From Girard Park Circle, the façade of the new Computer Science building is the architectural equivalent of a business suit and wingtips. Its sharp, straight lines and glassed-in top floor give it a crisp, corporate look. Yet approach the building from Rex Street and it’s as if it has loosened its tie and slipped into loafers. A section with a curved wall juts forward on the ground floor. A series of high, arched windows are a nostalgic tip of the hat to the old McNaspy football stadium that once stood there. At first, the contrast is puzzling. Inside, however, an oval atrium-type lobby unites the disparate sides. It’s a clue that everything about this building is by design.

By Kathleen Thames  //  Photography by Doug Dugas
The two-story lobby of the Advanced Computer Technology and Research Hall is Dr. Magdy Bayoumi’s favorite feature. He is director of UL Lafayette’s Center for Advanced Computer Studies and head of the Computer Science Department.

On this day in February, the lobby is empty. Faculty have just moved from the Conference Center into new offices on the second and third floors. Classes will not be held in the new facility for a few more weeks.

But Bayoumi envisions the lobby as a high-tech area that will draw students and visitors. He intends to hang four large plasma display panels on one wall to showcase faculty’s work for an extra “wow factor.”

“This will be a people place,” he predicts.

CACS AND THE COMPUTER SCIENCE DEPARTMENT HAD OCCUPIED the entire fourth floor of the Conference Center since 1985. The second and third floors of the center are devoted to student housing.

Bayoumi does not dwell on that location’s shortcomings, but they were significant. Electrical and air conditioning support needed for sophisticated computers was maxed out. There were no classrooms or auditoriums. There was no place for computer science students to hang out together. And, after years of wear and tear, the fourth floor needed a makeover badly.

“Our department is one of the best computer science departments in the nation but you did not get the impression that you were at a high-tech place in the Conference Center,” Bayoumi summarized. “We wanted a new building to reflect the level of work we do.”

A COMPUTER SCIENCE BUILDING WAS A PRIORITY for UL Lafayette’s President Dr. Ray Authement, too. “He always had an eye on this project. It was high on his agenda,” Bayoumi said.

State funding was hardly an option. The needs and requests for facilities at public colleges and universities far exceed state monies. So, the Louisiana Legislature establishes priorities and pays for as many projects as it can afford each year. As a result, it can take literally decades for some state facilities to be financed, designed and built.

In 2003, Authement was able to allocate about $8 million in self-generated funds for construction of a new computer science facility.

Bayoumi already knew what he wanted, starting with an inviting common area that would bring people together. And, he knew that not a penny could be wasted.

CREATING THE BEST ENVIRONMENT FOR STUDENTS WAS HIGH ON Bayoumi’s list of goals when he met with Mark Stielper of the MBSB Foundation in 2003. Bayoumi wanted the new building to be a place where students can say, “This is home. This is my department.”

So, there are two auditorium-style “smart” classrooms on the ground floor. Students can plug in laptops at their seats and there are built-in projectors and screens for multimedia presentations. Each classroom can accommodate 65 students. Four seminar rooms can be used for smaller classes.

There are small tables and comfortable chairs on the ground floor, so students can stick around when not in class. Small seating areas are also scattered throughout the building and students will have access to a conference room.

Continued on page 24
The advanced computer technology and research hall were a body, its heart could be found in a 700-square-foot “machine room” on the third floor.

That's where dozens of computer servers are kept. They manage files, printers, Internet service, networks and databases. It's also where the university's second supercomputer will be installed later this year.

Literally miles of wires and cables spread throughout the building, like arteries and veins, from there. Electricity flows through some of them, data courses through others. At various points beneath the building, they head in different directions underground to tap into other campus sites. Phone and fax services originate in Griffin Hall, for instance. Fiber optic service comes from Stephens Hall. Campus network services are headquartered in Madison Hall.

Patrick Landry is the guy who's most familiar with the new computer science building's complex circulatory system. As senior systems administrator for UL Lafayette's Center for Advanced Computer Studies, he's the one who knows where, how and why all the wires and cables connect.

And he's the guy who was in charge of keeping the computer science programs' heart beating when CACS and the Computer Science Department moved from the Conference Center to their new offices in February.

It was a daunting task that could have reduced lesser professionals to babbling. But just a day or two after the move had been accomplished, Landry was remarkably calm.

"It went much better than I expected, especially in the early going. I expected the first few days to be just total chaos. It wasn't. The great thing was that everybody pitched in," he said.

