

CURRICULUM VITAE

Mr. Gaghik HOVHANNISSIAN

Research Engineer, in Geophysics and in Soil Physics

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Born: April 28, 1958. Divorced. 2 children.

RESEARCH INTERESTS :

The scientific interest of my professional activity in IRD is closely related to studies the behaviours of various physical parameters, sensitive to characterize the hydro-structural functioning of porous and permeable environments (soil, rocks, synthetic materials). The purpose of my work is to develop new technologies and methodological approaches to conduct laboratory experiments and spatiotemporal monitoring of geophysical different parameters referred to study and understanding of the physicochemical interactions occurring on the interfaces "soil-water-plant-atmosphere", to assess the processes and phenomena of soil degradation (water and wind erosion, leaching, salinization, etc...), to elaborate, test and introduce new practices in land use, for preservation and rehabilitation of land and underground water resources.

ACADEMIC QUALIFICATIONS :

Graduation year	Degree	Major/Specialization	University
2000	Ph.D.	Applied Geophysics, Soil Physics	Pierre & Marie Curie University, Paris, France
1991	Ph.D.	Geophysics, Physics and Mathematics	Earth's Physics Institute, Moscow, ex. USSR
1980	Engineer	Geophysics, Applied Geophysics	Armenian State University, Yerevan, Armenia

APPOINTMENTS :

Dates	Position and Institution	City, Country
2002 - Present	Research Engineer, Research Institute for Development, (UR 27 GEOVAST, UR 176 SOLUTIONS, UMR 211 BIOEMCO, UMR 242 IEES Paris).	Bondy, France
2000 - 2002	Research Engineer, Institute of Earth's Physics (IPGP), Laboratory of Geomagnetism	Paris, France
1999 - 2000	Engineer – Geophysicist, Terra Nova Ltd, Geophysics Applied for Precision Agriculture and Archaeology	
1997 - 1999	Invited Professor, Ecole Normale Supérieure (ENS), Laboratory of Geology	
1992 - 1995	Chief Geophysicist and Deputy Director, Northern Department of National Service for Seismic Protection (ND NSSP) of Armenia	Gumri, Armenia
1991 - 1992	Head Geophysicist, ND NSSP	
1986 - 1991	Senior Geophysicist, Scientific and Experimental Geophysical and Seismological Expedition (SEGSE IGAS) of Armenian Academy of Sciences	
1981 - 1986	Engineer - Geophysicist, (SEGSE IGAS) of Armenian Academy of Sciences	

POSTS & MISSIONS ABROAD :

Country, Year, Duration	Activity
South Africa, 2012 Mission (2 weeks):	<p>- Auger survey on the experimental site SASRI in order to compare and adjust the soil distribution information on the apparent electrical resistivity maps. Meeting with partners for data restitution, as well as the presentation and exploitation of scientific results.</p> <p>Research project PROPTEA: IRD, and the University of KwaZulu-Natal (UKZN), South Africa, and South African Sugarcane Research Institute (SASRI), and Institute for Commercial Forestry Research (ICFR).</p>
Thailand, 2009-2011 Mission (2 months):	<p>- Study of physical, chemical and hydrological properties of soils, following the obtained results by geophysical mapping, in order to establish soil variability and to evaluate the impact of land management work on the soil erosion and changes of its hydro-structural functioning.</p> <p>Research project TICA: IRD, and Land Development Department (LDD). Co-advisor for Master degree Thai student of Khon Kaen University. Teaching and training.</p>
South Africa, 2011 Mission (1 month):	<p>- Application of electrical resistivity mapping and 2D tomography to study the soil property changes induced by fertilizers, burning and trash retention in two experimental sites (sugar-cane and eucalyptus plantations) in South Africa. Teaching and training of South African partners and IRD colleagues.</p> <p>Research project PROPTEA: IRD, and the University of KwaZulu-Natal (UKZN), South Africa, and South African Sugarcane Research Institute (SASRI), and Institute for Commercial Forestry Research (ICFR).</p>
Thailand, 2009-2011 Expatriation (2 years):	<p>- Posted in Thailand, Bangkok, IRD - Land Development Department (LDD). Permanent expert for TICA project.</p> <p>Application of Spontaneous potential mapping, electrical resistivity mapping and 2D tomography to study the spatial variability and hydro-structural functioning of soils on the rubber-tree experimental plantations in order to understand physico-chemical interactions at the interfaces "soil-water-plant-atmosphere" and to assess their effect on the rubber-trees growth. Teaching and training of Thai partners and IRD colleagues.</p> <p>Research projects NRCT and TICA: IRD, and Land Development Department (LDD).</p>
Thailand, 2008, Mission (3 weeks):	<p>- Application of electrical resistivity mapping in an experimental plantation to investigate the influence of soil spatial variability on the rooting, on physiological functioning and the onset of the disease "cortical necrosis" of the rubber tree.</p> <p>Research Convention « IFC-Racines »: IRD, MICHELIN Technology Society, L.C. Socfinco, French Institute of Rubber (IFC).</p>
South Africa, 2007 Mission (3 months):	<p>- Application of electrical resistivity mapping and 2D tomography to study and understand the phenomena generating degradation and erosion of soils within an experimental catchment with the aim of land rehabilitation. Teaching and training of South African partners and IRD colleagues.</p> <p>Common research programme: IRD and the University of KwaZulu-Natal (UKZN), South Africa</p>
Thailand, 2005 Mission (4 weeks):	<p>- Application of Self-Potential method for assessment of salinity hazard in agricultural lowlands of Northeast Thailand. Study of RedOx potential and of diffusion phenomena in soils. Teaching and training of Thai partners and IRD colleagues.</p> <p>Common research programme: IRD and Land Development Department (LDD).</p>

Madagascar, 2003 - Self Potential method and 2D electrical resistivity tomography in exploration of
Mission (2 weeks): underground water resources: methodological developments.
Internship supervisor of two Master degree students. Teaching and training of
postgraduate students and Malagasy.
**Common research programme: IRD and Institute & Geophysical Observatory of
Antananarivo.**

TEACHING ACTIVITIES :

Institution : UPMC (Pierre & Marie Curie University, France), ISTOM (School of International Agro-Development)

Subject : Methods of Applied Geophysics, Soil Physical Properties.

Nature and quantity : Lecture and Field training ; 40-100 h/year.

Level : Master 2 and Ph.D. graduate students.

PUBLICATIONS and CONFERENCE PARTICIPATION :

The results of my research have been published in 19 scientific articles and presented at 25 national and international conferences.