

Michel Cervantes - Curriculum Vitae

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Nationalities: French/Swedish
Date of birth: 16/12-1968, France

PROFESSIONAL EXPERIENCE -----

09-2013 to ... Professor II, Water power laboratory, NTNU, Norway
01-2010 to ... Professor in Fluid Mechanics, LTU, Sweden
07-2008 to 12-2009 Lecturer in Fluid Mechanics, LTU, Sweden
January-June 2009: working part time at Vattenfall Power Consultant, Hydropower
04-2006 to 06-2008 Research associate in Fluid Mechanics, LTU, Sweden
June 2008: visiting Professor at École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
06-2003 to 03-2005 Researcher in Fluid Mechanics, LTU, Sweden
Project manager Hydro Power University
01-2000 to 05-2003 PhD-student at Luleå University of Technology, division of Fluid Mechanics
Vice-project leader Hydro Power University from 2001
12-1998 to 12-1999 Project leader R&D at Metal Process Control AB, Nyköping, Sweden.
12-1995 to 11-1998 PhD-student at Luleå University of Technology, division of Fluid Mechanics
04-1995 to 09-1995 Lieutenant, chief for a platoon in the French Army

EDUCATION -----

03-2007 Associate Professor (Docent) in Fluid Mechanics
01-2000 to 05-2003 Luleå University of Technology, division of Fluid Mechanics
Degree: PhD (09/05-2003), Supervisor: Professor Håkan Gustavsson
12-1995 to 11-1998 Luleå University of Technology, division of Fluid Mechanics
Degree: Licentiate (12/06-1998), Supervisor: Professor Håkan Gustavsson
10-1995 to 11-1995 Komvux, Luleå, Sweden
Degree: Svenska för Invandrare (SFI).
12-1994 to 03-1995 School of officer, French Army, Angers, France
09-1991 to 09-1994 Ecole Supérieure de l'Energie et des Matériaux, Orleans, France.
Degree: master of Science in mechanical engineering.
09-1988 to 03-1991 Classes préparatoires aux grandes écoles, lycée Janson de Saily, Paris XVI, France

LANGUAGES -----

English: good level Spanish: good level German: basic
French: fluent Swedish: good level

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RESPONSIBILITIES -----

Research

- Management group Renewable Energy, LTU (2013-...)
- Development of flow measurements in low head turbines (2011-...)
- Senior researcher within the Swedish Hydropower Centre (2006-...)
- Project leader of the project *Full-scale experiments within hydropower* (2006-...)
- Nominated at LTU for best supervisor 2009
- Invited speaker at the First and Third Nordic Conference on Fluid Dynamics in the Power Industry (Älvkarleby, Mai 2006 and Copenhagen, September 2009)
- Expert advisor for Beklinge Institute of Technology for a research position (2009)
- Board member of the Swedish Hydropower Centre (2006-2008)
- Member of the steering group TIN for the development of test facilities for hybrid vehicles in Norrbotten (09-2006 to 12-2007)
- Session Chairman at different conferences; IAHR Symposium on Hydraulic Machinery and Systems, Yokohama, ISTP 21-22, ...
- Chairman of the organizing committee of the Turbine-99 III workshop, third IAHR/ERCOFTAC workshop within draft tube simulation, December 8-9, 2005

Postgraduate education

- Head of the Swedish Hydropower Research School (2010 ...)
- Manager of the Research School for Women, joint management with Åsa Wallström (2009-2011)
- Grading committee member:
 - Lars Tysell Doctoral Thesis, KTH (2010)
 - Mohammad El-Alti Doctoral Thesis (2012)
- Opponent to Doctoral Thesis of:
 - Gunilla Andréé, Lund University of Technology, Sweden (2006)
 - Hari Neopane, NTNU, Norway (2010)
 - Einar Keibro, NTNU, Norway (2010)
 - Zhao Wei, NTNU, Norway (2012)
 - Pål Henrik Enger Finstad, NTNU, Norway (2012)

