

Chemical Engineering

Alumni Newsletter

VOLUME 15 • SPRING 2001

GORDON A. AND MARY CAIN

DEPARTMENT OF CHEMICAL ENGINEERING

LOUISIANA STATE UNIVERSITY

Letter from the Chairman

Dear Alumni and Friends,



The new Chemical Engineering Building remains a high priority for the department. Planning money from the state of Louisiana has recently been allocated toward the project, and an architectural firm has been appointed to draw up the plans. The new facility will be 72,500 gross square feet, and will cost \$16.5 million, \$7.2 million of which has been requested from the state and the remaining \$9.3 million to be raised by LSU.

Recently, a building committee consisting of Al Lopez from ExxonMobil, Alden Andre from Formosa Plastics, John Berg from Shell Chemical, Jim Boone from Albemarle, Vernon Fabre from BASF, and Dwight Fontaine from Dow Chemical, discussed the importance of fund-raising and industrial support for the new building.

Any efforts and support that you or your company can provide toward the new Chemical Engineering Building would be greatly appreciated. The committee recognizes that the self-generated funds for the new building represent a significant challenge for the department; however, they and the department agree that a new building is necessary for recruiting faculty to fill the five Cain endowed chairs and for maintaining a competitive reputation among chemical engineering departments across the country.

The department is continuing with other modernization and improvement efforts. We are actively trying to recruit new faculty. In fact we are in the final stages of negotiating offers to two prospective faculty members. One of these offers is to fill the Ethyl-Gautreaux chair, and the other offer is at the associate professor level. We hope to report additional and successful details in our fall newsletter.

Progress continues in the undergraduate laboratory, and additional personnel have been brought in to continue the improvements already under way.

An Academic Alumni Committee of recent graduates will be meeting this summer to review the department's curriculum. This review will help determine how the program can best meet the needs of the industry. We will report on changes to be implemented in our next newsletter.

We believe the improvements and modernizations in the undergraduate lab and throughout the department, along with the prospective new hires and the new Chemical Engineering Building, will ensure that our program, on both undergraduate and graduate levels, meets the needs of local industry and produces graduates of the highest caliber.

As always, if you have any questions or comments regarding our program and the direction in which we're headed, please do not hesitate to stop by the department. The faculty and I would be most interested in speaking with you.

Sincerely,

A handwritten signature in dark ink that reads "F. Carl Knopf". The signature is written in a cursive style with a large, stylized initial "F".

*F. Carl Knopf
Robert D. and Adele Anding Professor and
Department of Chemical Engineering Chairman*

A WORD OF THANKS TO OUR 2000-2001 CONTRIBUTORS

Although financial support has been impressive, departmental expenses continue to rise and further renovations are essential in remaining competitive with our counterparts at other universities. We would like to thank the following corporations and individuals for their role in maintaining the outstanding reputation that LSU has achieved throughout the years.

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If you would like to know more about contributing to the department, please contact Carl Knopf at 225/578-1426 or send an e-mail to broussard@che.lsu.edu.

CHEMICAL ENGINEERING is published for the benefit of the department's alumni and students. Comments and suggestions should be directed to:

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Professorship Honoree Passes Away



IKE Y. EAST.
Photo from 1824 Gumbo

THE Gordon A. and Mary Cain Department of Chemical Engineering has lost one of its most distinguished alumni and a great supporter of the program. Isaac "Ike" Young East passed away on November 30, 2000, at his home in Spanish Fort, Alabama.

A native of Zachary, Louisiana, Mr. East graduated from LSU in 1924, with a bachelor's degree in chemical engineering. In 1997 an endowed professorship was established in his name at the LSU Department of Chemical Engineering.

He graduated top of his class from LSU and in his master's studies at Ohio State University. After his graduation from Ohio State, Mr. East worked for International Paper (IP), managing a number of mills in the South until his retirement in 1965. He also oversaw the start-up of IP's rayon plant in Natchez, Mississippi, in 1950, and served as that plant's first manager. In recognition for his contributions to the chemical engineering industry, Mr. East received an honorary degree from the University of Alabama and served as an adjunct faculty member there from 1964 to 1966.

According to his family, Mr. East believed that engineers should be active in their communities, in addition to working toward academic and industrial excellence. He was a member of the LSU Foundation for many years and was quite active with Alumni Association.

His nephew-in-law, Robert Bujol (B.S. 1943), said that Mr. East told him several times that "the support of the LSU faculty was instrumental in his academic achievements and his success in his industry assignments." One of Mr. East's most notable industry accomplishments was his 1966 honorary membership in the LSU Chapter of Omicron Delta Kappa, a national leadership honor society, in recognition of his leadership in business.



IKE EAST (TOP LEFT) BELONGED TO THE PSI CHAPTER OF ALPHA CHI SIGMA, THE NATIONAL PROFESSIONAL CHEMISTRY FRATERNITY.

Joint Founder of Ike East Professorship Passes Away

Eugenia East Bujol, wife of Robert Bujol (B.S. 1943), passed away on April 23, 2001. Mr. and Mrs. Bujol established the Ike East Professorship to honor Mrs. Bujol's uncle, Isaac "Ike" East for his outstanding leadership skills and his accomplishments at LSU. We extend our deepest sympathies to the Bujol family, and will miss the support and generosity of Mrs. Bujol.



K. T. VALSARAJ

K. T. Valsaraj currently holds the Ike East Professorship, and has already established a reputation as one of the leading environmental engineers in the country.

John Collier, the first recipient of the Ike East Professorship, is now chair of the Department of Chemical Engineering at the University of Tennessee-Knoxville.



JOHN COLLIER WITH IKE EAST IN 1999

Hazardous Substance Research Center-South/Southwest Renewed by EPA

THE CHEMICAL ENGINEERING DEPARTMENT will continue to host the Hazardous Substance Research Center-South/Southwest (HSRC-SSW), having been awarded \$5 million over the next five years by the U.S. Environmental Protection Agency (EPA).

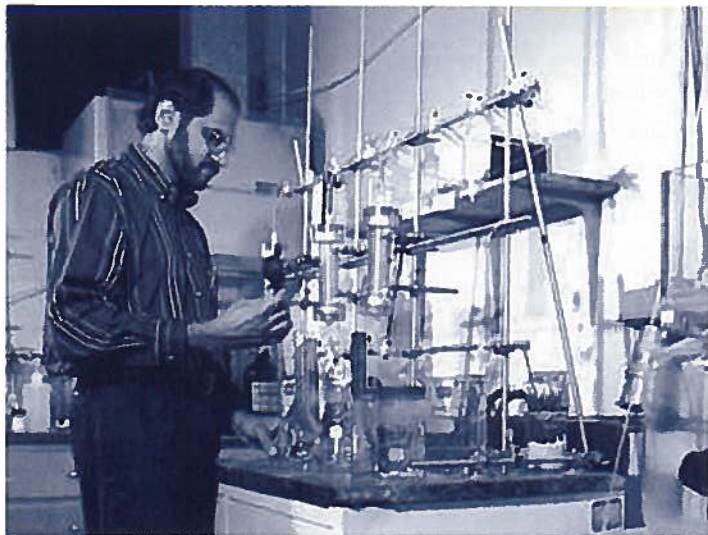
One of five such centers in the country, the South/Southwest facility focuses its research efforts on contaminated sediments found in aquatic environments. The center was established in 1991 with a grant from the EPA as a cooperative effort between LSU, Georgia Tech, and Rice University, and now Texas A&M.

