THE CELEBRATION BEGINS!!
Boh Lecture and Cornerstone Commemoration Kick-Off Centennial Year

BOH LECTURE

The Centennial year officially began on October 6, 1993 when Robert H. Boh, Chairman of the Tulane Board of Administrators, delivered the Boh Lecture in Civil Engineering to over 200 people. The lecture, The Beginnings of the Tulane School of Engineering 1882-1894, marked the beginning of the centennial year of celebration, which will culminate on the School’s 100th anniversary, October 1, 1994.

Boh’s presentation focused on the very early days of the university and on the events leading to the establishment of the engineering school. Much of the presentation focused on the development of the physical plant. One hundred years to the day of the Boh Lecture the bids for the construction of the new campus were submitted. The Civil Engineering Building, referred to as the Mechanical and Electrical Laboratories, was...
Dean's Message

Our centennial celebration is underway. The College of Technology, which became the School of Engineering, was founded in 1894, and we are spending 1994 celebrating 100 years of engineering at Tulane. We kicked off our centennial with an event on January 27, the hundredth anniversary of the first public event held on the uptown campus—the laying of the cornerstone of Gibson Hall. Mel Leavitt, New Orleans historian and journalist, started the festivities with a lecture reviewing Tulane's history. This was followed by a reception on the Dinwiddie Patio adjacent to Gibson Hall.

Future centennial events include a "Centennial Commencement" on May 15, followed by a luncheon on the Nydia Patio adjoining the University Center. Our big Centennial bash will be a convocation on Saturday, October 1, the School's hundredth birthday. Other celebratory events will be staged around the country. Be on the watch for one in your region, or come to New Orleans and join the party here.

One hundred years ago this spring, four buildings were under construction on the uptown campus: the Arts and Sciences Building (now Gibson Hall), the Physical Laboratory (now F. Edward Hebert Hall), the Chemistry Laboratory (now the Richardson Building), and the Mechanical and Electrical Laboratories (now the Civil Engineering Building). In the fall of 1894, these buildings were occupied by the College of Arts and Sciences and the College of Technology, newly formed from Tulane's "Academic Department."

In 1910, Stanley Thomas, a Civil War veteran and New Orleans cotton factor, died and left the University $60,000. The Board of Administrators decided to spend the money for the rapidly growing College of Technology, and in February 1912, Stanley Thomas Hall was dedicated. In 1929, a fourth floor was added to the building under the supervision of J. Herndon Thompson, a professor of architecture in the College of Technology.

With very few modifications, the Civil Engineering Building and Stanley Thomas Hall have served the School of Engineering well through the decades since they were built. The last major improvements to these structures and their connecting components in the Engineering Complex were made in 1950. Built in an era of low technology, when Tulane was principally a teaching institution, they are not currently suited for the needs of a research oriented faculty and student body in an age of high technology. One of the principal goals of the Centennial Campaign now underway is to raise the money necessary to renovate these venerable facilities. Our renovation goal alone is $6 million, one hundred times the original cost of Stanley Thomas Hall. The School of Engineering is blessed by friends who have already pledged over $1 million toward this effort. With friends such as this, I am confident that we will reach our goal.

We'll be calling on you soon to help us raise the money needed to maintain the School of Engineering as one of the leading schools of its size in the nation. In the meantime, join us in celebration, and I look forward to seeing you at one of our centennial events.

William C. Van Buskirk

NEWS

Rosen Selected As 1994 Distinguished Alumnus

Harold A. Rosen (EE '47) was chosen as the 1994 Distinguished Alumnus of the Year by Tulane University. He was honored along with three others who were chosen as Volunteers of the Year, including engineering friend Jane Riess (Newcomb '38), whose late husband, Frank Riess (Engr. '36), was a member of the Dean's Advisory Board and a lifelong supporter of the engineering school.

Rosen is best known for his development of the world's first geosynchronous communications satellite, Syncom, and the first commercial communications satellite, Intelsat I, which made available transatlantic voice in television. Among his numerous national and international awards are an Emmy Award; the Astronautics Engineering Award; the Los Angeles Hyland Patent Award; the Aerospace Communications Award; the Southern California Inventor of the Year Award; the Alexander Graham Bell Medal; the International Prize in Communications; the Spacecraft Design Award; the Arthur C. Clarke Award; and the National Medal of Technology.

Rosen is also a fellow of the Institute of Electrical and Electronic Engineers and the American Institute of Aeronautics and Astronautics. He was elected a member of the highly respected National Academy of Engineering.

Rosen worked for Hughes Aircraft for 37 years and served as vice president for the past 18 years, until his retirement in June, 1993. He received his bachelor's degree in electrical engineering from Tulane in 1947. He earned an MA and Ph.D. from Cal Tech, and was awarded an honorary Ph.D. from Tulane in 1975. He divides his time between Santa Monica, California and Washington, D.C., where his wife, Deborah Castroman, serves as Deputy U.S. Assistant Secretary of Defense.
Orth Selected as Tulane’s Recipient of 1994 Faculty Professionalism Award

Louis P. Orth, P.E., associate professor of mechanical engineering at Tulane was selected by his peers as winner of the Louisiana Engineering Foundation’s Faculty Professionalism Award for 1994.

