International School for Advanced Studies

The beauty of the "augmented" man

Technological prosthetics are moving towards tight symbiosis with the human body. Merging functionality with beauty is leading to a new image of the human body.

The latest Paralympic Games have brought it to the spotlight: today technological prostheses, used to replace missing limbs, harmoniously integrate with the human body and promote a new conception of beauty. They are increasingly functional, sometimes even more than "normal" limbs.
New frontiers of science on prosthetic device will be the topic of the lecture held by **Maria Chiara Carrozza** (Director of Sant'Anna School of Advanced Studies) on **Wednesday 10th October**, at SISSA in Trieste.

A girl is dancing on the dance floor. She is following the rhythm of the music, with elegance. She is beautiful. She is wearing a low-cut dress, a knee-length skirt and only there you can see she is missing a leg. Actually, instead of a natural leg she has got a light metal, hypertechnological leg. She does not do anything to hide it, and not even anything to show it. We are moving towards a new conception of the beauty of the human body, arising and evolving from scientific advances,

with new and unintentional testimonials, such as Oscar Pistorius, the South African runner. This is the new frontier in research on biomedical prosthetics: creating less invasive prosthetic devices, easy to wear, like real extensions of the human body. Beauty, functionality and technological power. This is what **Maria Chiara Carrozza**, Professor of Biomedical Engineering and Biorobotics, as well as Director of Sant'Anna School of Advanced Studies in Pisa, will be talking about at SISSA – International School for Advanced Studies.
"Oscar Pistorius has indirectly contributed to significantly change the image of people with prosthetics," explained Carrozza. "Today we can call good looking someone with prosthetics if they are functional and allow the subject to have a high performance in walking or running. This is how beauty and functionality are connected and become synonyms. Prostethics that work look also good".

WHERE AND WHEN

The lecture will be held on Wednesday **10th October** 2012 in **SISSA Main Lecture Hall**, International School for Advanced Studies, at **11.00 a.m.**

WHO

Maria Chiara Carrozza graduated in Physics at the University of Pisa in 1990 and obtained a PhD in Engineering at Sant'Anna School of Advanced Studies in 1994. Since 2006 she has been Professor of Biomedical Engineering and Biorobotics at Sant'Anna School of Advanced Studies, as well as Rector of the School since 2007.
She is the Coordinator in charge of many national and international research projects, including Cyberlegs (http://www.cyberlegs.eu) and WAY (http://www.wayproject.eu). Among her main interests are cybernetic hands, robotic devices to replace missing limbs, augmented reality, tactile sensors, motor-sensory integration, rehabilitation engineering and wearable robotics.

Useful links:

>How to reach SISSA
>Cyberlegs Project
>WAY Project

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