

Sam Harp

The Oklahoma Cooperative Extension Service Technology Transfer project was initiated just one year ago to assist Oklahoma Manufacturers in identifying, developing, and implementing new and existing technologies. Although the Tech Transfer Project's primary focus is on small manufacturing firms in the Southeastern portion of Oklahoma, it has been working with manufacturers across the state. The three member team consists of Sam Harp and Terry Collins (located at the Biosystems and Agricultural Engineering Department in Stillwater), and Phil Norton (located at the Southeast

District Extension Office in Ada).

Over thirty companies have received assistance thus far ranging from metal-to-metal coating technologies to chemical strengthening of glass. The Technology Transfer Team continuously receives inquiries to assist companies whether it be linking them up with a Federal Laboratory for joint research and development or simply a literature search of new technologies relevant to the particular needs of the manufacturer.

For more information on the Technology Transfer Project, contact Sam Harp at (405) 744-8419, Terry Collins at (405) 744-6667, or Phil Norton at (405) 332-4100.

New Students

Another thing that we are proud of is the increasing enrollment. We are expecting over 50 undergraduate students and over 40 graduate students in the fall. This is a significant increase over the past few years.

We hired Gary Sands last year to help us with recruiting and student work. Gary is completing his Ph.D. at Colorado State University during the summer months, so he has an academic-year appointment only.

New Video Graduate Program

In January of 1995, we will start a new graduate program by video tape. A number of leading Engineering colleges, such as Purdue and Georgia Tech, have similar programs. Our program will allow students at any location to take courses by video tape and receive a Master's Degree in Biosystems and Agricultural Engineering. The program will require that students take 33 hours of coursework including six hours of special topics leading to a creative component.

New Newsletter

This is the first newsletter since I became Department Head two years ago. We plan to publish newsletters twice a year. If you have newsworthy items, please send them to us.

You, our alumni, are important to us. Please call us, write to us, or stop by for a visit. As you can see, we are going through many changes and I believe you will be impressed with what we are doing for Oklahoma and our profession.

"Intelligent" Machines Communicate & Listen

Marvin Stone

We have been working on the development of intelligent machines for years within the department but have only recently begun to use the moniker "Intelligent Machines." Our work in intelligent machines involves embedding computers within machines to make them more efficient, more productive, safer, or more environmentally sound.

Our latest effort has been the development of an "intelligent sprayer" for treatment of field bindweed. This machine has an "eye" for each nozzle. The eyes are used to detect green plant material and activate the nozzles on the sprayer. The sprayer also serves as a platform for testing a computer network for vehicles.

Each of the nozzle units has an embedded computer which can communicate with the other nozzles and with the tractor. This allows the nozzles to listen to the tractor computers for groundspeed and allows a computer on the tractor to send commands to the nozzles.

We are testing the concept of many less expensive computers in a network rather than a single more expensive central computer and a standard is being developed for computer networks on vehicles. These breakthroughs will allow various manufacturers' equipment electronics to communicate with each other.

If you have an interest in the intelligent machines activity, please contact Dr. Stone at (405) 744-4337.