer (Treasurer).

Left **to right: Donald J. Kish, Jennifer Kegg, Daniel J. Ulrich, Alan S. Flege, Jeffrey E. Farmer, Laura A. Ramsey, Mark E. Chollett, Matthew M. Scheid.**

GAMMA ETA (University of Akron): The chapter held its initiation and banquet on April l[5],j 1988. Fund~ raising activities will continue, and efforts will be increased to promote the visibility of Tau Alpha Pr on campus. Officers: Frank Aglioti (President); Glen Springer (Vice-President); William Boston (Secretary); Dan Smith (Treasurer).

GAMMA THETA (University of Toledo): The chapter held initiation ceremonies and banquets on January 16, 1988 and on November 20, 1988. Activities include a large painting of the Tau Alpha Pi emblem; participation in the Engineering College "Technorama" open house on February 21, 1988; and contribution to the "Senior Gift Project" sponsored by the Alumni Foundation. Officers (1987-88): Jeffery L. Wilson (President); John B. Wittmann (Vice-President); Jeffety J. Kiefer (Secretary-Treasurer); Stephen J. Johnson (Escort). Officers (1988-89): James R. Onago, Jr. (President); Jan K. Teague IT (Vice-President); Karen S. Kalouria (Secretary-Treasurer); Christopher E. Schroeder (Escort).

Left **to right, front row: Tom Cuip, }1~ank Aglioti, lèrry** Ellis, Robert **McCarmn, Dale Hart, Cheryl Hamilton. Second row: Jeff Geither, Dan Smith, Glen Springer. Thini** row: William **Boston, Dennis Sunde, Paul Bognar, Daw Miller, Theodore Suzelis, Ron King. Fourth row: John** Karpinski, Prof. **John Edgerton, Nolan Cartner, James Danko,** Norman **Sorkin, Stew Buclier.**
Left **to right,** kneeling: Prof. Frederick **J.** Nelson and Prof. Richard **L. Curran. Standing:** Robert R. **Hallett, Christopher E. Schroeder, Dean R. Rochester, Maury J.** Hall, **Karam S. Kalouria, Stewn M. Tinnel, James R. Onago, Jr., Che-Jen Chen, Tim C. Walton, Jan K.** 'R~ague **H, Paul G. Bruggeman.**

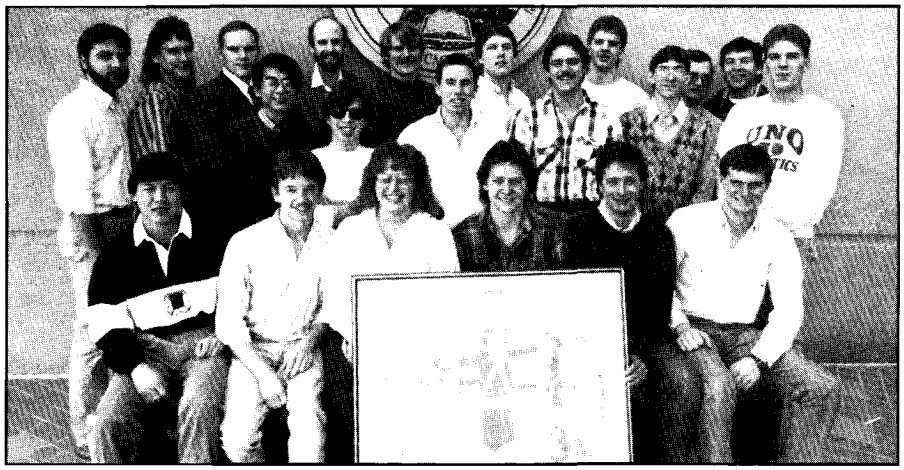
DELTA BETA (Northeastern University): The chapter held its initiation on June 6, 1988. Members of the chapter assisted the university by providing representation at the annual School of Engineering Technology freshmen orientation. Future plans include touring career-related places of business such as Prime Computer and Honeywell Bull, the Boston Museum of Science, and the Computer Museum. The chapter hopes to be able to contribute financially to the university's new library. Officers: Daniel A.Bradford (President); Michael Dugas (Vice-President); Dewey Schramm (Secretary).

DELTA EPSILON (Central New England College): The chapter held its induction on Maith 18, 1988. Dr. Paul Ryan, Provost of the College and a charter member of Delta Epsilon chapter, was guest speaker. In a moving address, Dr. Ryan welcomed the inductees and impressed upon them both the honor and the responsibility of Tau Alpha Pi membership. A reception for their guests followed. Chapter plans for the coming year include inviting guest speakers from area businesses (such as Data General Corporation) and technology-related industries; continuing to increase the visibility of Tau Alpha Pi on campus; improving communications between the active membership and alumni to keep them informed of, and welcome their participation in, chapter activities.
Officers: J.P. Beckta (President); Clifford Albrecht (Vice-President); Norma Brown (Secretary, 1987-88); Mark Kelly (Secretary, 1988-89); George Clark (Treasurer); Donna Thurlow (Alumni Liaison). The chapter elected Ms. Thurlow to sit on the College Alumni Board in this the one-hundreth anniversary of Central New England College.

EPSILON ALPHA (DeVry Institute of Technology, Kansas City): The chapter held initiation ceremonies and

banquets in October, 1987 and February, 1988. The chapter asked the DeVry administration to extend recognition to Tau Alpha Pi members at commencement. Future plans include having guest speakers from local companies and sponsoring a fund-raising raffle. Officers: Scott Schroeder (President); Mark Foxhoven (Vice-President); William Erickson (Secretary); Ted Davis (Treasurer).

