

CV & Short biography

Prof. Ing. Claudio BORRI, Dr.- Ing. h.c. mult.

***Full Professor of Structural Mechanics & Chair of Computational Mechanics of Structures;
Dean & Head (Direttore, 2012-2017), Dept. of Civil and Environmental Engineering,
Università di Firenze, Italy***



Short biographical note: Claudio Borri (born in 1953 in Figline Valdarno, by Florence) studied Civil Engineering at Univ. of Florence (Italy) and (later on) at Ruhr-Univ. Bochum (Germany), achieving the Degree in Civil Engineering in 1978 and the Ph.D. in Structural Mechanics in 1983. He was appointed as Research Assoc. (1983-90), then as Assoc. Professor (1991) and in 2002 as Full professor (Ordinario) of Struct. Mechanics, Computational Mechanics and Chair of Wind Engineering, School of Engineering, University of Florence (Italy); there he has also served for two decades as the Vice-Dean for International Affairs (1992-2012). In 1992 Prof. Borri was the **Co-founder of CRIACIV (i.e. the Inter-University Research Centre on Building Aerodynamics & Wind Engineering)**, and responsible of building and developing the first Italian Wind Engrg. Lab. with a Boundary-Layer Wind Tunnel (CRIACIV groups, till nowadays, 8 Italian Universities and is the oldest research centre of this kind in Italy). In 2004 Prof. Borri was elected as Director of CRIACIV a function which he kept until the end of 2012; when (October 2012), he was elected as the **Dean & Head (Direttore) of the Dept. of Civil and Environmental Engineering, DICEA**, of the Univ. of Florence (Dec. 2012 – Oct. 2016).

Publications: Prof. Borri is Editor/Co-Editor of 9 books (2 textbooks and 6 proceedings of international conferences), Author/Co-Author of about **350 scientific publications (about 130 in refereed journals)**. Supervisory activity as Main Tutor (till end of 2018): about 110 Graduations Theses (Tesi di laurea, Master); 32 PhD Theses.

Conferences Chairmanships: Prof. Borri has been invited as keynote lecturer in about 40 National/international Conferences in the last 30 years and Chaired or Co-Chaired numerous national/European/ international Conferences, starting with 1990 (Italian) National Conference on Wind Engineering (IN-VENTO-90), namely: EURODYN 1996 (with G. Augusti and P. Spinelli), SEFI 2002 (European Conf. on Engrg. Education), AIMETA 2005 (Italian National Conf. on Theor. And Applied Mechanics), EACWE 2009 (European/African Conf. on Wind Engineering). **He will finally Chair ICWE16 (the 16th Int. Conference on Wind Engineering, Florence, August 2023)** the world largest conference hosted for the 1st time in Italy in 60-years of history of this event.

Awards:

2023: August 30th: election as President of IAWE (International Association for Wind Engineering), 2023-2027
2023: Chairman of ICWE16, the World Conference on Wind Engineering of IAWE, 27-31 August 2023, Florence
2019: **Scruton Lecturer 2019**, Institution of Civil Engineers, London (jointly award with the Wind Engineering Soc. Of UK, WES)

- 2014: **N. Tesla Golden Chain 2014** for “Outstanding contributions to Engineering Education” (by IGIP, at WEEF2014 in Dubai, Oct. 2014);
- 2012: **IFEES Presidential Award** (by the Int. Federation of Engrg. Education Soc.s, IFEES, WEEF2012, Buenos Aires, 2012),
- 2010: **A. von Humboldt Alumni Prize 2010** for “Innovative networking” (A. von Humboldt Stift., Berlin, Freie Univ., 2010);
- 2006: **“Ing.-Paed. IGIP Honoris Causa”** by the University of Tallinn in Estonia.
- 2001: **“Honorary Doctor Degree (Honoris Causa) in Engineering Sciences”** by the University of Architecture, Civil Engineering & Geodesy (UACEG) of Sofia, Bulgaria
- 1994: **“Max-Planck Forschungspreis (Research Award)”** in Structural Mechanics by the Max-Planck Gesellschaft/A. von Humboldt Stift. in Germany (Bonn, 1994);

