

Institute of Technology, Tralee Institiúid Teicneolaíochta, Trá Lí

Applications are invited for the following position:

Doctoral Research Scholarship

Dairymaster is an Irish company, who are one of the world's leading dairy farm equipment manufacturers specialising in automated milking parlours. As part of IRCSET's Enterprise Partnership Scheme, Dairymaster wish to co-fund a PhD scholar to conduct research into advanced electronic system design and control at both their headquarters just outside Tralee, and at the Institute of Technology.

“Advanced Milking Parlour Electronic System Design And Control Utilizing High Performance Programmable Logic Device Technologies”

Dairymaster have developed a number of in-house electronic systems for use in their automated milking parlour environment, some of which include Auto ID, automatic cattle drafting, feeding and spraying, which have all combined to entirely automate the milk extraction process. With this level of automation, milking parlours are becoming far more complex and require more advanced electronic system control for operating devices such as motors, pumps, solenoids etc, each requiring a range of sensor inputs for correct operation. This project will investigate how to improve on current system control and performance using a range of technologies such as Complex Programmable Logic Devices (CPLDs), Field Programmable Gate Arrays (FPGAs), Digital Signal Processors (DSPs) and Optical Fibre Sensors. This technology will allow for advanced electronic system design, electromagnetic (EM) noise reduction, material analysis and online Built in Self Test (BIST) applications.

Applicants are required to have a minimum of an honours degree in electrical / electronic engineering or equivalent. Experience in Electronic System Design and Control, Digital Signal Processing (DSP), Field Programmable Gate Arrays (FPGAs) and Sensor technology is desirable but not essential. The project will be based around a three-year timetable commencing in February 2008.

Further Information:

The prospective applicants should contact Dr. Joseph Walsh for further details on the research project / objectives and challenges:

The deadline for applications is Friday 11th January 2008

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