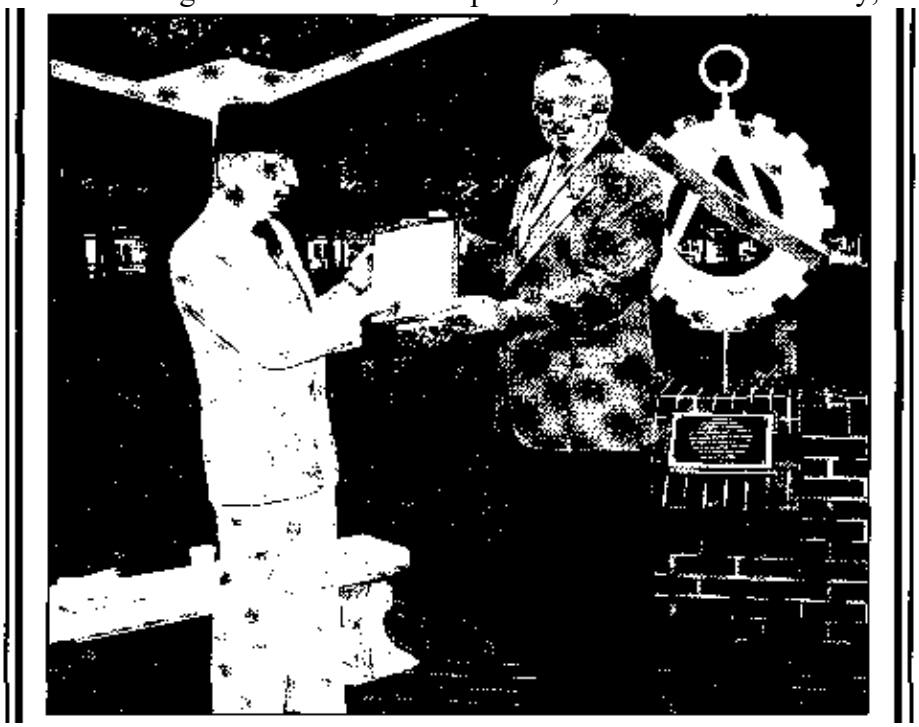
Left to right, front row: Pichit Pathipvanich, Klay Kunkel, Kim Campbell, Greg Bradford, Dave Imming, Ted Davis. Second row: Hung Nguyen, Dave Sedovic, Preston Gilmer, Ken Nagorski, Jeff Kuhlmann, Keith Olberding. Third row: Dale Dvorak, Jeff **Stauffer, Jay Sayers, Scott Schroeder, Scott Kelly, William Erickson, Mark Foxhoven, David Drost, Mike Johnson.**



HONORS FOR PRESIDENT CHESHIER

SOUTHERN COLLEGE OF TECHNOLOGY

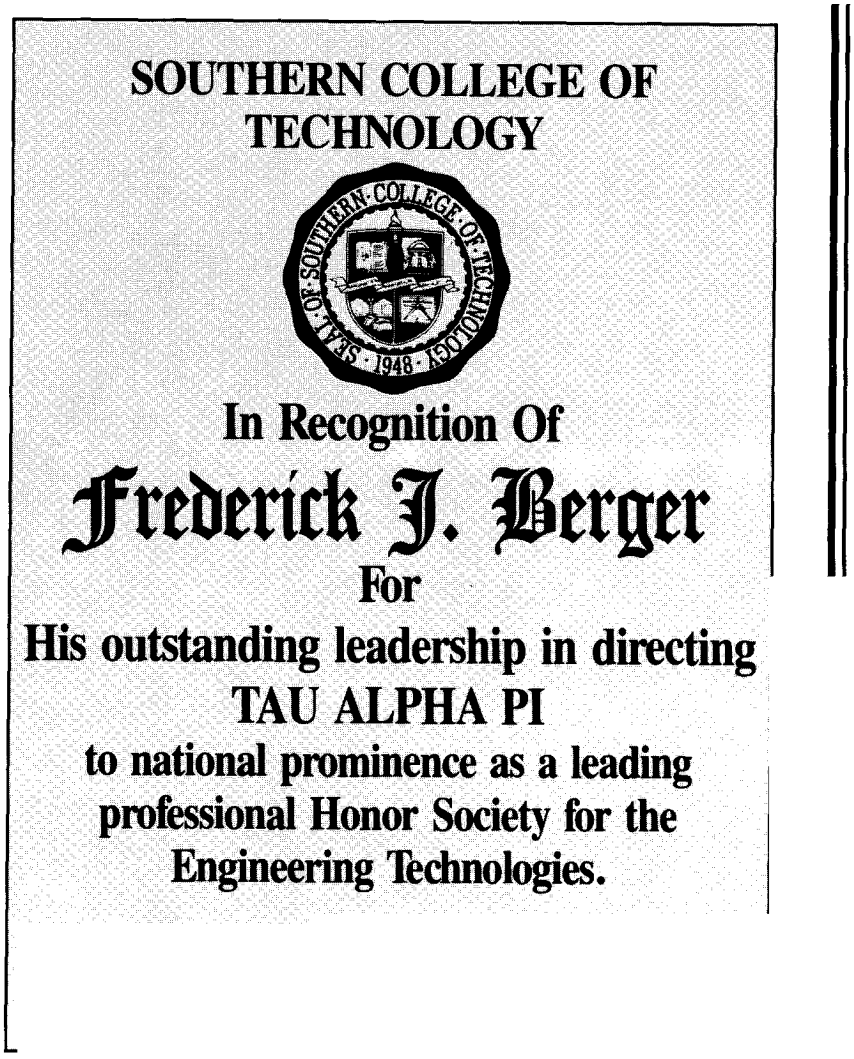
President Stephen R. Cheshier (right) is honored by Executive Director Frederick J. Berger (left), who presented him with an engraved charter commemorating the thirty-fifth anniversary of Alpha Alpha Chapter and, in addition, an engraved pendant in appreciation of outstanding service to the Tau Alpha Pi, National Honor Society, Engineering Technologies.



