CURRICULUM VITAE OF PROF. DR. CORRADO GISONNI

Date and place of birth:

- Napoli (Italy) on March 21st, 1965.

Address:

Office: Dipartimento di Ingegneria Civile Design Edilizia e Ambiente (DICDEA) of the Second University of Napoli (Italy). Via Roma 29 – 81031 Aversa (CE) – Italy.
Phone: +39-081-5010220
Fax: +39-081-5037370
e-mail: corrado.gisonni@unina2.it (or gisonni@unina.it)

Languages *Italian, English, French* (basic)

Teaching and Invited Lectures:

- Urban Hydraulic Infrastructures (since 1994).
- Hydraulic Structures Design (from 1994 to 2002).
- Water Resources Management (from 1996 to 2001).
- River Training Techniques (since 2002).
- Invited Lecturer form Italian Ministry of Foreign Affairs at the Water Resources Documentation Center (Perugia, Italy).
- Invited Lecturer for Ph.D. students from the Universities of Roma, Napoli and Palermo (Italy).
- Seminars for Master, Ph.D. students and professionals at the the *Laboratory of Hydraulics* (VAW) of the *Swiss Institute of Technology* (ETHZ - Zurich, Switzerland) and *Laboratoire de Constructions Hydrauliques* (LCH) of the École Polytechnique Fédérale de Lausanne (EPFL – Lausanne, Switzerland).
- Corrado Gisonni has been advisor for more than 100 Master Diploma thesis in the fields of applied hydraulics.

Education:

- MS in Hydraulic Engineering at University of Naples 'Federico II' in 1989 (honors Degree, *cum Laude*), with a dissertation on the experimental thesis "Fluid transients in pressurized systems due to air release" (tutors: prof. Michele Viparelli and prof. Giuseppe De Martino).
- Ph.D. in Hydraulic Engineering in 1994, with a dissertation on the experimental thesis "Local scouring downstream of stilling basins" (tutors: prof. Michele Viparelli and prof. Giacomo Rasulo).

Current Position:

- Chair of the BS and MS Programs in Civil Engineering of the Università della Campania 'Luigi Vanvitelli' (2016-).
- Vice-Director of the Engineering Department of the Università della Campania 'Luigi Vanvitelli' (2018-).
- Full Professor at the School of Engineering of the 2nd University of Napoli (Italy) since December, 2012.
- Specialist Engineer engaged by Italian Ministry of Internal Affairs, for "Risks induced by sewer system in Neapolitan urban area".

- Specialist Engineer for various River Authorities in Southern Italy.
- Specialist Engineer for various Water Agencies in Southern Italy.

Positions held:

- Staff Engineer of the Technical Direction of Aeritalia (Italian Aircraft Industry), with particular competence for the "mechanical and fluid dynamic systems", from September 1989 to May 1990.
- Research Associate at the School of Engineering of the 2nd University of Napoli (Italy), in December 1994.
- Senior Lecturer at the School of Engineering of the 2nd University of Napoli (Italy), since 1995.
- Associate Professor at the School of Engineering of the 2nd University of Napoli (Italy) since April 24th, 2000 until 2012.
- Vice-Director of the Dipartimento di Ingegneria Civile Design Edilizia Ambiente (DICDEA) at Seconda Università degli Studi di Napoli (D.R. n. 1013 del 06/11/2013), from November, 2013 until January, 2016.
- Vice-Director of the Department of Engineering (DI) at Università della Campania 'Luigi Vanvitelli', from march.2018.

Awards and fellowships:

- Best Diploma Thesis in Hydraulic Engineering received in 1990 from the Polytechnic Foundation for Southern Italy, with a dissertation on the experimental thesis "Fluid transients in pressurized systems due to air release" (tutors: prof. Michele Viparelli and prof. Giuseppe De Martino).
- From 1995 to 2010, prof. Gisonni has been invited as an academic guest (seven times, for a total duration of about two years) at the *Laboratory of Hydraulics* (VAW) of the *Swiss Institute of Technology* (ETHZ - Zurich, Switzerland), within "visiting post-doc" and "visiting professor" programs.
- In 2013 and 2014, prof. Gisonni has been invited as an "visiting professor" at the *Laboratoire de Constructions Hydrauliques* (LCH) of the École Polytechnique Fédérale de Lausanne (EPFL – Lausanne, Switzerland), for a total duration of five months.
- Since November 2010, prof. Gisonni is entitled for the "Full Professorship" after a National competition started by the Italian Ministry for University and Research.