Twenty-seven university consortia entered the recent renewal competitions, including schools in North Carolina and Texas competing within the region and the University of Illinois and University of Washington competing nationally in the center's theme area of contaminated sediments.

Director **Danny Reible** said of the recent award and renewal, "I'm very pleased that the EPA has recognized the importance of contaminated sediment as a hazardous substance problem, and also recognized our role in responding to the problem nationally." Reible said that they expect to supplement the EPA grant with an average of \$1 million per year in other funding.

Research

The HSRC-SSW is a "pass through" organization, meaning that it attracts faculty from other LSU departments and other universities to collaborate on research in their particular areas of hazardous substances. Some of the center's research projects based at LSU include determination of pipeline contamination, i.e., radium amounts in



K. T. VALSARAJ RESEARCHES AIRBORNE CONTAMINANTS

oil exploration/production equipment (in the early 1990s), and more recently, understanding contaminant availability to plants, animals, and microbes, and developing models to predict the fate of contaminants in sediments.

One of the current projects under way at the HSRC-SSW is Professor **K. T. Valsaraj's** continuing research into airborne contaminants released from dredged materials. After developing mathematical models to predict emissions, Professors Valsaraj, **Louis Thibodeaux**, and Reible are collaborating with the U.S. Army of Corps of Engineers to determine the potential for contaminant emissions from confined disposal facilities, and how those emissions can be minimized. Contaminated sediments from five different sites—University Lake in Baton Rouge, Louisiana; New York Harbor; Rouge River, Michigan; Grand Calumet River, Indiana; and the Indiana Harbor Canal—have been examined to assess the potential release of compounds such as PAHs and PCBs.

In more closely examining the volatility of the sediments, Valsaraj and his colleagues have been able to further refine the mathematical models developed in the previous study. According to the latest research, the effects of oil and grease contamination, along with aging and irreversibility in sorption of contaminants, found in most of the sediments examined will play a significant role in determining optimal methods for reducing emissions from exposed sediments.

Outreach

Another mission of the center involves outreach. This includes education of communities about their local hazardous substance issues through the center's Technical Outreach Services for Communities (TOSC) and Technical Assistance to Brownfields (TAB) programs. The TOSC program helps communities understand technical issues related to hazardous waste, enabling citizens to be more knowledgeable in their involvement in local hazardous substance problems.

As part of this educational service, the first Outreach Environmental Fact Sheet went online in March 2001, kicking off a monthly series of updates on topics of interest to communities served by the TOSC and TAB programs.

Meanwhile, the TAB program assists in areas where contamination problems have already discouraged economic progress and disturbed the environmental balance. Clean-up efforts improve these areas physically and cosmetically; in addition, TAB personnel also provide interaction between government agencies and residents, along with land use planning and further clean-up technologies, among other revitalization services.



▲ DR. REIBLE DISCUSSES FUTURE PLANS FOR THE HSRC WITH DEAN EGBLELU (CENTER) AND ASSOCIATE DEAN TUMAY (LEFT).

What is the HSRC/SSW?

The HSRC/SSW was established in 1991 to look at environmental problems specific to EPA regions that include Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, Tennessee, and Texas. The principal investigator for the EPA grant that funds the HSRC is Danny Reible, and co-investigators include Louis Thibodeaux and K. T. Valsaraj from the Department of Chemical Engineering, John Pardue from the Department of Civil & Environmental Engineering, and John Fleeger from the Department of Zoology & Physiology. For more information about the HSRC/SSW, visit their website at www.hsrc.org/hsrc/html/ssw.

HSRC/SSW Director Wins AIChE Award



DANNY REIBLE, DIRECTOR OF HSRC/SSW

Danny Reible, director of the Hazardous Substance Research Center–South/Southwest, has won the Lawrence K. Cecil Award in Environmental Chemical Engineering, presented annually by the American Institute of Chemical Engineers (AIChE).

This award, sponsored by BP America, Inc., recognizes a outstanding chemical engineering contributions and achievements in the preservation or improvement of the environment. The recipient must be a member of AIChE, have 15 years of chemical engineering experience in the environmental field, and demonstrate leadership in research, teaching, engineering, or regulatory activities in either the public or private sector.

Award criteria considered in selecting a winner include:

- new discoveries, research, or the development of new processes or equipment applications in the protection of the environment;
- outstanding contributions of a chemical engineering nature in the design, construction, operation, or management of environmental protection facilities or enterprises;
- distinguished service in environmental protection as a professional engineer, industrial leader, or educator.

Henson to Spend Year in Germany Conducting Research



**MICHAEL AND ELFREDA HENSON
IN VENICE, ITALY**

This fall James McLaurin Shivers Professor **Michael Henson** will be eating more jagerschnitzel than jambalaya, as he has been invited to spend the fall 2001 and spring 2002 semesters at the University of Stuttgart in Germany.

Professor Henson is taking a year-long sabbatical from LSU to study the modeling, dynamics, and control of continuous biochemical reactors, one of his major fields of research. The proposed research at the University of Stuttgart will take

advantage of the advanced intercellular measurement technology and metabolic modeling expertise in the Institute of Biochemical Engineering and the nonlinear controller design expertise in the Institute for Systems Theory in Engineering.

Henson's current work is focused on dynamic modeling and feedback control of continuous yeast bioreactors that exhibit open-loop dynamic behavior, such as sustained oscillations. This work has two major objectives: (1) refinement of his group's cell population model of oscillating yeast cultures using a combination of experiments and nonlinear dynamic analysis; and (2) the development of feedback control strategies that utilize the population model to predict dynamic behavior and optimize bioreactor performance.

Specific objectives of Henson's research are to conduct experiments in which key intercellular and population variables are measured under bioreactor operating conditions that support sustained oscillations; to develop a detailed dynamic model by using the experimental data as the basis for combining metabolic and population model descriptions; to perform model order reduction and utilize bifurcation analysis to evaluate the dynamic behavior of the reduced-order model versus the full-order model; and to design a nonlinear model predictive controller by using the reduced-order model to predict the bioreactor dynamics. Henson's proposed research has earned him fellowships from the Fulbright Foundation and from the Humboldt Foundation to support his work.

Henson said that he expects the experience "will enhance the quality of my bioengineering research and will be a valuable cultural experience," especially for his two sons, 13-year-old Cortney and four-year-old Corey, who will be joining Professor Henson and his wife, Elfreda, in Germany.

Better Fuel Options for a Better Future

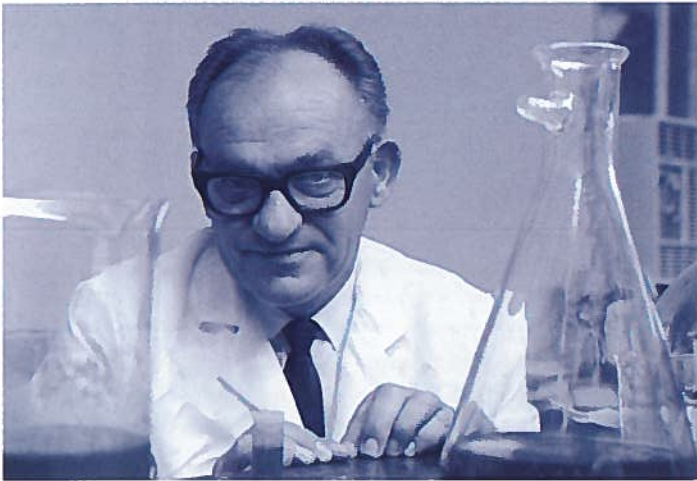
Continuing to expand the LSU chemical engineering department's international reputation, Voorhies Professor **Douglas Harrison** presented an invited paper on his research involving an innovative process for the production of hydrogen at the 4th Advanced Clean Coal Technology Symposium in Tokyo, Japan. Harrison was one of four U.S. authors and one of only seven non-Japanese authors at the conference, and his paper was well received at the annual symposium held in late January. The conference was cosponsored by the New Energy and Industrial Technology Development Organization and the Center for Coal Utilization, Japan.