Academic Curriculum Vitae: Through several scholarships/grants/awards (CNR, DAAD, A. Von Humboldt, Max-Planck Forschungspreis) Prof. Borri has spent several years of research and teaching at different Universities: Ruhr-Univ. Bochum (1981/82; 1985; 1987/88; 1991/92), Univ. of Karlsruhe (1995), Dresden (1999); he was called as Visiting Prof. at Univ. of Karlsruhe, Stuttgart, Dresden (Germany) and Notre-Dame (USA). For over 20 years, 2000-2021, Prof. Borri (with Prof. U. Peil) was appointed as Chairman of the International Ph. D. school on “Mitigation of risk by natural hazards on structures and infrastructures”, still running between the Univ. of Florence and TU Braunschweig (funded by DFG and MIUR/Italy & leading to a joined Ph D degree). After 1992, he has been active at European level as **promoter and coordinator of several research projects of the BEATRICE network** (all major wind tunnel lab. network, 1992-1996), starting from the 4th Framework Programme, within the HC&M action, till the last Horizon 2020 (8th FP). In 1999 Prof. Borri has promoted and then was elected **Coordinator of the COST action C14** in UCE on **“Impact of Wind and Storms on city life and built environment”** (1999/2004). Later on, in 2010, he has been one of the promoters of the large FP7 MARINET INFRA-2010 project (**Marine Renewables Infrastructure Network**) and became its coordinator at UniFI-CRIACIV.

Between 1999 and 2008, Prof. Borri has promoted and then coordinated as **Principal Investigator, 5 bi-annual “research projects on national interest” (PRIN)**, leading consortia of up to 10 Italian Universities which were approved and granted by the Ministry of Univ. and Research of Italy – MIUR.

Prof. Borri has served for 8 years as **member of the Kuratorium (Adm. Council) of the Italian-German Academy/Center at Villa Vigoni** (2000-2008), run by the German BMBF and the Italian MAE (Ministero degli Affari Esteri).

In 2007 he was elected as **President of the Associazione Italiana Borsisti A. von Humboldt**, a function in which he served for two mandates (2007-14).

Later on, in 2008, Prof. Borri was appointed as the **Italian representative in the Steering Committee of TP-Wind (Technology Platform Wind Energy, Brussels) set-up by EWEA** under the auspices of the European Commission (4-years mandate). In 2009 he was nominated as member of the Panel of Experts/Reviewers of the **ERC (European Research Council)** for the domain PE8_6 Physical & Engineering Sciences.

After having served as **President of SEFI (Société Européenne pour la Formation des Ingenieurs, Bruxelles, 2005-07)**, in 2006, Rio de Janeiro, Prof. Borri was elected as the **First and Founding President of IFEES (International Federation of Engineering Education Societies, Washington DC, 2006-08)**.

Prof. Borri is the promoter and initiator of several European large projects in Engrg. Education: he has served as Contact Person/Coordinator and/or acting Legal Representative of **E4, TREE, TREE-DISS and EUGENE Thematic Networks** and of the **EUR-ACE Project** (2006-2008) within Socrates II. He has been Founding member of **ESOEPE and then of ENAEE**, being elected in its first Administrative Council. Prof. Borri has also Chaired the Board of the **PRO-EAST, EUR-ACE SPREAD, DEREK and DEREL** projects (amongst others) to foster Education in Science and Technology in Eastern Europe (under TEMPUS III and IV programmes). Within his activities in innovation and Quality Assurance in Engineering Education, Prof. Borri has been frequently appointed as a member

of Accreditation Panels in Europe and overseas. Amongst others: the SWISS Peer Review programme (on behalf of ETH Zurich; 2005-07), the CTI visits in France (like INSA Lyon, Ecole Polytechnique Paris, Univ. J Fourier at Grenoble, etc), the accreditation visit at TPU in Tomsk (Russia), at Czech Academy of Science in Prague, etc. and several pilot visits in Schools of Engineering in Italy (where an accreditation agency was not yet set up).

Along the last 25 years, Prof. Borri has been appointed as expert evaluator for several research grant agencies in Europe and overseas, as f.e. the **German University Excellency Initiative** (appointed by the Wissenschafts-Rat of the Federal Republic of Germany) for RWTH Aachen and TU-München; the Czech national Grant agency, the Cyprus State agency for Research, Swiss federal accreditation agency, etc.

