

CURRICULUM VITAE

Name and Title: Date of Birth: Place of Birth: Citizenship: Languages:	Dorian JANJIC, Dipl. Ing. December 7, 1960 Sarajevo Austrian German, English, Serbo-Croatian	 <p style="text-align: center;"> Dipl. Ing. Dorian Janjic CEO TDV GmbH Gleisdorfer Gasse 5 A-8010 Graz Tel: +43 650 82 15 31 0 Web: www.tdv.at Email: dorian.janjic@tdv.at </p>
Name of Firm with which associated:	TDV Consulting Dorian Janjic & Partner GmbH Gleisdorfer Gasse 5 A-8010 Graz, Austria	
Present position in company:	CEO, Owner	
Years of experience:	2007-Present TDV Consulting Group Dorian Janjic & Partner GmbH, Graz CEO, Owner 2007-2012 Bentley Systems Austria GmbH, Graz Vice President, Bridge Engineering Software 1992-2007 TDV Technische Datenverarbeitung Dorian Janjic & Partner GmbH, Graz CEO, Owner 1989-1992 Traser d.d.o, Sarajevo Structural engineer	
Education:	1989 Dipl. Ing. / Civil Engineering / Sarajevo University of Technology, Faculty of Civil Engineering, Sarajevo 1994 Dipl. Ing. / Civil Engineering / Vienna University of Technology, Faculty of Civil Engineering, Vienna	

Summary of Experience

Key Data – Mr. Janjic is **TDV's** leader/CEO and has over three decades of experience on bridge engineering works. The education of Mr. Janjic in both engineering and information technology has enabled him to link practical bridge project work with technical research and innovative computer aided design. The professional experience comprises work on various prestigious international bridge projects as consultant engineer and software provider, as well as in cooperation with consultants and companies for the purpose of design, calculation, reviewing and construction engineering.

With his **TDV** Company (TDV GmbH Dorian Janjic & Partner), Mr. Janjic developed sophisticated bridge design software **RM** (RM, RM7, RM2000, RM2004, RM2006) which he intensively used in all practical bridge projects. In year 2007 **Bentley Systems Inc.** acquired **RM** software and branded **RM** as **RM Bridge**, Mr. Janjic kept consulting role with TDV after restructuring TDV into TDV Consulting Group Dorian & Partner GmbH. Parallel to his continuous **TDV** involvement (since 1992), Mr. Janjic worked with **Bentley Systems** from 2007-2012 as a **Vice President** in charge for global bridge software and **BIM/BRIM** development.

Novel technical and numerical solutions, implemented in **TDV's** software products under Mr. Janjic's leadership, allowed him to give high quality consultancy to international project teams involved in challenging bridge projects worldwide. As specialist for complex problems (static and dynamics, wind buffeting, construction, optimisation) and long-span bridges (cable-stayed, suspension, cantilever bridges), Mr. Janjic has been involved in design/construction of several prestigious and **world-breaking bridge projects** with spans exceeding 1000m: Canakkale 1915 Bridge/Turkey (2023m span), Gwangyuang Bridge/Korea (1545m span), Hardanger Bridge/Norway (1310m span), Sutong Bridge/China (1018m span), Stonecutters Bridge/Hong-Kong (1018m span).

Major bridge projects:

Mr. Janjic has been involved with TDV as Project Manager / Team Leader and Senior Bridge Engineer in many cable supported bridge projects, major bridge projects are as follows:

