

Curriculum Vitae

Personal information

Name: Maurizio Righetti
 Place and date of birth: Padova (Italy) 29/04/1962
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Education since leaving school

- year and title of post-graduate degrees (and university): 1989, MSc in Civil and Hydraulic Engineering, University of Padova. Top grade and highest honours
- year, subject area and title of PhD (and university): 1994, PhD in Hydrodynamics, Universities Consortium of Universities of Padova, Genova, Firenze, Trento; Ph.D dissertation on: "Effect of suspended sediment transport on river hydraulics and turbulence".

Present appointment

- October 2015 up to now professor of hydraulic Constructions – University of Bozen, Faculty of Science and Technology.
- March 2011 -September 2015, Associate Professor of Hydraulic Constructions University of Trento Civil Environmental and Mechanical Department (DICAM)

Professional experience

Chronological list of all previous employments

From / to	Job title	Name of academic Institution	Academic level	responsibilities
1995-2011	Researcher on Hydraulic Constructions	University of Trento	Researcher/Assistant professor	
1995	Post doc fellowship	University of Padova	Post Doc	Experimental analysis of turbulent flows with Laser Doppler Anemometry techniques and particle Image Velocimetry
1992-1994	PhD student	Consortium of Universities of Padova, Genova, Firenze, Trento	PhD student	
1989-1992	engineer	Construction Company „Cavagnis & Costacurta”- Padova	Middle management	Responsible of the technical/design office, responsible of several construction yards in Italy and out of Italy, mainly civil and hydraulics works

Experience in academic teaching

Title of courses given last 5 years, name of University/Institute, subject area, academic level (under-/post-graduate / PhD):

- 2012-now: Hydropower Systems (ICAR02), MSc in Energy Engineering , jointly managed by the Department of Civil, Environmental and Mechanical Engineering of University of Trento (administrative premises) and the Faculty of Science and Technology of the Free University of Bolzano.
- 2014-now: Impianti Idroelettrici (Hydropower plants) (ICAR02), Master of Science in Environmental and Land Engineering, University of Trento.
- 2004-2014: Costruzioni Idrauliche con nozioni di Idraulica (Hydraulics Constructions and fundamentals of Hydraulics) (ICAR02) MSc in Architecture and Building Engineering, University of Trento.
- 2005-2009: Idraulica (Hydraulics) (ICAR02) al MSc in Architecture, University of Venice IUAV.

In the last five years I have been teaching in the following courses:

- 2012-now: Environmental Fluid Mechanics / Hydropower Plants (ICAR01/02) MSc in Energy Engineering , jointly managed by the Department of Civil, Environmental and Mechanical Engineering of University of Trento (administrative premises) and the Faculty of Science and Technology of the Free University of Bolzano.
- 2002-now: Experimental techniques, in the Doctoral School inb Civile Environmental and Mechanical ENgineering, UNiversity of Trento.
- 2009-2014: Impianti Idroelettrici (Hydropower plants) (ICAR02), Master of Science in Environmental and Land Engineering, University of Trento.
- 1995-2014: Acquedotti e Fognature (water supply systems and sewer) (ICAR02) Master of Science in Environmental and Land Engineering, University of Trento.
- 1995-2014: Progetto di Acquedotti e Fognature (water supply systems and sewer design) (ICAR02) Master of Science in Environmental and Land Engineering, University of Trento.
- 2015: Elementi di Idraulica e Costruzioni Idrauliche (Elements of hydraulics and hydraulic constructions) (ICAR01/02) Undergraduate course on Enviurmental and Land Engineering.

