



Robotic Games Society (Singapore)

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SRG 2004 Public Lecture

3.00 pm, 20 May 2004, D'Marquee, Downtown East

Will future robots really share our “living space” ?

by

Christian LAUGIER

Research Director at INRIA, INRIA Rhône-Alpes, France

Abstract:

After a long period where R&D in Robotics was mainly oriented towards classical manufacturing applications, recent technological breakthroughs have opened the door to a broad range of new application domains. These breakthroughs are resulting from the combination of three main factors: the intensive research work done in the field of Robotics during the last decade, the continuous increase of the power of onboard computers, and the impressive progress made in the field of Mechatronics and miniaturized mechanical systems. Today, robotic systems are appearing in various application domains such as cleaning, civil and military intervention, spatial exploration, underwater work, transportation systems, health, entertainment, etc., and also in some advanced interfaces for virtual reality! Even if robotic systems are already frequently used in several of these applications, there is still a long way to be covered before we can have robots able of “sharing our living space”, *i.e.* robots exhibiting *robust intelligent behaviours*, and having the capability to *cooperate safely* with human beings, while *communicating* with them in a natural way. The objective of this lecture is to show where we are, and where we are going, in this new field of “Companion Robotics”. Several concrete examples will be used to illustrate the talk using images and videos.

About the Speaker:

Dr. Christian Laugier is Research Director at INRIA, and leader of the eMotion research project-team in Robotics since 1984. He is also in charge of the international relation office at INRIA Rhône-Alpes, and member of the INRIA evaluation board. He received the Ph.D. and “State Doctor” degrees in Computer Science from Grenoble University (France) in 1976, and 1987 respectively. His current research interests mainly lies in the areas of *Motion Autonomy, Intelligent Vehicles, Decisional Processes, and Virtual Reality*. In 1997, he was awarded the *Nakamura Prize* for his contribution to the advancement of the technology on Intelligent Robots and Systems. Dr. Christian Laugier is a member of several scientific national and international committees, and he is regularly involved in the organizing committees of the major international conferences in Robotics (IEEE ICRA and IEEE/RSJ IROS). In addition to his research and teaching activities, he participated in the start-up of four industrial companies in the fields of Robotics, Computer Vision, and Computer Graphics.