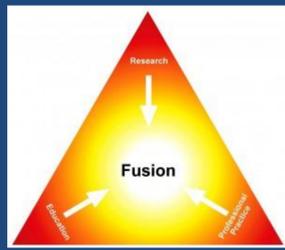




Sustainable Design
Research Centre

The Tank Museum: A Case Study of the Research Informed Education



Dr Zulfiqar Khan, Director SDRC

Background

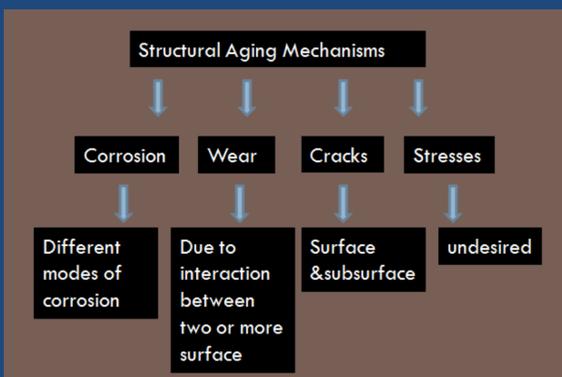
Design methods and projects is a 40 credit unit within the Design and Engineering framework of the Faculty of Science & Technology. Part of the summative assessment for the unit is a project relating to The Tank Museum (Bovington, Dorset) and linked to on-going research projects.



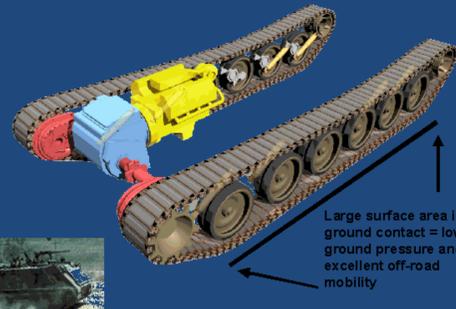
Project

Students visit The Tank Museum as part of their project learning led by Dr Khan. This is followed up with additional visits where students are able to access archives and additional material to support their study and research. Topics of the projects are related to the research themes of corrosion, contact mechanics and tribology within the Sustainable Design Research Centre.

The students' projects are linked to the current research in collaboration with The Tank Museum and the Defence Science and Technology Laboratory (DSTL) Ministry of Defence, led by Dr Zulfiqar Khan. This area of activity has been running since 2009.



Tracks: do not have air-filled tires, have low 9 PSI ground pressures and are cross-country-mobile



Large surface area in ground contact = low ground pressure and excellent off-road mobility



Figures showing DE project [K Iqbal, Z Khan]

Student Feedback

Student feedback is collected in a formal (student unit evaluation) and informal (informal discussion) to ensure the visit and associated project offer an excellent learning opportunity. Feedback is used in an iterative process to modify the delivery methods as appropriate year on year.

Specific feedback clearly demonstrates enhanced students' learning experience. Additional benefits are noted in terms of the wider research activities relating to the Tank Museum. The project provides a real opportunity for students to learn how to bridge the gap between theory and practice.

Key Messages

Topics of corrosion, contact mechanics, nano-materials, renewable technology and tribology brought alive by real world examples and current BU research within SDRC.

Projects linked to PhD research provide a platform for PhD students to become involved with teaching, learning and inspiring the undergraduates.

Research informed education are the means of motivation for UG students, in turn enhancing their learning experience. The majority of the SDRC projects are funded by industry (DSTL, Schaeffler, Future Energy Source Ltd, RNLI, SK&F, Balmain Charitable Trust, Longitude Engineering). This provides opportunity of exposing UG students to industrial practice and creating gateways to employability.

Students enjoy the Tank Museum live project, the associated trip and subsequent projects consistently identifying it as a major highlight.

For more information regarding research-informed education please contact Dr Jonathan Williams, Research-Informed Education theme leader, Centre for Excellence in Learning, jwilliams@bournemouth.ac.uk

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