

Innovative Research Solutions with Industry

Manufacturing

CLIENT:
Ecolight

AREA:
Mechatronics



Support for the development and testing of new lighting products



Institutes of Technology Ireland

Ecolight is an LED light company based in Tralee Co. Kerry. LED is an evolving technology and Ecolight is committed to bringing innovative bespoke solutions to every project ensuring that the best possible results are achieved. Ecolight develops, specifies and supplies LED light products for a variety of applications to the commercial market.

Ecolight first contacted the Institute of Technology, Tralee (IT Tralee) in 2008 seeking technical expertise to test and certify the reliability of their LED products which are imported from China. The Centre for Intelligent Mechatronics and Sensor Systems (CIMSS) research group at the Institute had the capability to provide this testing and certification on a consultancy basis. Certification of their products' reliability, including lifespan guarantee and cost savings, assisted Ecolight in targeting the Irish consumer sales market.

The Centre for Intelligent Mechatronics and Sensors (CIMSS) was established in 2008 within the School of Engineering. The School has an esteemed record of education and innovative research in the multidisciplinary field of engineering and the development of CIMSS provided an excellent opportunity for the school to further engage in world class research. The CIMSS research agenda created a critical mass of coordinated mechatronic and sensor research activity and commanded a strongly positioned application niche within industries such as agriculture, manufacturing, health and renewable energy. In 2013 the CIMSS & CIDS (Centre for Innovation in Distributed Systems) research centres



Ecolight Products

merged to establish the IMaR Gateway (Intelligent Mechatronics and RFID), funded by Enterprise Ireland as part of the Technology Gateway network. This Gateway is actively involved in a range of collaborative research projects (including the co-ordination of an FP7 project and several Enterprise Ireland Innovation Partnerships) in the fields of mechatronic and sensor development and RFID expertise with both national and multinational companies. These include BorgWarner BERU Systems, Dairymaster, Fraunhofer IPA in Germany, IRIS in Spain, Bolton Electronics UK, Kostal, Ecolight, Liebherr Group, Altobridge, Universal Trace and Central Solutions. →

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•→ As a result of the relationship established in 2008 between Ecolight and the CIMSS research group, Ecolight requested that CIMSS engage in collaborative activity around new product development which included the development of electronic control and automation systems, embedded software development, electronic hardware design, manufacture, Printed Circuit Board layout and system test.

From 2009 to date grant support has been critical in facilitating on-going research collaboration between Ecolight and CIMSS to foster the growth and development of the start-up company through R&D. This has included a range of Enterprise Ireland funding supports, with innovation vouchers in 2009, 2010 and 2011 contributing to the costs of the development and testing work. In 2012 an IT Tralee President's Masters Bursary worth €22,000 (with an Ecolight

in-kind contribution of €5,000) provided dedicated postgraduate support for the company. Further support to help the Ecolight business grow was provided through the New Frontiers programme and the award of an Enterprise Ireland Competitive Start Fund grant of up to €50,000.

As a result of the research activities undertaken, Ecolight company sales increased significantly. The certification of reliability provided by the CIMSS research group proved critical in sales generation as customers were reassured via quality assurance that the products would function over the investment payback period and continue to reduce lighting costs. The addition of increased control and automation in Ecolight's lighting systems opened up new markets and allowed the tailoring of their products to these markets, thus creating additional revenue streams. ■

TESTIMONIAL

Dominick Grattan

Ecolight

"Ecolight have been working with the CIMSS research group at the Institute of Technology Tralee for the past 5 years. The result is a unique LED based control system which has many niche applications, giving Ecolight a competitive market advantage and offering added value to customers. Ecolight's collaboration with the CIMSS research group at the IT Tralee has enabled our company to evolve from being an LED sales outlet in 2008 into a viable commercial lighting business with new product development and R&D&I at its core. Ecolights collaboration with CIMSS is continuing through the newly established IMaR Gateway at the IT Tralee."



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