According to Landry's equipment relocation plan, faculty and staff members were responsible for moving computers from their own offices in the Conference Center. They had help from some generous graduate students who had volunteered to lend a hand.

So, for the first couple of days of the move, a caravan of cars, SUVs, pickup trucks and vans shuttled back and forth between buildings.

Then UL Lafayette Physical Plant staffers moved over furniture and boxes, under the supervision of Cathy Pomier, administrative coordinator for CACS. Nena Etheredge, an instructor and undergraduate coordinator for the Computer Science Department, also assisted with the transfer.

Landry said researchers and faculty had done some heavy-duty housecleaning in anticipation of the move. Since their new quarters would be smaller, they had to be selective. "I think it was good for everybody to get a clean start. So, if you walk around to people's offices now, they're much less cluttered than they were in the Conference Center," he said.

The servers were the last items to be transferred. A special crew was hired for that job.

The servers, which on average are about the size of early DVD players, are stacked in special racks that are about 7 feet tall. Each rack has wheels and is designed to bear lots of weight. Nonetheless, transporting them is risky business.

"As long as you're on level ground, they're easy to move around. But obviously, with computer equipment, as soon as you start talking about rolling them into a truck or onto the street or making any kind of jolting, jarring kind of motion, then you have to worry about the disk drives and the electronics," Landry said.

"The servers seemed to have all survived without any damage. Everything that I have tried to turn on so far, has come back up," he said, with a touch of relief in his voice.

"That increased the heat load and the power load quite a bit. But we were able to make a few changes to the power (supply) to accommodate that. The air conditioning didn't have to change too much. Nonetheless, the supercomputer will use 16 of the total 30 tons of air conditioning had some surplus capacity built in."

"It turns out that we're using most of that from day one," Landry said.

"That's because UL Lafayette's second supercomputer will be housed there. (Zeke,' the university's first supercomputer, is in Abdalla Hall. See related story, page 2.)"

Construction of the new computer science building was about half complete when Landry learned the machine room would host the second supercomputer.

"I was thinking of air conditioning had some surplus capacity built in."

"As long as you're on level ground, they're easy to move around. But obviously, with computer equipment, as soon as you start talking about rolling them into a truck or onto the street or making any kind of jolting, jarring kind of motion, then you have to worry about the disk drives and the electronics," Landry said.

"The servers seemed to have all survived without any damage. Everything that I have tried to turn on so far, has come back up," he said, with a touch of relief in his voice.

"That increased the heat load and the power load quite a bit. But we were able to make a few changes to the power (supply) to accommodate that. The air conditioning didn't have to change too much. Nonetheless, the supercomputer will use 16 of the total 30 tons of air conditioning had some surplus capacity built in."

"It turns out that we're using most of that from day one," Landry said.

"That's because UL Lafayette's second supercomputer will be housed there. (Zeke,' the university's first supercomputer, is in Abdalla Hall. See related story, page 2.)"

Construction of the new computer science building was about half complete when Landry learned the machine room would host the second supercomputer.

"I was thinking of air conditioning had some surplus capacity built in."

"As long as you're on level ground, they're easy to move around. But obviously, with computer equipment, as soon as you start talking about rolling them into a truck or onto the street or making any kind of jolting, jarring kind of motion, then you have to worry about the disk drives and the electronics," Landry said.

"The servers seemed to have all survived without any damage. Everything that I have tried to turn on so far, has come back up," he said, with a touch of relief in his voice.

"That increased the heat load and the power load quite a bit. But we were able to make a few changes to the power (supply) to accommodate that. The air conditioning didn't have to change too much. Nonetheless, the supercomputer will use 16 of the total 30 tons of air conditioning had some surplus capacity built in."

"It turns out that we're using most of that from day one," Landry said.
Bayoumi wants the building to serve as sort of a cultural bridge between undergraduate and graduate students, too. “The majority of our undergraduates are American; the majority of our graduate population are international,” he explained. “I want to encourage interaction because it will help both. The computer industry and the IT industry, in general, are all over the world. Undergraduates will have to understand other cultures, how other people think. Grad students need to learn more about the American culture and are open to it. This is a two-way street.”

“Also, in computer science education, we want to make sure that students graduate from here with some skills in communication. That includes how they write a technical report or give a presentation. It covers working with a team and interacting with other people. The new building will help us do this.”