Research:

- Principle research interests include engineering hydraulics in sewers, water supply systems and river training techniques. Corrado Gisonni is author of over 100 papers, also published in review journals, and co-author of the "Italian Handbook for Sewer System Design". Current research topics are: supercritical open channel flows, sewer design, water distribution network, fluvial hydraulics and river engineering. In addition transients in water supply systems has received particular research attention.

Memberships:

- Member of Professional Order of Engineers of Napoli (Italy), since 1990.
- Affiliate member of I.A.H.R. since 1992.
- Member of the American Society of Civil Engineers, since 1996.

Distinctions:

- Member of the Committee on 'Hydraulic Structures' of the International Association of Hydraulic Engineering and Research (I.A.H.R.), 2003-2009.
- Member (elected) of the European Division Committee of the International Association of Hydraulic Engineering and Research (I.A.H.R.), 2005-.
- *Fellow* of the American Society of Civil Engineers, 2006-.
- Secretary (elected) of the European Division Committee of the International Association of Hydraulic Engineering and Research (I.A.H.R.), 2010-2014.
- Vice-Chair (elected) of the European Division Committee of the International Association of Hydraulic Engineering and Research (I.A.H.R.), 2014-2016.
- Chair (elected) of the European Division Committee of the International Association of Hydraulic Engineering and Research (I.A.H.R.), 2016-.

Referee and Scientific Committee:

- Journals of the American Society of Civil Engineering.
- Journal of Hydraulic Research (I.A.H.R.)
- Advances in Water Resources, and Urban Water (Elsevier)
- Canadian Journal of Civil Engineering
- Iranian Journal of Technology
- Swiss National Foundation for Research
- Canadian National Research Council
- Romanian National Research Council
- Italian Ministry of University and Scientific Research
- Component of International Scientific Committees and Session Chairman for Several International and national conferences.
- Associate Editor of the Journal of Applied Water Engineering and Research, journal from International Association for Hydro-Environment Engineering and Research (IAHR) and the World Council of Civil Engineers (WCCE), 2014-.

LIST OF SELECTED PAPERS/CONTRIBUTIONS

1. C. GISONNI, W.H. HAGER: "Short sewer sideweirs". Journal of Irrigation and Drainage Engineering. A.S.C.E., vol. 123, No. 5, pp. 354-363, 1997.

2. C. GISONNI, G. RASULO: "Local scouring downstream of positive step stilling basins" - XXVII I.A.H.R. Congress. August, 10-15, 1997 San Francisco (U.S.A.).

3. C. GISONNI, W.H. HAGER: "Bend Flow in Bottom Outlets" - XXVIII I.A.H.R. Congress. August, 22-27, 1999, Graz (Austria).

4. C. GISONNI, W.H. HAGER: "Studying flow at tunnel bends" - Journal of Hydropower and Dams, n.2, 1999.

5. C. GISONNI, G. DEL GIUDICE, W.H. HAGER: "Supercritical Flow in Bend Manhole" - Journal of Irrigation and Drainage Engineering (A.S.C.E.), vol. 126, No. 1, pp. 48-56, 2000.

6. C. GISONNI, W.H. HAGER: "Supercritical flow in a modified bend manhole" - XXVII Convegno di Idraulica e Costruzioni Idrauliche (Biennial Italian Conference on Hydraulics and Hydraulic Structures). Genova (Italy), September, 2000.

7. G. DEL GIUDICE, C. GISONNI, G. RASULO "On the influence of rainfall time distribution on the design discharge". 5th International Workshop on Precipitation in Urban Areas: From precipitation measurements to design and forecasting modeling. December, 10-13, 2000, Pontresina (Switzerland).

8. C. GISONNI, W.H. HAGER: "Hydraulic features of supercritical bend flow" - XXIX I.A.H.R. Congress. September, 16-21, Beijing (China), 2001.