While in Japan, Professor Harrison also presented a seminar on the same topic at the National Institute for Resources and Environment in Tsukuba. As a result of these two presentations, four Japanese researchers—Koji Komatsu of the New Energy and Industrial Technology Development Organization, Hiroyuki Hatano of the National Institute for Resources and Environment, Takayuki Takarada from Gunma University, and Michiaki Harada of the Center for Coal Utilization—visited LSU in early March for additional discussions.



(LEFT TO RIGHT) JOHAN ALSPAR, FROM STOCKHOLM, SWEDEN; HANS ZIOCK, FROM LOS ALAMOS NATIONAL LABORATORY; AND DOUGLAS HARRISON OUTSIDE THE GATE TO THE IMPERIAL PALACE IN TOKYO.

Catching up with Professor Emeritus Callihan



**CLAYTON CALLIHAN, EMERITUS PROFESSOR
OF CHEMICAL ENGINEERING**

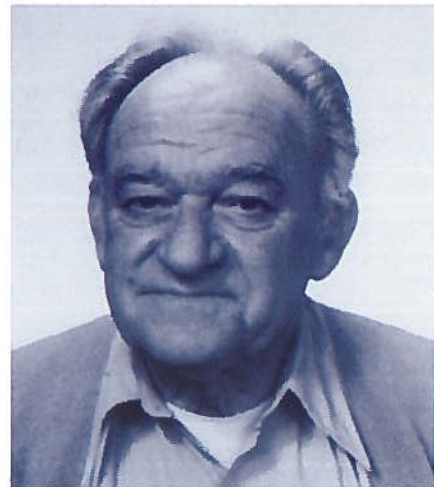
Many alumni who attended LSU's Department of Chemical Engineering between 1963 and 1983 will remember Professor Emeritus Clayton Callihan. Much of his research focused on finding new sources of energy, mainly from organic substances. He spent the fall of 1980 at Lincoln College in New Zealand to participate in a pilot program to convert fodder beets to alcohol and even experimented with the conversion of potato canning wastes to methane fuel.

Callihan remembers his 20 years at LSU with fondness, especially the dedication of his students. He said that someone once asked how his students studied under him, and he replied, "Heck, they study *without* me!" He recalls the students at LSU as some of the nicest he had ever met, and he enjoyed working *and* playing with them while he was here.

After leaving LSU, Callihan spent 12 years involved in expert witness testimony for various companies. Then in 1995, he said, he "threw in the towel" and retired to Florida, where he and his brother started a company that manufactured fiberglass rebars for cement reinforcement in wet and humid climates.

These days, he is fully retired, and the only planned event on his daily schedule is a two-mile walk on the beach—just a block away from his home in Jupiter, Florida—"to enjoy the sunshine, fresh air, and to feel that breeze off the ocean," he said.

Callihan is also working on a design for a jet engine that would use and recycle superheated water instead of jet fuel. He says he would be glad to hear from any of his former students; he can be reached by e-mail at callihan@bellsouth.net.



CLAYTON CALLIHAN TODAY



Faculty News

Activity Bulletin



ARMANDO CORRIPIO (LEFT) IS CONGRATULATED BY ENGINEERING DEAN PIUS EGBELU (RIGHT).

ARMANDO CORRIPIO was selected as a member of the spring 2001 Faculty Honor Roll. This honor is based on student nominations and on the professor's positive influence of student and other faculty members. Corripio was one of 44 faculty members at LSU who received this award.

MICHAEL HENSON spoke at the Sixth Annual Chemical Process Control Conference in Tucson, Arizona. His topic was "Dynamics and Control of Cell Populations in Continuous Bioreactors." Henson also continues his research funded by the NSF, ExxonMobil, Praxair, and DuPont.

RALPH PIKE recently took over as chair of Area 16b, Petrochemicals of the Fuels and Petrochemical Division of AIChE. This committee is responsible for the selection and determination of the sessions on petrochemicals that are present-

ed at AIChE national meetings. Pike also presented at two international conferences during the month of May: the Process Integration, Modeling, and Optimization for Energy Savings and Pollution Conference in Florence, Italy; and the European Computer-Aided Process Engineering Conference in Kolding, Denmark.

ELIZABETH PODLAHA attended the fall Electrochemical Society Meeting in Phoenix, Arizona, with two students. Graduate student Jenny Gong copresented her research work with Podlaha, "Development of Electrodeposited Tb Alloys"; Gong had received a grant from the Electrochemical Society to attend the conference. The only undergraduate student in the poster session, Shirlene Chew, copresented her work with Podlaha on codeposition of nickel-iron-tungsten alloys. Podlaha continues to involve

both undergraduate and graduate students in her research on electrodeposition of alloys at CAMD.

K. T. VALSARAJ was invited to speak at this year's International Materials Science Conference, held in Singapore. His

lecture focused on mineral oxides for environmental remediation applications. Valsaraj has also been invited to serve on the editorial board of the *Journal of Air and Waste Management Association*, the second-most cited journal in the environmental area.

Awards

Eagleview Technologies/MGK Co. contributed \$70,000 to **KERRY DOOLEY's** research project, "Catalyst Development and Reactor Study for Asymmetric Ketone and Amide Production."

In addition to his EPA-funded **HSRC** work on airborne contaminants from dredged materials, **K. T. VALSARAJ** also

received two new grants this year. Valsaraj received \$48,000 from the U.S. Army to examine the environmental fate and transport characteristics of unexploded ordnance compounds at DOD military bases, and \$274,000 from the National Science Foundation to study the capture of organic pollutants in atmospheric fog droplets.

Faculty Help Raise Funds for Indian Earthquake Victims

K. T. Valsaraj, his wife, Nisha, and **Raghunathan Ravikrishna**, a research associate in the chemical engineering department, helped raise more than \$13,000 for the relief fund for the earthquake victims in Gujarat, India, who were devastated by the 6.9-magnitude earthquake on January 26, 2001. The money was raised through dance performances

that were cosponsored by the Kerala Cultural Association of Louisiana and the Indian Student Association at LSU. Internationally acclaimed and award-winning dancer Sunanda Nair performed several classical Indian dances at one of these benefit programs. Nair also presented three of her best students to perform traditional Indian folk dances.



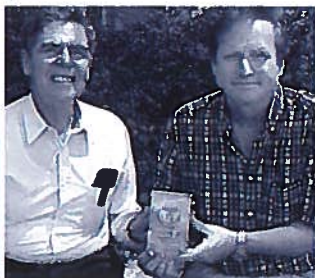
STUDENTS FROM THE SRUTLAYA INSTITUTE OF FINE ARTS PERFORM AN INDIAN FOLK DANCE.

