Professor recognized for work with micro medical devices, systems

By Kevin Fornari, The Shorthorn staff Feb 2, 2017 Updated 9 hrs ago

Electrical engineering professor Jung-Chih Chiao’s accomplishments have been recognized again, and he has been officially inducted as a fellow of International Society for Optical Engineering.

The organization formally inducted Chiao for his work with micro medical devices and systems on Jan. 30.

Chiao helped start a company called Chorum in 1999 with four people. By 2001, it grew to over 800 people. Content with the success, Chiao decided to leave the company.

“I had fun growing the company, but I wanted to leave to do what I love,” Chiao said.

Chiao wanted to apply his engineering expertise to the field of medicine. After joining UTA in 2002, he directed more attention to helping people through his school and the many societies he is a part of.

“We want to improve the human life,” Chiao said. “We want to improve the environment, improve safety, security, build a sustainable environment for generations of humans to reap.”

He said the societies he belongs to, specifically International Society for Optical Engineering, publish members’ work, promote engineering and anonymously peer-review its work.

He said he works on micro devices, which can be used in a variety of applications, from detecting bombs to detecting cancer.

“If I don’t have 30 minutes, I tell people I shrink things,” Chiao said.

On Dec. 31, 2010, Chiao was at an empty airport, thinking about what he saw that day. Chiao was allowed to watch 11 surgeries to help malnourished patients who had serious ailments.

The patients, aged from 18 to 65, experienced side effects of chemotherapy to HIV to diabetes. Chiao said at that moment in the airport, he decided to do something about that problem and has been working on it since.

“I hope before I leave this earth I can make a contribution to help millions of people,” Chiao said.

Many tools used by doctors are 30 to 40 years old and are too bulky, Chiao said. His focus is to miniaturize some of these tools so doctors can perform procedures as minimally invasive as possible.

He said his focus right now is on implants and wearables. One of Chiao’s proudest projects that he is currently working on is called a “gastrostimulator.” He said many people who have undergone chemotherapy or have diabetes among other ailments may have trouble digesting their food. This technology will help them get proper nutrients and not face malnourishment, Chiao said.

Chiao said he believes everyone’s time should be spent efficiently, because there is always a limited amount of time and resources. He said this concept may be harder for college students to fully grasp, but everyone’s time is limited.

“If you want to do something, go for it without hesitation,” Chiao said.

Chiao was presented with a plaque, which now hangs in his office at Nedderman Hall.

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