9. C. GISONNI, R. GRECO, R, GARGANO: "Risk and reliability assessment for stormwater sewer networks in unsaturated pyroclastic soils" - XXIX I.A.H.R. Congress. September, 16-21, Beijing (China), 2001.

10. GISONNI, C. & HAGER, W.H.: "Supercritical flow in manholes with a bend extension". Experiments in Fluids. Springer (ISSN 0723-4864). Vol. 32, Issue 3 (2002). 357-365.

11. C. GISONNI, W.H. HAGER: "Supercritical flow in 90° junction manhole". Urban Water, Volume 4, Issue 4, December 2002, pp. 363-372.

12. W.H. HAGER, C. GISONNI: "Finding Darcy at Dijon". Journal of Hydraulic Engineering (A.S.C.E.). 128(5): 454-459. 2002.

13. F. DE MARTINO, C. GISONNI, W.H. HAGER: "Drop in combined sewer manhole for super critical flow". Journal of Irrigation and Drainage (A.S.C.E.). vol. 128 (6), 2002.

14. C. GISONNI: "Henri Darcy, Ingénieur français". La Houille Blanche 4/5-2002, 97-102.

15. W.H. HAGER, C. GISONNI: "Henry Bazin – Civil Engineer". Journal of Hydraulic Engineering (A.S.C.E.). vol. 129 (2), 2003.

16. C. GISONNI: "Henry Darcy and the Pipe Flow Formula". World Water and Environmental Resource Congress, June 22-26, 2003 in Philadelphia, Pennsylvania.

17. W.H. HAGER, C. GISONNI: "Henry Bazin – Hydraulician". World Water and Environmental Resource Congress, June 22-26, 2003 in Philadelphia, Pennsylvania.

18. C. GISONNI, W.H. HAGER: "Henry Darcy's 200th birthday". XXX I.A.H.R. Congress. August 24-29, 2003, Thessaloniki (Greece), 2003.

19. W.H. HAGER, C. GISONNI: "Henry Bazin – Civil Engineer". Journal of Hydraulic Engineering (A.S.C.E.). vol. 129 (3), 2003, 171-175.

20. C. GISONNI, W.H. HAGER: "Supercritical Flow in Sewer Manholes". International Workshop (I.A.H.R.-S.H.F.) – Advances in the modeling methodologies of two-phase flow- Lyon (Francia)–. November, 24-26,2004.

21. C. GISONNI, A. VACCA: Discussion of "Influence of Turbulence on Bed Load Sediment Transport". Journal of Hydraulic Engineering (by B. Mutlu Sumer, Lloyd H. C. Chua, N. S. Cheng, and Jørgen Fredsøe). vol. 129 (8), 2003. Journal of Hydraulic Engineering (A.S.C.E.). 131, 72-73, 2005.

22. C. GISONNI, W. H. HAGER, J. UNGER: “Spurs in river engineering – a preliminary study”. XXXI I.A.H.R. Congress. Seoul (South Korea). September, 11-16, 2005.

23. C. GISONNI, W.H. HAGER: “Supercritical Flow in Sewer Manholes”. Journal of Hydraulic Research (I.A.H.R.). Invited paper. n° 6/2005.

24. C. GISONNI: “Pozzetti per fognature: criteri di progetto in presenza di correnti veloci”. Rivista dell’Associazione Idrotecnica Italiana. L’Acqua. pp. 9-18, n° 5/2005.

25. C. GISONNI, W. H. HAGER: “Riprap design for spur protection”. River Flow 2006, Lisbon (Portugal). September, 6-8, 2006.

26. C. GISONNI, W. H. HAGER, J. UNGER: “Scour processes at spurs phenomenology and countermeasures”. XXXII I.A.H.R. Congress. Venice (Italy), 1-6 July 2007.

27. C. GISONNI, W. H. HAGER: “Spur failure in river engineering”. Journal of Hydraulic Engineering (A.S.C.E.). February, 2008.

28. C. GISONNI, W. H. HAGER, G. CONSTANTINESCU: “Scour and erosion patterns at loose bridge abutment”. Proceedings of the International Conference on Fluvial Hydraulics. River Flow 2008. Cesme, Izmir, Turkey :, ISBN 978-605-60136.

