





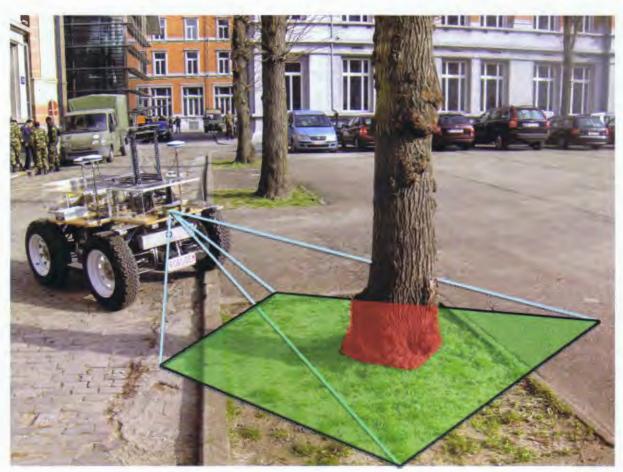
With the informal support of RTO/ AVT175/RTG055 and RTO/ IST089/ RTG042
And the formal support of the BE DOVO/SEDEE and RMA o/c ACOS-Ops Trg

# C- ELROB 2011 IARP RISE 2011

20-24 June 2011- Leuven















## **IARP WS RISE' 2011**

20-21 June 2011- Leuven

**Programme and Abstracts** 

#### Dear Colleagues,

The general objective of the International Advanced Robotics Programme (IARP) is to encourage the development of advanced robotic systems that can dispense with human work for difficult activities in harsh, demanding, or dangerous environments, and to contribute to the revitalization and growth of the world economy. (<a href="https://www.iarp-robotics.org">www.iarp-robotics.org</a>)

Through this fifth IARP workshop RISE'2011 (Risky Intervention and Surveillance /Maintenance of the Environment), we'll get information on theoretical topics of the use of mobile robotics systems in unstructured environments but also on on-the-field results of implemented R&D on real land and aerial robots. We thank the participants of ELROB'2011 who accepted to share their experience and their R&D progresses with the members of the working group RISE.

Robotics solutions properly sized with suitable modularized mechanized structure and well adapted to local conditions of un-structured, sometimes unknown fields can greatly improve the safety and the security of personnel as well as work efficiency, productivity and flexibility. Solving this problem presents challenges in robotic mechanics and mobility, sensors and sensor fusion, autonomous or semi autonomous navigation and machine intelligence.

The workshop will review and discuss the available risky intervention/environmental surveillance technologies along with their limitations and discusses the development efforts to automate tasks related to reconnaissance/ detection / decontamination / neutralization process wherever possible through robotization

I hope you'll enjoy your stay in Leuven.

Kind regards

Dr Ir Eric Colon Royal Military Academy

## **IARP Member and Observer Countries**

Australia Hugh Durrant-Whyte

Austria P. Kopacek Belgium Y. Baudoin

H. Bruyninckx,

P. Dehombreux

**Brazil** Liu Hsu E. Dupuis Canada China, P.R Qiang Huang

P. Karp European

Commission Wolfgang Boch (Observer)

France Philippe Bidaud

Etienne Dombre

R. Dillmann Germany C. Moriconi Italy Kazuhito Yokoi Japan Korea Mun-Sang Kim **Poland** A. Maslowski Russia V. Gradetsky M. Armada Spain G. Pegman **United Kingdom** 

Michael M. Reischman USA

### **Sponsorship**

#### This Workshop is sponsored by the next IARP Countries

Belgium	Yvan Baudoin Co-chairman	Royal Military Academy
France	Simon Lacroix	LAAS-CNRS, Toulouse
Germany	Rüdiger Dillmann,	Universität ,Fakultät für Informatik, Karlsruhe
	Frank Schneider Co-chairman	FhG-FKIE, Wachtberg (NATO RTO)
Korea	C-W. Lee	Korea Institute of Science and Technology, Seoul
Poland	A. Maslowski	University of Warsaw
Russia	V. Gradetsky	Institute for Problems in Mechanics, Moscow
U.K	G. Pegman	RURobots, Manchester
USA	Jim Overholt	Dir. Joint Ground Robotics Enterprise