Postgraduate supervision (PhD level): number of students supervised in the last five years with subject areas:

- Supervisor of the following PhD students and theses:
 - Corrado Pellachini, 2006 – 2010, University of Trento, Doctoral School in Civil, Environmental and Mechanical Engineering (AREA 08 Ingegneria Civile e Architettura). “Dinamica del trasporto di sedimenti fini in alvei in ghiaia”.
 - Hossein Mohajeri, 2011- 2014, University of Trento-Smart Erasmus Mundus Joint Doctorate Program (AREA 08 Ingegneria Civile e Architettura). “Hydrodynamics of Gravel Bed Flow (Implication on Colmation)”.
 - Tesfaye Haimanot Tarekegn, 2012- , University of Trento-Smart Erasmus Mundus Joint Doctorate Program. (AREA 08 Ingegneria Civile e Architettura). “Environmental impacts of river impoundments: reservoir and watershed sediment management. A study towards mitigation solutions”.
 - Mahdi Khademishamami, 2013- , University of Trento-Smart Erasmus Mundus Joint Doctorate Program. (AREA 08 Ingegneria Civile e Architettura). “Sediment transport of fine sediment along gravel bed rivers: rational and experimental analysis”.
 - Navid Marofi Fathpour, 2013- , University of Trento-Smart Erasmus Mundus Joint Doctorate Program. (AREA 08 Ingegneria Civile e Architettura). “Sediment transport in vegetated stream”.
 - Pisaturo Giuseppe Roberto 2014- , University of Trento, Doctoral

School in Civil, Environmental and Mechanical Engineering. (AREA 08 Ingegneria Civile e Architettura) "Protection infrastructures and methods for reducing the impacts downstream of hydropower plants" (Scholarship full payed by SEL S.p.A.).

- Marianna D'Ercole, 2015- , Free University of Bozen, Sustainable Energy and Technologies PhD programme, "Energy optimization and leakage reduction and for a long-term sustainability in urban water supply systems".

Other academic responsibilities

internal appointments to faculty and university boards

- 2001 – now. Member of *Comitato di Governo del CUDAM-Centro Universitario per la Difesa Idrogeologica dell'Ambiente Montano*, Center of Excellence for the Research at University of Trento acknowledged by Italian Ministry of University and Research, responsible, in CUDAM, of the laboratories research equipments, coordinator of the laboratories activities.
- Member, till 2013, of the Doctoral School Committee in Environmental Engineering-University of Trento.
- Member, from 2013 till now, Doctoral School Committee of SUSTAINABLE ENERGY AND TECHNOLOGIES (ENERGIE E TECNOLOGIE SOSTENIBILI), Libera Università di Bolzano.
- 2011 - now elected Representative dei Lavoratori per la Sicurezza (RLS) for the teaching staff of University of Trento.

external appointments at national and international level

- Referee at CINECA (non profit Consortium, made up of 70 Italian universities) for the evaluation of the research outcomes given to VQR 2004-2010.
- External referee for the research proposals submitted to the National Research Council of the Romanian Government-Ministry of Education Research, Youth and Sport.
- External referee for the research proposals submitted to the Engineering and Physical Sciences Research Council (UK). EPSRC is the main UK government agency for funding research and training in engineering and the physical sciences.
- Honorary Professor at University of Aberdeen, School of Engineering. 2013-2015

responsibilities for organizing conferences/seminars/exhibitions (place, duration, institute)

- Member of Scientific and Organizing Committee of "European Graduate school of Hydraulics (IAHR-EGH) – Regulation of small rivers and torrents" 7-12 July 1997 at University of Trento.
- Member of Scientific and Organizing Committee "European Graduate school of Hydraulics (IAHR-EGH) – Regulation of small rivers and torrents", 13 -18 July 1998 at University of Trento.
- Member of Scientific and Organizing Committee of "Riparian Forest-Vegetated channels hydraulic morphological and ecological aspect" International Workshop Trento 20-22 February 2003, under the sponsorship of IAHR, International Association of Hydraulic Research.
- Member of Scientific and Organizing Committee of the training course for engineers: "Vegetazione in alveo e ingegneria naturalistica: aspetti applicativi e progettuali", Trento 18-20 February 2004, organised by CUDAM-Centro Universitario per la Difesa Idrogeologica dell'Ambiente Montano.
- Scientific coordinator and organizing coordinator of the Training course: "Hydrology and Water Supply System". Held in UPB (Université Polytechnique de Byumba) District of Gicumbi-Rwanda, December

2009.