TAU ALPHA PI KEY-MONUMENT

SOUTHERN COLLEGE OF TECHNOLOGY

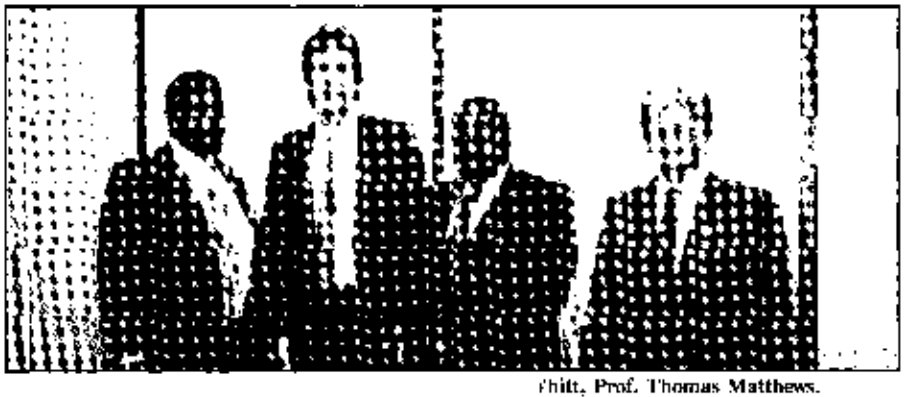
HONORS FOR EXECUTIVE DIRECTOR FREDERICK J. BERGER



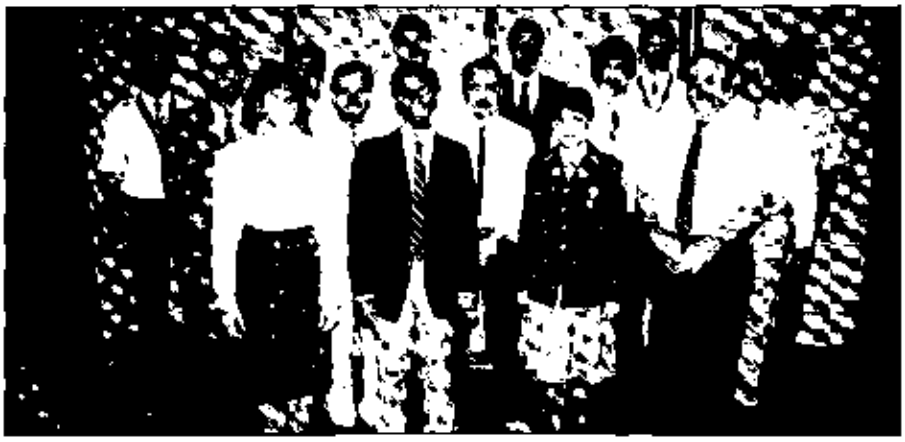
ZETA ALPHA (University of Houston, Central Campus): The chapter has been actively involved in the college's fund drive to raise monies to upgrade present facilities and purchase new equipment. The Dean's Council, of which Zeta Alpha is a member, and the alumni organization are spearheading the drive. The chapter wishes to thank Professor Berger for his assistance to Zeta Alpha and his efforts in its behalf. Future plans include casting and dedicating the Tau Alpha Pi key-monument to be placed at the entrance to the College of Technology and also developing a computer data base of members. Officers: Robert Rosier (President); Dale Cooper (Secretary-Treasurer).
Left to right: Robert Rosier, Gregory Barneburg, Mark V

ZETA GAMMA (Texas A and M University): The chapter held its initiation and banquet on April 14, 1988. Work on the replica of the key-monument is in the final stages. Dedication is expected to take place at the end of April or in May. Future plans emphasize promoting the visibility of Tau Alpha Pi on campus through the mounting of the replica and designing of T-shirts for members. Officers (1987-88): Steven Felux (President); Jay Bierwagen (Vice-President); Brittan Walker (Secretary); Joe Clinton Cook (Treasurer). Officers (1988-89): Brittan Walker (President); Mike A. Hluchanek (Vice-President); Joe Clinton Cook (Secretary); Michelle S. Cohen (Treasurer).

Left to right, first row: **Michelle S. Cohen, Uday K.** Aggan~al, **Luz K. Dlugos, Dr. Albert B. Grubbs, Jr. Second row: Charles W.** Parce, Joe **C. Cook, Mike S. Behrend, Alan D.** Raabe, **Russell D. McDonald. Third row: Brittan D. Walker, Glenn D. Hermes, Steven R. Felux. Richard W. Stnnchmkpr~**



Phitt, Prof. Thomas Matthews.

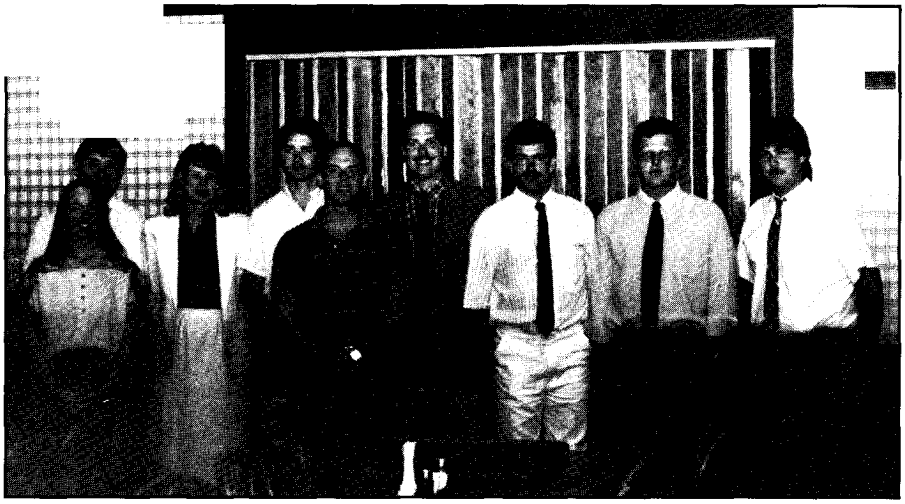


ZETA DELTA (Texas Tech University):The chapter held two initiations, one on November 9, 1987, and another on February 16, 1988. The chapter is planning to conduct a student attitude survey on the Engineering Technology department, its curriculum and staff. The results will be presented to the faculty and the Industrial Advisory Board. The Outstanding Instructor Award was presented to Professor Alayyan. Members will participate in University Day to supply information on Tau Alpha Pi and the engineering technologies. Officers (1987-88): William H. Ferguson (President); Dane! Russell (Vice-President); Ken Craft (Secretary-Treasurer). Officers (1988-89): William Ferguson (President); Ken Craft (Vice-President); Dwight Fruge (Secretary).

ETA BETA (University of North Carolina, Charlotte): The chapter held its fall initiation and banquet on December 12, 1987, and its spring initiation and banquet on April 30, 1988. Among its activities was a tutoring service in first-level engineering-technology courses, chemistry, and calculus. In addition, a diskette sale was held to raise money for the chapter. Officers (1987-88): Todd O'Daniel (President); Randal Hunsicker (Vice-President); Laura Hunter (Secretary); Francois Figaro (Treasurer). Officers (1988-89): Laura L. Mull (President); Wesley Allen Cribb (Vice-President); David Blackwell (Secretary); Mark Andrew (Treasurer).

THETA BETA (Old Dominion University): At press time, the chapter has not yet elected its officers for the fall. The untimely passing of its adviser Professor Leonard Hobbs caused postponement of most activities. Professor Hobbs will be missed. Professor Drew Landman of Mechanical Engineering Technology will serve as faculty adviser. Future plans call for the casting of a large Tau Alpha Pi key monument for the campus.