He and five other faculty members from the University of Southwestern Louisiana, Louisiana Tech University, Louisiana State University, Southern University, and McNeese State University were honored at the joint IES/ASCF Annual Awards Banquet on March 18, in Baton Rouge.

Professor Orth exemplifies professionalism at Tulane and in the New Orleans professional community. He serves in the New Orleans Section of the American Society of Mechanical Engineers and is past president of the American Society of Heating, Refrigeration, and Air Conditioning. He strongly supports the professional registration activities of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

He instills his own high standards of honesty and integrity in his students, and in return he has their respect and admiration. He believes in registration, not simply as a legal requirement, but as a demonstration to students, colleagues, and the public that this is one hallmark of the professional: the willingness to go beyond what is required to encourage others to realize their full potential.

The Louisiana Engineering Foundation awards the Engineering Faculty Professionalism Award annually to an engineering faculty member in each engineering school in Louisiana with EAC/ABET accredited programs. All full-time registered professional engineers in each school make the selections.

The purpose of the award is to bring to the attention of faculty those that are registered professional engineers at their school, and to encourage faculty to work toward registration and professionalism, and to promote it to the students and community at large.

Send in Your Patent Numbers!

Why compile a Register of Patentees among 100 years of Tulane engineering graduates?

Polya outlined the wonder of innovative ideas and actions in his book How to Solve It.

"...A primitive man wishes to cross a creek; but he cannot do so in the usual way because the water has risen overnight.

...The man may recall that he has crossed some other creek by walking along a fallen tree. He looks around for a suitable fallen tree.

...He cannot find any suitable tree but there are plenty of trees standing along the creek; he wishes that one of them would fall. Could he make a tree fall across the creek?...by what means could he tilt the tree over the creek?

If the primitive man succeeds in finishing his analysis he may become the inventor of the bridge and of the axe.... The finishing act is walking along a tree across the creek."

If Tulane Engineering has encouraged and helped its graduates to be of service to mankind by being receptive to innovative ideas, (and it has!) - then this Register is compiled to reflect credit to Tulane Engineering and to all its graduates - both patentees and non-patentees!!

Thanks to the many who responded to our first request. Keep the information coming!!

P.W. Bohme
Chairman, Patent Register Committee

Return to
Patent Archives Committee Name
Engineering Dean’s Office (Tulane Engineering Graduate)
Tulane University Discipline Year
New Orleans, LA 70118-5698 Today’s Date

1.) I was issued the following patents:

Country Patent # Issue Date Country Patent # Issue Date


2.) I believe these Tulane Engineering Graduates received patents:

Name
Degree/Year
Address of Alumnus / Family

City/State/Zip

3.) Your name

Your Address

City/State/Zip

Phone Number ( )

STUDENT NEWS

Society of Women Engineers

by Mary Hamer

The 1993-94 academic year marked the first year of reactivation for the Society of Women Engineers at Tulane University since 1980. Under the direction of President Rebecca Rodney, faculty advisor Dr. Zimmerman, and the elected Executive Council, SWE has established a new identity on the university campus. The student chapter now has over 70 members, whose involvement has led them to a better understanding of women’s places in the field of engineering.

To provide this understanding, the SWE chapter has invited speakers to several monthly meetings and implemented projects such as the Big Sister/Little Sister and tutorial programs. The most recent undertaking of SWE is the hosting of the Fall Convention in New Orleans next October.

The SWE student chapter also welcomes next year’s freshman class and looks forward to another fun and successful year!
DEPARTMENTAL BRIEFS

BIOMEDICAL

At the start of the Fall '93 semester, the Department of Biomedical Engineering significantly changed an important component of the undergraduate educational experience. Starting with the current sophomore class of '96 all BME majors are required to own and extensively use a notebook computer.

About a year ago, the price of notebook computers dropped sharply, to under $2000. We realized that if each of our students owned the same kind of notebook computer, then they could use these computers interactively in the classroom, connect them to data and image acquisition equipment in the teaching labs, and then take them home in the evening to facilitate homework. After evaluating three vendors' proposals, we chose Apple's PowerBook 165c for the student and faculty computers, and their Centris 610 as the central file server. We ran wiring to each of the 56 seats in room 242 of the new Lindy Boggs Center, our primary teaching classroom. Each seat has connectors to provide power and ethernet network access to a PowerBook at that seat.

As an initial suite of applications software, the students bought Mathematica, ClarisWorks, Generic CADD, Timbuktu, pSpice, and NIH Image. With site licenses, educational discounts and some bulk purchase arrangements, we were able to provide licenses and documentation for these applications to the students for $300. We used BMFN701, a Fall semester sophomore course, to teach the basic elements of each of these programs, along with Fetch, TurboGopher, and Eudora, three excellent public domain network access applications. The current freshmen have been told that they will be required to own a notebook computer at the start of the 1994-95 academic year. The 1994-95 model has yet to be selected, since it's likely that product offerings will change and prices will go down between now and the end of the summer.

