IN THE SPOTLIGHT

■ Robot Fish will Detect Sea Pollution

British scientists from BMT Group Ltd developed carp-shaped robot capable of detecting water pollution. Next year will start a trial of the first five robotic fish in the northern Spanish port of Gijon. It will be a part of a three-year research project funded by the European Commission and co-ordinated by BMT Group. The first five fish are being built by Professor Huosheng Hu and his robotics team at the School of Computer Science and Electronic Engineering, University of Essex. The biomimetic robot mimics the movement of real carp and is equipped with tiny chemical sensors to sniff out potentially hazardous pollutants, such as leaks from vessels or underwater pipelines. It transmits the information back to the port's control centre using Wi-Fi technology. This is the first robotic fish able to navigate independently without any human interaction. It can return automatically to its hub to be recharged when battery life (approximately eight hours) is low. Rory Doyle, senior research scientist at

Source of the image: www.bmt.org

engineering consultancy company BMT Group, which developed the robot fish with researchers at Essex University, said there were good reasons for making a fish-shaped robot, rather than a conventional mini-submarine, hopes that the robotic fish will used in rivers, lakes and seas across the world. The robot fish will be 1.5 meters long - roughly the size of a seal, swim at a maximum speed of about one metre per second, and cost 20,000 pounds ($29,000) a piece.

More information at http://www.bmt.org/News/?/3/0/510

■ Automatic Beauty

The new star of catwalks was born in Japan. Scientists from Japan's National Institute of Advanced Industrial Science and Technology presented the new version of HRP-4C during Tokyo Fashion Week in March. Standing at 186-cm tall and 43-kg with battery (so it has slimmed-down from an earlier 58 kg), cybernetic model has a shape designed to match the average Japanese woman; with human-like skin and eyes, face and hair based on Japanese "anime" comics, is probably the most advanced humanoid robot in the world. Reports say that the robot, "kept looking surprised, opening its mouth and eyes in a stunned expression, when the demonstrator had asked it to smile or look angry" - everything thanks to 30 motors spread throughout its body with an additional eight motors in its face. During the fashion show audience could observe - a constant look of surprise on HRP-4C's face. Second weak point is robot's bearing; however its movements are quite smooth, as well as constantly bent knees and unsteady gait make an impression of artificiality. As Reuters notes the robot's outfit is more like that of a storm trooper.

Japanese model robot costs ca $200,000 (without a face and silver suit). The software will be available free - everybody will be allowed to program new behaviour's patterns.

In our humble opinion HRP-4C should try walking in 12-inch platform heels, as flesh and bone models.

Source: http://www.aist.go.jp/   *Source of the image: AP*