PROFESSORS PLACE THIRD IN SAILING RACE



THE CORONA

**ARMANDO CORRIPIO AND
DANNY REIBLE WITH THEIR
THIRD-PLACE TROPHY**



Armando Corripio, Danny Reible, and Louis Thibodeaux placed third overall in the 2001 Louisiana Leukemia Cup Regatta. Sailing the *Corona*, the professors raised just over \$1,000. A total of more than \$50,000 was raised at this year's event, which is held annually on Lake Ponchartrain outside of New Orleans. This is the fourth year that the trio has

entered the event, and the third year that they have raced with the *Corona*; Thibodeaux raced in the Leukemia Cup in 1999 with the *Sea Hawk*. All three professors have been avid sailors for more than 20 years. Sailing organizations across the state participate in this event to raise funds for leukemia research and treatment development.

MAYBE "CHEMICAL ENGINEERING" CAN APPLY TO RELATIONSHIPS TOO . . .

Marriage to Margarita Báez Gonzalez has been good for David Wetzel; in fact, he said, "I always thought someone would be lucky enough to marry her; I had no idea it would be me."

For 20 years Wetzel and Gonzalez remained friends, even while she lived in Maracaibo, Venezuela, working at Pequiven, a national petrochemical plant. They had met while she was working on her bachelor's in chemical engineering at The Catholic University of America in Washington, D.C., which she received in 1979. Margarita and her daughter, Virginia Bolivar Báez, moved to Baton

Rouge last July, after the wedding on January 8, 2000.

Because Gonzalez had already spent five years in the states, she is quite fluent in English; Virginia, on the other hand, has spent the last year learning the language. Wetzel said that for four years, he and Virginia communicated through his limited Spanish (most of which he learned from her), her limited English, and "a lot of pantomime." Virginia's grasp of the English language is now quite complete, and she recently received a Principal's Award at St. Aloysius Catholic School, where she just completed the fourth grade.



**(LEFT TO RIGHT) MARGARITA
BÁEZ DE WETZEL, VIRGINIA
BOLIVAR BÁEZ, AND DAVID
WETZEL**

NOTICE

Effective November 15, 2001, telephone service at LSU will officially convert to a new exchange. All numbers with 388 exchanges will be reassigned the same last 4 digits, but with a 578 exchange (which spells "LSU"). Administrative numbers with 334 or 346 exchanges will be assigned brand new numbers with the 578 exchange. Residence hall telephones will retain the 334 exchange.

Spring 2001 Departmental Distinguished Seminar Series



HANS ZIOCK

The Scale of the Carbon Dioxide Issue
January 26, 2001

Hans Ziock works with the Geology/Geochemistry Group at Los Alamos National Laboratory, New Mexico, searching for solutions to the carbon dioxide issue. He presented a scenario in which developing countries achieve per capita energy consumption equivalent to that of the more developed nations. Ziock theorizes that in this situation, world carbon consumption would go up by a factor of 10. He said that there has already been a 30 percent increase in atmospheric carbon dioxide levels since the beginning of the industrial age; and any proposed solutions to the carbon dioxide issue must address the scale of the issue, involve minimal energy consumption and environmental impact, and offer an essentially permanent solution, all at a low cost. Ziock's visit was hosted by Douglas Harrison.

KARA MCCLOSKEY

Theoretical and Experimental Characterization of Magnetophoretic Mobility
February 2, 2001

Kara McCloskey's work at Ohio State University focuses on magnetic cell separation technology, a technique used to enrich or deplete specific cells from a heterogeneous cell population. A methodology and mathematical theory have been successfully developed which address the labeling and parameters controlling

the magnetophoretic mobility of an immunomagnetically labeled cell. The practical application of McCloskey's research will benefit tissue engineering, especially with cell separation strategies that will improve the success of tissue vascularization as a method of repairing damaged tissue. McCloskey's visit was hosted by K. T. Valsaraj.

JOE QIN

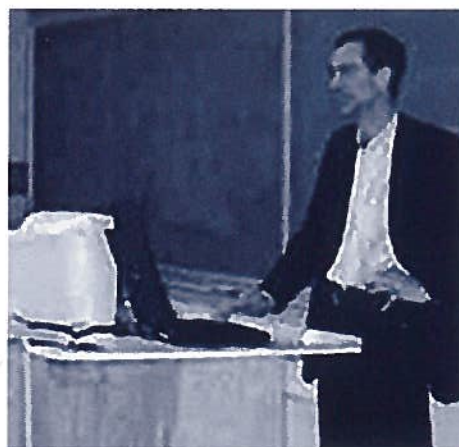
Subspace Approaches to Dynamic Modeling and Fault Diagnosis
April 6, 2001

Joe Qin is working on recent developments in subspace approaches for building general dynamic models from process data at the University of Texas–Austin. A key step in these applications, he said, is to build accurate dynamic models using principal component analysis. Qin also addressed detecting and identifying sensor faults using subspace models under dynamic operations, and how this method can be used for sensor validation for an industrial process. Qin's visit was hosted by Michael Henson.

OLE HASSAGER

Polymer Fluid Mechanics
April 9, 2001

According to Ole Hassager, progress in polymer fluid mechanics requires knowledge of theoretical and experimental rheology, structural theories, numerical methods and several other disciplines. He is working on possible future applications of polymer fluids at the Denmark Technical University in Copenhagen, Denmark. This is a particularly challenging field, as polymeric fluids show at the same time both viscous and elastic properties. Hassager's visit was hosted by Martin Hjortso.



**OLE HASSAGER TALKS
ABOUT POLYMER FLUID
MECHANICS**

JONATHAN HIGDON*Large Scale Hydrodynamic Simulation of Multiphase Flows: Foams and Emulsions*

April 20, 2001

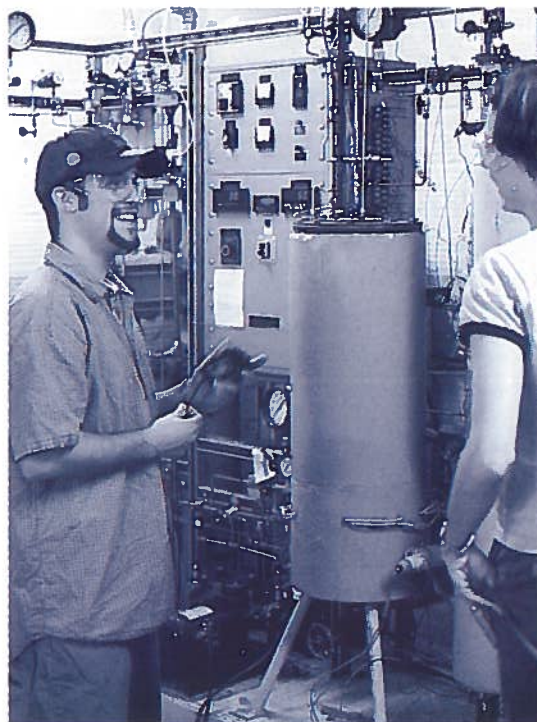
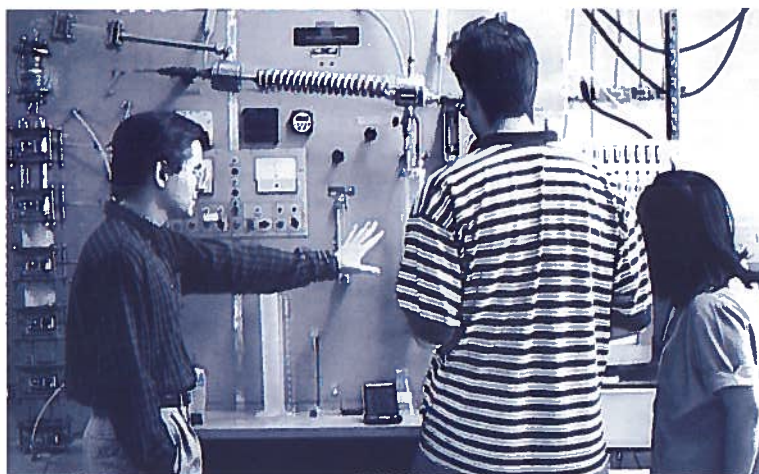
Jonathan Higdon's most recent work at the University of Illinois focuses on the multiphase flows of emulsions and foams. Certain conditions are encountered in a wide range of industrial processes, in manufacturing, in enhanced oil recovery, and in environmental remediation for ground water contamination. However, Higdon said that many of these multiphase systems are complex and defy simple modeling efforts and can only be analyzed through experiment or computer simulation. In his efforts, he said he was able to observe a number of interesting phenomena including shear thinning, shear thickening, phase segregation, and disorder-order transitions. Higdon's visit was hosted by Karsten Thompson.