This project represents a new venture partnership in cooperative learning between the faculty and the students of the Class of 1996. These students made a significant expenditure when they paid for their computers and software. They expected that the classroom network wiring would be ready for them, and that the repair facilities would have spare parts in stock. They expected that the faculty would be ready to include PowerBook applications in lectures from the first day of the semester, and to be PowerBook experts, able to help students who had difficulty getting their software to work properly. Because the impetus for this project came from the faculty, the instructors responsible for the sophomore courses were willing to put in the extra hours of work necessary to master the software, update lectures and revise assignments. Biomedical engineering is the first unit in the School of Engineering to institute this sort of curricular enhancement.

This new venture is the first integrated use of notebook computers in undergraduate engineering education that we're aware of. We've had a lot of inquiries from colleagues at other universities, and it seems as though the idea is going to spread rapidly over the next few years. If you have suggestions for software that should be introduced to our students, please let us hear from you. We need and value our alumni's ideas and support.

(Article by Cedric Walker, Department Chair, Biomedical Engineering)

COMPUTER SCIENCE

The Department of Computer Science recently completed the installation of two computer engineering laboratories. These labs provide state-of-the-art equipment for design, implementation, and testing. The Computer Engineering Laboratory serves sophomores and junior computer engineers in three programs, computer engineering, computer science, and electrical engineering. The Advanced Computer Engineering Laboratory provides sophisticated instrumentation for training and experimentation on engineering projects involving computer interfacing for junior and senior computer engineering students. The Senior Computer Engineering Design Laboratory is scheduled for completion in the summer of 1994.

Dr. Alan Christiansen recently presented a paper, "A Machine Learning Perspective on Modeling Robot Actions," at the Workshop on the Algorithmic Foundations of Robotics in San Francisco. Dr. Christiansen is also participating in the Grace King Mentoring Program at Grace King High School in Metairie. Two Grace King seniors are conducting robotics research under his guidance.

Dr. Boumediene Belkhouche and Maurico Chavarro recently published "Analysis of Object-Oriented-Designs," in the Journal of Object-Oriented Programming, Spring 1994. With Dr. Bart Geraci (Ph.D. '93), Belkhouche presented "Ripple: A Formally Specified Prototyping Environment," at the International Conference on Requirements Engineering in April, 1994. He was conference chair of the 1994 IEEE International Conference on Computer Languages in Toulouse, France. This spring, Dr. Belkhouche was appointed director of graduate programs in the Department of Computer Science.

Dr. Cris Koutsougeras was promoted to associate professor with tenure, and was named director of computer engineering in March 1993. His current research grants include the NSF-EPSCOR Cluster (NSF/BOR): "Fault-tolerant neural networks: Design theories and applications," $78,000 for Tulane, 292-293. Dr. Koutsougeras' joint USL-Tulane-LSU proposal is among five proposals selected to represent Louisiana in the national NSF-EPSCOR competition. He is the organizer and program chair for the International IEEE Conference on Tools with Artificial Intelligence, November 10-13, New Orleans.

Dr. Frank Silbermann presented "Prolog Interpretation of a Functional-Logical Language," at the 1993 International Logic Programming Symposium in Tsukuba, Japan, and was invited to spend three weeks this summer as a guest of the Institute of Information Sciences and Electronics at the University of Tsukuba to discuss his research.


Dr. Johnette Hassell recently represented the School of Engineering at career fairs at Brother Martin and John F. Kennedy High Schools in New Orleans. She was also an invited speaker at the Louisiana Engineering Awareness Program's (LEAP) annual meeting at Xavier University of Louisiana.

Dr. Mike Rudnick presented "Evolutionary Network Design and the Contiguity Problem", at the World Congress on Neural Networks in Portland, Oregon, and the paper is included in the conference proceedings.

Dr. Robert Goldman and Mr. Ray Lang presented a poster session "Intentions in Time," and were invited to include their results in the proceedings of the 15th Annual Conference of the Cognitive Science Society. Mr. Ray Lang published a textbook, Structure Charts for Program Design.

Computer Science alumna Dr. Marguerite S. Giguette (Ph.D. '90) was recently appointed Chair of the Department of Computer Science at Xavier of Louisiana. Alumna Dr. Janet Lind (Ph.D. '84) was recently appointed director of the Bell Northern Research Laboratory in Richardson, Texas.
President's Corner

The STE Centennial Speakers Series, which began in the Fall of 1992, has been informative and enjoyable. We have recently had two outstanding speakers for the well-attended series. I enjoyed visiting with former classmates and other Tulane alumni.

On October 6, 1993, the STE co-sponsored the Boh Lecture as the Fall installment of the Series. Robert H. Boh (CE '51) presented "The Beginnings of the Tulane School of Engineering 1882-1894," a reflection of the School's early history and a fitting start to the Centennial.

Mr. Boh's lecture was vibrant and enjoyed by all who attended.

On January 27, 1994, the STE Centennial Speakers Series featured New Orleans historian, Mel Leavitt. Leavitt provided us with a glimpse of what was happening in New Orleans history in the 1890's and the role Tulane played in this history. The date, Thursday, January 27, 1994, was chosen for the lecture and the celebration that followed, because it was exactly 100 years to the day of the laying of the cornerstone of Gibson Hall.