Left to right: Prof. **Catherine M. Ferman (Adviser), Randal Hunsicker, Laura L. Mull, Mark Andrews,** Tim **Satterfield,** Aaron **Robertson, Wesley Allen Cribb, David Blackwell, Todd O'Daniel.**



IOTA BETA (Penn State-Behrend College): The chapter held initiation on April 26, 1988. The chapter plans to become more visible through the sale of Tau Alpha Pi T-shirts and participation in other campus activities. Officers: Greg Paulsen (President); John Meckley (Vice-President); Ed Lucas (Secretary); Mike Tonini (Treasurer).

IOTA BETA (Penn State University, New Kensington Campus): Penn State at New Kensington Campus has recently expanded its program to include upper-division courses. On September 17, 1988 Iota Beta held its first initiation and banquet under the newly expanded academic program. In his complimentary comments to the members and guests, Professor Bernard Guss, former adviser, noted the growth in membership. He also indicated his willingness to help the chapter in its work and objectives. The present adviser Professor Joan Begolly and the officers were recognized by Executive Director Frederick J. Berger for their excellent work in arranging the initiation-banquet. Professor Berger delivered the keynote talk on "Excellence in Scholarship" and distributed copies of the *Journal.* The group heard complimentary comments from other speakers: Dr. Robert Arbuckle, Executive Officer, extended congratulations, distributed keys and certificates, and offered assistance in the preparation of the key monument; Dr. Robert Carhanan, Director of Academic Affairs, complimented the group and encouraged continued scholastic achievement. Future plans include raising funds to finance the key-monument, tutoring, and guest speakers. Officers: Beverly Lindsay (President); Peter Khrahe (Vice-President); Edward Skinger (Secretary); Jeffrey Gengler (Treasurer and Escort).

Left to right: Dean J.A. 'i~ese; Professor **J.H. Lederle, who** cast **the Tau Alpha Pi emblem shown; Professor Leon A. Hobbs.**

LAMBDA DELTA (Greater New Haven State Technical College): The chapter held its initiation ceremonies for new members in the fall of 1987 and again in the spring of 1988. During the spring ceremonies, Prof. Cyprian Ukah was inducted as a faculty adviser. Following the spring induction ceremony, a dinner was held for all members and their guests to recognize and honor new members inducted during the year. Dr. George Harris, President at Greater New Haven, delivered the keynote address. Lambda Delta plans to continue its involvement in various college activities to make students and faculty more aware of the Society and its importance. The chapter will miss Professor Ralph Bailey, former faculty adviser, who passed away suddenly. Professor Cyprian Ukah will serve as faculty adviser. Officers: Douglas Giardini (President); Harold Hansen (Vice-President); Laurel Lagerstrom (Secretary); Peter Cordone (Treasurer).

MU GAMMA (Spartanburg Technical College): The chapter held initiation on May 16, 1988. The chapter welcomes its new adviser – Professor George W. Bruce, who teaches electronics engineering technology and is at present department head of EET. Professor W.T. Divvers, founder of the chapter, will continue to serve the chapter although no longer in the capacity as faculty adviser. Officers:
Sonya Vaughn (President); Ann Ballenger (Vice-President); Igbal Alimohamed (Secretary); Melanie Smith (Treasurer).

NU BETA (Southern Illinois University, Carbondale): Chapter members participated in the college's open house during Engineers' Week and provided components to several electrical labs. James Bryan, former vice-president of Nu Beta, was president of Student Council during the year 1987-88. The chapter plans to participate in the New Student Orientation Program and to encourage academic excellence by informing freshman about Tau Alpha Pi. Officers: Thomas Grobengieser (President); Christopher Calvin (Vice-President); Durward Johnson (Secretary); Scott Grewe (Treasurer).

NU GAMMA (DeVry Institute of Technology, Lombard, Ill.): The chapter held induction ceremonies and a banquet in April, 1988. It reinstated committees to plan fund-raising, assistance at graduation, and the "Big Bash Car Week." Officers: Thea Larson (President); Timothy Purcell (Vice-President); Alfonso Morin, Jr. (Secretary); Gregory D. Terpin (Treasurer).

NU DELTA (DeVry Institute of Technology, Chicago): The chapter held its initiation and luncheon on June 8, 1988. One Nu Delta member Dave Donkers became a regional finalist in the [EEE paper contest. Among its activities the chapter places priority on increasing the visibility of Tau Alpha Pi in order to attract deserving students and encourage high achievement. The chapter plans to involve alumni members with professional careers in the job placement and

career development of student members. Officers (1987-88): Timothy Stremcha (President); Jordan Teel (Vice-President); Frank N. Tokarz (Corresponding Secretary); T.R. Manning (Recording Secretary); Carol Chang (Treasurer). Officers (1988-89): Susan Hewett (President); Jose Quintero (Vice-President); Carey Tanner (Secretary); Rommel Gandeza (Treasurer); Lori Carter (Sergeant-at-Arms).

Left **to right, seated: Frank N. Tokarz, Timothy Stremcha, Jordan** Ièel, **T1~d Hancock. Standing: Jeff Pankonin, T.R. Manning, Eric Watson, Amy Chu, Susan He~sett, Mahesh Patel, Ron Hunt, Rommel Gandeza,** 'I~d **Whitney, Gerald Browne, Dr. Dimitrios Kyriazopoulos, Dean Smith, Paul Foster, Vedat Ozdemirler,** Nestor **Acosta, Dave Donkers, Ron Sohn, Jerry McConnel, Edgar Litwitz, Jose Quintero, Adrian Smith, Lori Carter.**

