POLITECNICO DI TORINO

Compagnia di San Paolo

16th January 2017

DIATI - Door 3
Meeting room 1st floor

Politecnico di Torino
Corso Duca degli Abruzzi, 24

Smart technologies, agriculture and environment: challenges and perspectives

The workshop addresses recent advances in the field of the applications and implications of emerging technologies in agriculture. New materials, chemical products (e.g., nanopesticides) and advanced technologies have been proposed in recent years to improve and optimize crop production, and reduce its environmental impact. Nanotechnologies have been applied in recent years in agriculture, in particular in the development of improved formulations of pesticides and fertilizers. Moreover, advanced geomatics has been recently introduced to optimize field work.

This workshop focuses on recent advances in these fields, addressing in particular implications and opportunities to minimize environmental impacts, with a specific focus on water resources. The workshop is proposed in the framework of the Internationalization project "Impact of emerging contaminants and engineered nanoparticles on water quality" funded by Compagnia di San Paolo and is jointly organized by McGill University and Politecnico di Torino.

Nanopesticides: trends and perspectives

9.15/9.30	Introduction: ***T. Tosco, DIATI - Politecnico di Torino***
	Welcome: ***R. Sethi - Head of the Department, DIATI - Politecnico di Torino***
9.30/10.00	"Fate and uptake of nanopesticides in soil systems: implications for risk assessment"
	A. Boxall, University of York
10.00/10.30	"Nano-enabled Pesticides: A way forward to assess their ecological risks for regulatory evaluation"
	R. Kookana, CSIRO - Commonwealth Scientific and Industrial Research Organization
10.30/11.00	*Coffee break*
11.00/11.25	"Pesticides in agriculture: needs, constraints and suggestions from nanotechnologies"
	F. Vidotto, M. Milan, A. Ferrero - Dep. of Agricultural, Forest and Food Sciences - Università di Torino
11.25/11.50	"Functionalized SBA-15/FeO mesoporous for the removal of glyphosate herbicide"
	L. Rivoira, M. Appendini, S. Fiorilli, B. Onida, M.C. Bruzzoniti, Dep. of Chemistry - Università di Torino
11.50/12.50	"Environmental fate of nanopesticides - preliminary results of the collaboration project between McGill University and Politecnico di Torino"
	Tiziana Tosco, Silvia Fiore, Andrea Casalone, Cecilia Crugnola, DIATI - Politecnico di Torino
	Nathalie Tufenkji, Kerwin Wong - Dep. of Chemical Engineering- McGill University
	Subhasis Ghoshal, Ali Akbari, Dep. of civil Engineering - McGill University
	"Transport of nanopesticides in porous media"
	"Characterization and imaging techniques for nanopesticide dispersions"
12.50/14.30	Lunch break

Precision Farming

14.30/14.55	"The role of Geomatics in the farm 2.0"
	M. Piras, Politecnico di Torino
14.55/15.20	"Pervasive technologies for Precision Farming: RFIDs and WSNs"
	F. Gandino, R. Ferrero, B. Montrucchio, M. Rebaudengo, DAUIN - Politecnico di Torino
15.20/15.40	*Coffee break*
15.40/16.05	"Towards an integrated approach to UAS management in smart agriculture applications"
	M. Silvagni, M. Chiaberge, C. Sanguedolce, G. Dara, F. Tessari, A.Osman, DIMEAS - Politecnico di Torino
16.05/16.30	"Assessing vineyard condition with Unmanned Aerial Systems. From photogrammetry to vineyard detection"
	R. Duarte, M. Chiaberge, DET - Politecnico di Torino

Registration: Registration is recommended and is free of charge.
For registering, send an email to **tiziana.tosco@polito.it** no later than 12th January 2017.