THE STATE OF THE SCHOOL: THE FINANCIAL PARADOX

Message from Dean Hulbert

The School of Engineering, by several yardsticks, is finishing the best year in its history. The School has had an excellent year in recruiting undergraduate students, and next Fall we are anticipating our largest freshman class since the Korean War. While many engineering schools are experiencing serious enrollment problems, Tulane's next freshman class should be up by 25 percent. We are anticipating an enrollment of approximately 25 coeds in the freshman class. This would give the School of Engineering one of the largest female enrollments in the country. Professor Johnny Martinez, the Associate Dean for Undergraduate Studies, has done an outstanding job of coordinating the School's recruiting efforts.

The School of Engineering had the largest dollar support of sponsored research in its history, and we are anticipating approximately a million dollars in sponsored research in the coming fiscal year. The sponsored research will contribute approximately $200,000 in overhead expenses to the University, and will provide $100,000 in salary relief in the School of Engineering.

We have initiated new academic programs in Computer and Information Systems, Engineering Management, and Biomedical Engineering. These programs have contributed significantly to our increased enrollment and our increased base of sponsored research and they will provide a much greater flexibility for our students.

Dr. R. V. Bailey has resigned as Head of the Department of Chemical Engineering to devote his full-time efforts to directing the School's graduate and research activities. The new head of Chemical Engineering is Dr. Duane F. Bruley, one of the country's foremost experts in process dynamics and control in the chemical process industry. Dr. DeWitt Hamilton has resigned as the Head of the Department of Mechanical Engineering to return to full-time teaching and research. The new head of Mechanical Engineering (effective July 1) is Dr. David Wieting. Dr. Wieting is internationally known for his work in the field of biomechanics.

Two new programs which I am persuaded can be major contributing factors to the success of the engineering school have been initiated. We have established a Tulane Engineering Foundation and the Tulane Engineering Industrial Associates Program. One of the ways in which YOU can help your school would be to encourage your company to support the Industrial Associates Program.

The School of Engineering finds itself in a real paradox. It has just had the greatest year in its history, yet finds itself under its greatest financial constraint. Tuition provides approximately 40 percent of the operating costs of the School; the research programs support the education of the majority of our graduate students, and provide about 30 percent of the operating expenses of the school. The School must raise approximately 30 percent of its operating expenses from external sources. Thus, your school finds itself needing the support of all of its alumni and friends. With your support, the School of Engineering will accomplish that margin of excellence toward which it is constantly striving.

PAY YOUR STE DUES TODAY

RESEARCH REPORT

Dr. Raymond Bailey, Associate Dean for Graduate Studies and Research, reports that since July 1, 1973, approximately 35 research proposals have been submitted by the School of Engineering. Almost 90 percent of the faculty are now engaged in research and either have sponsored projects or have proposals pending. The volume of research in 1973 should be the highest ever.

In addition to the research in the traditional areas, current programs include projects in the biomedical area, environmental studies, innovative teaching and research studies, agricultural optimization through plant growth models, medical data acquisition systems, engineering education for minority students, natural resource management, econometric modeling, design and analysis of electric transformers and transmission lines, a variety of energy related problems, improved biomechanical design, etc.

Annual Senior Awards Program Dinner
April 17, 1974

The annual dinner which the Society sponsors to honor the seniors and faculty of the School of Engineering will take place on April 17 in the Kendall Cran Room of the University Center. The time is 6:30 p.m. A feature of this dinner is the presentation of honors and awards to outstanding seniors.

Dan Kirkley, President of the Society promises an interesting program with the School's new Dean, Dr. Samuel F. Hulbert as the dinner speaker.

Members of the Society are invited to attend the buffet dinner. The cost will be $5.00 and reservations may be made by calling the Dean's office (845-6105) by Monday, April 15.
President's Message

Dean Hubert's financial report to the Engineering School Board of Advisors continued to show a large operating deficit. The Dean has proposed and has acted upon several ideas to reduce the deficit. The officers of the S.T.E. have charted a course for the next few years which will be keeping with the Dean's aims.

Tulane's School of Engineering requires continuing and additional support to maintain its excellence. To facilitate this end the S.T.E. will do more to put Tulane Engineering in the forefront of the community. We expect to do this with publicity, luncheons, breakfasts, or whatever type of event can bring together Talanians, and attract new Tulane Supporters. At these gatherings we will discuss the problems, aims, and developments of the School of Engineering, as they occur, and hopefully attract and hold much needed help. Further, we hope that the efforts will help promote a feeling that New Orleans is a Tulane Town - kindred to the Tulane Family.

We ask for your support of the S.T.E. with dues, and hope you can contribute a little more than usual to help get S.T.E.'s proposed programs started.

I wish each of you has a rewarding year.