- Scientific coordinator and organizing coordinator Training course: "*Water Supply System monitoring, optimization and management with Open Source GIS techniques*". Held in AMU (Arba Minch University-Etiopia) Arba Minch, Etiopia, May 2013.
- Member of the scientific board of: VI Seminario Nazionale "*Efficienza e risparmio energetico dei sistemi idrici*", Trento 8-9 July 2015.

Memberships

Membership of academic or professional bodies (including membership of Editorial Boards of scientific publications; membership of scientific committees for international conferences)

- Honorary Professor at University of Aberdeen, School of Engineering. 2013 -2015.
- Member from 2012 of *EGU European Geophysical Union*.
- Member from 2003 of *International Association for Hydro-Environment engineering and research IAHR/AIRH*.
- Member from 2002 of *GII Gruppo Italiano di Idraulica*, Società scientifica del settore "idraulica, idrologia, costruzioni idrauliche e marittime".
- Member from 2014 of *Centro Studi Sistemi Acquedottistici*.
- Member from dal 1990 all'Ordine degli Ingegneri delle Province di Padova (till 2001, N. iscrizione 2440) e Trento (from 2001 to now, N. iscrizione 2901).

Research and scholarships

Over the past five years, research has focused on two issues:

- HYDRO POWER PLANTS, in particular:

i) development of methods for reduction of the negative effects downstream of hydroelectric plants. This activity is developed in collaboration with SEL (by funding a scholarship PhD) and with international and interdisciplinary collaborations with the University of Stuttgart. The aim of this research project is to find the simplest possible solutions (structural mitigation measures, such as using works cross-groynes- used both defense hydraulic morphological and ecological recovery of piedmountain rivers) and original, they can be used, with appropriate adaptations to various case studies, but also more generally to other waterways of the province, and not only, subject to hydropeaking;

ii) hydraulic works and sediment transport:

- silting of reservoirs, analysis of the re-suspension of sediments in the basin and their transportation waterways of the valley, during the flushing operations. In the last five years it has proposed a generalization of the theory of original Shields for the incipient movement of sediments in which cohesion and "membership biological" have an important role, as is typical in the sediments that accumulate in large artificial reservoir. The first results of the research were published in international journals. Current research focuses on the analysis of how sediment transport handled in the floodplains of gravel downstream reservoirs, the search is continuing thanks to funding of private companies (Hydro-Dolomity ENEL) interested in the problem.

- interaction between cross rivers used for hydroelectric withdrawal (mini hydro) and the phenomena of sediment interception upstream of them.

iii) optimization of the hydraulic design of any withdrawal works (mini hydro): original criteria, physically based, have been developed for the correct design of bottom grids typically used in "tyrolean weirs" ;

iv) technical optimization of hydroelectric mini-hydro, type "run on the river" for the exploitation of residual hydroelectric potential in the presence of environmental constraints. Innovative machines have been tested that, with simple but original character of hydraulic devices, optimize hydroelectric production in free surface flows. The first applications have been appreciated by ETRA spa (multiutility Vicenza: Energy Territory

Environmental Resources), which awarded the first trial results reported in a thesis.

Technical and scientific support to companies in South Tyrol (Stahlbau Pichler Ltd.) have been provided for the field testing of prototypes of turbines, which in the recent past have been tested in the river Etsch.

v) water supply systems and pumping stations. Technical and economic optimization of water pumping and distribution systems (drinking and irrigation aqueducts). The technical-economic optimization passes through an holistic approach that considers both technical active management of the pressures in the network and the simultaneous control of water losses. Genetic algorithms were developed for optimization of the systems, applied for leakage prediction in the networks and the optimal placement of sensors for remote monitoring. Initial results have been shown at international conferences. The research involves the application of techniques developed in real cases for a positive impact on the territory. It is planned in the near future to extend the approach also to district heating networks. The economic optimization of the plant is not only an economic advantage but also the environment because it allows also to reduce the ecological footprint of the water service.

