

CV of Giuseppe Luigi CIRELLI

Contact details

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Academic position

Graduated in *Forest Engineering*, University of Trento (Italy), 1990. Ph. D. in *Environmental Hydraulics*, University of Palermo (Italy), 1996.

Full Professor of *Agricultural hydraulics and watershed protection* (Academic Discipline - code AGR08) at the "Department of Agriculture, Food and Environment" - University of Catania (Italy) in the "academic recruitment field" of *Agricultural, forest and biosystems engineering* (code 07/C1).

In 1992 was recipient of European Community Mobility Grant "Competitiveness of agriculture and management of agricultural resources", carrying out research activity on wastewater reuse and wastewater treatment in stabilization ponds and infiltration-percolation systems at VERSEAU-Montpellier (France).

His research activity is at the present time mainly focused on wastewater reclamation (natural treatments: constructed wetlands, storage reservoirs, etc.), wastewater reuse (effects on soil and on crops irrigated with wastewater, effects on irrigation equipment: i.e. filters and emitters) and irrigation (policy, deficit irrigation, microirrigation).

He has published more than 150 scientific papers and his "Open Researcher and Contributor ID" is <https://orcid.org/0000-0002-8227-4878>. His research activity is mainly related to the following ERC panels: LS9 Biotechnology and Biosystems Engineering (LS9_7 Environmental biotechnology and bioengineering; LS9_8 Applied plant sciences, plant breeding, agroecology and soil biology); PE8 Products and Processes Engineering (PE8_11 Environmental engineering, e.g. sustainable design, waste and water treatment, recycling, regeneration or recovery of compounds, carbon capture & storage).

He has 29 h-index and more than 2300 citations according Scopus (<http://www.scopus.com/authid/detail.url?authorId=6602946376#>).

He has been involved, also as responsible of research unit, in several European research projects and among them:

- ENV4-CT098-0790 – "Enhancement of Integrated Water Management Strategies with Water Reuse at Catchment Scale" (Project "CatchWater", Programme Environment & Climate, 1999-2001);
- Med-Reunet network "Med-Reunet I - Mediterranean Network on Wastewater Reclamation and Reuse" -Programme INCOMED, ICA3-CT-2002-50002 (10/2002-12/2003) (Programme: INCOMED - INCO-CT-2003-502453);
- Project MED-REUNET II - Support Programme for strengthening the capacity building of wastewater reclamation and reuse professionals in the context of the of the Med-Reunet network (Programme: INCOMED - INCO-CT-2003-502453);

- FP6-2004-SME-COOP - Project CHEMFREE “Development of a chemical-free water treatment system through integrating fibre filters, ultrasound and UV-C” (http://cordis.europa.eu/result/rcn/47475_en.html);
- MEDIWAT - *Sustainable management of environmental issues related to water stress in Mediterranean Islands*) Med Programme – (2007-2013) (<http://www.mediwat.eu/>);
- WATER4CROPS Project FP7, Work Programme 2012 “COOPERATION”, call: FP7-KBBE-2012-6, Grant agreement no.: 311933, collaborative Project "Integrating biotreated wastewater reuse and valorization with enhanced water use efficiency to support the Green Economy in EU and India- Water4Crops, <http://www.water4crops.org/>;
- WATINTECH Smart decentralized WATER management through a dynamic INtegration of TECHnologies - ERANET Cofund Waterworks 2014, (<http://watintech.eu/>);
- TRESOR - Traitement des eaux usées et des boues résiduaires par filtres plantés et usage agricole durable. Programme Italia-Tunisia 2014-20, <https://www.tresorprojet.eu/>;
- GIFLUID -Green Infrastructures to mitigate flood risks in Urban and sub-urban areas and to improve the quality of rainwater discharges -", Programme INTERREG V-A Italia-Malta 2014-2020, <https://www.gifluid.eu/it/>;
- CARDIMED “Climate Adaptation and Resilience Demonstrated In the MEDiterranean region – Programma HORIZON EUROPE, <https://www.cardimed-project.eu/>

