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<b>Canada</b>	<i>E. Dupuis</i>
<b>China, P.R</b>	<i>Q. Huang</i>
<b>European Commission (Observer)</b>	<i>P. Karp</i> <i>W. Boch</i>
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<b>Italy</b>	<i>C. Moriconi</i>
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<b>Korea</b>	<i>M.-S. Kim</i>
<b>Poland</b>	<i>A. Maslowski</i>
<b>Russia</b>	<i>V. Gradetsky</i>
<b>Spain</b>	<i>M. Armada</i>
<b>United Kingdom</b>	<i>G. Pegman</i>
<b>USA</b>	<i>M. Reischman</i>

## IARP Executive Committee

<b>President</b>	<i>N. Caplan</i>
<b>Vice-President</b>	<i>G. Pegman</i>
<b>Executive Secretary</b>	<i>E. Dombre</i>
<b>JCF 2012 Chair</b>	<i>A. Maslowski</i>

## Time Schedule for Paper Submission

The contribution should focus on theories, principles and developments which have been explicitly developed for (terrestrial, underwater, aerial and space) robots, and carried sensor systems for environmental surveillance, risky interventions in unstructured environments and/or in extreme environmental conditions.

An abstract (approximately 300 words in English) should be received not later than **30 April 2013**.

⌚ Deadline for abstracts: **30 April 2013**

⌚ Selection of abstracts: **31 May 2013**

⌚ Receipt of full papers: **30 June 2013**

## Local Organization Committee

Chairman	Alexandr Lopota (RTC, St.-Petersburg, Russia)
Vice-chairman	Alexey Kochkarev (RTC, St.-Petersburg, Russia)
Secretary	Ivan Ermolov (MSTU "STANKIN", Moscow, Russia)

Workshop inquiries to:

Alexey Kochkarev  
Russian State Scientific Center for Robotics and Technical Cybernetics (RTC)  
194064, Russia, Saint-Petersburg,  
Tikhoretsky prospect 21  
e-mail: [kocha@rtc.ru](mailto:kocha@rtc.ru)

## Venue

The Workshop will take place in Saint-Petersburg. Presentation will be held in the frame of the annual VI St.-Petersburg International Innovation Forum



**INTERNATIONAL ADVANCED  
ROBOTICS PROGRAMME**  
WITH THE SUPPORT OF THE CLIMBING AND WALKING ROBOTICS  
ASSOCIATION

**Seventh International Workshop**

on

**Robotics for Risky Environment -  
Extreme Robotics**

**7<sup>th</sup> IARP RISE-ER'2013**

**1-3 October 2013**

**Saint-Petersburg**

**Russia**

**Call for Papers**



**RUSSIAN STATE SCIENTIFIC CENTER  
FOR ROBOTICS AND  
TECHNICAL CYBERNETICS**



Royal Military Academy Belgium



**Institute for Problems in  
Mechanics of the Russian  
Academy of Sciences**



**CSIC**  
CENTRO DE AUTOMÁTICA Y ROBÓTICA (CAR)



**POLITÉCNICA**



**UNIVERSITY OF  
TENNESSEE**  
KNOXVILLE



**Instytut Maszyn  
Matematycznych**



## Background

The general objective of the International Advanced Robotics Programme (IARP) is to encourage 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.

Through this seventh Workshop, the IARP working group **RISE** (Risky Intervention and Surveillance /Maintenance of the Environment), the RMA, the RTC, the IPM of the RAS, with support the Ministry of Education and Science of the Russia, the Ministry of Emergency Situations of the Russia, the Ministry of Defence of the Russia, the Federal Space Agency of the Russia, the Russian Academy of Sciences, organize dedicated sessions on next topics:

## Scope and Topics

Robotics solutions properly sized with suitable modularized mechanized structure and well adapted to local conditions of unstructured, 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, sometimes applied in extreme conditions, along with their limitations and discusses the development efforts to automate tasks related to

- Inspection of fire or crisis/disaster's areas
- CBRN-E threats
- Demining Actions
- Search and Rescue Operations
- Space and Aerial Monitoring
- Map building and reconstruction
- Remote controlled, semi-autonomous, autonomous vehicles
- Robot (UGV, UAV-RPAS, USV) navigation
- Networked Multi-robot cooperation

## Programme Committee

Belgium	Y. Baudoin General Chair G. De Cubber	Royal Military Academy Coordinators FP7-Security TIRAMISU-ICARUS
Finland	A.Samberg	Sec Control group
Germany	F.E. Schneider	FGAN FKIE/EFS/MMRS
Netherlands	P. van Blyenburgh	President UVS International
Russia	V. Lopota Co-chair F. Chernousko Co-chair  E. Yurevich  V. Gradetsky	President of RSC Energia by S.P. Korolev Director of Institute for Problems in Mechanics of the RAS Russian State Scientific Center for Robotics and Technical Cybernetics Institute for Problems in Mechanics of the RAS
Poland	A. Maslowski	Warsaw University of Technology, Institute of Mathematical Machines, Warsaw a.maslowski@cim.pw.edu.pl
Spain	M. Armada	CSIC Agencia Estatal Consejo Superior de Investigaciones Cientificas
Sweden	G.S. Virk	Faculty of Engineering and Sustainable Development University of Glave
UK	M.O.Tokhi	Department of Automatic Control and Systems Engineering University of Sheffield
USA	William R. Hamel	University of Tennessee Dept: Mechanical & Aerospace Engineering

**The Russian State Scientific Center for Robotics  
and Technical Cybernetics**  
<http://www.rtc.ru/>



Is one of the largest research centers of Russia. The Institute was founded in January 1968 on the basis of

Leningrad Polytechnic Institute (Saint-Petersburg State Polytechnic University nowadays).

The activities of the Institute are concentrated in spheres of research, development and creation of space, aerial, ground-based and aquatorial means of robotics and technical cybernetics

## ABSTRACT SUBMISSION

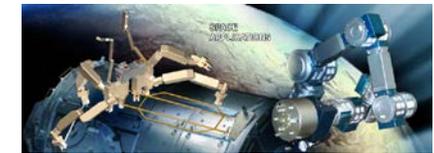
7<sup>th</sup> IARP Workshop on

## 'Robotics for Risky Environment - Extreme Robotics'

1-3 October 2013

Electronic submissions of the abstracts (Word, PS-format, PDF-files) should be mailed to:

[yvan.baudoin@rma.ac.be](mailto:yvan.baudoin@rma.ac.be)  
[geert.de.cubber@rma.ac.be](mailto:geert.de.cubber@rma.ac.be)



Space Applications



Extreme Robotics



Search and Rescue – Demining Robotics