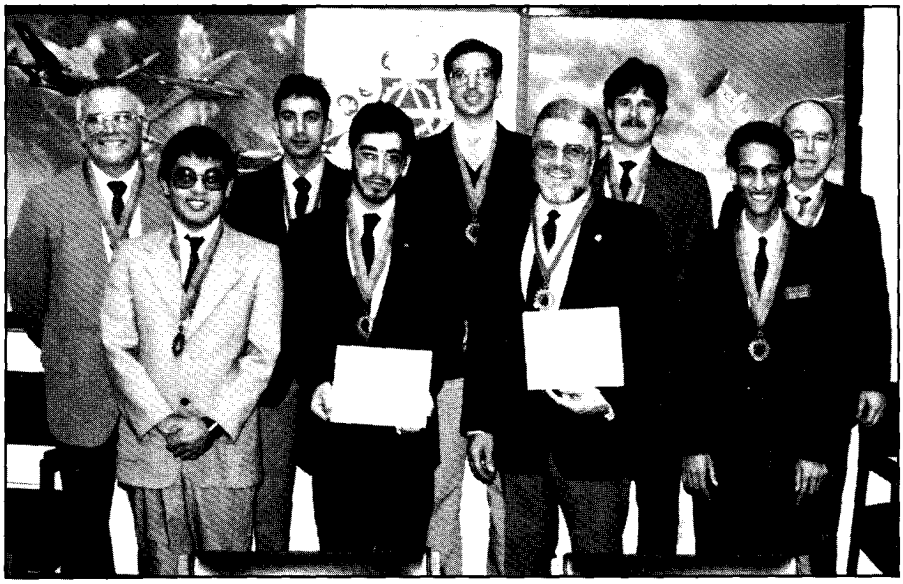
XI ALPHA (Cal Poly University, Pomona): On December 4, 1987 the chapter held its fall initiation and banquet. The featured speaker was Mark Arena!, a graduate of the engineering-technology program at Cal Poly Pomona and honorary member of Xi Alpha, who talked about how the program prepared him for industry. A question and answer period followed. On June 3, 1988 the chapter held its spring initiation and banquet. The guest speaker was a graduate of the ET program and former president of Xi Alpha Bill Donovan. Mr. Donovan holds seventeen United States patents and is a supervisory engineer at Rockwell International for undersea surveillance programs. Future plans include a tutoring service for engineering-technology students. Officers (1987-88): Michael Nielsen (President); Peggy Campbell (Vice-President); Gary Malcolmson (Secretary); Tom Ho (Treasurer). Officers (1988-89): David Shore (President); Jeff Senechal (Vice-President); Beth Horiuchi (Secretary); Gayle Deisinger (Treasurer).

Left **to right, first row: Tamara Minh Hong, Jeffrey P. Senechal, Arash Touski, David J. Prof. Fazal B. Kauser, Albert Kim Lam, Thanh Q. Nguyen, Thanh Lien, Viet Quoc Lam, Prof. John Buhr. Second row: Patrick A. Beresewicz, David W. Myers, Clark D. Freeman, Kirk W. Olsen, Mark Arenal, George N. Berecz, James Divinski, Dung Tn Nguyen.**

XI EPSILON (DeVry Institute of Technology, City of Industry, California): The chapter held its initiation on November II, 1988. The main function of the chapter in the past trimester was a science fair. Future plans call for inviting guest speakers and making the chapter more visible to encourage scholarly achievement. Officers: Suzanne Kotani (President); Raymond Tecotzky (Vice-President); Tim Sills (Secretary); Tiffany Lam (Treasurer).

XI BETA (Northrop University): The chapter held its initiation on December 2, 1987. Members have been active in cooperation with the Society of Engineering Technology in a tour of AVIALL facilities in Burbank and the Space Station Mock-up at McDonnell Douglas. They participated in Engineering Week, and Rostami-Tehrani, a Tau Alpha Pi member, was elected Engineering Technologist of the year. The initiation ceremony that took place on November 20, 1988 was somewhat special. The chapter extended honorary membership to Dr. John P. Mattei, Dean of the Institute of Technology. Dr. Mattei brought to Northrop University a very rich industrial experience as well as an enviable academic background. Also, in 1988, Professor James P. Todd became the chairman of the Engineering Technology department. Professor Todd, a member of Tau Alpha Pi, came to Northrop in 1979 to start the Xi Beta chapter and initiate the charter members. The chapter held a banquet on November 18, 1988 to celebrate its tenth anniversary, and the guest speaker was Dr. Mattei. The chapter is proud to announce that one of its graduating members, Ronald K. Corwin, received the President's Commendation Award. Officers: Peter W. Pereira (President); Jeffrey Frick (Vice-President); Robert Friedrich (Secretary-Treasurer).

Left to right, front row: Hiroaki Takaki, Hikmat A. Zogheib, Dr. John P. Mattei, Peter W. Pereira (President). Second row: Professor Rene H. Mulders (Adviser), Fadi Khater, Jeffrey Frick (Vice-President), Ronald Corwin, Professor James P. Todd.



OMICRON ZETA (County College of Morris): The chapter held its initiation and banquet on May 25, 1988. It also added one faculty adviser so as to represent each of the curricular areas. Members hope to be more active in advancing the visibility of Tau Alpha Pi on campus. Officers: Mark Tsonton (President); William Wenrich (Vice-President); Karl Stosch (Secretary); Jeffrey Dietsch (Treasurer); Christopher Gieda (Escort).

P1 ALPHA (Purdue University): The chapter held its initiation and banquet on April 10, 1988. Dr. Don Gentry, Dean of Purdue University School of Technology, was the guest speaker. The chapter presented awards for excellence in teaching to Pmfessors Mike Jacob (EET) and Bill Dalton (MET). Officers (1988): Jon Walter (President); Kevin Douglass (Vice-President); Alan Chan (Secretary.Treasurer). Officers (1987): Randy Knight (President); Daniel Kurikler (Vice-President); Doug Zielinski (Secretary-Treasurer).

Left to right, first **row: Daniel Kunkler, Randy Knight, Doug Zielinski. Second row: Denise Akers, Jon Walter, Chang Su Mitter, Douglas Boguslawski, Alan Chan, Kevin Douglass,** Prof. **Gene Nix. Third row:** Prof. **Bill Dalton, Kirk Mc Laughlin,** Joe **Dukehart, Stew Walker, Michael Buczek, Andrew Deutsch, Stew timer,** Andrew **Bergman.**

Left to right, front row: Kristine Westenberger, Mark Tsonton, Christopher Gieda, Michelle Frost. Second row: Prof. Joseph Robinson, Karl Stasch, Dung Pham, Henry Hanek, Brian Schuller, Kevin Tannesen, William Wenrich, Jeffrey Dietsch.

P1 EPSILON (University of Southern Indiana): The chapter conducted a raffle in order to raise funds. It will continue fund-raising activities in order to finance a Tau Alpha Pi award. Officers: David Baggett (President); Tom Gannison (Vice-President); Misty B. Wilkins (Secretary-Treasurer).

