

## PAOLO SALANDIN - CURRICULUM VITAE



Date of Birth: February 1th, 1959

MARITAL STATUS  
Married, one Child

TITLE  
Full Professor of Hydraulic Structures and Hydrology, University of Padova, Department of Civil, Environmental and Architectural Engineering (ICEA), via Loredan 20, 35131 Padova, ITALY

### INSTITUTIONAL RESPONSIBILITIES

- Expert member of the High Council of Public Works, Ministry of Public Works, ROMA (2019 - )
- Member of the Interdisciplinary and Scientific Committee for the protection and conservation of the Scrovegni Chapel, Padova Municipality (2012 - )
- Director, C.I.R. 'Centre for Hydrology Dino Tonini', University of Padova (2011 - )
- Chair, Environmental Engineering Degree Course Council, University of Padova (2013 - 2021)
- Full member of the High Council of Public Works, Ministry of Public Works, ROMA (2013 - 2018)
- Chair, Building Committee of the Engineering Faculty, University of Padova (2009 - 2012)
- Director, 'Biblioteca Centrale di Ingegneria', University of Padova (2008 - 2012)
- Head, 'Polo Bibliotecario di Ingegneria', University of Padova (2008 - 2012)

### EDUCATION

- Dottorato di Ricerca (Ph.D.) in Fluid Mechanics, University of Padova (1990)
- Dott. Ing. (BS+MS) Civil Engineering, University of Padova (1984)

### EMPLOYMENT RECORD

- Full Professor, Faculty of Engineering, University of Padova (2005 - )
- Full Professor, Faculty of Engineering, Università Politecnica delle Marche (2000 - 2005)
- Associate Professor, Faculty of Engineering, Università Politecnica delle Marche (1998 - 2000)
- Researcher, Faculty of Engineering, University of Padova (1990 - 1998)

### AFFILIATIONS

- Member of American Geophysical Union and of European Geophysical Union
- Member of "Società Italiana di Idrologia"
- Member of "Centro Studi Sistemi Acquedottistici"

### ACADEMIC INTERESTS

Flow and transport in naturally heterogeneous aquifers. Data assimilation techniques applied to hydrological models. hydrological and geotechnical issues in the triggering of shallow landslides. Design of dams outlets and stilling basins. Reliability and management of water supply systems. Floating debris and interaction with in river structures. River scouring. Subsidence in peatlands. Risk analysis in the design of hydraulic structures.

On these topics he is Author and/or Co-author of more than 130 publications in national and international journals / proceedings of Congress. He is also Co-author of 3 books (in Italian) on: river engineering, gated and ungated outlet works of dams and river barrages, water supply systems (<https://www.research.unipd.it/>).

Manager of an experimental site (<http://settolo.dicea.unipd.it/>) for the study of flow and transport processes in aquifers.

### MEMBER OF PHD SCHOOL

- since 2017: SCIENZE OF CIVIL, ENVIRONMENTAL AND ARCHITECTURAL ENGINEERING, University of Padova (Padova)
- from 2010 to 2016: SCIENZE OF CIVIL AND ENVIRONMENTAL ENGINEERING, University of Padova (Padova)

- from 2000 to 2006: MATERIALS, WATER AND SOIL ENGINEERING, Università Politecnica delle Marche (Ancona)

## RESEARCH PROJECTS AND GRANTS

He is/was responsible or scientific coordinator of several research projects and grants of national/international interest dealing with experimental site developing and management, and numerical and/or physical modelling of: i) subsurface flow and transport phenomena, ii) river engineering, iii) floating debris in river, iv) outlet works and dissipation basins of dams, and v) hydroelectric plant surge chambers.

>> Research project of international/national interest (as Responsible or Scientific Coordinator)

- 2019 -Monitoring Sea-water intrusion in coastal aquifers and Testing pilot projects for its mitigation – MoST (Italy-Croatia CBC Programme, UniPD Lead Partner)
- 2017 - Subsurface Water quality and Agricultural practices monitoring – SWAT (University of Padova, Uni-Impresa 2017)
- 2010/11 – PRIN: Hydroelectric energy by osmosis in coastal areas (MIUR – Italian University Authority).
- 2007 – PRIN: Subsurface flow and transport: coping with complexity and uncertainty in naturally heterogeneous formations (MIUR – Italian University Authority).
- 2005 – PRIN: Floating debris in rivers: generation, movement and interaction with fluvial infrastructures during flood events (MIUR – Italian University Authority).
- 2000 – Interaction between infrastructures and flood events in rivers (GNDICI - Italian National Research Council).
- 1999 – PRIN: Qualitative and quantitative interaction between subsurface resources and surface water in porous heterogeneous formations (MIUR – Italian University Authority).
- 1998 – PRIN: Reliability of the water supply and distribution systems (MIUR – Italian University Authority).

