

#### Going up

Work under the summer sun is allowing the rapid rise of a concrete and metal structure that will become F.I.T.'s Evans Library. The work by P.J. Goodwin Corp. of Merrittisland is expected to yield a useable, \$3.6 million structure by May.

# **Rowers return national trophies**

Trophies symbolizing the national prominence of **F.I.T.'s crew** team were returned to the university following the Dad Vail Regatta at **Philidelphia** — the nation's small college rowing championship.

The Engineers finished a close-second in overall points despite first-place finishes in three rowing categories, leading Coach Bill Jurgens to commend his athletes on 'a very good year."

The season finale was on the **Schuylkill** River, where 2,000-plus rowers were joined by more than 25,000 spectators.

In the history of F.I.T. rowing, the **success** of the 1983 squad has been surpassed only by last year's crew team – which managed to capture the national small college championship. That season, the coach said, was "a remarkable year."

The overall honors went this year to Georgetown University, which earned 46 points to F.I.T.'s 39. Third place went to

Connecticut College, and the Coast Guard Academy claimed fourth place out of 63 competing schools.

Winning boats for F.I.T. were the men's junior varsity eight (for the thud year in a row), **the men's lightweight** varsity eight (the first win at **the Dad** Vail since **1975**), and the men's lightweight varsity four (which held off a surge by Jacksonville University, a squad that beat them in Florida competition).

The men's varsity eight — the squad that competes for the 'Wad Vail Trophy'' which the Engineers captured in 1982 — fell in the finals to Temple University. ''It was a nip and tuckfight, then they just outsprintedus at the end,'' Jurgenssaid.

Jurgens said other team points included those earned by the women's varsity eight with an inthplace finish, the women's junior varsity eight in third place, and the men's freshman four in sixth place.

# Florida Institute of Technology



# EPA backs search for cancer test

The Federal Environmental Protection Agency (EPA) has asked an F.I.T. researcher to develop a test system to determine which chemical compounds are potentially hazardous to man.

Dr. John C. Hozier, director of F.I.T.'s new Medical Genetics Laboratory, has been awarded a **\$245,000** EPA contract for the three-year study aimed at developing such a test system.

The research project is being conducted in collaboration with scientists at the EPA Health Effects Research Laboratory in North Carolina.

The development of a test system to **screen** for chemical compounds potentially hazardous to man is not new to Hozier. Last year the EPA awarded Hozier a \$270,000 contract to dwelop a different test system for a similar purpose.

"We have already developed a system for testing cells grown in the laboratory which were exposed to potentially cancer-causing chemical compounds," said Hozier.

'Unlike the previous test system, designed to test cells grown in the artificial environment of the laboratory, the present studywillinvolve a system for testingcells in live animals," Hozier added.

The researcher explained that more than one such test system is needed to help make the results of animal studies more indicative of the risk involved when humans are exposed to potentially hazardous chemicals in the environment. It is estimated that some 500 to 1,000 new chemicals are introduced into the environment each year.

Hozier said that the first stage of the new research project will involve a study of the way chromosomes replicate during the cell cycle.

Chromosomes are the microxopic rodshaped bodies in a cell which carry the genes that determine hereditary characteristics. In humans there are 46 chromosomes.

During the first stage of the study, a test system will be created to measure the exchange of genetic material between different chromosomes. That **process** is believed by scientists to be an important indicator of agents which damage chromosomes and can result in human disorders such as cancer or birth defects.

During a second stage, the test system itself will be tested, by exposing animals to various compounds to determine how closely their response relates to increased cancer risk in humans from those compounds.

The researcher noted that about 70 percent of the grant money will go toward salary support of scientists and technicians involved in the **development** of the test system. The remaining grant money will be used for supplies and equipment.



Dr. John Hozier

# F.I.T. graduate lands promising career

For one F.I.T. graduate, on-the-job training through F.I.T.'s Cooperative Education program has **helped pave** the way to a **promising** career.