Under graduate education

- Study counsellor for the energy engineering program, wind & water at LTU (2010...)
- Nominated at LTU for best teacher 2011
- Invited speaker, SIDA Hydropwer course (September 2009, 2010)
- Study counsellor for the mechanical engineering program at LTU (2009-2010)
- Developer and program coordinator of the international master programme Sustainable Energy Engineering at LTU with start 2007
- Developer and program coordinator of the international master programme Hydropower Engineering at LTU (2003-2008)
- Programme coordinator of the international master programme Sustainable Energy System at LTU (2004-2005)
- Program coordinator of the graduate courses within the national research program Hydraulic Turbine at LTU (2003-2005)
- Responsible of the specialisation Energy and Hydropower within the mechanical engineering program since September 2004-2009 at LTU
- Responsible of the specialisation Sustainable Energy System within the Arena Earth Resources since September 2005-2009 at LTU

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SUPERVISION -----

Graduate students:

- Joel Sundström: development of the pressure-time method (LTU)
- Kaveh Amiri: experimental investigation of the flow in Kaplan turbine (LTU)
- Chirag Trivedi: *numerical and experimental investigation of start/stop in high head Francis turbines (LTU, IIT Roorkee, India)* Saeed Salehi: *unsteadiness and turbulence modelling (Tehran University, Iran)*
- Simin Dokht Saemi: *numerical development of the pressure-time method (LTU, Tehran University, Iran)*

- Berhanu Mulu: *experimental investigation of a Kaplan model (PhD year 2012)*
- Pontus Jonsson: *development of the Gibson's method for low head hydropower turbine (PhD September 2011)*
- Samuel Cupillard: *simulation of lubricant between micro-pattern surfaces to increase load capacity and decrease losses (PhD November 2009)*
- Urban Andersson: *Experimental study of the flow in a sharp-heel Kaplan draft tube (PhD September 2009)*
- Magnus Lövgren since June 2003, *development of the Gibson's method and unsteady pressure measurements in draft tube model. Licentiate in June 2006*

INTERNATIONAL AND NATIONAL COOPERATION-----

- Norwegian University of Science and Technology, Norway: flow measurements in low head hydraulic machines, transient in Francis turbines
- Indian Institute of Technology, India: transient in Francis turbines
- Tehran University, Iran: flow measurements in low head hydraulic machines, unsteadiness and turbulence modelling
- University Politehnica of Bucharest, Romania: flow measurements in low head machines
- Polytechnic University of Timisoara, Romania: Kaplan turbines
- Ecole Polytechnique de Montréal, Canada: CFD of Kaplan turbines
- McGill University, Canada : optimisation
- Hydro-Quebec, Canada : flow measurements in low head machines, textured bearings
- Chalmers University of Technology, Sweden: CFD of Kaplan turbine, transient
- Vattenfall Research & Development: model testing

PUBLICATION LIST-----

Over 100 publications, visit:

<http://pure.ltu.se/portal/sv/searchall.html?searchall=michel+cervantes>

COUNTRY VISITED FOR RESEARCH AND/OR EDUCATION PURPOSE -----

Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, El Salvador, England, Finland, France, Germany, Indian, Iran, Iceland, Japan, Nepal, Norway, Romania, Spain, Switzerland, USA, Venezuela,

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TEACHING -----

Teacher and/or course developer and/or examiner for the following undergraduate courses:

- Wind Power Technology (7.5 hp, C level, teacher, developer and examiner)
- Advanced fluid mechanics (7.5 hp, D level, teacher)
- Hydraulic turbines (7.5 hp, D level, teacher, developer and examiner)
- Hydromekanik (7.5 hp, C level, teacher and examiner)
- Projektkurs inom vattenkraft (7.5 hp, A level, teacher, developer and examiner)
- Vattenkraft - En introduktion i teknik och miljökonsekvenser (3 hp, A level, teacher, developer and examiner)

Teacher and/or examiner for the following graduate courses:

- Hydraulic turbines (7.5 hp, teacher, developer and examiner)
- Experimental methods for hydraulic turbine
- Trust and Quality within CFD (7.5 hp, teacher and developer)
- Flow measurements (7.5 hp, teacher and developer)
- LDA (7.5 hp, teacher and developer)
- Turbulence (7.5 hp, teacher and developer)