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UT professor's work in carbon dioxide gets coveted award

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As scientists, environmentalists, and policy makers grapple with the problem of excessive carbon dioxide in the atmosphere, University of Toledo professor Abdul-Majeed Azad is developing ways to put the gas to good use. The chemical engineer is leading cutting-edge research into technologies that can convert this problematic byproduct of combustion into a fuel.



University of Toledo professor Abdul-Majeed Azad recently won a Fulbright Distinguished Chair Award.

Now, Mr. Azad's efforts have been recognized with one of the most prestigious awards in the Fulbright Scholar Program: a Fulbright Distinguished Chair Award.

Mr. Azad, who received the award in June, will travel to Sweden this month to conduct research at the Chalmers Institute of Technology, a university specializing in the development of sustainable technologies.

As well as focusing on ways to use carbon dioxide, he will be researching methods to improve capture and storage of the gas from sources such as power plants. He will stay at the institute for nine months.

Carbon dioxide is produced by burning fossil fuels, such as gasoline and coal. The majority of scientists believe consumption of fossil fuels is contributing to climate change. That consumption is increasing steadily as populations grow and countries such as China and India develop at an ever-faster pace.

"Everybody is using energy. We're becoming more and more advanced," Mr. Azad said. "The environmental problems won't go away, the only thing we can do is make them less effective. ... One of the things we should be doing is using energy in an effective way and a clean way."

Qualifying for the Fulbright award was no mean feat, Mr. Azad will tell you. He applied for the program over a year ago, putting together a huge package of publications,

research proposals, and recommendation letters. Then he waited, and waited, but by May of this year he hadn't heard back. Finally, the acceptance letter arrived in June.

"The first thing that I saw was the last statement in the letter. It says you're a Fulbright Scholar for life. That was a very moving statement," Mr. Azad said.

Many Nobel laureates and heads of state have also been Fulbright scholars. "Joining that group is really prestigious," the professor said.

Other institutions have also recognized Mr. Azad for his work. In 2007, he won a Nano50 Award from NASA Nanotech Briefs for developing a process of converting landfill-destined steel mill waste into nanoscale iron particles. In 2009, he won University of Toledo's Outstanding Faculty Research Award.

"We're very proud of him," Glenn Lipscomb, Chair of the university's Department of Chemical and Environmental Engineering, said. "This is a tremendous accomplishment. It really reflects highly on the quality of the work that he's doing."

Mr. Azad's one regret is that he will leave his family for nine months to go to Sweden. It will mean missing three graduation ceremonies: his wife's, who is finishing a PhD this year in pharmacy; his son's, who is completing a degree in electrical engineering at Ohio State University, and his daughter's high school graduation.

"It's tough because we are a very close-knit family, but we have to make sacrifices," Mr. Azad said. "It is a big sacrifice for them. I'm really fortunate to have a good family."

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