"The job experience opened my eyes to what the working world is like for engineers." said Nancy Jean Walker. She explained that working engineers have duties beyond application of skills learned in the classroom. engineers and scheduling cargo facilities in support of future Space Shuttle flights. She later worked part-time for Western Technology writing video games.

"Just as you got tired of school. you had

to go to work. And when you got tired of work, you would go back to **school**," she explained.

Although Walker had nine job offers upon graduation, she **chose** to work for DBA Systems Inc. as an analyst programmer.

"I am working on a data base management system for all cf DBA." said Walker. She explained that the system will contain personnel files on DBA employees to be used by corporate headquarters and project managers. She plans to return to F.I.T. in the fall and pursue a master's degree in business administration.

'*They* have many supervisory responsibilities **which** go beyond **working** with electronic gadgets,'' said Walker.

Walker explained that her **co-op experience** helped her prepare. 'Through my job, I **knew exactly** what I **wanted** to learn. So, I did not **hesitate** to ask questions in class,'' said Walker.

The **Melbourne** native must have both asked the right questions and provided her **professors** with the right **answers**.

She was the **recipient** of **F.I.T.'s** Faculty Scholarship Award during Winter Commencement. The award is **presented** at each commencement to **bachelor's degree** Ad**pients** with a 3.8 or **greater grade point average**. Walker **earned** her **degree in elec**trical engineering with **a 3.866 average out** of a **possible** 4.0.

She also worked full-time for seven quarters with **Harris Corp.** as a junior engineer, and for NASA assisting design



Nancy Walker took the prize at graduation.

"I would like to move into upper management and be president of a company some day." said Walker.

While attending F.I.T., she was active in **several organizations.** She was president of Eta Kappa Nu electrical engineering honorary society; **president** of Tau Beta Pi engineering honorary fraternity, and member of the **Co-op** Advisory Board.

She was **also** a member of Blue Key National Honor Society, the Institute of Electrical and Electronic Engineers, and the Society of Women Engineers. She was selected for inclusion in the **publication** "Who's Who among Students in American Universities," for **1982-83**.

Currently, Walker is a registered engineer in training in the state of Florida. She plans to apply for her professional engineer's license after she has acquired five years experience in the field.

Story by Mary Deese

# Alumni notes

### 68

Henry (Hank)**Hadley (B.S.-Physics)** has obtained his doctorate and now resides in **Elkton**, MD. He is employed by Solar Energy Systems, **Inc.** of Newark, DE.

#### 71

Frederic C. Schwartz (BS-SpaceScience) who received an MS from Ohio State University in 1973, is one of 54 mid-career executives from the U.S. and abroads elected as Alfred P. Sloan Fellows by the Massachusetts Institute of Technology. Hecurrently is chief, Systems Engineering/Integration Division, Deputy for B-1B, Aeronautical Systems Div. Department of the Air Force, Wright-Patterson Air Force Base, OH. (See story on Mr. Schwartz in this Update.)

### 73

JamesW. M. **Pryde** (**BS-Mgmt. Sci.**) is a senior field engineer with Data General Services, **Inc.** of Columbus, OH. He moved from Colorado in 1979 and now lives in Worthington with his wife and four children, Rachel (12) Janice (4), and twins **Abagail** and Sarah (2).

### 75

**Russell** E Dronne (**BS-Sci.** Ed.) lives and works in Bakersfield, CA, where he is a safety engineer for Fireman's Fund Insurance c o.

George T. Nicholas (MS-Cont. & Proc.) lives in Davenport, IA, and serves as supervising procurement analyst, Hdq. U.S. Army Armament Materiel Readiness Command, Rock Island, IL. He is assigned as chief, Review and Compliance Division of Policy and Plans Office and was selected by National Contract Management Association as a Fellow. He is considered a national expert on military disability retirement benefits, has assisted Congressman Fred Schwengel, and has served for six years on the Iowa Governor's Committee for Employment of the Handicapped.

