

Knowledge Transfer Partnerships

KTP BENEFITS

Knowledge Transfer Partnerships are designed to benefit everyone involved

- 🔄 Businesses will acquire new knowledge and expertise
- 🔄 KTP Associates will gain business-based experience and personal and professional development opportunities
- 🔄 Universities, colleges or research organisations will bring their experience to enhance the business relevance of their research and teaching

Knowledge Transfer Partnerships

Accelerating business innovation; a Technology Strategy Board programme

<http://www.ktponline.org.uk>

ECEBS LTD ECEBS SMARTENS UP ITS SECURITY OFFERING

ABOUT THIS CASE STUDY

The aim of this Knowledge Transfer Partnership (KTP) was to enable Ecebs Ltd to develop a new security solution to offer increased protection of smartcard data. By developing an authentication process using biometric technology, Ecebs would then be able to create more business opportunities in new markets, therefore increasing turnover. The Company would also benefit from an improved reputation in the area of biometric software solutions.

ABOUT THE SPONSOR

The Technology Strategy Board is a business-led organisation established by the Government. Its mission is to accelerate research into, and development and exploitation of, technology and innovation for the benefit of UK business - building economic growth and quality of life.

FAST FACTS

- 🔄 New found knowledge created further product development opportunities
- 🔄 The Company's visibility was raised in the area of biometrics
- 🔄 The Associate wrote influential research papers based on the KTP
- 🔄 The Academic Partner gained valuable commercial insight
- 🔄 Two patents were created

The Company



“We considered adding multi-modal biometrics to our smartcard offerings to be a significant enhancement of our value proposition.”

Barry Hochfield, Technical Director, Ecebs Ltd

Ecebs Ltd is a specialist software company that provides smartcard solutions to a variety of organisations, ranging from large blue chip companies and government departments to specialist firms.

Since its establishment in 2000, the organisation has developed a variety of smartcard software products that can be used in conjunction with a wide range of applications.

ABOUT THE PROJECT

Ecebs Ltd wanted to improve the security of smartcard data and broaden its offerings. To achieve this, the Company needed to develop a

biometric based technique that provided a reliable and convenient user authentication process. In turn, the Company wanted to address the weaknesses of existing biometric systems to overcome nationwide concerns around data and identity theft.

BENEFITS

The KTP, in partnership with Glasgow Caledonian University, helped Ecebs Ltd to develop an advanced multi-modal biometric based security solution. The originality of the model raised Ecebs profile as a developer in the field of biometric technology. This significantly improved the Company's competitive position and enabled it to

extend its market share, widen its product and service offering, increase profitability and create new business opportunities.

The development of the new security solution provided Ecebs with new-found understandings of, and knowledge in, technologies relating to the creation of biometric solutions. This enabled the Company to establish levels of expertise in the area of biometrics which generated

improved market awareness and further enhanced Ecebs' competitive position. Internal learning resources were also created for employees to build on new found skills in this area, ensuring all future biometric based development opportunities could be maximised to drive business growth and profitability.

The partnership also highlighted other opportunities in the area of software development; allowing the Company to

build on further innovative product concepts and generate future turnover increases.

RESULTS

- Future development opportunities generated
- Company profile was raised in the area of biometric software development
- New knowledge and expertise substantially enhanced competitive position

The Associate

“From my perspective, the knowledge transfer partnership enabled me to cross scientific disciplines and gain valuable industrial experience, while continuing with my academic studies.”

Dr Michelle Govan, KTP Associate

With a first class honours degree in Mechanical Design Engineering and a PhD in Engineering from the University of Glasgow, the Associate was able to bring a wealth of academic knowledge and expertise to the project. Her course provided her with the research skills and key competencies to successfully develop an engineering prototype to meet the objectives of the project.

BENEFITS

As part of the KTP, the Associate completed a variety of Java programming courses, which were essential to her role in the project, whilst also working to secure an MPhil accreditation.

The KTP also provided the Associate with valuable insights into the strengths and weaknesses of biometric technology within a commercial context. The project has not only improved her professional knowledge, but has provided her with a wide range of personal development in terms of increased confidence.

RESULTS

- Written research papers based on the KTP scheme
- Developed a wide range of personal and professional skills
- Commercial insight significantly benefited her academic knowledge
- Two patents were registered as a result of the project; Secure Pupil Response Testing and Hybrid Biometric Systems

The Academic Partner



“The project provided an excellent opportunity to apply and develop existing expertise

to interesting problems in partnership with, and for the benefit of, local enterprise.”

Professor Tom Buggy, Head of Division of Communication, Network and Electronic Engineering School of Engineering and Computing, Glasgow Caledonian University

The KTP was facilitated by Glasgow Caledonian University's School of Engineering and Computing. The School has an established reputation in the area of applied research in computing, engineering, mathematics and statistics, and boasts excellent links with professional bodies. It was therefore the lead choice in driving the KTP.

BENEFITS

The KTP provided the School with valuable insight and experience of smartcard technologies and their application, which benefited the commercial understanding of the School's staff, enriching existing teaching in embedded software engineering and mathematics. New areas of study in the area of biometric authentication were uncovered during the project and the School has seen an increased interest among staff in this area. Students are also choosing biometrics for their degree focus as a result of the KTP.

The School developed a good working relationship with Ecebs Ltd, which has created possibilities for future research collaborations in the area of IT security. The partners also established a jointly funded Research Fellowship to continue to develop biometric research.

The profile of the School has been raised through a variety of public seminars given by the Associate, increasing its visibility as a leading research institution in the area of biometrics, and reinforcing its reputation as a centre of excellence in computing science.

RESULTS

- Increased commercial knowledge in the area of smartcard technologies
- New insight will enrich teaching courses
- The University profile has increased
- New research opportunities have been created