JUDY WORNAT*Formation Mechanisms of Polycyclic Aromatic Hydrocarbons from Aromatic Fuels*

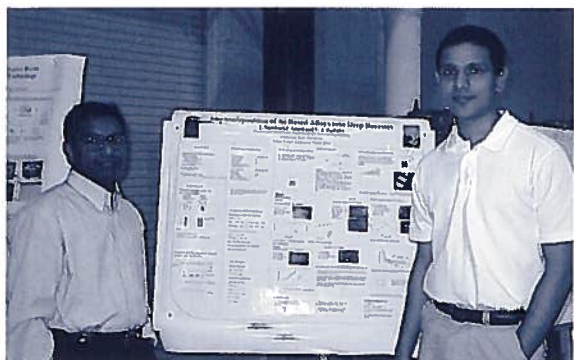
May 11, 2001

PAHs (polycyclic aromatic hydrocarbons) and soot are of particular health and environmental concerns, since many of these types of pollutants are known to be mutagenic or carcinogenic.

Judy Wornat and her colleagues in the Department of Mechanical & Aerospace Engineering at Princeton University are investigating the reaction mechanisms responsible for PAH formation from aromatic fuels such as coal, wood, and petroleum-based liquid fuels. She presented two types of the reaction mechanisms that the researchers have discovered to be at work—the first, involving combination of aryl species and cyclodehydrogenation; and the second, ring fragmentation and combination of fragment species. Wornat's visit was hosted by Arthur Sterling.



Student News



TWO PRESENT AT CAMD CONFERENCE

Two graduate students under the tutelage of Elizabeth Podlaha, LakshmiKanth Namburi and Amrit Panda, participated in the Poster Session at the seventh annual Center for Advanced Microstructures & Devices User's Meeting. Their joint poster, titled "Electrodeposition of Ni-based Alloys into Deep Recesses," described recent progress on alloy materials for MEMS applications.

LAKSHMIKANTH NAMBURI (LEFT) AND AMRIT PANDA AT THE CAMD CONFERENCE

AICHE NEWS



LSU AICHE CHAPTER MEMBERS AT THE SOUTHEAST REGIONAL CONFERENCE

Chemical engineering students attended the Southeast Regional Student AICHE conference at Clemson University, April 5–7. The conference included technical competitions, industry talks and seminars, plant trips, officer meetings, and social activities. Next year's regional conference will be hosted by the University of Puerto Rico, so plans and fund-raising have already begun.

The student section of AICHE had a busy spring semester full of meetings, and the continued sponsorship by many companies. This semester AICHE was fortunate to have meetings sponsored by Motiva Enterprises, Dow Chemical, and Conoco Westlake. The AICHE meetings had high attendance all semester and the companies all were informative about what opportunities a chemical engineering degree can bring.

Vulcan Chemical generously sponsored Seafest this spring on Saturday, March 15 at the Highland Road Park Observatory. Large amounts of catfish were consumed despite the chilly weather. AICHE would like to thank Vulcan for hosting Seafest this year!

The Dow Crawfish Boil was held on April 28th also at the Observatory. As usual, there were hundreds of pounds of crawfish and a great turnout. Students, professors and their kids and spouses, and Dow representatives all made it out for the beautiful day. Thanks to Dow for making the annual crawfish boil a special event!

NEW AICHE OFFICERS

On April 25, new officers were elected for the 2001–2002 school year. The new officers are:

PRESIDENT	PATRICK VEILLON
VICE PRESIDENT	JAY STEPHENSON
SECRETARY	MARILYN CALDERO
TREASURER	JESSE BOND

If your organization is interested in giving a presentation to the student chapter or sponsoring other activities in 2001–2002, please contact the faculty adviser, Karsten Thompson, at karsten@che.lsu.edu or Patrick Veillon at pveill1@lsu.edu.

AICHE STUDENTS ENJOYING THE DOW CRAWFISH BOIL



2000–2001 STUDENT AWARDS

The International Society for Measurement & Control (ISA) presented a \$500 scholarship to **Marjorie McBride** for her exceptional performance in the process control curriculum.

Awards were presented at the annual AIChE–Dow Chemical Crawfish Boil. Students received the following honors:

PAUL M. HORTON AWARD—Highest gpa of LSU chemical engineering students continuing into graduate program
Matthew Balhoff

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS SENIOR SCHOLARSHIP AWARD—Highest gpa at graduation
Louis O. Chemin III

DOW OUTSTANDING JUNIOR AWARD —Top 20 percent of junior class in scholastic performance
Jesse Bond

GAUTREAUX/CMRA AWARD—Highest gpa of chemical engineering junior class
Marjorie E. McBride
Jennifer Pusch

AICHE AWARD FOR SCHOLASTIC ACHIEVEMENT – Highest gpa for freshman/sophomore years
Frank A. Yacone, Jr.

JESSE COATES AWARD—graduating senior
Rebecca J. Lorenz

AMERICAN INSTITUTE OF CHEMISTS AWARD
Christian P. Aucoin

2000–2001 SCHOLARSHIP RECIPIENTS

BP AMOCO SCHOLARSHIP

Rusty J. Dauzat
Jourdia L. Matherne

CHEMICAL ENGINEERING SCHOLARSHIP

Maya C. Cormier
John A. DiZinno

O. DEWITT DUNCAN SCHOLARSHIP

Dwight P. Bordelon
Anthony S. Rotolo

GERARD FAMILY SCHOLARSHIP

Christian P. Aucoin
Jeremy M. Cash
Steven T. Foreman
Elaine V. Lim
Rebecca Lorenz
Andre C. Marquette
Carolyn Melton
Bradley K. Pinkstaff
Otis K. Spell

FRANK & CLARA GROVES SCHOLARSHIP

Christopher J. Burke

R. L. HARTMAN SCHOLARSHIP

William Lipham
Patrick Vellon

PAUL M. HORTON MEMORIAL

Ryan E. Varnado

MARATHON ASHLAND SCHOLARSHIP

Shannon Frith
Matthew K. Lemann
Barry M. Rogge

WILLIAM MCFADDER SCHOLARSHIP

Darren Marchal
Kim C. Trinh

TEXACO SCHOLARSHIP

Travis C. Lane

VULCAN SCHOLARSHIP

Paul W. Martin
Blair H. Spencer

Spring 2001 Commencement

**BACHELOR OF SCIENCE
IN CHEMICAL ENGI-
NEERING**

Ziad H. Al-Assir Al-
Husayni
Abdulrhman Al Husaini
Wajdi I. Al Sadat
Christian P. Aucoin
Deedra L. Barnett
Christopher J. Burke
James. B. Calcote
Anna L. Champion
Shirlene L.C. Chew
Maya C. Cormier
Manuel E. Crespo
Robert K. Damon