**Birendra Sahijwani (BS-EE)** in May of this year received an M.B.A. degree **from** Widener University. Chester PA.

# 76

Kenneth B. Taylor (BS-Air **Comm./Flt.** Tech.) who received his AS-Flt. Tech degree in 1973, received his MBA from Western New England College in May 1983.

**77** Lt. Col. John (Jack)**Carl Houlihan**, USA (MS-Trans.Mgmt.) we regret to report pass ed away on March 28,1983 and is interred in Arlington National Cemetery.

### 78

Steven E. Johnson (BS-Air Comm.) is an "all weather attack **bombardier/navigator**" currently flying **AG's**, assigned to VA-85 aboard the aircraft carrier **USS** John F. Kennedy operating off the coast of France in a **NATO exercise**.

Joseph **Lombardi** (**BS-OE**) works for **Excon** Company USA in New Orleans as senior engineer on **Exxon's** guyed tower project. He received his MSOE from M.I.T., is married and has two children. Joey (3) and Sara (6 months). Kenneth R. Potts (**AS-Flt**. Tech.) is an airline pilot for Piedmont **Airlines** at Smith Reynolds Airport, **Winston-Salem**, NC. Kenneth and his wife Susan live in Advance, NC, and proudly announce **the birth** of their first child, Rebecca, on July 1. ces the birth of daughter Kristina last December 21.

Beth An **McGriff-Leaf** (BS-Psych.)lives in Moline, **IL**, and announces the birth of son Carl Alexander on January 8.

Curtis E. Sayles (**BS-OE**) has returned to the **family** farm, Sayles Wheat Farms, in Seibert, CO, as agricultural technician after two years employment in the research and development department of Brown and Root, Houston.

Stephen W. Syken (BS-Bio. Sci.) received his MS-Bio. Sci. from Drexel University at Philadelphia in 1982. He and wife Naomi live in Chester, PA, where he is in second year of University of Pennsylvania School of Veterinary Medicine. and also serving as veterinary assistant at Media Veterinary Hospital.

### 80

Roy **Joseph Almeida** (MS-Sys. Mgmt.) in May 1980 received an MS in microbiology from the University of Texas Health Science Center in San Antonio.

John V. Madden (MBA) who has **resided** at Poquoson, VA, has been promoted to senior operations improvement analyst by **CONRAIL** and transferred to the industrial engineering department (capital programs section) in Philadelphia.

**James P.** Willey (MBA) recently accepted the position of regional vice president of Micalease, a division of the Management Improvement Corp. of America (MICA) in Durham. NC. MICA provides financing for government, and Micalease insures all of its leases and sales **as** risk-free instruments.

### 81

Roy E. Aungst (BS-Comp.Eng.) and Lori Lee (Dunn) Aungst (BS-Comp. Eng. 1982) were married in Palm Bay, FL, in January and now live in Vernon, CT. Both are employed as software engineers at Pratt and Whitney Aircraft, East Hartford, CT.

1st Lt. David P. **Holmgren**, USMC (**BS**-Air **Comm**.) is a student naval aviator stationed at VT-4, Pensacola, FL, flying the T-26 twin engine jet trainer. He will "carrier qualify" in August. David is the proud owner of a 1946 J-3 Piper Cub.

Mary F. Osborne (**BS-Bio**. Ocean.) lives in **Redlands**, CA. She is locally employed (non-professional) and striving to find something associated with her education. 1st Lt. Michael J. Schiller, USA (BS-OE) is operations officer for 73rd Trans. Co. (FC), Fort Eustis, VA. He recently spent five months in Philadelphia on Army business. and a month in England.

Ensign John E. Schwering Jr., USN (BS-Air Comm./Flt. Tech.) gives his home as Chalfont, PA. He just finished A.O.C. at Pensacola, FL, and is waiting to enter Flight School. Until that time he has recruiting duty – officer procurement

Lynda K. Topping (**BS-Bio**.) has just resigned from position as research technician at the University of Texas Medical Branch in Galveston to attend 12 months of medical technology school in Oklahoma City. OK.