29. G. DEL GIUDICE, C. GISONNI, G. RASULO: “Vortex drop shaft for supercritical flow”. 3rd IAHR International Symposium on Hydraulic Structures, Nanjing (China), 20-23 Ottobre 2008. ISBN 978-7-89474-234-6.

30. G. DEL GIUDICE, C. GISONNI, G. RASULO: “Vortex shaft outlet”. 3rd IAHR International Symposium on Hydraulic Structures, Nanjing (China), 20-23 Ottobre 2008. ISBN 978-7-89474-234-6.

31. C. GISONNI, W. H. HAGER: “Hydraulics of Alluvial Dunes – Preliminary Results”. XXXIII I.A.H.R. Congress. ISBN: 978-90-78046-08-0. Vancouver (Canada), 9-14 August 2009.

32. C. GISONNI: Book Review. Debris flow: Mechanics, prediction and countermeasures, by Tamotsu Takahashi. Journal of Hydraulic Research (I.A.H.R.), vol. 46 (1), 144.

33. C. GISONNI: Book Review. Hydraulic structures, by P. Novak, A.I.B. Moffat, C. Nalluri and R. Narayanan. Journal of Hydraulic Research (I.A.H.R.), vol. 46 (5), 715.

34. C. GISONNI: Discussion of “Generalized Approach for Clear-Water Scour at Bridge Foundation Elements” by B. Umesh C. Kothyari; Willi H. Hager; and Giuseppe Oliveto. Journal of Hydraulic Engineering (A.S.C.E.). 135 (2), 240-241, 2009.

35. G. DEL GIUDICE, C. GISONNI, G. RASULO: “Vortex shaft design for supercritical approach flow”. Journal of Hydraulic Engineering (A.S.C.E.). Vol. 136, No. 10, 837-841, October 1, 2010. ©ASCE, ISSN 0733-9429/2010/10-837–841.

36. C. GISONNI: “Sewer hydraulics: an exhausted topic?”. WHH – Wasserbau, Hydraulik, Hydrologie. *VAW Mitteilungen, 217*. ISSN 0374-0056. 2011. Zurich (CH).

37. DEL GIUDICE G., GISONNI C. (2011). Vortex dropshaft retrofitting: case of Naples

city (Italy). Journal of Hydraulic Research, vol. 49 (6), p. 804-808, ISSN: 0022-1686, doi: 00221686.2011.622148.

38. GISONNI C. (2012). Are hydrogeological catastrophes predictable? A short perspective on the implementation of the floods directive. Hydrolink, ISSN number 1388-3445, 2/2012, 46-48.

39. G. CRISPINO, C. GISONNI, M. IERVOLINO (2014): "Flood hazard assessment: comparison of 1D and 2D hydraulic models". International Journal of River Basin Management (I.A.H.R.), DOI: 10.1080/15715124.2014.928304.

40. M. PFISTER, C. GISONNI (2014): "Head losses in junction manholes for free surface flows in circular conduits". Journal of Hydraulic Engineering (A.S.C.E.), 140(9), 06014015. http://dx.doi.org/10.1061/(ASCE)HY.1943-7900.0000895

41. DI NARDO A., DI NATALE M., GISONNI C., IERVOLINO M. (2015): "Demand pattern and leakage estimation in water distribution networks". Journal of Water Supply: Research and Technology - AQUA. Vol 64 No 1 pp 35–46 © IWA Publishing 2015 doi:10.2166/aqua.2014.004

42. C. GISONNI, M. PFISTER (2015): Discussion of "Hydraulic behaviour of junction manholes under supercritical flow conditions" by Juan Saldarriaga, Nataly Bermúdez and Diva P. Rubio. Journal of Hydraulic Research (I.A.H.R.). Volume 53, Issue 2, 286-289. DOI:10.1080/00221686.2015.1021716.

43. C. GISONNI (2015): Editorial "Applied Hydraulics and Hydraulic Structures". Journal of Applied Water Engineering and Research. Volume 3, Issue 1, 2015. 1-2. DOI: 10.1080/23249676.2015.1031981.