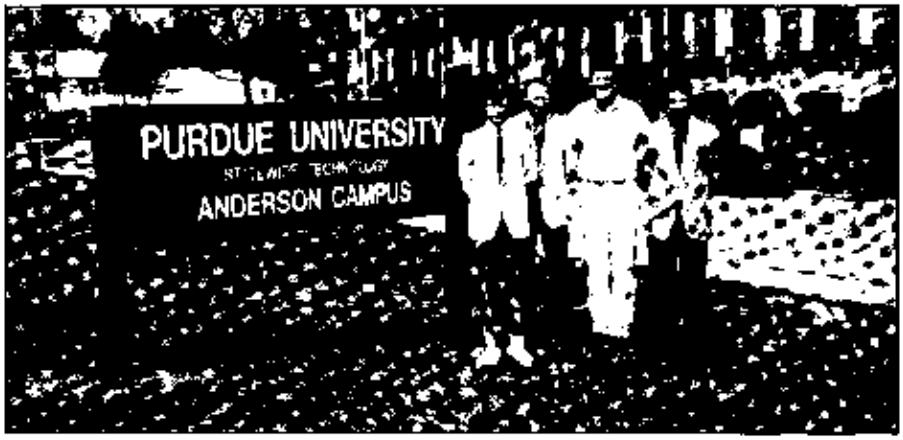
P1 ZETA (Purdue University, Anderson): The chapter held its initiation and banquet on April 24, 1988 – the first initiation since the chartering ceremonies in 1987. Professor Jack Beasley, Program Coordinator for Purdue, Anderson, was the featured speaker. The EET faculty were in 100% attendance at the dinner. Future plans call for inviting guest speakers from industry and government. Officers: James Barnes (President); Gerald Hoyt (Vice-President); Janet Graves (Secretary); Stan Dick (Treasurer).

P1 BETA (Purdue University School of Engineering and Technology, Indianapolis): The chapter held its initiation and banquet on April 21, 1988. Pi Beta chapter will sponsor a tour to the Corvette factory. In order to promote the visibility of Tau Alpha Pi, members will purchase T-Shirts with the Tau Alpha Pi emblem. Officers: Anita Werman (President); Roger Carison (Vice-President); Sharon Easley (Secretary).

P1 DELTA (Purdue University, Calumet); The chapter held an induction ceremony on March 11, 1988. In addition to the inductees and their guests, the chapter had in attendance Chancellor R.J. Combs and Vice Chancellor J. Yackel. Honors were extended to Professors R.L. Anderson, D. Korchek, N. Sorak, R. Bennett, CD. Rose, C.A. Stevens. Officers (1987-1988): R.E. Trzcinski (President); D. Demkovich (Vice-President); R.W. Thompson

(Secretary-Treasurer). Officers (1988-1989): Robert Thompson, Jr. (President); Ron Mazurowski (Vice-President); Nancy Takacs (Secretary-Treasurer).

Left to right, front row: Tony Gianguilio, Amy Cashman, Duane Martello, Michelle Atkins, Ronald Holder. Back row: Ron Mazurowski, James Kissee, Paul Norden, Dana DeLaney, John Smeltzer, Daniel Ziegler.



Left to right: Gerald Hoyt, Stanley Dick, Ken Heifner, James Barnes

RHO ALPHA (Colorado Technical College): The chapter held its spring induction and dinner on May 22, 1988. The keynote speaker was Colorado Tech President David O'Donnell, who talked on the importance of perspective after graduation. Future plans include activities to make Rho Alpha a dynamic chapter of Tau Alpha Pi. Officers (1988-1989): Hatem Elaydi (President); Barbara McCreary (Vice-President); M. Hodges and Bob Refior (Secretary-Treasurer). Officers (1987-1988): Barbara McCreary (President); John Andrews (Vice-President); Hatem Elaydi (Secretary); Greg Wagner (Treasurer).

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Left to right, front row: Prof. Marty Hodges, Billy Cox, Rajendra Zadoo, Trevor Robinson, Jesse Hendrickson, Lisolette Elleman, Barbara McCreary. Back row: Greg Wagner, Eric Cardenes, Kendall Wood, Brad Whitten, Mark Doubleday, Bill Duncan, James Dickens, Prof. Robert Refior, Joseph Reichert, Charles Morris.

RHO BETA (University of Southern Colorado): The chapter held its initiation and banquet on April 22, 1988. Mr. James A. Driscol, Manager of Employee and Public Relations at Unisys Corporation, was the featured speaker. He recounted the events that led his company to establish a manufacturing plant and distribution center in Pueblo. The chapter is in the process of selecting advisers from each technology curricular area. Officers: Cheryl Frierson (President); Tracy Drummond (Vice-President); Mark Gazette (Secretary-Treasurer).

Left to right, kneeling: Mark Gazette, Tracy Drummond, James Yerks, Dan Higby, Musaad Said. Second row: Prof. Larry Womack, Prof. Joseph Cheng, Prof. Warren Hill, Michael Vialpando, Yung Edwards, Prof. Richard Greet, Vance Fossinger. Third row: Sean Mello, Cheryl Frierson, Chris Sanches, Ronald Reed. Fourth row: Craig Hageman.

RHO GAMMA (Metropolitan State College, Denver): On April 30, 1988, the chapter held its initiation and dinner. The keynote address was given by Mr. Tom Richardson, a graduate of the college and project leader at Martin Marietta. For the future, the chapter is planning a fund-raising project and also an Outstanding Faculty Award to a faculty member from the Civil, Mechanical, and Electronics Engineering departments for the greatest contribution to "challenging and inspiring students." Officers: Roger G. Lever (President); Michael E. Lehmann (Vice-President); Donald F. Farr (Secretary); Steven A. Siler (Treasurer).

SIGMA BETA (University of Central Florida): The chapter held its initiation and banquet on April 23, 1988. Dr. Gary Whitehouse, Acting Dean of Engineering, was initiated as an honorary member and was the guest speaker.

Officers:
William E. Ross (President); Lon G. Coffin (Vice-President); Brian K. Johnson (Secretary); Dewey Walker (Treasurer).

SIGMA GAMMA (St. Petersburg Junior College): The chapter held its initiation on November 18, 1987. Members have been active in arranging tours of local industries and the Kennedy Space Center and providing tutoring for engineering-technology students. They also provided electronic demonstrations during open house last fall. Future plans call for another trip to the Kennedy Space Center, participation in open house, and having speakers and displays during National Engineers' Week. Officers: Cheryl Ginader (President); Jon Baskin (Vice-President); Melanie Plantz (Secretary); Scott Davis (Treasurer).