- Summary of current activities in the field of scientific research.
Currently the research is proceeding exactly on the themes developed in the last five years and described above.
- Summary of the main activities in the field of scientific research. I have collaborated, as project manager for the University of Trento, in international research projects funded by the European Economic Community, focusing on:
 - design / management of hydroelectric plants (mini hydro), water supply systems, water infrastructure;
 - technical re-naturalization of riverbeds and their implications on the hydrodynamic regime of rivers.
- Responsible for various activities at the Department of Applied Research commissioned by public and private companies ("outsourcing").

- Referee SCIENTIFIC JOURNALS

Reviewer for several scientific journals, including:

Journal of Fluid Mechanics;

Water Resources Research;

Advances in Water Resources;

ASCE Journal of Hydraulic Engineering;

Journal of Geophysical Research;

Journal of Hydrology;

Journal of Hydraulic Research AIRH / IAHR;

Hydrological Sciences Journal / Journal des Sciences hydrologiques AISH / IAHS;

Central European Journal of Mathematics CEJM;

Neural Computing and Applications;

Acta Geophysica;

Water;

Auditor at CINECA for the evaluation of research products delivered for VQR 2004-2010.

External referee for the research proposals submitted to the National Research Council of the Romanian Government-Ministry of Education Research, Youth and Sport.

External referee for the research proposals submitted to the Engineering and Physical Sciences Research Council (UK). EPSRC is the main UK government agency for funding research and training in engineering and the physical sciences.

- Research grants and contracts

Date granted	Award Holder(s)	Funding Body	Title	
European Research Projects-National Research Projects				
2013	Università di Trento	EU PROJECT HYDRALAB IV: EC Project No 261520	"The reciprocal role of microbial colonization and bed sediment patchiness in bio-stabilization: the critical interface in eco-hydraulics". Righetti was coordinator for University of Trento	
giu2012-giu2013	Università di Trento	EU PROJECT: EuropeAid/129-510/C/ACT/ACPTPS 10 EDF ACP-EU	"WATSAM Support to Arba Minch Town Water Utility and Municipality in the water & sanitation sector through capacity building and partnership development with Italian water organisations " Righetti was coordinator for University of Trento	
2010-2011	Università di Trento	Ministero Italiano Università e Ricerca Scientifica, MIUR PRIN Prot. N. 20104J2Y8M_005	"Energia idroelettrica da osmosi in ambiente costiero", Hydropower by osmosis in coastal environment Coordinatore Nazionale Prof. T. Tucciarelli. Righetti was coordinator for University of Trento of the subproject: "Interrimento degli invasi provocati dalle traverse di sostegno alle derivazioni!".	
2003-2005	Università di Trento	Ministero Italiano Università e Ricerca Scientifica, MIUR PRIN Prot. N. 2003081915_002	Districtualization of wa-ter distribution networks and reliability. National Coordinator Prof. CASTORANI Antonio. Righetti was participant for Univ. of Trento, with subproject coordination	
1999-2001	Università di Trento	Ministero Italiano Università e Ricerca Scientifica, MIUR PRIN Prot. N. 9908264583_005	"Dinamiche dello strato limite atmosferico in valli alpine ". Coordinatore Nazionale Prof. CENEDESE Antonio. Righetti was participant for Univ. of Trento, with	

			subproject coordination	
Research Projects Provincial Agencies-Regional - Private Companies				
Maurizio Righetti is/has been project manager for University of Trento, for the following activities:				
Date granted	Award Holder(s)	Funding Body	Title	
2013-2016	Università di Trento	SEL S.p.A.	Protection works and methods of reducing impacts downstream of hydroelectric plants. Financing doctoral scholarship.	
2013	Università di Trento	Hydro Dolomiti-ENEL	Mathematical modeling of the effects of hydrodynamic and sediment flushing in Stramentizzo reservoir during the transition of flood waves.	
2013	Università di Trento	CA.TI. s.r.l.	Proofing water seal on sheaths and rapid load tests on tubes for steel rods, for the Ministerial authorization.	
2012	Università di Trento	TTM Tension Technology s.r.l..	Proofing water seal on sheaths and rapid load tests on tubes for steel rods, for the Ministerial authorization.	
2012	Università di Trento	Alto Garda Servizi-SHEN S.p.A.	Evaluation of the impact backwater effect induced by the Hydropower plant Budriesse, in phase of authorization, on the existing Maleo hydropower plant, by SHEN SpA	
2012	Università di Trento	APE.Agenzia Provinciale per l'Energia (Provincia Autonoma di Trento) e Evotech s.r.l..	Implementation and optimization of an experimental innovative submersible turbine to be installed in the Maso torrent diversion channel.	
2011	Università di Trento	GREEN ELECTRIC COMPANY Srl	Implementation of a monitoring campaign for the evaluation of the hydrological aspects of river Cruvka (BiH), and the drafting of the feasibility analysis of a system of a mini hydropower plant	
2011	Università di Trento	Stahlbau Pichler s.r.l. Bolzano	Hydraulic optimization of an innovative prototype rank of mini-hydro	

