

to design, analyze and troubleshoot the systems. To move chemicals and gasses safely and efficiently, the senior engineer has transported Dow Chemical into the world of fluid dynamics and supercomputing.

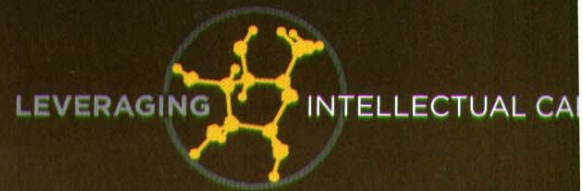
Until 10 years ago, studies of fluids in motion were large to the laboratory. Now computer models provide simulation combustion, reacting flows and radiation to improve insight equipment and processes required to increase production, longevity and decrease waste.

"Computational fluid dynamics is getting more integrated into chemical industry; it's trying to follow aerospace. The principles are the same and have been used with success around the world and will be more in the future," Rangitsch says. "A fluid is a fluid, and it behaves differently in different industries."

Rangitsch helped build LSU's supercomputer, SuperMike, and also constructed a pretty powerful counterpart at Dow, known as Mike. It's the most powerful supercomputer within Dow's internal network, with about one-fifth of SuperMike's capacity.

In addition, he is one of the few researchers to develop high-level mechanical engineering code for industrial use that runs on SuperMike and Mini-Mike.

"With massively parallel processing, there's no limit to the problems you can run," Rangitsch says. "It just depends on how big you want to be."



IT INNOVATORS

General Informatics, a Baton Rouge-based IT solution provider, got national attention—and a trip to Maui—in 2005 when it was selected as the winner of Microsoft's "Partner in Paradise" competition. General Informatics won the competition for companies that help small businesses leverage Microsoft applications based on its implementation of a technology solution for a Baton Rouge-based medical center.

"I was very ecstatic," says General Informatics President Mohit Vij, right, center, whose 4-year-old firm was selected out of 400 entries from among the 6,000 companies that are enrolled in Microsoft's small business Partner Engagement Program. "It was the reassurance everything I believed in was right."

General Informatics, based at the Louisiana Business & Technology Center at LSU, specializes in managing and integrating software, hardware and technologies into successful business solutions. Its comprehensive technology solutions for 35 clients are ingenious. The latest outsources all IT hassles for a single rate.

"Per employee, they have to spend \$89 a month and they don't have to worry about IT," he says. In the works are software packages tailored for the



practices of physicians, architects and other professionals. General Informatics hopes to raise \$1 million to fund the project, with acquisition of the software by a very interested suitor—Microsoft.

"It will be a big disappointment to me if in five years we're not a regional leader," Vij says. "And I want to stay in Baton Rouge. I've met some of the best people here."