UPSILON BETA (Arizona State University): The chapter held its spring initiation and banquet on April 8 and April 22, 1988, respectively. The faculty adviser board has been increased from one (Professor James E. Maisel, Department of Electronics and Computer Technology) to three. Professors Richard Lamerand (Manufacturing Engineering Technology) and William Reed (Aeronautical Technology) are the new faculty advisers. Officers: Laura Lievero (President); Tim Sherman (Vice-President); Brennan Toshner (Secretary-Treasurer).
Left to right, front row: Tim **Sherman, Laura Lievero, Brennan Toshner. Second row: David Knaupp, G. Wesley Reid, Shehryar Taher.**

UPSILON DELTA (DeVry Institute of Technology, Phoenix): The chapter held its initiation and banquet on May 26, 1988. To promote its visibility on campus and academic excellence, the chapter had a bronze plaque of the Tau Alpha Pi emblem mounted in the main entry to the campus. The chapter also began a tutoring program and fund raising. Members donate their time as tutors, and the monies paid by the Student Services department for the tutoring are paid to the chapter. Officers (1987-88): Jeffrey Lunsford (President); Bryan Spicer (VicePresident); Greg Fieth (Secretary); Dianne K. Gamble (Treasurer). Officers (1988-89): Kenneth Minor (President); Gerald Schock (Vice-President); John Crowley (Secretary); Jim Carpenter (Treasurer).

PSI BETA (Nashville State Technical Institute): The chapter held its most recent initiation on November 11, 1988. Special recognition was extended to the chapter's former president Chester Mann for his outstanding involvement with the chapter. When the new library building is completed in January, the chapter will be given office space. Officers: Caroline Hickey (President); Don Lecroy (Vice-President); Scott Zaft (Secretary-Treasurer).
Left to right, front row: Brian Spicer, Andrew Aagaard, Keith Kreutzberg, Jeffrey Lunsford.
Middle row: Leslie Mizuha, Eric Miller, Mike Adams, Anthony Arns, Douglas Massey, Dennis Schuster, Stephanie Long, Dennis Barker, Dianne Gamble, Tony Moore, Greg Teter, Mike Jones,

Prof. Martin Halperin. Back row: Patrick Miller, Rusty Nelson, Stephen Morgan, Tod Burres, Shannon Cosgriff, Bryan Brown, Greg Fleth, Ronald Ho, Steve DeWitt, Doug Johnson, Brian Eklund, Dr. Patton Hedrick.

Left to right, front row: Don Lecroy, Caroline Hickey, Prof. Innocent Usoh, Scott Zaft. Second row: Mary Rudolph, Rachiel 1-1. Lo, Darren Carter, James Harnage, Malcolm Ault, Anitra Brownell, Bill Stem, Rudy Forster. Back row: Chester D. Mann, Steve Shumate, John T. Cothron, Clark A. Rowland, Kenneth W. Curtis, John H. Gregg, Jeff P. Milbourn, Barry G. Taylor.

PSI DELTA (State Technical Institute, Knoxville): The chapter held initiation ceremonies on April 10, 1988. A dinner followed at a local restaurant. On May 21 the group met at the Smoky Mountain National Park to hike to Laurel Falls. The chapter is seeking funding from student government to purchase a plaque recognizing Tau Alpha Pi and listing members. Officers: Brad Etters (President); Mary Robertson (Vice-President); Gordon Davies (Secretary-Treasurer); Ken Laucher (Student Government Representative).

ALPHA DISTRICT OF COLUMBIA (University of the District of Columbia):
The chapter honored its initiates at a banquet on March 25, 1988. Plans include holding a food and clothing drive for the homeless, establishing tutorial services for engineering-technology students, preparing a booklet about the engineering-technology program at UDC and distributing it in area high schools, and constructing a plaque and banner for the chapter. Officers: Leonie Stephenson (President); Jerome Austin, Jr. (Vice-President); Robert G. Norris (Secretary); Innocent Olengue (Treasurer).

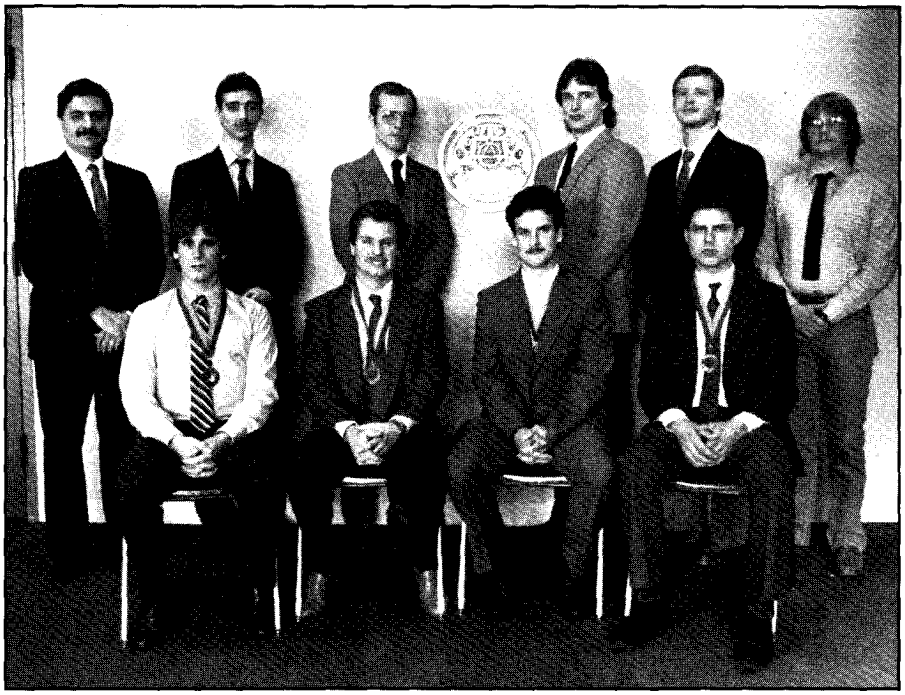
ALPHA DELAWARE (Delaware Technical and Community College): The chapter's secretary-treasurer Walter Kalisty was named outstanding graduate of the college and of the engineering-technologies program, and he was awarded a scholarship to continue his education. Among their ongoing activities chapter members have been helping students by offering computer disks, drafting paper, and other similar supplies at very reasonable costs. An awards banquet is planned for 1988-89. Officers: Drew Boyce (President); Walter Kalisty (Secretary-Treasurer).