Sincerely, Daniel E. Kirkley Jr.
President 1973-1974

Industrial Associates Program

Dean Samuel F. Hubert has announced the inauguration of the Engineering Industrial Associates Program. This new program is designed to increase the effectiveness of the communication between local industry and the Engineering School.

"The industrial associates program will allow the School to provide increased services for industry, particularly in the area of seminars and short courses," Dean Hubert explained. "Perhaps more important, the program will provide a vehicle for industry to have a greater input into the design and research projects of both graduate and undergraduate students."

Companies subscribing to membership as Associates will receive special benefits, such as opportunities for participation in continuing studies programs for practicing professionals, effective faculty consultations concerning special research, use of certain University facilities, and ready access to current research data, among others. Dr. Frank J. Dalia, Professor of Civil Engineering, has been appointed Chairman of the new program.

E. Carlton Guillot, Jr.
Recipient of Harold A. Levey Award of 1973

E. Carlton Guillot, Jr., known as "Corky" to his many friends, was awarded the 1973 Harold A. Levey award at the annual meeting of the Society of Tulane Engineer's on November 10. This award was established by the late Mr. Levey to recognize outstanding achievement of a Tulane Engineering alumnus during the 10 year period after graduation.

Mr. Guillot is a partner in the consulting engineering firm of Guillot, Sullivan, Vogt and Murphy, which specializes in building construction.

Mr. Guillot is a member of the American Society of Civil Engineers, the American Consulting Engineers Council, the American Society of Heating, Refrigerating, and Air Conditioning Engineers, the American Concrete Institute, the Institute of Electrical and Electronic Engineers, the Illuminating Engineering Society, Tau Beta Pi, and the Society of Tulane Engineers. He is a registered professional engineer in Louisiana, Mississippi, Oklahoma, Arkansas, Texas and Tennessee.

He is a very civic-minded citizen and has contributed significantly towards the raising of funds for the Boy Scouts of America, the Academy of the Sacred Heart, and the United Fund.

Mr. Guillot is married to the former Maureen Grundy and they have four children.

Dr. Bruley new head of Chemical Engineering

Dr. Duane P. Bruley came to Tulane from Clemson University on January 1 to assume the headship of the Department of Chemical Engineering. An expert in the field of process dynamics and control in the chemical process industry, Dr. Bruley is the author of numerous published articles in his field of specialization. He has a B.S. in chemical engineering from the University of Wisconsin, an M.S. from Stanford University and a Ph. D. from the University of Tennessee. At Clemson, in addition to serving on the faculty of Chemical Engineering, he was also the head varsity tennis coach of a very winning team.

Dr. Bruley's many honors include election to membership in Tau Beta Pi and Sigma Xi, and listing in the Outstanding Educators of America. He is a member of the American Chemical Society, American Institute of Chemical Engineers and of several international biomedical engineering associations.

THE TULANE ENGINEER

Published by the Society of Tulane Engineers, whose officers are:

President............ Daniel E. Kirkley
1st Vice Pres.......... Lawrence C. Grundmann, Jr.
2nd Vice Pres......... Roger K. Battle
Secretary............... George A. Swan, III
Asst. Secretary....... Frank M. Denton
Treasurer............. E. Carlton Guillot, Jr.
Asst. Treasurer....... Roy A. Perrin, Jr.
Director & Publication
Chairman............. Thomas L. Jackson
Director & Historian... Ronald P. Cressy
NEW ENGINEERING PROGRAMS

The School of Engineering has three new degree programs which will be initiated in the Fall of 1974 - Biomedical Engineering, Computer and Information Systems, and Engineering Management.

In these days of multi-disciplinary team approach to research and design, engineers and medical scientists find themselves working together on the myriad of medicine-related problems waiting to be solved. The practitioners in these two fields have developed an increasing appreciation for and dependence upon the knowledge and expertise of the other.

There is an ever-growing need for specialists with knowledge in both fields - for individuals trained in engineering, chemistry and biology as well as engineering applied to biological and medical problems. Tulane's Biomedical Engineering program was established to satisfy this need.

Some of the features of the Program are:

A core program of courses in mathematics, physics, chemistry and biology as well as the basic engineering sciences. The core of basic science courses satisfies the entrance requirements for most medical schools.

A technical elective sequence of four and one half units allowing the student to take advantage of course offerings in the traditional departments as well as in the computer and information systems program. In this way, a student could emphasize instrumentation, computer simulation, transport phenomena, environmental problems, hospital administration, or health-care-delivery systems.

A two-semester sequence in systems physiology to give the student understanding of what is meant by normal physiological state and function as preparation for his developing concepts of treatment of pathological state and development of artificial organs.

A senior thesis which allows the student to work on a research or design problem in medicine or biology with a faculty partner who supervises the project.

