

Qatar: New centre to recycle plastic waste

28 April 2009

DOHA: Qatar, one of the largest polymer-producing countries in the region, has launched an environment-friendly initiative for recycling polymers. The **Qatar Science and Technology Park (QSTP)** and **Qatar University (QU)** signed a memorandum of understanding yesterday to help initiate the establishment of a polymer centre.

The centre, according to the agreement signed by **QU** President Prof Sheikha Abdulla Al Misnad and **QSTP** Executive Chairman Dr Tidu Maini, will focus on recycling plastic waste and producing environment-friendly materials that could be used in local industries.

Qatar University, in co-operation with the University of Sheffield, UK, is conducting research on polymers. The research aims at optimisation of the mechanical properties of blends from plastic waste; improvement of the thermal stability of recycled blends; and carrying out a life-cycle analysis of recycled polymer products.

The whole recycling initiative comes from Dr Mariam Al Ali Al Ma'adeed, head of the Materials Technology Unit (MTU) at **QU**, who is in-charge of the Environment Club at the university. "The club had a recycling project and we had done a number of research projects on biodegradable polymers and recycling. We are working towards a green environment," she told The Peninsula.

QAPCO and other international companies have agreed to cooperate in the initiative by supplying residual polymers. The municipality is also set to segregate plastic from the other waste.

"As part of the programme, there will be exchange of researchers between both the universities. This can, in the long run, help enhance collaboration between the universities in the field of training and scientific consultation," she said.

Dr Al Ma'adeed will be joined by Dr Ramazan Kahraman of the Chemical Engineering Department, **QU**, and Dr Alma Hodzic of the Mechanical Engineering Department of the University of Sheffield in the research. The project is expected to start in June this year and go on until 2012.

"All the research is aimed at recycling polymer waste in Qatar," said Dr Hodzic. "PhD scholars and the other major students will participate in the research. The main target is to optimise the plastic products to withstand the high temperature prevalent here. Recycling of polymers has been going on for a long time but we aim to make polymers suitable to the climatic conditions in Qatar. The products elsewhere cannot tolerate temperatures beyond 50 degrees Celsius. The research focuses on raising this bar to temperatures above 70 degrees Celsius using additives. A couple of companies have already approached us, offering to produce recycled products. These products can be used instead of wood and soft wood," she told The Peninsula.

Preserving the environment has been a key objective in any of **QSTP's** projects and hence the collaboration. "From the outset, **QSTP** has focussed on the environment as one of the key areas where we can develop and apply new technologies for the benefit of Qatar. One of the best places to start is recycling what we are currently throwing into landfill. Sheffield and **Qatar University** have the right expertise to start solving these challenges, and **QSTP** is proud to be an accelerator and participant in the Polymer Center," said Maini .

"We are pleased to be part of an initiative that will impact on a very crucial issue -- defence of the environment," said the **QU** president. "**Qatar University** is well placed to contribute to this project through our Materials Technology Unit and Chemical Engineering Programme. As Qatar is one of the largest polymer-producing countries in the region, it is fitting that we as the national university take a strong lead in promoting waste-reducing and recycling activities".

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