			run-on-river turbines called "Medusa", located in the Adige river	
2011	Università di Trento	Alto Garda Servizi-SHEN S.p.A	Theoretical and experimental analysis with field measurements and numerical simulation for the hydraulic optimization of the intake and diversion channel of Maleo (Adda) Hydropower plant, to optimize the yield of the system as a function of flow rate	
2009	Università di Trento	ARFORMA S.p.A.	Technical, economic and financial analysis, for profitability/economic eligibility of the hydroelectric plant to be built on the stream Gravio, Giorio Susa (TO).	

Research Projects Provincial Agencies-Regional - Private Companies

Maurizio Righetti has collaborated on the following activities:

Date granted	Award Holder(s)	Funding Body	Title	
2010	Università di Trento	Autorità di Bacino del fiume Po	Experimental analysis on movable bed physical model of insertion of groynes in a stretch of the Po river.	
2005	Università di Trento	Provincia Autonoma di Trento, PAT	Evaluation of hydraulic and sedimentological effect due to vegetation presence at Avisio river mouth.	
2002	Università di Trento	Provincia Autonoma di Bolzano, PAB	Movable bed physical model analysis on hydrodynamic behavior and morphological effects of bridge piers construction for a new bridge to be built on Isarco river at Bressanone-Albes.	
2002	Università di Trento	Provincia Autonoma di Trento, PAT	Field monitoring and analysis of eutrophication process of Caldonazzo lake (TN)	
2001	Università di Trento	Provincia Autonoma di Trento, PAT	Field monitoring and analysis of eutrophication process of Serrai lake (TN)	

1998	Università di Trento	Provincia Autonoma di Trento, PAT	Movable bed physical model analysis on hydrodynamic behavior Fersina torrent in Trento city
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Publications

- List of publications - Articles on ISI international journals in the last ten years