82

Lori Lee (Dunn)Aungst (BS-Comp. Sci.) see 1981.

Kevin M. McLaughlin (BS-Bio. Sci.) lives in Warwick, RI, and is employed as quality assurance chemist at Peterson1 Puritan Inc. in Cumberland, RI.

# Schwartz designated Sloan Fellow

An F.I T graduate **is** one of 57 midcareer executives from around the world selected to **participate** in the prestigious Sloan Fellows Program.

Theexecutivesrecently began **classes** in a one-year study program leading to a master's degree in management at Massachusetts Institute of Technology's Alfred P. Sloan School of Management.

Frederic C. Schwartz, the (civilian)chief of systems engineering at Wright-Patterson Air Force Base in Dayton, OH, was one of 45 men and nine women selected for the honor by officials at M.I.T. He is one of **1,000** executives nominated for the Sloan Fellows Program by organizations worldwide.

Started in **1931**, the Sloan Fellows Program is the first executive education program of its kind. The program was initiated by the late Alfred P. Sloan, Jr., former Chairman of the Board of General Motors Corporation, and the late Professor Erwin **Schell** of M.I.T.

"It is a great honor to be a Sloan Fellow," said Schwartz. He added that M.I.T. officials used strict criteria to select award recipients.

Lt. Col. Francis K. Ellis (MS-Log. Mgmt.) writes from Headquarters Logistics Command. Defence Centre, Melbourne. Australia. expressing desire to establish an F.I.T. Alumni Club in Australia. We havr responded enthusiastically offering assistance.

Philip A. King (MS-EE) is an F-15 pilot with 7th TFS, Holleman AFB, NM. He proudly announces that his fourth child, Jeremiah David. was born February 24.

Linda L. (**Zumdahl**) Sandman (MBA) lives at Mountain View. CA, and is employed as contract price analyst by AFPRO of the Air Force at Sunnyvale. CA. Her husband, Tom Sandman, works as a computer systems analyst for Boeing Computer Services.

### 83

Richard Francis Scott (MS-Trans. Mgmt.) and his wife Deborah Lee live in Newport News, VA. He is serving as aidede-camp to the commanding general at Fort **Eustis**, VA.

"They look for mid-career **executives** who have **rapidly** progressed up their organization's ladder and have a broad background in management with some engineering expertise," said Schwartz.

Schwartz was nominated for the award by the Air Force, which will pay full-tuition costa plus his regular salary while he attends school. He worked as a civilianemployeefor the Aeronautical Systems Division at Wright-Patterson Air Force Base. There, he served as chief of systems engineering for the development, production and deployment of the **B-1** bomber aircraft.

Schwartz holds a bachelor's degree in space technology from F.I.T. While attending F.I.T. he wasactive inseveral **organizations including** the Blue **Key** National Honor Society, Pi Kappa Alpha Fraternity. He was also recognized as the "Most Outstanding Sophomore of the Year" for **1968** and selected for inclusion in the publication "Who's Who Among Students in American Universities," for 1970 and **1971.** 

Upon **completion** of the degree program in June of 1984, Schwartz **will** be promoted to a higher level staff position by the Air Force.

# Alumni Association members welcome



As will be seen in a separate article, a number of our alumni have accepted the invitation of the F.I.T. Alumni Association to make the F.I.T. Southgate Apartments their home base for a summer vacation in Central Florida. From here they can enjoy the many nearby attractions — EPCOT, Disney World, Sea World, Kennedy Space Center, and even 11-hour ocean cruises on the liner "Sea Escape." We hope this is just a start in bringing more and more of our alumni and families back to their alma mater for an inexpensive vacation anchorage.

This is the new 1983-84 Fiscal Year for the F.I.T. Alumni Association. The Association decided to give all new graduates a one-year free membership as a graduation gift. So, all of our June graduates here, at Jensen Beach, and Off-Campus facilities are new active voting members of their Alumni Association.