He has been involved in several Italian research projects as responsible of the research unit:

- Project PRIN 2007 “Monitoring of soil and groundwater pollution processes from intensive farming activities - Monitoraggio dei processi di inquinamento del suolo e delle acque di falda da attività agricole intensive - ” [responsible of Catania University “Research Unit”];
- Project "ACQUATEC-Innovative and sustainable technologies for solving water emergency in Southern Italy” (Strategic Italian research and National Programme PON 2002-2006). [coordinator for Catania University of WP "O.R. 3.2 Technologies and management methods for urban wastewater reuse for irrigation”];
- Project “FITOPROBIO – Productive phytodepuration of cellulosic biomass to obtain second-generation ethanol - Fitodepurazione per la produzione di biomasse per la produzione di bioetanolo” funded by MiPAF - [responsible of CSEI Catania “Research Unit”];
- Project MORISO “Monitoring of underground water resources” – Monitoraggio delle Risorse Idriche SOTterranee” funded by Programme Italia-Malta 2007-2013 [responsible of CSEI Catania “Research Unit”];
- Project SIBAR “ Biodegradable irrigation systems for the use of urban wastewater for agri-food production - Sistemi di Irrigazione Biodegradabili per l’impiego di Acque Reflue urbane per le produzioni agroalimentari ”funded by MiUR within PON 2007-2013 (<http://www.ponrec.it/open-data/progetti/scheda-progetto?ProgettoID=5194>) [responsible of UNICT “Research Unit”];
- Project PRIN 2015 “GREEN4WATER – Green Infrastructures for management and protection of water resources” funded by Miur (<https://site.unibo.it/green4water/en>) [responsible of research unit - RU for Catania University].
- Project AGRITECH – SPOKE 3- National responsible TASK 3.2.5 Nature-based solutions for natural resources and environment protection, Programme PNRR
- Project SAMOTHRACE – SPOKE 1 task 1.2 In situ monitoring of constructed wetland systems for the treatment and reuse of wastewater, Programme PNRR;

He has established several scientific agreements with important institution: prof. Miquel Salgot - Universitat de Barcelona (Spain), prof. Hans Brix and Carlos Arias - University of Aarhus (Denmark), prof. Gunther Langergraber - Boku University (Austria); Prof. Ignasi Rodriguez-Roda - ICRA (Girona,

Spain); Dr. Olfa Mahjoub - INRGREF (Tunisia), prof. Alexandros Stefanakis - Technical University of Crete (Greece); prof. Simos Malamis - National Technical University of Athens (Greece) .

He has a technical collaboration with international firms of irrigation equipments and materials (IRRITEC and TORO IRRIGATION).

He is also consultant on design and management of natural treatment systems for several municipalities and water agencies located in Italy, and he is consultant for IKEA Retail Italy for the wastewater treatment and reuse.

He is director of CSEI Catania - Centro Studi di Economia applicata all'Ingegneria - Research Center of Economics applied to Engineering (www.cseicatania.com)

He is member of: *Italian Association of Agricultural Engineering* (Associazione Italiana di Ingegneria Agraria- AIIA), *Associazione Idrotecnica Italiana*, *AgEng* and *International Water Association* (IWA). Since 2012 is member of *Accademia dei Georgofili* (Florence, Italy).

He is member of the executive board of international PhD programme in "Agricultural, Food and Environmental Science" of Catania University <https://www.di3a.unict.it/content/dottorato-di-ricerca>.

Since July 2019 is Member (Regional Coordinator for Europe) of *IWA Management Committee Specialist Group Wetland Systems for Water Pollution Control* <https://iwa-connect.org/group/wetland-systems-for-water-pollution-control/about>.

In the period from December 2109 to February 2020 he carried out a research period as *visiting researcher* at the *Departamento de Biología, Sanidad y Medioambiente* of the University of Barcelona.

Since 2020 he is member of Editorial Board of WATER journal, https://www.mdpi.com/journal/water/sectioneditors/Wastewater_Treatment_Reuse.



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