No.	Name of bridge	Location	Type of structure	Main span	Year of completion	Scope of work
01	<i>Canakkale 1915 Bridge</i>	Turkey	Suspension Bridge	2023m	2021	Full sequence analysis and planning of deck erection
02	<i>My Thuan 2 Bridge</i>	Vietnam	Cable Stayed Bridge	350m	Under constr.	Full independent check
03	<i>Bach Dang Bridge</i>	Vietnam	Multi-Span Cable Stayed Bridge	2x240m	2018	Technology advice for Construction
04	<i>Orinoco III Bridge</i>	Venezuela	Cable Stayed Bridge	360m	2016	Full structural analysis for detail design of steel superstructure
05	<i>Hardanger Bridge</i>	Norway	Suspension Bridge	1310m	2013	Check of Final Design, Erection and Wind Effects
06	<i>Gwangyang Bridge</i>	Korea	Suspension Bridge	1545m	2012	Check of erection sequence
07	<i>Rao II Bridge</i>	Vietnam	Cable Stayed Bridge	120m	2012	Independent checker of erection sequence
08	<i>Stonecutters Bridge</i>	HongKong	Cable Stayed Bridge	1018m	2009	Involvement in Detail Design and Erection Procedure
09	<i>Rach Mieu Bridge</i>	Vietnam	Cable Stayed Bridge	270m	2009	Full independent check including drawing re-view
10	<i>Sutong Bridge</i>	China	Cable Stayed Bridge	1088m	2008	Involvement in Detail Design and Erection Procedure
11	<i>Machang Bridge</i>	Korea	Cable Stayed Bridge	400m	2008	Independent Check
12	<i>Shenzhen Western Corridor Bridge</i>	Hong Kong	Cable Stayed Bridge	210m	2007	Involvement in Detail Design
13	<i>Pragati Maidan Bridge</i>	India	Extradosed Cable Stayed Bridge	93m	2006	Full independent design check including drawing review
14	<i>Verige Bridge</i>	Montenegro	Cable Stayed Bridge	450m		Involvement in Detail Design
15	<i>Kwang Ah Bridge</i>	Korea	Suspension Bridge	500m	2002	Independent check of the structural analysis
16	<i>Dou Shan Viaduct</i>	Taiwan	Multispan Extradosed Cable Stayed Bridge	140m (multi)	2002	Involvement in Detail Design, Review of Drawings

Research projects:

BrIM	Bridge Information Modelling
COMTEST	Testing of dynamic behaviour of existing railway bridges
RL-DYNAMIK	Evaluation of guidelines for high speed railway bridges
NUWIMOD, CFD 3D	Numerical Wind Model – wind tunnel simulation
FEMBRIDGE-Project	Using Finite Elements in bridge engineering.
TDV2000 software family	Development of RM2000, RM2004, RM2006, RM Bridge V8i
CIMSTEEL-Project EUREKA EU 1309	Neutral software interface for steel and concrete structures (Tekla).

Important technical and numerical solutions developed under Mr Janjic's direction:

- Full 3D parametric modelling, 4D structural analysis and design (time sequencing and time-dependent effects)
- Hybrid finite-element modelling (FEM)
- 2nd and 3rd order theory analysis and material nonlinearity
- Construction sequence simulation including geometry control, pre-camber, fabrication shape and structural behaviour in all construction phases
- Traffic loading analysis according to applicable design codes
- Dynamic analysis of seismic load

- Tendon design
- Cracked tensile zones analysis, Concrete reinforcement design
- Time History Analysis
- Steel and composite structure analysis
- Design code checks
- Independent design checks
- Cable sagging nonlinear effects calculation (for cable supported bridges)
- Optimization of the cable tensioning sequence – linear and nonlinear analysis (for cable supported bridges)
- Computation of large deflections for equalizing force distribution (for suspension bridges and large cable structures)
- Bridge erection control – monitoring of structural deformations during the erection sequence
- Simulation of wind tunnel analysis by calculating aerodynamic coefficients using computational fluid dynamics (CFD)
- Optimization of aero dynamical deck cross-section properties.
- Wind buffeting – analysis of the effect of wind dynamics using CFD-calculated coefficients
- Definition of bridge and tendons geometry and construction stages for balanced cantilever construction
- Precision control of geometry for segment-by-segment casting of precast segmental bridges
- Full structural analysis of every bridge stage for incremental launching construction
- Analysis of loads, oscillation behaviour and location of resonance velocities for high-speed rail

PAPERS / ARTICLES:

Mr Janjic has been involved both individually and jointly in the publication of several scientific papers for international journals and conferences.

PAPERS:

Dynamic Train-Bridge Interaction in Monorail Sao Paulo Metroline 2 (D. Janjic)

36th IABSE Symposium Kolkata "Long Span Bridges and Roofs – Development, Design and Implementation" Kolkata, India (24.-27.09.2013)

Forward Analysis and Erection Control of Gwangyang Bridge (D. Janjic)

36th IABSE Symposium Kolkata "Long Span Bridges and Roofs – Development, Design and Implementation" Kolkata, India (24.-27.09.2013)

Closing the Gap between Bridge Analysis and Detailing (D. Janjic, V. Samec, J. Stampler)

4th IABSE Symposium Venice "Large Structures and Infrastructures for Environmentally Constrained and Urbanised Areas" Venice, Italy (22.-24.09.2010)

Modern Approach in Concrete Segmental Design (D. Janjic, G. Strelkelj, J. Stampler)