For those alumni who took out **membership** last year and those who have not yet paid the modest \$10 annual tax-deductible dues, it is now time to renew their active voting member-

7

# 79

Maj. John A. **Compisi**, USA (**MBA**) is stationed at the Presidio of San Francisco, and is **assigned** as **organizational effectiveness** consultant for **Army** Reserves and National Guard in northern California and Nevada.

Whit **Cotten** (**MBA**) recently moved from Washington, D.C., to Winter Park, FL, to accept a new position as director of engineering with **Stromberg-Carlson** in Longwood.

Capt. Craig J. McCormack, USA (MBA) who is assigned as ILS coordinator at ARRAD Command, Dover, N.J., announ-

Dr. Art Kimbali

F.I.T. Alumni Association P.O. Box 1150 Melbourne, FL 32901 ships or to answer this call for the first time.

Below this letter is a **membership renewal/application** form which can be used to acquire active voting membership. Use of this form will save the Alumni Association the cost of postage in mailing out individual notices.

Arthur A. Kimball

I/we hereby submit \$10.00 each to renew my/our membership(s) in the Alumni Association of Florida Institute of Technology for the Fiscal year *ending* June 30, 1984.

	Name	- Class
Amount enclosed:		
\$	Name	Class
	Address(Street)	
	(City, State, Zip)	

# Learning Center helps students help themselves

More than 250 students per week take advantage of the "free" tutorial services offered at F.I.T.'s Individualized Learning Center (ILC).

"We grew out of a general concern to aid in the retention of freshman students on campus in 1978," said Mary B. Mullins, director of the ILC. She added that the university's FRESH (Freshman Retention by Evaluation and Systematic Help) program was also started at the same time and for

#### similar reasons.

Mullins said that the ILC is open during the day and evenings and employs 22 tutors as well as three faculty members besides herself. The tutors provide help for any student needing further instruction in basic undergraduate courses including math, physics, chemistry, English and computer science.

In addition, "self-help" materials are also available for the students to use.

A number of alumni have accepted our invitation to utilize F.I.T. Southgate Apartments as a base for a summer vacation. From here they have easy access to Disney World, EPCOT, **Sea** World, Kennedy Space Center and other attractions in the area.

As of this writing **we** will be welcoming the following alumni and families.:

0	0		
Name & Address	Number in party	Class	Arriving
James C. Byrd	2 adults	'80	July 16
Madison, AL	2 children		
Edward J. J <b>amieson</b> Bettendorf, IA	3 adults	'80	July 16
Daniel <b>J. Lagosky</b> Allentown, PA	2 adults	74	July 16
Christine Nowicki Rochester, MN	2 adults	'81	July 16
Richard E. Poyer	2 adults	'73	July 16
 Ithaca, NY			
Richard A. Marino Chester, VA	<b>4</b> adults 2 children	'76	July 23
Patrick J. Browne Lexington Park, MD	2 adults 3 children.	'79	July 23
Richard Relue Defiance, OH	2 adults	'72	July 30
Terrance R. Lyon <i>Rye</i> Beach, NH	2 <b>adults</b> 2 children	'71/'74	July 30
Royce A. Keller Columbia, MD	2 adults	'81	July 30
<b>James E.</b> Peel Sewickley, PA	<b>1</b> adult	'79	July 30
Leroy C. Jester Alexandria, VA	3 adults 1 child	′74	Aug. 6
Raymond <b>D. Wollek</b> Orlando Park, IL	2 adults	'78	Aug. 6
Frederick R. McGuirk White Sands Missile Range, NM	4 adults	<i>'</i> 69	Aug. 4
Pierce W. Tolson Ft. Lee, VA	4 adults	'77	Aug. 6
Louis J. Boston Clinton, MD	<b>5</b> adults <b>1 child</b>	'74	Aug. 9

"We have both audio tapes and **work**books for undergraduate-level math and English courses approved by F.I.T. faculty for the students to use," said **Mullins**.