- A. Armanini, V. Cavedon, **M. Righetti** (2014). *A probabilistic/deterministic approach for the prediction of the sediment transport rate*. Advances in Water resources, in press. <http://dx.doi.org/10.1016/j.advwatres.2014.09.008>. Available online 23 September 2014.
- M. Toffolon, M. Ragazzi, **M. Righetti**, C. R. Teodoru, M. Tubino, C. Defrancesco, S. Pozzi (2013). *Effects of artificial hypolimnetic oxygenation in a shallow lake. Part 1: Phenomenological description and management*. Journal of Environmental Management Volume 114, 15 January 2013, Pages 520–529, doi: 10.1016/j.jenvman.2012.10.063.
- D. Avesani, **M. Righetti**, D. Righetti, P. Bertola (2012). *The extension of EPANET source code to simulate unsteady flow in water distribution networks with variable head tanks*. JOURNAL OF HYDROINFORMATICS, vol. 14, p. 960-973, ISSN: 1464-7141, doi: 10.2166/hydro.2012.013.
- W. Boscheri, M. Dumbser, **M. Righetti** (2012). *A Semi-Implicit Scheme for 3D Free Surface Flows with High Order Velocity Reconstruction on Unstructured Voronoi Meshes*. INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS, vol. 2012, ISSN: 0271-2091, doi: 10.1002/flid.3753.
- M. Righetti**, M. Toffolon, C. Lucarelli, M. Serafini (2011). *Sediments as tracers for transport and deposition processes in peri-alpine lakes: A case study*. JOURNAL OF HYDROLOGY, vol. 411, p. 1-11, ISSN: 0022-1694, doi: 10.1016/j.jhydrol.2011.08.018
- G. Forzieri, M. Degetto, **M. Righetti**, F. Castelli, F. Preti (2011). *Satellite multispectral data for improved floodplain roughness modelling*. JOURNAL OF HYDROLOGY, vol. 407; Issue 1-4, p. 41-57, ISSN:0022-1694, doi: 10.1016/j.jhydrol.2011.07.009. <http://www.sciencedirect.com/science/article/pii/S0022169411004483>
- M. Righetti**, C. Lucarelli (2010). *Resuspension phenomena of benthic sediments: the role of cohesion and biological adhesion*. RIVER RESEARCH AND APPLICATIONS, Vol. 26, Issue 4, May 2010, p. 404-413, doi: 10.1002/rra.1296.
- M. Righetti**, S. Lanzoni (2009). *Closure to the discussion of 'Experimental Study of the Flow Field over Bottom Intake Racks*. JOURNAL OF HYDRAULIC ENGINEERING, vol. v. 135, p. 865-868, ISSN: 1051-2705.
- M. Righetti**, A. Armanini (2009). *Closure to the discussion of 'Direct measurement of vegetation resistance in prototype scale*. JOURNAL OF HYDRAULIC RESEARCH, vol. 47, p. 384-386, ISSN: 0022-1686, doi: 10.1080/00221686.2009.9522010.
- M. Righetti** (2008). *Analysis of the flow in channels with flexible vegetation using Double Averaging Method*. ACTA GEOPHYSICA, v. 56, pp. 801-823. - DOI: 10.2478/s11600-008-0032-z.
- M. Righetti**, S. Lanzoni (2008), *Experimental study of the flow field over bottom intake racks*. JOURNAL OF HYDRAULIC ENGINEERING, v. 134 (1), p. 15-22, doi: 10.1061/(ASCE)0733-9429(2008)134:1(15).
- M. Righetti**, C. Lucarelli (2007). *May the Shields theory be extended to cohesive and adhesive benthic sediments?* JOURNAL OF GEOPHYSICAL RESEARCH. OCEANS, v. 112, pp. 1-12. - DOI: 10.1029/2006JC003669.
- A. Armanini, **M. Righetti**, P. Grisenti, (2005). *Direct measurement of vegetation resistance in prototype scale*". JOURNAL OF HYDRAULIC RESEARCH, v. 43, n. 5, p. 481-487. - doi: 10.1080/00221680509500146.

Chapter in book

M. Righetti, P. Foladori (2013). *Produzione di energia elettrica con impianti idroelettrici*. In: **"Consumi elettrici ed efficienza energetica nel trattamento delle acque reflue"**, a cura di M. Campanelli, [P. Foladori](#), M. Vaccari, di Autori vari, Santarcangelo di Romagna: Maggioli Editore, 2013, pp. 288-297. - ISBN: 9788838783685

Chapter in book

A. Armanini, M. Righetti (2013). *Fluvial mobile bed models with light material*. In: **"Physical hydraulic models, past and present"**, ed.: A. Adami, Marcianum press, Venezia, 2013, pp. 149-163. - ISBN: 9788865121719