>> Physical models (excerpta as Responsible)

- 2021 – Physical experiments on hydraulic model to support the design of the "Restoration of the barrage 'roggia Morlana' on the Serio river in the municipalities of Nembro and Pradalunga (BG)" (Consorzio di Bonifica della Media Pianura Bergamasca)
- 2020 - Analysis by two physical models of the hydraulic behavior of the works planned in the flood retention basin of Prà dei Gai (TV) (Technital Spa)
- 2018 - Physical model of outlet works and dissipation basins for the Cepparello (Comune di Poggibonsi - Siena) dam (Ingegnerie Toscane Srl)
- 2013 - Assessment and validation of a test chamber for the evaluation of pluviograph (Protecno s.r.l., Padova).
- 2009 - Physical model of outlet works and dissipation basin for the Badana (Alessandria) dam (Mediterranea delle Acque s.p.a., Genova).
- 2006 - Physical model of outlet works and dissipation basin for the Cassiglio (Bergamo) dam (Italgen s.p.a. e P&P consulting Engineers Srl).
- 2000 – Physical model of outlet works and dissipation basins for the Sa Stria dam on the Monti Nieddu stream (Sardegna Meridionale land reclamation Authority).
- 1999 – Physical model of outlet works and dissipation basins for the Medau Aingiu barrage on the Is Canargius stream (Sardegna Meridionale land reclamation Authority).
- 1996 – Physical model of surge chamber performance for the hydroelectric plant of Cogolo – Malga Mare (ENEL – Spa).
- 1994 – Physical model of surge chamber performance for the hydroelectric plant of Cordenons (ENEL – Spa).

>> Other Contracts & Grants (excerpta as Responsible)

- 2020 - Technical-scientific study of the localized dissipative processes in the New By-pass of the Salisano Power Plant - Project of the "New upper part of the Peschiera Aqueduct" (ACEA ATO2)
- 2018 - Study and analysis on design solutions for the protection works of the Insula di San Marco (Venice) against high tides (Consorzio Venezia Nuova)
- 2011 – Monitoring activity and data analysis of the subsurface close to the 'Scrovegni Chapel' to assess the hydrogeological alteration due to the possible realization of the New Auditorium (Padova Municipality)
- 2008 – General assessment of the hydrological analysis and of the reservoir design for the Skavica dam on the Drin river (Geotecna Consulting s.r.l., Milano)

- 2007 – Preliminary analysis for the re-design of outlet works of Corlo's dam to improve the downstream reduction of floods (Interregional basin of Isonzo, Tagliamento, Livenza, Piave, Brenta-Bacchiglione rivers Authority).
- 2005 – Preliminary design of changes in the Maggiore lake outlet and in the regulation works to obtain a suitable management of water levels and discharge in the Ticino and Po rivers (AIPO - The Interregional Agency for the Po River).
- 2004 – Preliminary analysis for the flood damage reduction of Misa river (Provincia di Ancona).
- 2001 – Risk analysis of flooding and basin erosion in the mountain area of the Marche Region (Marche Regional Authority).
- 1999 – Analysis of hydraulic improvement of the Tronto river from Ascoli Piceno to the sea outlet (The Interregional Agency for the Tronto River).

#### TEACHING ACTIVITY

The teaching activity was developed since 1993 in several undergraduate and graduate programs in Environmental and Civil Engineering and in Ph.D courses at the University of Padova and at the Marche Polytechnic University. Currently he teaches the courses of 'Urban Drainage and Water Supply Systems' and 'River Engineering' for the Environmental Engineering BSc & MSc Degree and ' Highway Hydraulic Engineering' for the Civil Engineering MSc Degree. He was supervisor of more than 100 Master and 10 PhD theses. Three of his PhD students hold academic positions.

A handwritten signature in blue ink, consisting of the name 'Paolo' followed by a stylized surname 'Celli'.

Padova, November 2021