There will be more events associated with the Centennial Celebration. The next ones will surround the 100th Commencement in May. On Wednesday, April 27th, the STE will sponsor the Senior Awards Banquet. This is an important event for the students and the faculty. Look for notice of these and other events in The Tulane Engineer and Centennial Times.

I also want to take this opportunity to thank Shelley Richardson and Winnie Beuerman for their support and guidance not only during the beginning of my presidency, but for supporting the Board and me during my tenure as publications chairman, treasurer, etc.

This is an exciting period for Tulane University, and in particular, the School of Engineering. I hope to see and meet many of you during this important and exciting year.

Richard C. Meyer
President, Society of Tulane Engineers

Engineering Hall of Fame to be Established

The Centennial Celebration Committee is establishing a Tulane University School of Engineering Hall of Fame to recognize and record in history those Tulane Engineers who have made major and significant contributions to the fields of engineering and science. It is planned that the Hall of Fame will be a continuing legacy of the Centennial Celebration.

Engineering, technical, scientific, educational, business and management accomplishments of national or international importance and prominence will provide the basis for entry into the Hall of Fame.

The Committee Chairman is Col. Albert J. Wetzel, USAF (Ret.), EE '39. The initial group elected will be inducted into the Hall of Fame at the October 1 Convocation, and a permanent display will be located on the first floor of the Civil Engineering Building.

Nominations for consideration for designation as a member of the Hall of Fame are invited, and should be sent to Dean William Van Buskirk, in care of the Centennial Hall of Fame Committee, Engineering Dean's Office, Tulane University, New Orleans, LA 70118.
On the afternoon of January 27, 1894, the cornerstone of the Arts and Sciences building (now Gibson Hall) was laid with appropriate ceremonies. Present were the faculty, the administrators, students, alumni and townspeople, and other guests including Governor Murphy J. Foster, New Orleans' Mayor John Fitzpatrick, and A.D. Lafarge, state superintendent of education. President Johnston presided. There was an invocation by the Reverend B. M. Palmer and then the Glee Club sang. At the conclusion of their song a group of students gave a college yell, presumably to add the proper collegiate touch. A dedicatory poem was read by Professor Dillard and the main oration delivered by the Reverend Beverly Warner, rector of Trinity Church. Then Judge Charles E. Fenner declared the cornerstone well and truly laid. A band played "Hail Columbia," the collegians gave another yell, the benediction was pronounced by the Right Reverend Davis Sessums, Bishop of Louisiana, and the crowd broke up into little groups to talk about the exercises and to wonder what Tulane would do with such a big building as this one promised to be. Excerpted from Tulane: The Biography of A University 1834-1965 by John P. Dyer.

President Kelly proposes a toast to the next 100 years of Tulane engineering

CORNERSTONE CELEBRATION [CONTINUED FROM PAGE 1]

Brown Ayres, dean of engineering then, had an important role in the laying out of the front campus, which took care of the College of Technology and the College of Arts and Sciences. The whole campus is important for us."

In addition to Gibson Hall, the three other original buildings were the Physical Laboratory, now Hebert Hall; the Mechanical and Electrical Laboratories, now the Civil Engineering Building; and the Chemical Laboratory Building, now Richardson Hall. The first classes for the new College of Technology were held October 1, 1894 in the Mechanical Laboratory.

In 1894, the School had 75 students, including six in architectural engineering; today there are more than 1000, and the architects have had a school of their own since 1950.

Then, the faculty numbered seven, only one of them actually trained as an engineer - today there are 55, whose basic and applied research ranges from the infrastructure of roads and bridges to the inner structure of molecules to the invisible structure of information technologies.

Preceding the party, the Society of Tulane Engineers hosted the Spring installment of the STE Centennial Speakers Series. New Orleans historian, Mel Leavitt, spoke about the history of New Orleans at the turn of the century, and of the role that the University and specifically engineering played in that history.

At the time of the lecture, which was held in Richardson Memorial Hall, former dean of architecture, William Turner, was awarded the Richardson Medal for distinguished service by a faculty member. The award was presented by Professor James LaMantia and accepted on Turner's behalf by University Provost James Kilroy.

The year of centennial celebration continues on May 15th when the 100th engineering class will graduate. The Centennial Celebration Committee has planned a luncheon to follow the commencement exercises. Festivities will culminate on campus the weekend of October 1, 1994.
one of the four original buildings designed for the new campus. The list is of interest because of the closeness of the bids, and because of the names of the bidders, some of which have come down through the decades — and are still associated with Tulane.

The Tulane University Bulletin for 1894 announced the establishment of two colleges: the College of Arts and Sciences and the College of Technology. The announcement was based on the recommendations made by Tulane President William Preston Johnston in March and resolutions passed by the Board in 1893. President Johnston requested that the Board of Administrators establish a College of Technology, with a faculty including professors of physics, chemistry, applied chemistry, mathematics, mechanical engineering, English, French, German, history and political science, psychology, and drawing.