Though the program is not administered by a department, a dedicated faculty stands behind it. Virtually half the faculty in the school of engineering have interests and experience in biomedical engineering.

Many hold joint appointments in the Tulane University School of Medicine. In order to cope with the "information explosion," competently trained personnel in this area are increasingly in demand. Tulane's new program in Computer and Information Systems is truly unique in that it allows specialization even at the B.S. level in one of four basic areas as follows:

1. Hardware (Basic computer design, peripheral and interface design, maintenance and troubleshooting.)
2. Software (Systems programming, compiler construction.)
3. Scientific Computation (Numerical methods, discrete calculus, applied mathematics.)
4. Business Systems (Accounting, payroll, sorting, queuing analysis.)

Thus, the program is designed to give solid background in all four specialization areas in the early curriculum and then allow specialization through technical electives and a senior year practice school which provides on-the-job experience before graduation.

The Engineering Management program is designed for students who want to shape their professional engineering training within the economic framework in which it will be applied. Graduates of this program will be exceptionally well-prepared to enter careers in business, technical service and sales, and in engineering itself. Many graduates will also want to further their academic preparation in graduate schools of business administration, law, and engineering; the program is designed to facilitate such advance study.

The program is highlighted by the following special features:

Participation in an Internship involving University and off-campus associates - a three-way exchange between the students in the program, the outside world, and faculty advisers; a solid background in computer-oriented operations research methodology - linear and dynamic programming, analytical treatment of queuing and transportation problems and practical mathematical simulation of complex real-world systems; a "dual-degree" opportunity in that the many common objectives in the business administration and professional engineering programs make possible the incorporation of salient aspects of each in a single program; and program-wide interest in the resource-management challenge of the late twentieth century since a common thread running through many of the program's projects and the preparation for them is a concern with the pressing physical and social constraints which the world must address the next several decades.

H.A. LOTT SCHOLARSHIP FUND

The STE has received a check from H.A. Lott, Inc. of Houston, Texas for the establishment of the H.A. Lott Scholarship Fund. The fund, to be administered by the STE, is to be awarded to a student each year based on some criteria to be established by the STE. Any ideas regarding student selection should be submitted to the Dean's office.
### Final Financial Statement 1973 Term of Roger K. Battle, Treasurer Society of Tulane Engineers February 11, 1974

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on Hand, December 15, 1972</td>
<td>$328.42</td>
</tr>
<tr>
<td>Dues Collected</td>
<td>1,481.00</td>
</tr>
<tr>
<td>Donations Received</td>
<td>1,886.00</td>
</tr>
<tr>
<td>Special Donation - H. A. Lott, Inc.</td>
<td>600.00</td>
</tr>
<tr>
<td>(Scholarship for Student Aid Grant)</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL RECEIPTS</strong></td>
<td><strong>$4,295.42</strong></td>
</tr>
<tr>
<td>Bank Charge</td>
<td>.56</td>
</tr>
<tr>
<td>Printing Expenses - Membership Letters</td>
<td>387.56</td>
</tr>
<tr>
<td>Printing Expenses - Mailing of Tulane Engineer</td>
<td>230.82</td>
</tr>
<tr>
<td>Printing Expenses - Layout of Tulane Engineer</td>
<td>80.56</td>
</tr>
<tr>
<td>Engineers’ Club 1973 Dues</td>
<td>40.00</td>
</tr>
<tr>
<td>Expenses - Senior Dinner</td>
<td>360.50</td>
</tr>
<tr>
<td>Expenses - Dues Notice &amp; April Issue</td>
<td>274.01</td>
</tr>
<tr>
<td>(Mailings of STE Engineer)</td>
<td></td>
</tr>
<tr>
<td>Expenses - Layout of Fall 1973 STE Engineer</td>
<td>84.80</td>
</tr>
<tr>
<td>Gift - School of Engineering</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Expenses - Printing of STE Engineer</td>
<td>157.51</td>
</tr>
<tr>
<td>Bank Charges</td>
<td>2.06</td>
</tr>
<tr>
<td>Scholarship - School of Engineering</td>
<td>600.00</td>
</tr>
<tr>
<td>Expenses - Annual Luncheon</td>
<td>66.20</td>
</tr>
<tr>
<td>Expenses - Address &amp; Mail STE Engineer</td>
<td>134.11</td>
</tr>
<tr>
<td>Expenses - Purchase of New Dues Book</td>
<td>3.00</td>
</tr>
<tr>
<td><strong>TOTAL DISBURSEMENTS</strong></td>
<td><strong>3,921.69</strong></td>
</tr>
<tr>
<td>Balance, Cash on Hand (Checking Account)</td>
<td>373.73</td>
</tr>
</tbody>
</table>