44. G. CRISPINO, L. COZZOLINO, R. DELLA MORTE, C. GISONNI (2015): "Supercritical low-crested bilateral weirs: hydraulics and design procedure". Journal of Applied Water Engineering and Research. Volume 3, Issue 1, 2015. 35-42. DOI: 10.1080/23249676.2015.1026852.Books

45. CRISPINO G., PFISTER M., GISONNI C. (2016). "Pozzo a vortice con immissioni multiple all'imbocco: prove su modello fisico". Atti del XXXV Convegno Nazionale di Idraulica e Costruzioni Idrauliche, Bologna, 14-16 Settembre 2016, pp. 927-930, ISBN 9788898010400, DOI 10.6092/unibo/amsacta/5400

46. CRISPINO G., DORTHE D., FUCHSMANN T., GISONNI C., PFISTER M. (2016). "Junction chamber at vortex drop shaft: case study of Cossonay". In B. Crookston & B. Tullis (Eds.), Hydraulic Structures and Water System Management. 6th IAHR International Symposium on Hydraulic Structures, Portland, OR, 27-30 June, pp. 437-446. Doi:10.15142/T350628160853 (ISBN 978-1-884575-75-4).

47. CRISPINO G., GISONNI C., PFISTER M. (2016). "Shock wave patterns in supercritical junction manholes with inlet bottom offsets": IAHR Europe Congress, Liege, Belgium, 27-29 July, Proceedings of the 4th IAHR Europe Congress, pp .563-570. ISBN 978-1-138-02977-4.

48. CRISPINO G., PFISTER M., GISONNI C. (2017). "Discharge capacity of junction manholes with bottom drops or top offsets". IAHR World Congress, Kuala Lumpur,

Malaysia, 13-18 August 2017, Proceedings of 37th IAHR World Congress, pp. 4275-4283, ISSN 1562-6865 (Online) - ISSN 1063-7710 (Print).

49. CRISPINO G., PFISTER M., GISONNI C. (2017). “Hydraulic features of helycoidal flows in a vortex drop shaft”. IWA/IAHR International Conference on Urban Drainage, Prague, Czech Republic, 10-15 September 2017, Proceedings of ICUD 2017 Conference, pp. 250-254.

50. C. GISONNI, W.H. HAGER (2016). Discussion on “Supercritical flow in circular conduit bends”. Journal of Hydraulic Research. 54:2, 238-240, DOI: 10.1080/00221686.2015.1137089.

51. CRISPINO G., PFISTER M., GISONNI C. (2017). “Shock waves in supercritical junction manholes under invert- and obvert-aligned set-ups”. Journal of Hydraulic Research (in press).

52. PFISTER M., CRISPINO G., FUCHSMANN T., RIBI J.M., GISONNI C. (2017). “Multiple inflow branches at supercritical-type vortex drop shaft”. Journal of Hydraulic Engineering (in press).

53. CRISPINO G., GISONNI C. (2017). Discussion of “Symmetric junction manholes under supercritical flow conditions” by Juan Saldarriaga, Gina Rincon, Gloria Moscote and Maria Trujillo. Journal of Hydraulic Research (in press).

BOOKS

C. GISONNI, W. H. HAGER: “Idraulica dei sistemi fognari - Dalla teoria alla pratica”. XX+682 pp, ISBN 978-88-470-1444-2, Springer-Verlag Italia, 2012.

B. BRUNONE, M. DI NATALE, M. FERRANTE, C. GISONNI, S. MENICONI: “La ricerca delle perdite e la gestione degli acquedotti”, *Supplemento alla rivista L’Acqua*; 2/2010, A.I.I., Roma, ISSN 1125-1255.

Corrado Gisonni is co-author of:

AA.VV.:”*Sistemi fognari: Manuale di progettazione costruzione e gestione”* (*Sewer systems: Handbook for design, construction and management*). Centro Studi Deflussi Urbani, Ed. Hoepli, 1997.

Corrado Gisonni has collaborated to:

W.H. HAGER: "Wastewater Hydraulics - Theory and Practice". Spinger-Verlag, 1999. (ISBN 3-540-62998-X).

Napoli (Italy), May 24, 2016

Prof. Dr. Corrado Gisonni