Mullins noted that the major reason students are attracted to the ILC is that the services offered are free. Tutorial services are also immediately available to the students.

"Many students just walk in and request help in the basic math, English or science courses. We are able to match them immediately with one of our tutors, all of whom hold a 3.3 or better grade-point-average," said Mullins.

She also noted that students are very appreciative of the help they receive from their tutors and often return after exams to personally thank them.

Mullins has 15 years prior teaching experience as an English instructor for undergraduate-levelcourses. She holds both bachelor's and master's **degrees** in **speech** and drama from Louisiana State and Memphis State Universities respectively.

Prior to her recent appointment as direc-



Mary Mullins

tor of the **ILC**, she served for three years as an English and speech instructor for **F.I.T.'s** Humanities Department.

# Grad merges art, therapy

#### (Reprintedfrom "The Trentonian" newspaper.)

While an art education major at **the Moore** College of Art **in Philadelphia**, Marcia F, Taylor became aware of using art to change **troubled children**.

Since then, she has continued in the field of art therapy **and is** on the **faculty** at Trenton State College. She **has also** served as an adjunct assistant **professor at Moore** College of Art, **Philadelphia**, since 1976.

Taylor **received** her master of science **degree in** mentalhealth sciences with a **major** in art therapy from **Hahnemann** Medical **College** in Philadelphia, where she **said** the **first** degree **was** given in **art** therapy.

Art therapy is a human service **profession which** offers an opportunity to explore personal **problems** and **potentials** through verbal **and** nonverbal **expression**, and to develop physical, emotional and **learning skills** through therapeutic **art experiences**.

Ma. Taylor now has her doctorate in behavioral science from the **Florida Institute** of Technology ('82), after studying in **Switzerland**. She has worked in private and **public** schools as well as mental **hospitals for** clinical experience.

A branch of the mental **health** sciences, art therapy is also used 'with artists who have developed creative blocks — helping them to get back to their work,' said Ms. **Taylor** who enjoys teaching as **well as** working with clients.

Working with **clients makes** you a better **teacher**, and being a teacher keeps you on your toes,'' she said, adding that she would like to get back to **doing some** of her own art work, which is watercolors.

**Originally from Reading,** Pa., Ms. **Taylor lives in Brooklyn** with **her husband Herry Skrzek** whom **she met** in Poland **while taking** a **summer** course in art. He was there on a research grant. He is pursuing a doctoral degree in **East** European **history**.

Pictured is the **attractive paperweight** (white marble adorned in maroon **and silver** colon) which is **being** given to each **individual** who **donates \$25** or mote to the **university this 25th anniversary year**. We have had to **place our** third order For these special and prized mementos. For those **who** have not yet made **their** donations, a **copy** of the gift card is printed below.



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Alumni Scholarship Fund.	\$
Other	<u>\$</u>
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# Plastic reefs draw food for Caribbean islanders

Small man-made reefs located in Bahamian inshore waters are attracting large numbers of fish, and could soon provide an economical food source to supplement the diet of local islanders, an F.I.T. researcher has found.

Over the past year, Dr. William S. Alevizon has directed a team of F.I.T. biologists who have installed and monitored 14 artificial reefs at various locations near Deep Water Cay. The study site is located at the east end of Grand Bahama Island, about 60 miles east of Freeport.

The study tested the feasibility of establishing artificial reefs throughout the Caribbean region to provide a high protein food source in locations convenient for islanders.

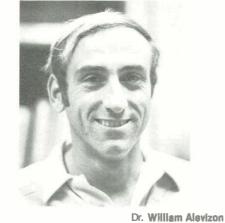
The research effort marked the first study in which artificial reefs were used as a means of concentrating and harvesting specific species of fish - grunts and snappers

The reefs, constructed of **PVC** pipe and concreteblocks, were of varying shapes and installed in different types of nearshore habitats. Reef size also varied from a single unit to several units.