- List of publications - Other publications on non ISI Journals, Congresses and Conferences in the last ten years
- T. H. Tarekegn, M. Toffolon, **M. Righetti**, A. Siviglia (2014). *Modelling suspended sediment wave dynamics of reservoir flushing*. In *Reservoir Sedimentation – Proceedings of the Special Session on Reservoir Sedimentation of the 7th International Conference on Fluvial Hydraulics, Riverflow 2014*, Lausanne, Switzerland; 3-5 September 2014, Taylor & Francis Group, London, Eds.: A. Schleiss G. de Cesare, M. J. Franca, M. Pfister, p.163-173, ISBN 978-1-138-02675-9
- C.M. Giorgio Bort, **M. Righetti**, P. Bertola (2014). *Methodology for Leakage Isolation Using Pressure Sensitivity and Correlation Analysis in Water Distribution Systems*, Procedia Engineering, Volume 89, 2014, Pages 1561-1568, ISSN 1877-7058, <http://dx.doi.org/10.1016/j.proeng.2014.11.455>. (<http://www.sciencedirect.com/science/article/pii/S1877705814025703>)
- S. Gerbersdorf, A. Cuthbertson, **M. Righetti**, H. Haynes, D. Parsons, S. McLelland, H. Schmidt, M. Thom, O. Ibikuhle (2014). *Exploring the reciprocal role of hydrodynamic forcing and microbial colonization to induce bed sediment patchiness in biostabilization*. In Proceedings of the HYDRALAB IV Joint User Meeting, Lisbon, July 2014
- S. Debiasi, C.M. Giorgio Bort, A. Bosoni, P. Bertola, **M. Righetti** (2013). *Influence of Hourly Water Consumption in Model Calibration for Leakage Detection in a WDS*. Procedia Engineering, Vol. 70, 2014, p. 467-476, ISSN 1877-7058, <http://dx.doi.org/10.1016/j.proeng.2014.02.052>. (<http://www.sciencedirect.com/science/article/pii/S187770581400054X>)
- V. Cavedon, **M. Righetti**, A. Armanini (2012). *Characterization of the flow field through a staggered distribution of cylinders*. In Proceedings of the 2nd IAHR European Congress, 27. – 29.6.2012, TU München. Eds.: Peter Rutschmann, Markus Grünzner, Stephan Hötzl. München: Eigenverlag, Lehrstuhl u. Versuchsanstalt f. Wasserbau u. Wasserwirtschaft d. TU München, 2012, USB-Stick, ISBN 978-3-943683-03-5 IAHR Congress - URL: www.iahr2012.tum.de
- Armanini, A., Cavedon, V., **Righetti, M.** (2012). *A method to evaluate length and height of bed forms in vegetated beds*. In Proceedings of RiverFlow 2012, International Conference on Fluvial Hydraulics, 5-7 September 2012, San Jose, Costa Rica. Eds.: Rafael Murillo Muñoz, CRC Press, 1, pp. 551-556. ISBN 9780415621298
- A. Antonello, D. Avesani, P. Bertola, A. Bosoni, S. Franceschi, D. Righetti, **M. Righetti** (2011). *GIS tools for water management: an implementation using Jgrass tools, Udig geopaparazzi and Epanet*. In Proceedings of 11th International Conference on Computing and Control for the Water Industry, CCWI 2011, Exeter, United Kingdom, 5-7 September 2011, 1, p. 39-44. ISBN: 09539140-5-4.
- A. Zorzini, S. Piccolroaz, M. Toffolon, **M. Righetti** (2011). *On the reduction of thermal destratification by a horizontal ciliate jet*. In Proceedings of the 7th International Symposium on Stratified Flows. Roma, Italia, 22-26 August 2011, p. 1-8, Rome, Italy: Università di Roma La Sapienza
- A. Armanini, V. Cavedon, **M. Righetti** (2010). *Evaluation of the flow resistance in mobile bed vegetated rivers*. Proceedings of River Flow 2010, Braunschweig, 8-10 Settembre 2010, Karlsruhe: Bundesanstalt für Wasserbau, 2010. - ISBN: 9783939230007. URL: <http://www.iahr.net/site/index.html>
- A. Armanini, V. Cavedon, **M. Righetti** (2010). *Sediment transport processes in vegetated rivers*. In Proceedings of the 1st European IAHR Congress, Edimburgo, 4-6 Maggio 2010. - ISBN: 9789078046080.