Professional Curriculum Vitae (Designer, Consultant and Check Engineer): As a professional consultant, chartered Structural Engineer (since 1979) and Check Engineer for Statics and Dynamics of Structures (since 1989), Prof. Borri has dealt, along more than 40 years, with several major structural engineering designs and projects. Main fields of concern are: shell structures, wind effects on large buildings and structures (like TV towers and antennas, large roofs, tall buildings, bridges and footbridges), large wind turbines, off-shore wind energy structures, etc., at national and international level.

As legal CTU (Consulente Tecnico di Ufficio) for some justice Instances/Courts (i.e. Tribunali Amministrativi Regionali, Corte di Appello, etc.) in Italy and in Germany, Prof. Borri has dealt with some major legal disputes (collapses of buildings or structural elements with casualties and injuries), induced damaged by constructions sites (in many Italian Regions, especially due to building of wind farms, tunnels, new roads), landslides, etc.

Especially worth to be mentioned are the activities as consultant, designer, supervisor and/or statical check engineer (collaudatore statico) of some major civil engineering structures and infrastructures, namely:

- 1980-'86: Structural design and engineering of residential buildings, including high-rise buildings up to 60m and sport plants
- 1986-'89: structural engineering consulting of RC shell structures in Germany (i.e. **cooling tower shells at Gundremmingen**, Kongresshalle Berlin, etc.)
- 1987- '89: **Large roof structures of the Olympic stadium in Rome** (consultancy for the designer M. Majowiecki)
- Since 1992- 2012: **chief consulting activity in wind engineering/aerodynamics and structural design** through the wind-tunnel lab. of CRIACIV (Univ. of Florence) for **a) more than 15 bridges: crossing of Rio Hyguamo (Dominican Rep.), Ponte della Musica (Rome), Zagreb-Rjeka viaducts (Croatia), cable bridges at RAI station in S.ta Palomba ... b) large high-rise buildings (UNIPOL, PARSITALIA, CityLife Milan, ...), c) large roofs (Calatrava's high speed train station in Reggio Emilia, Reggio Emilia new motorway toll station, new Juventus Stadium in Turin, Karaiskakis Stadium in Pyraeus, ENEL coal storage in Civitavecchia at Torre Valdaliga large steel roofs etc.), d) industrial buildings (cooling towers at S Barbara, Cavriglia, AR, ENEL power plants in Porto Corsini and Ravenna, ...)**
- 1992-'99: founder and President of BBS GmbH structural engineering consulting, Berlin, for major Italian companies in Berlin (Grassetto spa, etc.): new residential centers at Alte Jakobstrasse and Alt Stralau, ...
- 1998-2000: structural design of the steel cable bridges, 75m and 175 m tall free standing MW-towers for the RAI station at S.ta Palomba, Rome
- In June 2010, till the end of 2012, Prof. Borri has been appointed by the Italian Ministry of Infrastructures as a Member of the Higher Advisory Board (Scientific Committee) of the

“Stretto di Messina” Spa for the design and construction of the ever largest suspension bridge (3,300 m) across the strait of Messina (Calabria-Sicily).

- 2008-2018: Founder and President of BBP srl: development, structural design and on-site monitoring (Direzione lavori) of **16 large onshore wind farms in Italy** (more than **170 wind turbines**, up to 2 MW each, 98m hub height, rotor diameter: 82m), being in charge as the Chief consultant of ENERCON GmbH and Sorgenia spa (as Chairman of BBP Engineering srl)
- After 2012: structural engineering consulting for a **new passing viaduct and bridge in Asciano (SI)** and for 2 new bridges crossing of river Arno in Florence **and Arno crossing in Figline Valdarno** (competition, not realised), ...
- Sept.2023: re-appointment by the Italian Ministry of Infrastructures and Transportation as a Member of the Higher Advisory Board (Scientific Committee) of the **“Stretto di Messina”** Spa for the design and construction of the suspension bridge (3,300 m) across the strait of Messina (Calabria-Sicily).