



Press Release from Bournemouth University

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BU and Tank Museum to ensure Britain's military history is saved

A three-year research project to help preserve the world's most historically significant collection of military vehicles will get underway later this year.

Working in partnership, Bournemouth University (BU) and The Tank Museum at Bovington, Dorset, have created a PhD research opportunity to investigate the *Sustainable Methodology of Conserving Historic Vehicles*.

The Tank Museum holds the most important collection of its kind in the world with almost 300 historic armoured vehicles under its care. The collection boasts a number of unique and important vehicles from the 100 year history of the tank; including the world's first ever tank and a number of others maintained in running order for public displays.

The research will be guided by senior academic Dr Zulfiqar Khan from BU's Sustainable Design Research Centre. His team aim to understand and improve tank preservation techniques and strategies by learning about how tank engines run after extensive periods of non-usage, how ageing affects the structure of tanks, and how much it costs to run such historic vehicles.

Dr Khan said: "The interesting aspects of this PhD project with the Tank Museum are the requirements to run and operate large and heavy vehicles after periods of non-use in various humidity and temperature environments. Starting engines after long periods of disuse provides a particular challenge in terms of tribological aspects of moving lubricated components.

"In addition the tank structure is subject to stresses due to suspension and material aging and misalignment. Concentrated residual stress, corrosion, stress corrosion cracking and fatigue stress within the structure need to be considered in balance with economical and sustainable aspects. In addition, an ethics dimension needs to be

addressed in terms of the assessment of replacement artefact replicas and originals for these museum vehicles.

“This project is of mutual benefit and provides a world-class opportunity for a high-calibre doctoral researcher to be involved in a unique and high-profile piece of research.”

Richard Smith, Director of The Tank Museum said: “This is a tremendously exciting project that will apply academic expertise to a unique set of vehicles and ensure that they can be preserved for generations to come.”

Professor Mark Hadfield, Head of Research & Enterprise in BU’s School of Design, Engineering & Computing explained the uniqueness of the partnership.

“This PhD forms one of four doctoral research posts co-sponsored by education (BU) and industry (Tank Museum) - an innovative approach to funding for this level of academic study within the higher education sector. We are delighted to be working with an organisation of the Tank Museum’s standing.”

For more information on this funded PhD studentship, please visit the website:

http://www.bournemouth.ac.uk/research/studentships/phd_studentships.html

Notes to Editors:

1. BU is the UK’s Number One New University (first place among all institutions that became universities since 1992) according to The Guardian University Guide 2009 and 2010 (www.guardian.co.uk/education).
2. In the 2008 Research Assessment Exercise (RAE) BU is the fourth most improved university in the UK for the quality of its research (according to Times Higher Education). Research relating to Design and Engineering is rated as world-leading, achieving results in the highest possible RAE subject categories.
3. To read more about Dr Khan’s research and BU’s Sustainable Design Research Centre, visit: <http://www.bournemouth.ac.uk/sdrc/>
4. The Tank Museum, an independent Museum and registered charity, holds the world’s broadest and best collection of tanks. Sited on the fields where the first tank crews were trained during World War One, Bovington is regarded as the Home of the Tank. As a major Dorset visitor attraction, the Museum attracts over 130,000 visitors a year and has recently completed a £16m Heritage Lottery Fund Sponsored Redevelopment Project: <http://www.tankmuseum.org>.

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