- N Nikora, V Nikora, I Fadanelli, **M Righetti**, M Tubino (2010). *Mixing layer analogy in vegetated open-channel flows: a laboratory study*. In Proceedings of the 1st European IAHR Congress, Edimburgo, 4-6 Maggio 2010. - ISBN: 9789078046080. URL: <http://www.iahr.net/site/index.html>
- M. Ciolli, **M. Righetti**, C. Sboarina, C. Tattoni, A. Vitti, P. Zatelli, P. Bertola (2009). *Interfaccia GRASS-EPANET: uno strumento di interoperabilità*. In Atti di: X Meeting degli Utenti Italiani di GRASS e GFOSS. Cagliari 25--27 Febbraio 2009: CRS4 (Centro di Ricerca, Sviluppo e Studi Superiori in Sardegna), Cagliari: 2009, p. 1-2. - URL: <http://gfo2009.crs4.it/en/node/104>.
- A. Armanini, V. Cavedon, **M. Righetti** (2009). *Sediment Transport in Vegetated Rivers*. In 33rd IAHR Congress Proceedings, Vancouver BC, Canada, 9-14 Agosto 2009, vol. 1, pp.888-895. ISBN: 9789078046080 - URL: <http://www.iahr.net/site/index.html>
- D. Righetti, D. Avesani, N. D. Ronco, E. Zara, M. Ciolli, **M. Righetti**, C. Sboarina, C. Tattoni, A. Vitti, P. Zatelli, P. Bertola (2009). *Water facilities, education and foss4g spreading in Rwanda*. In Atti di: I° Congresso Nazionale CUCS sulla Cooperazione Universitaria Pavia, 17--18 Giugno 2009, Pavia: CUCS, 2009, p. 1-12. Atti di: I° Congresso Nazionale CUCS sulla Cooperazione Universitaria, Pavia, 2009
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Further data

Presentations at scientific conferences over past 3 years (invited or selected, keynote, nature and status of conference)

- 2015 Invited speaker at: University of Aberdeen, School of Engineering, Environmental & Industrial Fluids Series of Seminars. Titolo: "*The effect of biota on benthic sediment stability & its interpretation in the Shields curve*".
- 2014 Speaker at: XXXIV Convegno nazionale di Idraulica e Costruzioni Idrauliche, Bari, 8-10 settembre 2014: "*Analisi teorico-sperimentale dell'interazione tra traverse fluviali per la derivazione ad uso idroelettrico e trasporto*".
- 2014 Speaker at: WDSA 2014 International Congress on Water Distribution System Analysis, held in Bari, 14-17 luglio 2014. Titolo: "*Methodology for Leakage Isolation Using Pressure Sensitivity and Correlation Analysis in Water Distribution Systems*".
- 2012 Invited speaker at: Libera Università di Bolzano, Facoltà di Scienze e tecnologia, Series of Lectures. Titolo: "*Some hydraulic and environmental considerations on (mini) hydro power plants*".

MOREOVER

- 2011 Speaker at: CCWI 2011 International Congress on Computer and control in water industry, "Urban Water Management - Challenges and Opportunities", 5 - 7 September 2011, University of Exeter United Kingdom. Titolo: "*The extension of EPANET source code to simulate unsteady flow in water distribution networks with variable head tanks, application to rural Water supply system in Rwanda*".
- 2008 Invited speaker at: British Hydrological Society National Meeting, Title: "*Ecohydraulics at scales relevant to organisms*", Loughborough University, giugno 2008.
- 2007 Invited speaker at: Convegno Solarexpo sul tema: "Le energie rinnovabili le imprese e gli enti locali", Title of presentation: "*Alcuni aspetti della produzione energetica con piccoli impianti idroelettrici*", Verona, aprile 2007.

Entrepreneurship

Spin-offs, patents and entrepreneurship

Creator, promoter and founding partner of the Spin-Off "Hydromates" (founded February 9, 2012). Hydromates develops tools Open Source, with innovative contents, for the analysis and management of the integrated water cycle. The company provides decision-making tools and methodologies to optimize operating costs and increase the sustainability of water infrastructure. The spin-off of the University has been selected among the ten best innovative green economy initiatives carried out by young people in Italy, according to a survey carried out in Italian universities. In June 2012, in Rome, the official presentation to the Environment Minister Corrado Clini and a large audience at the first edition of the Greening camp

Language competence

Written and spoken competence in all languages according to CERF levels, Common European Reference Framework; append certificates wherever available.
English, writing and speaking level equivalent to C1 Level.

Date December, 1st 2015

Signature

Maurizio Righetti 

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