"Reef sire, shape or location, did not appear to greatly affect the recruitment of the targeted fish. Each reef attracted large numbers of grunts and snappers," said Alevizon Other marine life attracted to the reefs included over 30 species œ fish and spiny lobster.

Alevizon said that the reefs have already paid for themselves. The reef materials for each unit cost only about \$60. Each reef unit hasalready yielded about 35 to 50 pounds of fish at an estimated wholesale value of \$70 to \$100.

"Large numbers of these reefs installed in selected inshore habitats in the Caribbean could yield hundreds of tons of fish per year." said Alevizon. He noted that this could help provide an economical, high protein food source for Bahamiansandother in-



creasing island populations of the Caribbean region.

Alevizon said more work is needed to research funding. The first year of the research effort was made possible through a

\$23,000 private research grant.

"The main thing we need to do now is determine the best harvesting method that will yield the maximum number of fish arr

reef unit," Alevizon said. 'We also plan to slightly modify the design of the reefs to make them more durable and productive," said Alevizon.



Reef is attraction A reef built of concrete and PVC (plastic) plpe draws food fish to a fishable spot in the Caribbean.

# Shipbuilders provide 'real world' classes at F.I.T.

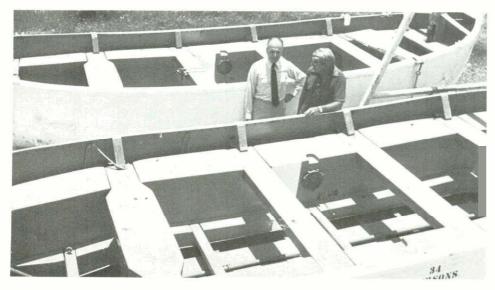
Ingalls Shipbuilding Division of Litton

Engineering Systems Design" course. That He helped organize the Ingalls seminars

Industries in Pascagoula, MS, offeredduring the Spring Quarter a series of seminars on the 'Methodology of Shipbuilding Design" to graduate and undergraduate students enrolled in ocean engineering. The seminars are to continue in the fall.

The **seminars** were presented by **Ingalls** engineers as lectures within the "Ocean course is required for all ocean engineering students.

'We are trying to close the gap between our educational training and the hands-on job experience these students receive once they go to work for the shipbuilding industry," said Dr. John C. Sainsbury, chairman of F.I.T.'s ocean engineering program.



Sainsbury explained that Ingalls is providing F.I.T. students with the mechanics of how work is actually done at the shipyard.

**Ingalls** is the third largest shipyard in the country with 10,000 employees. A prime government defense contractor, Ingalls produces and overhauls combat ships for the

## Gift floats

Tropigas of Florida was the donor of a pair of lifeboats that will allow creation of a facility at the Jensen Beach campus for training in lifeboat pro cedures. The boats came from the Fred H. Billups, an ocean going tanker that carries 800,000 gallons of propane. The aluminum lifeboats are each 26 feet in length, and weigh 3,800 pounds. Tropigas Is a wholly owmd subsidiary of Tramway International Corporation. With the boats an (left) Douglas Wulffleff of Tropiges and Charles Knoeller of F.I.T. marine operations.

have also recently been constructed at the shipyard and sold commercially.

"We are teaching students the methodology of shipbuilding design, which includes everything from the conceptual to the detailed design phases of shipbuilding," said seminar instructor Robert H. Slaughter, of Ingalls' Advanced Technology Division.

Slaughter explained that students learn how ship design specifications are developed. The seminars also provide insight into "state-of-the-art" computer applications.

'We initiated the pilot program at the request of F.I.T. students," said Slaughter. He added that such programs help the company recruit engineers.

Currently about 14 F.I.T. graduates are employed at Ingalls. 'We are very impressed at the thoroughness of these F.I.T. graduates in their jobs. They never presume they cannot do something. No matter how difficult the task is, they figure out how to go about it and get the job done," said Slaughter.

### Story by Mary Deese