J. Anthony DiZinno
Trae Dupre
Todd B. Ellis
Eric S. Englehardt
Shannon L. Frith
Jeremy P. Gauthier
Kelley L. Green
Trent Hebert
Barry Huggins
Jason M. Landry
Travis C. Lane
Richard C. Loftin
Rebecca J. Lorenz
Darren J. Marchal
Marjorie E. McBride
Carolyn A. Melton

Kevin L. Miers
Shawnessy C. Miller
James Myers
Kathryn A. O'Rourke
Florence I. Orji
Jennifer Pusch
Carlos A. Quant
Shari Ray
Anthony Rotolo
Jeffrey W. Rushing
Sara E. Saacks
Billie Schexnaydre
Nathan C. Silva
See Yae Soo
Scott S. Stringer

Todd Tanory
Teresa C. Taylor
David A. Wedlake
Keat-Paey Yew
Katherine H. Zorzi

**MASTER OF SCIENCE IN
CHEMICAL ENGINEERING**

Lina Bustami
Honggao Liu

**DOCTOR OF PHILOSOPHY
IN CHEMICAL ENGINEER-
ING**

Abdelqader Zamamiri
Guang-Yan Zhu



Alumni News

ChE ALUMNUS INDUCTED INTO HALL OF DISTINCTION



AL LOPEZ

Alumnus and member of the department's Industrial Advisory Committee **Alfredo M. Lopez** (B.S. 1963, M.S. 1965, Ph.D. 1967) was inducted into LSU's Engineering Hall of Distinction this spring.

Currently vice president of research and development at the ExxonMobil Research and Engineering Company, Dr. Lopez joined Exxon as a process control engineering after his graduation from LSU. He became manager

of Exxon R&E's Gas and Heavy Oils Processing division by 1977, and director of the Baton Rouge Labs of the Exxon Company by 1984. Three years later, he returned to Exxon R&E, as quality manager on the staff of the company's president, and became manager of the projects department two years later. In 1993, Dr. Lopez was promoted to vice president of corporate research and assumed his current position in 1999.

Al Lopez is a native of Havana, Cuba, as is his wife, the former Maria Coalla. They currently live in Randolph, New Jersey, where Dr. Lopez serves on the board of his local United Way chapter as well as the New Jersey Institute of Technology's Albert Dorman Honors College Advisory Board.

Alumni Updates

If you would like for us to print news of your latest achievements, please complete the enclosed card and return it to us or send us an e-mail at broussard@che.lsu.edu.

1930s

We have learned that **Robin C. Anderson** (B.S. 1934, M.S. 1936) passed away in January 2000. Our belated sympathy go to his family and friends.

Junius E. Sapp (B.S. 1939) enjoys retirement in St. Francisville, La., after serving many years as manager of the Crown Zellerbach (now Crown Vantage) paper mill.

1940s

When his grandchildren browsed the Internet and found the LSU ChE website, **V. Dwaraknath Reddy** (B.S. 1948) found out he was a "Lost Alumni." He contacted us to tell that he was alive and well, back home in India. He and his father founded a candy manufacturing company, Nutrine Confectionery, when he returned to India in 1950. By the 1980s, Nutrine had become a leading maker of hard candies and toffee in India, and he was able to turn the rein over to his son and nephew. Mr. Reddy now spends his time in spiritual and philosophical contemplation, and has authored two books on the subject. He still remembers his time at LSU fondly.

1950s

We recently learned that **Daniel Bond** (B.S. 1950) passed away. Our sympathy go to his family and friends.

Jim Breaux (B.S. 1956) retired in 1996 and is enjoying his free time. He's looking to get in touch with classmates who graduated in 1956, and you can e-mail him at breauxtn@juno.com.

Robert L. Evans (B.S. 1958) enjoys retirement and spends his free time playing tennis, walking, and taking Lagniappe classes.

George G. Nelson, Jr. (B.S. 1952) lives in Fairhope, Alabama, and still enjoys his retirement from the Navy and International Paper. He spends his free time working on scenics for his prewar and postwar Lionel trains. You can see some of his work at community.al.com/cc/swarm or www.lots-trains.org/articles/layouts/nelson.

Lost Alumnus **Andre Rouillard** (B.S. 1951, M.S. 1952) is living in South Africa, according to **Thomas Allen** (B.S. 1952). The two friends still exchange Christmas cards and keep in touch with each other.

After working for Unisource until 1996, **James J. Swearingen** (B.S. 1957) is retired and living in Huntington Beach, California.

We were saddened to hear of the death of **Magnus A. "Mike" Tassin** (B.S. 1958), who was active in Louisiana politics, even while keeping his engineering license, running an accounting firm, and serving as a

Metro councilman for Baton Rouge. Our sympathy go to his family and friends.

1960s

Orlando F. Cardoso (B.S. 1966) is the manager of a chemical plant in Houston, Texas. He currently lives in Humble, Texas.

1980s

Stephen D. Miller (B.S. 1984) works for PPG Industries in Lake Charles, Louisiana. He received his M.B.A. from McNeese State University in December 2000.

1990s

Brandy Breithaupt Brenner (B.S. 1995) is a full-time mother of her son, Charles V. Brenner III, born in July 1999. She and her family live in Houston, Texas.

Hugh Brian (B.S. 1997) is working as a process engineer with Kvaerner in Houston, Texas. He is also the co-owner of a website devoted to fluid hydraulics, www.uengineer.com.

Eugene Britton (B.S. 1993) is a full-time "black belt" in the Six Sigma Continuous Improvement process at IMC Phosphates, where he has worked since 1994. Eugene currently lives in Gonzales, Louisiana.

Bryan K. Butts (B.S. 1995) is currently a unit process engineer for PPG Industries

in Lake Charles, Louisiana. He lives in DeRidder, Louisiana, with his wife, Rose, and two-year-old daughter, Amelia.

Rocky Chen (B.S. 1994) works for the Oklahoma Department of Environmental Quality. He is a senior environmental engineer in the plan review and construction permitting section of the water quality division.

Michael G. Corripio (B.S. 1997) and his new bride, Tammy, live in the U.S. Virgin Islands, where Michael works for the Hovensa Refinery in St. Croix.

Philip E. Hadaway (B.S. 1995) works as a process engineer at Shell Chemical in Norco, Louisiana. His current project focuses on technical support for one of

the lower olefins plants at Shell.

Andrea Hailey Klein (B.S. 1994) works part-time from home for BP Amoco. She and her husband welcomed their first child, William Russell Klein, on November 9, 2000.

Jada D. Lewis (B.S. 1997) is a operations planning engineer at Motiva Enterprises in Convent, Louisiana.

Indhu Muthukrishnan (M.S. 1997) is a product development engineer at the microcontamination control technology division of W. L. Gore & Associates, Inc. in Elkton, Maryland.

Jacob T. Richardson (B.S. 1996) is a process engineer at IMC Phosphates in Hahnville, Louisiana, and he receives his

M.B.A. from LSU in August 2001.