ON THE THIRD FLOOR, A LARGE AREA CALLED “THE BULLPEN” is intended to help prepare graduate students for entry into the workplace. They will work in gray office cubicles here, like the ones depicted in Dilbert cartoons. “This is exactly what you see at IBM and Dell. So when they leave here and go to a large company, it will be pictured in Dilbert cartoons. ‘This is exactly what you see at IBM and Dell.’”

Bayoumi explained that the building is intended to provide an optimum environment for computer science majors and grad students, it will also have a STEP lab that any student can use. STEP stands for the Student Technology Enhancement Program, which administers funds generated by a student fee dedicated to technology improvements on campus. Typical STEP labs provide computers and printers that can be accessed by any UL Lafayette student.

Computer science grad students will probably staff the new lab, which administers funds generated by a student fee dedicated to technology improvements on campus. Typical STEP labs provide computers and printers that can be accessed by any UL Lafayette student.

“Computer science grad students will probably staff the new lab, which administers funds generated by a student fee dedicated to technology improvements on campus. Typical STEP labs provide computers and printers that can be accessed by any UL Lafayette student. The lab also has an office for UL Lafayette’s Office of Counseling and Testing. Its personnel will be able to use a portion of the STEP Lab from time to time to administer standardized, computer-based testing. That’s a service that it has never been able to offer to students before.”

Bayoumi and Stielper wanted to design a place that would foster faculty and researchers’ work, too. “We have many faculty members in new areas, such as video game design, virtual reality and nanotechnology. So we had specific requirements for labs,” Bayoumi said.

One is a motion capture laboratory. There, a series of cameras track sensors attached to moving objects, which is especially useful for digital animation. The lab needed high ceilings to accommodate specialized equipment.

Labs and technologies such as these will enable faculty to offer new courses. And for the first time in more than two decades, computer science faculty won’t always have to walk to another building to conduct a class. Budget constraints prohibited building a facility large enough to accommodate all computer science classes. So some courses will continue to be taught in nearby buildings, such as Griffin and Kourouzis halls.

Faculty and researchers’ offices are smaller than their previous ones on the fourth floor of the Conference Center, but few would have reason to complain. Most of the offices have windows and new furniture, since desks in the Conference Center were too big to fit in the smaller spaces. One entire wall of each office on the perimeter of the third floor is made of glass, providing a view that changes with the seasons and weather. Seniority determined, in large part, who would occupy each office.

Bayoumi said having personnel on two floors instead of one is taking some adjustment. “We’re like a family from a small town that has moved to a big city,” he observed, with a smile. “We don’t see each other quite as often.”

FOR MANY YEARS, THE COMPUTER SCIENCE PROGRAM HAS BEEN THE main pillar of UL Lafayette’s academic success. It brings in the most research dollars and is highly ranked nationally and internationally. The Advanced Computer Technology and Research Hall will enable the university to show it off. “The people in Acadiana are very proud of the program. I want to give people a chance to interact with students and faculty,” Bayoumi said.

He plans to hold “town hall” type meetings to attract people to the facility and to establish a dialogue with them. He plans to invite speakers who will make presentations that are open to the public. A 181-seat auditorium on the ground floor makes that possible. It’s adjacent to the main lobby; the natural exit path leads audience members into the open lobby. A small kitchen tucked away on the ground floor is capable of handling light catering for events.

Bayoumi had the first to try out the auditorium. “I like the idea that we’re bringing back a little of McNaspy, not a lot of it, but there’s a nice trace of it, with a modern approach,” he said. “The scale of the new building, he explained, is almost identical to McNaspy Stadium. It was still standing when he was a UL student in the 1980s. Built in 1940, the 4,500-seat stadium was the site of dozens of gridiron battles and housed over 180 male students until Cajun Field was built in the 1970s. Clement McNaspy was the university’s first athletic director and a faculty member from 1909 to 1933.

“I like the idea that we’re bringing back a little of McNaspy, not a lot of it, but there’s a nice trace of it, with a modern approach,” he said. “The scale of the new building, he explained, is almost identical to McNaspy Stadium.”

Stielper noted that the computer science facility is a good value. “We were very frugal. I think the money was spent in the right places.”

Although it would have been nice to have more funding for the building, Bayoumi said, the Advanced Computer Technology and Research Hall is more functional than many other university computer science facilities he’s seen that cost up to six times more.

And, the building can easily be enlarged in the future. All that’s needed is funding, because Stielper and Bayoumi already have some designs in mind.