The crowd mingles at the reception following the Boh lecture

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**Centennial Committee for the Recovery and Restoration of the Blarney Stone**

As patron saint of the engineers, St. Patrick has a special place in the traditions of the School of Engineering. The Tulane Blarney Stone was the focal point of these traditions, which achieved a peak of enthusiasm in the 1940's, 1950's, and 1960's.

To properly observe these traditions, as part of the School's Centennial Celebration, Oliver Delery has announced the formation of the Centennial Committee for the Recovery and Restoration of the Blarney Stone. Alumni and students are invited to participate in the committee's activities.

In the past decades, the School of Engineering celebrated one to two weeks of St. Patrick's activities. These included the election of St. Pat and St. Patricia, and the election of a St. Pat's Court, all presented at the St. Patrick's dance.

This was followed by the Engineers' St. Patrick's Day at a designated football game, where the engineers were led in cheers and songs dedicated to the special relationship between the engineers and St. Patrick. For days before the game and the St. Patrick's dance, rallies were held at the Blarney Stone, representing the fierce competition between the different engineering departments to elect their candidate as St. Pat.

The Centennial Committee for the Recovery and Restoration of the Blarney Stone plans to launch an immediate search for the missing Blarney Stone, and to restore it to its rightful location. The committee plans to participate in the Centennial Celebration, and to lead a lively cheer or two at the October 1 Convocation. Last but not least, the members of the Committee hope to communicate to the present generation of Tulane engineering students the sense of school spirit and enthusiasm experienced by previous generations of Tulane engineering students.

**The Committee:**
- Oliver S. Delery Jr., Chairman
- Lawrence G. Bodet
- Robert H. Boh
- Robert N. Bruce, Jr.
- William B. Conway
- Lee H. Johnson
- John L. Martinez
- Anthony Mumphrey
- Herbert O'Donnell
- Louis P. Orth, Jr.
- G. Joseph Sullivan
- Albert Wetzel
- William C. Van Buskirk
Building a Better Paddle

Two tenths of a second can mean a world of difference — a meter's lead, a gold instead of a silver medal, winning or losing. A trio from Tulane's mechanical engineering department think they can give flatwater kayakers these precious fractions of a second — without any more exertion on the part of the athlete — simply by putting a few well-placed bends in the conventional kayak paddle.

A team comprised of mechanical engineering students, Jared A. Siegel and Paul A. Williams, under the direction of Michael Larson, assistant professor, entered their paddle design in the Intercollegiate Design Contest sponsored by the United States Olympic Committee's Center for Sports Technology. As one of five finalists out of 34 entrants, they received an honorable mention for their design and participated in a sports equipment symposium at the Olympic Complex in Colorado Springs, in September.

The center invites undergraduate students to submit designs for equipment, uniforms, safety devices or anything else related to an Olympic sport.

Siegel and Williams, who both graduated this spring and are working as engineers, are the first Tulane students to participate in this three-year-old contest. Last fall, the trio began brainstorming, beginning with an extensive list of sports equipment they might improve.

"We thought of a lot of Olympic events, like javelin, discus, bobsled, and bicycle racing," Larson said. After careful consideration, they ruled them out, one by one. "For example, we couldn't find a bobsled to look at its mechanics, and we figured that bicycle manufacturing companies had a jump on us on designing things like derailiers," said Larson.

Kayaking had also appeared on their list. Fortunately, Siegel had tried the sport and had access to the equipment. By studying the different equipment and materials used in the sport, the team decided to concentrate on the design of the paddle's shaft.

"There had been a lot done with new shapes and coatings to improve the blade of the paddle and the boat," Larson said. "But the straight shaft had remained unchanged. We focused our attention there."

Their design is based on the premise that a paddle can provide useful thrust to the kayak only when its blades are in the water. With a conventional, straight paddle, one blade is always high in the air when the other is in the water. During the transition between strokes, both blades are out of the water and neither is propelling the kayak.

To cut down on transition time, the paddle blades must be closer to the water at all times; this way, they spend less time out of the water and more time contributing thrust to the kayak, explained Larson.

After many calculations on paper, the team chose a couple of designs and brought their PVC prototypes to the Reily Student Recreation Center for a trial spin around the pool. From these tests, they picked a design that incorporated two 15-degree bends in different planes in the shaft of the paddle. The two bends angle the paddle so that the blade not in the water is closer to the water's surface, but the paddle still retains his or her basic stroke pattern. Using mathematical calculations, they determined this paddle would trim 0.18 seconds off the time for a two-person 1000-meter race.

The new design is not without its drawbacks, however. "There is a tendency for the paddle to twist in the paddler's hands," Larson said. As the team explained in the paper submitted to the Olympic Committee, this problem can be overcome. The team reasoned that resisting this twist will require the athlete to develop stronger gripping muscles in the forearm, but won't exhaust the primary paddling muscles in the back and upper arm.

The new design has already made waves in the industry, Larson said. A Seattle-based company called Northwest Design has agreed to manufacture a prototype of the paddle by the end of this year. Northwest is a corporate sponsor of Scott Shipley, the winner of the World Cup in individual kayaking, who reportedly is "very excited about trying the paddle," Larson said. He added that he hopes to see kayakers using the paddle in the 1996 Olympic competition in Atlanta.