Ryan Roussel (B.S. 1996) works as a contract engineer for Albemarle at their PDC site. He and his wife, Melanie, live in Baker, Louisiana.

Melissa Bacci Walsh (B.S. 1997) is currently a project engineer for the MDI plant in Geismar, Louisiana, and loves coming back to campus to recruit future chemical engineers. She says she'd love to hear from old classmates!

Priscilla T. West (B.S. 1994) trades gasolines and distillates for Citgo/Petroleos de Venezuela, S.A. She previously worked as a refinery process engineer for Citgo.

LOST ALUMNI

WE NEED YOUR HELP:

We would like to thank the treasured alumni who forward up-to-date information and current addresses for both themselves and others. Although many of our past graduates can be located easily thanks to the Internet, there remains a surprisingly large number of alumni that simply cannot be found.

Even though chemical engineering employment opportunities sometimes require an extremely volatile lifestyle, many of our graduates keep in touch years after the excitement of the diploma ceremony has waned. If you happen to know any information regarding the following alumni, please contact us. We would like to send a newsletter to as many of our graduates as possible.

1935

Henry P. Broussard
Mary L. Digirolamo
Charles Edgar Gill
Richard A. Pratt
Clark W. Rider
Frank w. Valls
Guy G. Vanderpool

1936

James R. Britt
Lealand A. Enberg
Hamilton M. Johnson
Louise T. Kennedy
Francisco Pepito Pilapil
Alvin D. Rolufs

1937

John Lucious Burt
Delma McCabe Cointment
Richard L. Hodges
Edwin Liebert
Morris Leonard Perlman
William Everitt Rowbotham
Robert Boyd Stewart
M. R. Subra
William Owen Switzer

1938

James Camille Aucoin
William Yeoman Gissel
Walter Hudson Johnson
Gangadhar Dinker Kane
Otis B. Rowland
Herman Siegel

1939

Angel Alberto Colon
John H. Doherty
James Hardie McGee
Junius E. Sapp
Sidney Schulder
David Connell Walsh

1940

Henry Blanchet
James Wilson Bridges
Edward Stirling Johnson
Y. Ebra Jose
James V. Senese

1941

Harry Clair Cole
Charles Arthur Overstreet
Willis Wilcox Williams

1942

T. Ben Arnold
William Fowler Daniels
Varner E. Dudley
Gilbert Fletcher Moore
James Stanton Patterson

1943

John W. Mizenko
Robert Emmett O'Connor
George Albert Speir

1944

Manuel Mestre
Jack William Racine

1945

Armando Alonso
Juan Castresana
Karl Albert Muller
Charles Bernard Richard

1947

George Charles Conrad
Thomas Harper Goodgame

1948

William B. Chandler
Clarence E. McMillan

Edward O'Donnell
Charles Joseph Perilloux
Jeptha Van Day
Stephen A. Winborn

1949

Maurice Gordon Baxter
Richard Cameron Berry
Thomas Fulton Burke
Edmund Pettus Davis
Billy Joe Grady
Thomas Moody Logan
John Rurick Major
Edward M. Miscar
Pablo Navarrete Vaillant
Bruce Eugene White
Ben Allen Willard

1950

Harish Chandra Anand
Earl Paul Babin
Maurice G. Baxter
Richard C. Berry
Raul Victor Capote
Vincente Carreto de la Mora
Albert Lacy Fourmy
Gene Armond Freiss
Juan Ignacio Gabilondo
Prasanna C. Goswami
Boyce Nunnally

Clarence Earl Phillips
Robert Denton Platt
Wilson Clyde Pullig
Theodore Russell Ray
Osvaldo R. Rodriguez
Jose Sales
Claude Joe Stiles
Manuel Fausto Villapol

1951

Basil Wayne Andrews
Martinez Ricardo Felix
Albert L. Gagneux
Ruble Landis Huff
Lonnie Zach Mallory
Jimmy Edgar Middleton
Pramod Lal Sarma
Arthur Wellington Sellers
Elvin Andrew Stafford

1952

Omar Arape
Fernando Hoyos Bergonzoli
Raymond Raffray
Andre Edward Rouillard
John Dempsey Stokes

1953

Mansour Ghadar
Riyad Abdallah Khalaf

1954

Philip Earl Brubaker
Robert W. Duhl
John B. Fontenot
Kenneth Odell Halbrook
Gene Addison Johnson
Humberto Pinheiro Machado
Jose Antonio Moncada
Freeman Louis Morgan
Mario Posada
Roy T. St. Pierre
Kenneth L. White

1955

Zevada M. Avalos
Wiley B. Fisackerly
George Mathieu Guidroz
Stanley Dison Hanesworth
Raymond Calvin Hatfield
Habib Labbauf
Guy Clifton McCombs
Wilhelmus Melis
Paul E. Otto
Patrick Gerald Simms
James B. Starks
Ezra Jasper Westbrook
George W. Wright

1956

Thomas W. Howard
Kenneth Hoy
Robert Pole

1957

Austin C. Abshier
Philip Dominic Accardo
Yeganeh A. Amir
Jose A. Chapman
Rafael Jorge Garcia
Frederick Eugene Marsh, Jr.
Norwood William Matherne
John William Maurin
Felix Fortune Planche
Walter James Porter
Silva Joaquin Sanchez
Regulo Atilio Sardi
Harold Alfred Simms
Luis Alberto Wallis
Ignacio Warner

1958

Joseph M.P.H. Adam
Augustine Joseph Corona
Harry Alonzo Edwards
Bernard J. Goussault
Paul Joseph Gravel
Franklin Murry Ingram
Mohan Singh Kothari
Ferdinand Louis Larue
Euclide Howard Leleux
Jean Pierre Mariani
William Claborn Meek
Bobby Morgan Miller
Maurice Khalil Nasser
Joseph Marie Pierre
Joseph T. Regard

1959

Charles Ellis Adams
Richard I. Brown
James Kernon Crochet
Jai Narain Goel
Willard Milton Hanks
Thomas Charles James
Paul Richard James
Harold Douglas Jelks
Robert Harley Jines
Habib Labbauf
Freddy W. Landaez
John Morgan Webre

1960

Charles Edwin Beckler
Ronald G. Corley
Ronald Anthony Dejean
George Paul Distefano
Jose L. Mendez-Fuertes
Sebert Albert Haynes
Charles Emory Knight
William Francis Lanigan
Michael Joseph Maurin
Jose Leandro Mendez
Larry Joseph Remont
Calvin Antoine Rouse

Shwen Ih Wang
John Wurster Wheeler
Hugh Glenn Wilson
Don Wesley Wolsefer

1961

Heraldo Antonio Sifontes Agreda
Ronald L. Clark
Hector Joaquin Corella
Robert Allen Davis
Ernest Woodard Harrison
James Cleveland Holland
Boyd Young LeBlanc
Jose G. Lopez-Barreda
Humberto E. Lopez-Sanchez
Eugie A. Martin
Jorge Andres Clemente Pino
Fernando Xavier W. Pires
Victor Plas
Emilio Rebull Rivera
Konchady Nagesh Shenoy
William Dave Taylor
Vincent Stephen Verneuill
Glenn Lamar Wise
Gary H. Young

1962

Jeff W. Baird
Fred Edward Causey
Charles Reggie Guerin
Jack Welbur Harris
Clovis P. Legleu
James M. Shipp, Jr.
Henry M. Troth

