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**BEAMEX CASE STORY**

LIMERICK AND CLARE  
EDUCATION AND TRAINING BOARD  
**TRAINING TOMORROW'S  
TECHNICIANS**

Experience a better way to calibrate

# TRAINING TOMORROW'S TECHNICIANS WITH BEAMEX CALIBRATION HARDWARE AND SOFTWARE

The Republic of Ireland is a hotbed of activity for the process industry, and many of the electrical and instrumentation (E&I) technicians destined to join the workforce in the coming years will complete their apprenticeship training through The Limerick and Clare Education and Training Board (LCETB). Beamex calibration hardware and software play a critical role in preparing LCETB's students for roles that rely increasingly on digital tools and services.

Manufacturing has long been the engine of the Irish economy, with the country home to clusters of world-class facilities covering a wide variety of industries including pharmaceuticals, electronics, healthtec, and food and beverages. With a thriving manufacturing sector comes fierce competition for skilled E&I technicians. LCETB, the state education and training authority for the Limerick and Clare region in Ireland, offers high-quality apprenticeships that prepare students for a career in this fascinating and diverse sector.

## BUILDING SOLID FOUNDATIONS FOR A SUCCESSFUL CAREER

LCETB instructor Mike Ahern is one of the education professionals whose passion it is to provide E&I apprentices with the best possible start to their career: "Our job is to provide the skills and knowledge they will need when they go out into the world as a newly qualified tradesperson," he explains. "The apprenticeship covers the whole spectrum from classroom theory and practical training to hands-on learning and time in the field with the employer who has agreed to take them on."

Across Ireland around 110 students begin an E&I apprenticeship course every year. LCETB's apprenticeships typically last four years and are split into seven phases, with a typical intake of 14 students per class. Together with his fellow instructors, Mike oversees phase 2 of the training, which is the first formal phase, lasting 28 weeks and covering electrical, electronics, and instrumentation training modules. It's in the 11-week instrumentation module where apprentices get their first taste of calibration processes, procedures, and tools.

## MEASURING WHAT MATTERS WITH USER-FRIENDLY TOOLS

"Starting with the basics, apprentices are taught how to measure parameters like temperature, pressure, and flow as

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Mike Ahern, LCETB instructor

well as the importance of calibrating instruments to a reference standard," Mike explains.

### LCETB uses the following Beamex solutions:

- MC6 Multifunction Calibrator and Communicator
- MC6T Multifunction Temperature Calibrator and Communicator
- ePG Electric Pressure Pump and Controller
- LOGICAL Calibration Management Software.

These solutions are used to teach the students how to calibrate temperature and pressure transmitters and to read frequency and measure current.

"The biggest advantage from an educational point of view is that the Beamex solutions are exceptionally user friendly, so it's very easy for students to pick up on how to use them. This flattens the learning curve and means the students can progress much more quickly, particularly when using the MC6. As a multifunction calibrator there's very little it can't do, so we can use it for the majority of the processes we're teaching the students."

Mike also notes that once he started using Beamex equipment in the training, many apprentices remarked that it was familiar to them from their initial training phase with their employers. "I have to put my case to the education board about what equipment I think best serves our purpose and reflects what's being used out there in the real world, and Beamex makes a case for itself in this respect."

## AN EDUCATION IN PAPERLESS CALIBRATION

With paper-based calibration increasingly becoming yesterday's news, the E&I tradespeople of the future have to be well prepared for what's going to face them when they set foot in a real plant as an employee rather than a trainee. "The Beamex hardware and software we use plays a really important part in giving the students a good grounding in the modern ways of performing calibrations and storing and managing the data generated," Mike says.

One of the biggest advantages that the MC6 and MC6T offer in an educational context is that there is an emulator



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available for them, which means instructors can demonstrate calibration procedures step by step for the whole class to see. "With smaller units it's hard for everyone to see what's going on when there are 14 students crowded around, so the emulator is a brilliant educational tool," highlights Mike.

Another benefit that Mike appreciates is the fact that with the MC6 family of calibrators the calibration data can be preloaded onto the unit, which helps greatly with practical training. "I have the workshop set up to emulate the different sections of a plant, so with the preloaded data it's much easier for the students to move between the different sections and perform the required calibrations on the various instruments."

The final piece in solving the paperless puzzle is LOGiCAL, which students upload their calibration data to and can use to generate calibration certificates. "LOGiCAL removes the risk of transcription errors and shows the students how a fully digital, paperless calibration process works from end to end."

## A COLLABORATION THAT BEGAN WITH YOUTUBE

Mike's introduction to Beamex came not through a product catalog or leaflet, but through YouTube, where he had been searching for how-to videos to use as part of the apprentices' training. "Beamex has an excellent set of resources online, and I find their YouTube videos particularly helpful because the people delivering them are speaking the language of people who work in instrumentation and calibration. YouTube is where I first discovered the MC6, which led me to contact Howard Instrumentation, the local distributor in Ireland, about supplying one for the course."

## Limerick and Clare Education and Training Board

### CALIBRATION SOLUTIONS

- Beamex MC6 Multifunction Calibrator and Communicator
- Beamex MC6-T Multifunction Temperature Calibrator and Communicator
- Beamex ePG Electric Pressure Pump and Controller
- LOGiCAL Calibration Management Software

### MAIN BENEFITS

- Beamex calibration hardware and software prepares students for roles that rely increasingly on digital tools and services.
- Beamex solutions are extremely user friendly, so it's very easy for students to pick up on how to use them.
- Beamex MC6 multifunction calibrator is used to teach students the majority of the processes.
- The MC6 and MC6-T emulator tool makes it very easy for instructors to demonstrate calibration procedures step by step for the whole class to see.
- Beamex online resources – particularly the YouTube videos which speak the language of people who work in instrumentation and calibration.

LCETB has worked closely with Howard Instrumentation for many years now. This collaboration has ensured that LCETB remains not just focused on technology for today but for the future. Niall Howard, Managing Director of Howard Instrumentation: "The working environment in process industries is rapidly changing as more and more businesses undergo digital transformations in relation to how they operate. We are delighted to be working with LCETB to support the technicians and engineers of tomorrow by helping to ensure that they have the first-hand knowledge and experience of digital, automated calibration processes before they embark on their chosen career path. Mike and his team are continuously adapting and moving with technology, which is fantastic for the students and critical for Irish Industry."

"At Beamex, we understand that technology does not stand still, it is constantly evolving enabling enhanced working methods," says Aidan Farrelly, Calibration Consultant Wales, Ireland & South West at Beamex. "With this in mind, it is important that we remain focused on technology both for today and for the future. In much the same vein, we are committed to providing value not only to the current generation of technicians and engineers but also to future professionals and experts in their field."

"The future of calibration is digital, and paper is becoming a thing of the past. Industry is already moving strongly in that direction, and with Beamex's support we are helping to better prepare the next generation of E&I tradespeople for working life in roles that will increasingly be paper-free," Mike concludes.

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**Mike Ahern**, LCETB instructor

### FOR MORE INFORMATION

Please visit  
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