Tulane competed in the design finals against Massachusetts Institute of Technology, University of Vermont, Cooper Union in New York City, and Pennsylvania's Lafayette College. M.I.T. won the competition with the design of a rowing machine for training crew athletes.

In the last two competitions, first-place honors went to the redesign of a karate uniform and a new design for a woman's ice hockey uniform, according to a representative from the Olympic committee.

(Article by Judith Zwolak, reprinted from "Inside Tulane", October 1993.)

Shortly after this article was published, Jared Siegel was killed in an automobile accident. The engineering school and community are greatly saddened by the untimely loss of this promising and enthusiastic young Tulane engineer. The Siegel family, Laitram Corporation, where he had just begun a promising career with the Inralox Division, and Jared's co-workers have begun the Jared Siegel Memorial Fund to provide scholarships for Tulane engineering students. Contributions should be designated for the Jared Siegel Fund and should be sent to Tulane University, c/o Dean William Van Buskirk, Engineering Dean's Office, Tulane University, New Orleans, LA 70118.

PowerFuL: New Computer Language

When Frank Silbermann spoke to computer scientists gathered at a conference in Ibaraki, Japan, this summer, his topic was the efficacy of combining two languages. But he was not referring to Japanese and English. Silbermann was on a mission to explain his research in merging two different computer languages to add speed, flexibility and range to problem solving.

Silbermann's name for this emerging language is PowerFuL. (Powerdomains for Functional and Logic Programming.)

His research received the highest rating among those projects supported in 1990 by the Louisiana Educational Quality Support Fund and was the centerpiece of the Functional Logic Programming Symposium organized by the Institute of Information Sciences and Electronics at the University of Tsukuba in May.

According to Silbermann, an assistant professor of computer science, PowerFuL is an attempt to extract the best from two kinds of computer language, functional and logical.

Functional programming,
Silbermann explained, "permits very flexible use of data. For example, functional programming makes it easy for programs to use other programs as data or to organize data into structures that are conceptually infinite. "You can write a program in a very abstract way so that parts are easy to reuse in other programs," Silbermann said.

Logic programming, on the other hand, permits programs to be "run backwards" to search for inputs that produce a given output, or that satisfy specific constraints. "If you give it some values, it will complete what is not specified and fill in the blanks," Silbermann explained.

In contrast to many conventional programming languages used widely today, such as Pascal, FORTRAN and "C", he said, both of these paradigms make it easier to reason about programs.

He compares the usefulness of combining the languages to the choices involved in making furniture more efficiently.

"It's like being limited to carving a chair from a single piece of wood versus building one from sticks of various dimensions. You must have the tools to both make the boards and then to assemble them."

"Having more tool allows for breaking the problem into simpler parts: It's easier to keep an inventory of various sizes and types of wood than an inventory of every kind of chair anyone would want to build," he said. "You do better to have reusable components that make programming easier."

According to Silbermann, programmers currently must choose between the conveniences of functional programming or logic programming. His goal is creation of a hybrid language that combines the features of both, without losing the simplicity and cohesiveness that characterizes each individually, to make it practical as well as useful.

(Article by Anne Yeoman, reprinted from "Inside Tulane" 12/1/93.)

Since the fall 1993 issue of Tulane Engineer, the School of Engineering's Centennial Campaign has made great progress toward its $13.6 million goal. This goal is divided into several components:

- $6.1 million - Engineering Complex Renovations
- $3.3 million - Academic Program Support
- $1.5 million - Endowed Chairs and Professorships
- $1.2 million - Student Financial Aid
- $1.5 million - Engineering Annual Fund.

As the Centennial Campaign progresses through 1996, you'll read more about the needs behind these goals, and about how you can help the School achieve these important objectives.

Engineering Complex Renovations. A cluster of workshops, laboratories, and a foundry on an old plantation site—this was the home of the College of Technology in 1894. Several of these structures, most notably the Civil Engineering Building, are in use by the School of Engineering today. Stanley Thomas Hall, built in 1910 with funds from a bequest by cotton broker Stanley Thomas, is another venerable engineering building still occupied by students and professors.

Thousands of students have studied civil and environmental engineering, electrical engineering, mechanical engineering, and computer science rigorously and successfully in these two buildings. However, the structures are outdated and crowded—both were last renovated over thirty years ago. Their utility systems are no longer adequate for fields in which lasers, computer networks, and electronic sensors play critical roles. In contrast, those disciplines housed in the new Lindy Claiborne Boggs Center—biomedical, chemical, and, to a lesser extent, mechanical engineering—have experienced the benefits of a state-of-the-art facility. Faculty and student recruitment and research progress have increased dramatically for these departments since their building was completed in 1988.

The renovation of Stanley Thomas Hall and the Civil Engineering Building will preserve the original, historic structures while making more efficient use of their interior spaces. More importantly, the remodeling will significantly support the School's major goals for all departments—the enhancement of student recruitment and an increase in faculty research capability. Renovated classrooms in the engineering complex will be "electronic," that is, designed to make computers as convenient for classroom instruction as blackboards are now. New graduate student offices, new research laboratories, project design and assembly rooms, and test facilities will be created to accommodate the needs of a top engineering school at the threshold of a new century.

