

Renishaw pioneers skills development initiative with West Midlands Manufacturing Measurement Centre and Coventry University

The nationwide shortage of skilled engineers has long been recognised as a constraint on UK industry. The challenge posed by globalisation to UK manufacturers is to develop robust, automated, productive processes, which demand manufacturing engineering skills that are in increasingly short supply. Renishaw is announcing a nationwide education initiative, which will be launched at the West Midlands Manufacturing Measurement Centre (WMMMC) based within Coventry University in Spring 2008.

At its state-of-the-art machining facility at Stonehouse, Gloucestershire, Renishaw demonstrates that it is possible to manufacture successfully in the UK if the right technologies and techniques are employed. The company has distilled its approach into a 2-day course, developed with the assistance of WMMMC staff, which is aimed at manufacturing engineers in companies of any size, from SMEs right up to aerospace OEMs.

The course is based around a concept called the Productive Process Pyramid™, which is used to systematically identify and control sources of variation in machining processes, resulting in increased automation, improved process capability, and reduced scrap and rework. Students will learn about design for manufacture, control of process inputs, environmental stability, machine performance optimisation, tracking machine geometry changes, process set-up, in-cycle process control and on-machine verification. They will leave with an action plan to implement process improvements in their factories.

The WMMMC will be the first of a network of Renishaw Productivity Centres, each equipped with contemporary machine tools and Renishaw metrology equipment, as well as education facilities. Many local SMEs may

Layer 10	Process verification
Layer 9	Thermal compensation
Layer 8	In-cycle process control
Layer 7	Process set-up & tool path generation
Layer 6	Machine geometry calibration
Layer 5	Probe calibration
Layer 4	Machine performance optimisation
Layer 3	Environmental stability & operating disciplines
Layer 2	FMEA and robust process design
Layer 1	Design for manufacture

The Productive Process Pyramid™ provides a method to identify and control variation, forming the basis for the skills development initiative

qualify for regional funding to cover some of their costs. In the case of the WMMMC, support may be available through the Manufacturing Advisory Service - West Midlands.

Over the next few months, Renishaw plans to establish similar Centres in other regions, forging relationships with local funding bodies to ensure that SMEs throughout the country have access to contemporary manufacturing engineering education.

About Renishaw

For over 30 years Renishaw, one of the world's leading metrology companies, has supplied products to manufacturing companies worldwide, all designed to increase productivity and improve product quality in a competitive manufacturing environment.

The company has a wide product range and a customer base across a broad spectrum of different industry sectors. Renishaw was best known for its probe systems for co-ordinate measuring machines (CMMs) and CNC machine tools, supplying many engineering companies in the sectors of aerospace, automotive and precision piece-part manufacture. However the company has successfully diversified into other product areas, such as encoder systems for position feedback, dental CAD/CAM systems, laser calibration products for machine performance control, and Raman microscopes for spectral analysis of materials.

For more information visit www.renishaw.com.

About the West Midlands Manufacturing Measurement Centre

The West Midlands Manufacturing Measurement Centre opened in September 2006 and is equipped with the latest measurement technology; providing practical advice, training, and consultancy to manufacturing businesses in the West Midlands region.

The West Midlands Manufacturing Measurement Centre was established by Coventry University Enterprises (CUE Ltd) and forms part of the Future Manufacturing Applied Research Centre (FMARC) which is the interface between industry and manufacturing applied research and education at Coventry University.

The main driver for the development of the Centre was a general market recognition of the knowledge gap with regard to general understanding and appreciation of measurement issues, and the potential for increased profitability and efficiency through effective use of advanced measurement techniques.

Funded by Advantage West Midlands to the tune of £700k and working closely with the Manufacturing Advisory Service, the centre will provide the region's manufacturing firms with a focal

point for measurement expertise and services – a key underlying technology that supports all manufacturing activities.

Our partners include the National Physical Laboratory, Manufacturing Advisory Service – West Midlands, Advantage West Midlands, the On Machine Manufacturing Project, Coventry University Future Manufacturing Applied Research Centre (FMARC) and the Department for Business, Enterprise & Regulatory Reform (BERR).

For more information visit www.wmmmc.co.uk

About MAS-WM

MAS-WM is dedicated to helping manufacturers in the West Midlands improve any aspect of their manufacturing operations, processes, production or materials technologies.

MAS-WM can provide direct assistance on any manufacturing issue such as plant layout, productivity surveys and lean manufacture, waste reduction, process improvement, material selection and testing, product development, rapid prototyping, kanban, SMED, quality control gap analysis, metrology, and technical queries.

For more information visit www.mas-wm.org.uk.