1963

Maria Z. Aguilar
James Leston Case
Robert Guerra
Billy Wayne MaGee
Frank Nemours Newchurch
Jimmie Doyle Pottorff
Ramachandra M.R. Rao
Jose Francisco Agreda Rodriguez
Maria Aguilar Rodriguez
Francisco J. Rovira
Leo Simon Sues

1964

Joseph F. Accardo
David Gray Caddy
Ivan E. Caro
Danilo P. Castillo
Omar J. Esmal
James Thomas Kennison
Herbert James Louque
James M. McCormick
Gary Martin Montgomery
Motiram Kisan Patil
Pietro K. Piralla
Denarakonda Hanumantha Rao
Juan Ramon Santa-Coloma

Robert Glenn Tripp
Jose Tito Villa

1965

Nolan Joseph Adams
James Henry Brooks
Madhigiri S. R. Ramesh
Richard C. Robinson
Nora Antonia Sanchez
Antonio Velidanes

1966

Richard Freeman Buckley
Harold Louis Hebert
James Edward Horn
Ronald C. Keller
David Wesley Miner
Sims Louis Roy
Richard Joseph St. Pierre

1967

Raul Cardenas
James H. Doub
Joseph Larry Edmonson
Ronald E. Jones
Mauricio A. Lopez
Wilbert S.F. Mackay
Hooshang S. Moghani

1968

Ricardo J. Gomez
Guy Jean-Pierre Harel
Randall John Indovina
Kenneth J. Parent, Jr.

1969

Antonio De Aguirre-Aurrecoch
Alvin A. Fairburn
Louis A. Gonzalez
David R. Hendricks
Virgil d. Joffrion
John Randolph Langley
Yu-Chin Liu
Carlos E. Moreno
Ivan A. Navarro

1970

Alvaro Campuzano

1971

Sain D. Anand
Michael John Archetee
Jose F. Azouth
Leroy Joseph Cavaliere
Thomas F. Dominick
Richard Edwin Dorris
Carl David Engel
Charles Goodson Guffey
Mark Austin Jeffers
Ronald Dean Miles
Glen Dale Savoy
William Alden Settoon

Vinodchandra R. Shah
Stephen R. Williamson

1972

Juan F. Ardila
Robert John Camacho
Bernad C. Chan
Frank R. Cusimano
Jose Rafael Morao
Marshall Budd Nelson
Richard Wayne Nill
Sanford James Stinnett
Mark A. Williard

1973

Denzel Allen Brown
Justin Dwight Edwards
Olivier Damianus Habibe
Hsiao-Nan Huang
Mohammad Reza Karbassian
Ronald Jules Manuel
Richard Lee McGlamery
Madhusudan Nathany
Mehmet Ozbay Ozelsel
Lokesh H. Parikh
Anan Siripong
Marlin Rufus Vernon
Roger Earl Waguespack

1974

Jamal Al-Din Barzinji
Mohamad B. Behbehani
Frank Darral Durringer
Hafez Hafezzadeh
Mostafa Mina
Najmeh Sadighi-Nouri
Solaiman G. Sindy
Suresh Mansukhlal Vora
Wing Yan Woo

1975

Rabie Ahdoot
John Allen Alexander
Mohammad Ali Movahed
Ahmad Sharonizade
Paul Timothy Siegmund

1976

Stephen William Krajicek
Frederick Henry Pitts

1979

Manuel A. Arguello
Ender J. Ferrer
Carolyn R. Koontz
Jamaledin Madjdpour
Carl E. Sladek
Tuan A. Tang
Beth Maria Troxler

1980

Mary E. Ahner
Mahmoud Madhat Alhashimi
Bob B. Carter
Villa D. Holland
Bradley K. Kruelski
Edward A. Thistlethwaite
Labrador Angela Vitelli
Martin K. Wiewiorowski

1981

Linda Lovorn Bonin
Edgar Hernandez
Patrick C. Lejeune
Andrew C. Mok

1982

Jean E. Carvajal
James Douglas Griffin
Joseph Khalk Koro
Jaime A. Pineda
Thomas Anthony Stroud

1983

Lawrence T. Faucheux
Lily Gunawan
Kenneth M. Jones
Gregory B. Pickren
Sharron R. Woodall

1984

Edwin Chukwudi Akujobi
George M. Charron
William W. Conway
Rudyard E. Davidson
Bernie Lofaso, Jr.
Neftaly E. Rodriguez-Corea
Susan K. Snodgrass

1985

Karen Craft-Kofai
Mohamad Kheir S. Habbal
Karen E. Korn
Robert D. Moore
Susanne Warren Tully
Richard S. Willms
Kigham Seropp Yeretizian

1986

Mohammed Nouredine
Amrouni
Andreas Phoebus Constantinides
Alvaro Jarquin
Hung Duy Nguyen
Rammohan Varadarajan

1987

Sheng-Yang Ju
Stephen R. Brodt

1988

David E. Cockrill
Ileana Perez

1989

John Anthony King
Michael W. Landry

1990

Dhananjay B. Ghonasgi

1991

Sriram Gangadharan
Subhash R. Ghorpade
Wai Shen Lee
Yu Wen Lo
Yeung Ho Park
Philip Roberts

1992

Pankaj Agarwal
Michael P. Bilello
Scott J. Daigle
Roland J. Doucet
Darryl J. Folse
Donald J. Icard
Reginald Little
Jorge Rolando Paiz
Hongmei Ren

1993

Yumi Akiyama
Lufti A. Bafahgih
Allen W. Bihm
Cheng-Ho Chen
Marc J. Chitty
Jennifer A. Cole
Mandar Dikshit
Rajiv Gehani
Betty Yeepei Huang
Toni Weavil Hunter
Manjunath Mahishi
Arpaden Silaban
Sudhanshu Thakur
Sachit Verma

1994

Trent Bolling
Andrew Cain
Ming Chia
Joseph L. Hamlin
Jianxin Hu
Jeffrey T. Miller
Ruben H. Munoz
Pankaj Nigam
Ramon R. Rionda
Vivek Shende
Subramanyam Vdaygiri

1995

Shellen G. Cair
Aimee G. Deangelo

Dorinda S. Doroja
Michael S. Genius
Rajesh Girdhar
Chun Han

Eric D. Hollis
John F. Ledoux
William E. Mixon
Max P. Morvant
Quang V. Nguyen
Xuxian Niu
Jeannette Santos-Cordero
Flavio Tinoco
Quy T. Ton
Shin Won

1996

Shannon M. Bertheau
Chad J. Bourgeois
Kevin D. Burkes
Deependra Charan
Tanya Fruge
Kai Z. Jiang
Shane M. Johnson
Damon P. Lechtenberg
Yew K. Loo
Bianca C. McWilliams
Thomas Menuet
Jonathan Miller
Quoc P. Phan
Trent J. Schexnaildre
Amritpal S. Sidhu
Alma C. Thomas
Yihua Xiong

1997

Moh Fahrurrozi
Wendy Harris
George Holder
Peter Minsong Kim
Antwane Shephard
Stefan Vost
Brian Watts
Tiyuan Xu

1998

Diane Worthy Braselman
Xueyu Chen
Venu Gedela
Bronson Guilbeau
Cheng Pan
Amit Sharma

1999

Michael E. Dean
Franciscus X. Prawiro
Steve Reynolds
Shin Wong
Sook-Wai Yei



LOUISIANA STATE UNIVERSITY

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Baton Rouge, LA 70803-7020

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