Left to right, front row: Robert Muney, Drew Boyce, Richard Reynolds, Walter Kalisty. Back row: Domenick Murabito, John Balcerak, Prof. Charles Kenney.

ALPHA MICHIGAN (Lake Superior State University): The chapter has been active in several undertakings. Members were instrumental in setting up a monitor information system, and screens throughout the campus display college news. They also reinstituted the campus radio station. They are just now completing a speech synthesizer for the handicapped. Last but not least, they have made an aluminum casting of the Tau Alpha Pi emblem from the patterns by Prof. Berger. Another piece of chapter news is that the faculty adviser Professor Dimitri Diliani is leaving. He established the Alpha Michigan chapter, and he will be missed. The new adviser will be Professor Pat Grounds, Head of the Automated Systems Engineering Technology section. Officers: Larry Rutt (President); David McGuire (Vice-President); Jerzy Pryzbyl (Secretary); Eric Samp (Treasurer).

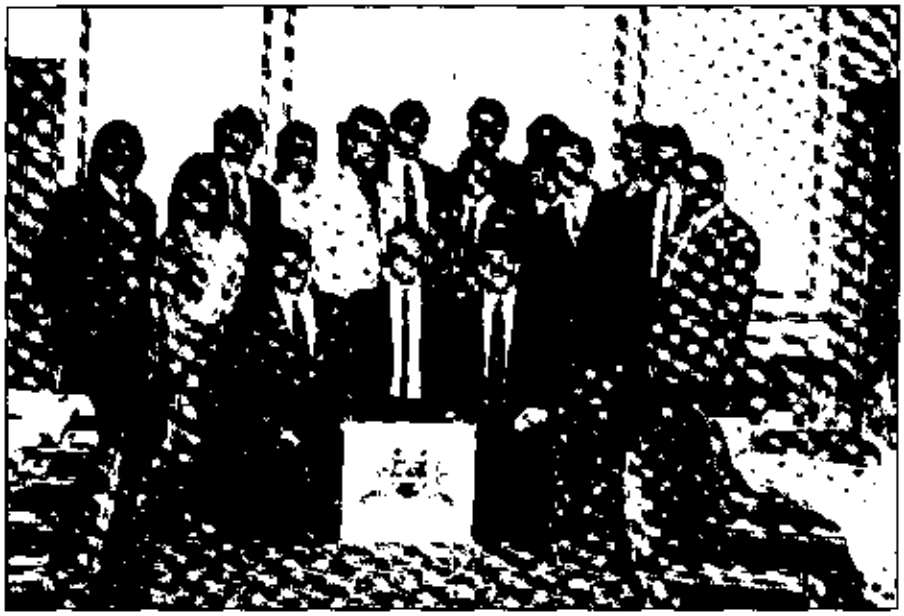
ALPHA WISCONSIN (Milwaukee School of Engineering): The chapter held its initiation and banquet on March 22, 1988. In October, 1987 the chapter unveiled a new display case that holds the names of members and serves as a message board for chapter activities. Future plans include seminars to inform incoming freshman about engineering-technology programs, and sophomores about technical specialty choices. Officers: Gregory LeGrave (President); Stephen Ferkel (Secretary-Treasurer); Stephen Kobs (Activities Coordinator).

Left to right, front row: Eric Samp, Larry Ruth, David McGuire, Jerzy Pryzbil. Back row: Prof. Dimitri Diliani, Richard Avery, Wade Thompson, Mike Baker, Lonnie Borntreger, John Wagner. (Note the mounted aluminum casting of the Tau Alpha Pi emblem.)



ALPHA WISCONSIN

Left to right, front row: Armin Klomsdorf, Alan Gilgenbach, Steve Frisch. Second row: Lillian Rodriguez, Nick Malett, Steve Kobs, Todd Heraly, Alan Olsen, Dr. Robert Strangeway. Back row: Curt Peterson, Steve Sadowski, Mary Ellen Aleksza, John Lofgren, Steve Schmitt, Greg Le Grave, Steve Ferkel, Kevin Retlich



Request for Articles

The publication committee ofTau Alpha Pus interested in receiving articles on engineering technology for possible publication in the Tau Alpha Pi *Journal.* Individuals who have articles or ideas on engineering technology which they feel would be of interest to other engineering technology educators and students should send two copies of their work to:
Professor Frederick **J. Berger, Editor, Tau Alpha P1 Journal, P.O. Box 266, Riverdale,** New **York 10471.**

Papers on new and innovative programs, the employment picture, utilization of technology graduates, instructional innovations, and book reviews will be given priority.
Please pass this request to other colleagues at your campus so that they too may participate in furthering the professional status of the engineering technology students and the profession.
Parts of the *Journal* will be going to the printer during the first week of April. We need the articles and your news to ensure that your chapter's activities will be included and given national recognition when the *Journal* is published.
.
If pictures are included, they should be black and white on glossy paper.

HONOR ROLL

The officers and members of Tau Alpha Pi National Society hail and greet the following affiliate chapters newly elected from January 1988 to June 1989. We commend the institutions for having the foresight to initiate affiliate chapters of Tau Alpha Pi at their respective campuses. We congratulate these charter members and say to them that they should be proud of their designation, for Tau Alpha Pi National Honor Society for students in Engineering Technology is the most selective of all honor societies, accepting only the top 4% of all associate and baccalaureate technical students enrolled at a college or university.

We hope that the charter members will establish a solid and firm foundation so that those who follow them will be able to build upon it. Our best wishes for success in the endeavors of Tau Alpha Pi.

Dr. Frederick J. Berger
Executive Director/Secretary
Thu Alpha P1

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Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:

I. using their knowledge and skill for the enhancement of human welfare;

II. being honest and impartial, and serving with fidelity the public, their employers and clients;

III. striving to increase the competence and prestige of the engineering profession; and

IV. supporting the professional and technical societies of their disciplines.

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

2. Engineers shall perform services only in the areas of their competence.

3. Engineers shall issue public statements only in an objective and truthful manner.

4. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.

5. Engineers shall built their professional reputation on the merit of their services and shall not compete unfairly with others.

6. Engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity of the profession.

7. Engineers shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.