Design and renovation will be undertaken in three phases, beginning in late 1993 and extending through 1996, as construction funds are raised in the Centennial Campaign. Early and generous support from alumni and friends will permit a timely completion with the least disruption of classes and research.

Campaign Progress. As of late March, $785,000 has been pledged by just a handful of donors to support Engineering Complex renovations, and we are on the verge of going over $800,000 with another pledge in the near future. Of this, one $500,000 pledge is due to the generosity of a major corporation whose identity will be revealed next fall. This pledge will support the renovation of Stanley Thomas Hall.

National Science Foundation Grant. The School is competing with universities around the country for a Facilities Modernization matching grant from the National Science Foundation (NSF). This grant program is intended to assist the nation's universities to renovate and upgrade aging science and engineering research facilities, such as those found in Stanley Thomas Hall and the Civil Engineering Building. Tulane will request about $700,000 from NSF to renovate laboratories used in electrical, civil, and environmental engineering and computer science. If successful, the School must match NSF's grant with an equal amount of private support from alumni/ae and other donors.}

Planned Giving Opportunities. Planned giving offers several gift methods that enable engineering alumni/ae to make substantial gifts to the School while achieving other personal financial goals at the same time. With each method, the federal government gives favorable tax treatment to the gift, so that both the School and the donor directly benefit. Some gift methods can provide life income, making them good retirement supplements. Other planned gifts can minimize estate taxes, as assets are ultimately passed on to family members after first providing support for the School of Engineering.

For engineering alumni in high estate or gift tax brackets, the charitable lead trust provides a means to support the Engineering Complex renovation and still pass assets to family members with little or no tax penalty. It works like this: The donor irrevocably transfers assets to a trust; the trust provides payments to the School for a period of several years; then the trust principal goes to the donor's children, grandchildren, or others free of, or at greatly reduced, federal gift and estate taxes. Want to know more? For more information about planned giving or other ways to support the School of Engineering's Centennial Campaign, please contact:

Ronald L. Biava, Development Director, School of Engineering, Tulane University, New Orleans, LA 70118, 504-865-3754
Deans of the School of Engineering

Part two of the feature on the engineering deans. Last issue featured the early deans, this issue focuses on those who have most recently served the School.

Lee Harnie Johnson (1950-72) was dean of engineering at the University of Mississippi for 13 years before coming to Tulane to succeed Dean Robert in 1950. The Johnson period was marked by a steady growth in both teaching and research contributions. A curriculum for advanced degrees was implemented (the first Ph.D. in chemical engineering was granted in 1965), and programs were developed in biomedical engineering, operations research, and computer research. Under Dean Johnson, the College of Engineering became the School of Engineering. He had served as dean of engineering and professor of civil engineering for 22 years at Tulane when he was named the William R. Irby Professor of Engineering, and resigned as dean to return to teaching.

Frank W. MacDonald was named acting dean in 1972. He was a professor of civil engineering and a professor of environmental hygiene in the School of Public Health and Tropical Medicine, a Fellow of the World Health Organization, and had served on the Tulane faculty since 1945.

Hugh A. Thompson (1976-91) served for fifteen years as dean. In 1976, as professor of mechanical engineering, he bypassed department head to become dean. During his tenure, the Lindy Boggs Center for Energy and Biotechnology was built in 1987, the Departments of Biomedical Engineering and Computer Science were added to the School, and sponsored research reached historic levels. In 1991 he stepped down to lead research as the newly invested Entergy Chair in Electric Power Engineering.

Samuel Hulbert (1973-76) became dean on July 1, 1973. He came to Tulane from Clemson University. An authority on the engineering aspects of developing artificial body parts, and in bioengineering, he was instrumental in the formation of the Department of Biomedical Engineering, as well as the establishment of the Computer and Information Systems Program, and the Engineering Management Program. He remembers the great turmoil of the period when the future of the School was threatened by those faculty members and administrators who seriously considered the closing of the School of Engineering. He and Brown Ayres are the two deans who went on to become presidents of universities. Hulbert left Tulane in 1976, and since that time has served as President of the Rose-Hulman Institute of Technology in Terre Haute, Indiana.

William C. Van Buskirk (1991- ) is a graduate of the United States Military Academy at West Point, New York. (Dean William H.P. Creighton graduated from the Naval Academy at Annapolis.) He joined Tulane’s faculty in 1970 as an instructor of biomechanics in the School of Medicine, and transferred to the engineering faculty in 1971. He was instrumental in the founding of the Department of Biomedical Engineering and became its first department head, serving in that capacity until becoming dean in 1991. He holds the Alden J. Laborde Chair in Engineering. Under Van Buskirk, the School’s enrollment has increased by over 50%; research support has doubled; bachelor’s, master’s, and doctoral programs in environmental engineering have been introduced; renovations of the engineering complex have begun; and the celebration of the School’s centennial is underway.
ALUMNI NEWS

1930's
Edward A. McLellan (ME '34) is looking forward to his 60 year reunion in '94, and is proud of his many Tulane connections: his wife, Mary Graves Wells graduated from Newcomb in 1938; his granddaughter, Christine O'Day McLellan, is in her third year of Tulane architecture; his son, David is a Tulane M.D., and recently retired from the Navy; and his grandson, Edward McLellan III, is working on his Ph. D. at Tulane.

1940's
Frank A. Bell, Jr. (CE '49) thanks the "Big Boss" for being alive - and for a "semi" retirement filled with jet skiing in Ft. Lauderdale and eco-tourism trips to the Channel Islands of Santa Cruz and Anacapa!
Edward R. Estes, Jr. (CE '45) is a professor emeritus of civil engineering technology at Old Dominion University.
A. G. Gottschall (ME '43) enjoys golf, bridge, and good conversation in his semi-retirement, while doing some side work in marketing and market research for Gibraltar Chemical Resources, a firm involved with the proper disposal of industrial waste.

1950's
Donald P. Maynard (ME '51) was recently furloughed from his job instructing pilots at American Airlines, but is still flying as a ferry pilot of B-747 and B-727 aircraft.
Myron A. Pessin (ME '53) is chief engineer for the External Tank Project of the Space Shuttle Program for NASA at the Marshall Space Flight Center in Huntsville, Alabama.

1960's
Peter D. Prevett (EE '60) is an attorney-at-law practicing in Andover, Massachusetts. His son, Todd Prevett is a junior in the Freeman School of Business, and his wife, Avis Ann is a 1959 graduate of Tulane University School of Architecture.

1970's
Linwood E. Farmer (ME '72) received his MBA from San Diego State University in May 1993, and was inducted into Beta Gamma Sigma, a National Business Honor Society. On September 1, 1993, he retired from the Navy with the rank of Commander.

1980's
Michael Artigues (BME '88) and his wife, Patricia, announce the birth of their daughter, Annie Dirblan, on July 12, 1993.
Dr. Frank M. Cleneuve, Jr. (CE '84) is a principal engineer and deputy head of geotechnical engineering with T.A.M.S. Consultants, Inc. in New York City. He received his Ph.D. in civil engineering in 1984 from the Tulane University Graduate School. Professor (ret.) Walter E. Blessey served as his advisor.
Robin Gayer (EE '89) passed the E.I.T. exam in April, 1993, and was recently promoted from electrical foreman to systems specialist at Witton Steel Corporation, Sheet Mill Department, in Wierton, West Virginia.

Thomas F. Heusler (CE '81,'83) is a senior structural engineer with Burns and McDonnell in Kansas City, Missouri.

Charles A. Pittman, Jr. (ChE '87) received his MBA in May, 1993 from William Carey College. He works for Johnson Controls and was recently promoted from test program coordinator on the Space Shuttle main engine program to the manager of engineering support service at the Stennis Space Center.

Patrick R. Rogers (ME '89) lives in Huntsville, Alabama. He married the former Elizabeth Williams of Tuscaloosa, Alabama in June, 1993 - and received his Master of Mechanical Engineering Degree from Auburn University.

Brenda Watts da Silveira (ChE '85) her husband Ricor and their son, Lucas Ricor (born September 17, 1993), live in Hong Kong. She received her MBA with an emphasis in management from the University of San Francisco.

Eric H. Weimers (EE CS '80) was made partner in the law firm of Jenner and Block in Chicago, Illinois, on January 1, 1993. He specializes in intellectual property, particularly patent law in the electronic and computer arts.

'39 ENGINEERS HOLD ANNUAL DINNER

On Friday, October 15, 1993, the engineering class of 1939 met for their annual "Engineers Dinner". Phil Bohne (ChE '39) organized the dinner at Delmonico's Restaurant on St. Charles Avenue. Ten Tulanians with their spouses and guests (a total of 16) attended the event, a tradition which began with their 50th reunion in 1989.

In Memoriam

Alfred Abaunza (CE '35)
Edward L. Breckwold (Non-grad '55)
John Douglas (Engr '47)
Terry W. Flaherty (CS '83 '86)
Douglas C. Haley (EE '41)
Marvin E. Hampton, Jr. (Engr '75)
Eugene M. Hornot (ME '13 '14)
Franklin H. Jones (Non-grad '53)
Nestor B. Kneepkens (ChE '40)
Fernand S. Lapeyre, Sr. (Engr '33)
Ferdinand L. Larue, Jr. (ChE '37)
William P. Leverich (Engr '34)
James J. McCluskey, Jr. (EE '53)
William Peter Oster (ME EE '28)
Kenneth E. Pettle (Engr '49)
Anne Smith Probizanski (ME '59)
William R. Scott (CE '50)
Robert W. Seidler (ME '46)
Austin V. Sierra, Jr. (ChE '44)
Julius Slowenko (CE '18)
William H. Spaar (CE '22)
Macy O. Teeter, Jr. (ME '49)
Andre H. Zilbermann (ME '47)
Where will you be October 1st?

Save these dates now:

September 30-October 1

A weekend of Centennial Celebration at Tulane!