4th IABSE Symposium Venice "Large Structures and Infrastructures for Environmentally Constrained and Urbanised Areas" Venice, Italy (22.-24.09.2010)

Gwangyang Bridge – Numerical Simulation of Construction Sequence (D. Janjic, J. Bong-Gyo, Ch. Hyun-Sok)

4th IABSE Symposium Venice "Large Structures and Infrastructures for Environmentally Constrained and Urbanised Areas" Venice, Italy (22.-24.09.2010)

Analysis of Composite Bridges in Practice – a Hostile Approach (D. Janjic, J. Stampler)

IABSE conference "Sustainable Infrastructure Environment Friendly, Safe and Resource Efficient" BANGKOK (09.–11.09.2009)

Consistent Design of Segmental CSB Concrete Bridges (D. Janjic, J. Stampler)

NCBC 2008 Concrete Bridge Conference, HPC - Safe, Affordable, and Efficient, St. Louis, Missouri (04.-07.05.2008)

Wind buffeting analysis of long span bridges. Comparison of steady state coefficient and flutter derivative approach (Dorian Janjic, Andreas Domaingo)

EASEC-11 - The Eleventh East Asia-Pacific Conference on Structural Engineering & Construction, Taipei (19.-21.11.2008)

The Evolution of Bridge Information Modeling (Dorian Janjic, Gabe Norona, Ronald Love, Raul Amaya, Don Peters)

EASEC-11 - The Eleventh East Asia-Pacific Conference on Structural Engineering & Construction, Taipei (19.-21.11.2008)

Software tool for wind design of CSB (D. Janjic, J. Stampler, A. Domaingo)

ASCE/SEI Structures Congress Crossing Borders 2008, Vancouver (24.-26.04.2008)

Sophisticated non-linear 4D structural analysis for CSB (D. Janjic, H. Bokan, H. Sorsky)

ASCE/SEI Structures Congress Crossing Borders 2008, Vancouver (24.-26.04.2008)

Hybrid Models for Efficiently Analysing Overall and Local Stability Problems in the Bridge Design Process (D. Janjic, J. Stampler)

IABSE conference "Information and Communication Technology (ICT) for Bridges, Buildings and Construction Practice" HELSINKI, FINLAND (04.-06.06.2008)

Bridge Solution instead of Bridge Design FEM Software (D. Janjic, G. Norona, Ron Love, R. Amaya)

- IABSE conference "Information and Communication Technology (ICT) for Bridges, Buildings and Construction Practice" HELSINKI, FINLAND (04.-06.06.2008)
- COMPUTER WIND INVESTIGATIONS FOR LONG BRIDGE CROSSINGS, Dorian Janjic
- IABMAS, 4th International conference on bridge maintenance, safety and management, KOREA (13.-17.07.2008)
- Comprehensive computer aided wind design for arbitrary long span bridges (D. Janjic, J. Stampler, A. Domaingo)
- EURODYN 2008, 7th European Conference on Structural Dynamics, Southampton, England (07.-09.07.2008)
- Experience from the Global Analysis of Sutong and Stonecutters bridge (D. Janjic);
- IBC 2008 - 25th Annual International Bridge Conference, Pittsburgh, Pennsylvania, USA (02.-04.06.2008)
- EARTHQUAKE ANALYSIS OF BRIDGE FOUNDATIONS IN PRACTICE (H.Bokan,D.Janjic,J.Stampler)
- SCDOT - 6th National Seismic Conference on Bridges and Highways, Charleston, USA (27.-30.07.2008)
- Bridge Information Modeling - Approach for Improving Safety and Serviceability from the Design Phase throughout the Life Cycle (Dorian Janjic, Gabe Norona)
- IABSE Chicago, Creating and Renewing Urban Structures, Tall Buildings, Bridges and Infrastructure (14.-19.09.2008)
- Erection Control Analysis - Meeting the Demands of New Construction Techniques (Dorian Janjic, Johann Stampler)
- IABSE Chicago, Creating and Renewing Urban Structures, Tall Buildings, Bridges and Infrastructure (14.-19.09.2008)
- Wind and extremely long bridges - a challenge for computer aided design (Andreas Domaingo, Dorian Janjic, Johann Stampler)
- IABSE Chicago, Creating and Renewing Urban Structures, Tall Buildings, Bridges and Infrastructure (14.-19.09.2008)
- Dynamic Response of Filler Beam Bridges during Train Transit (J. Stampler, D. Janjic, A. Domaingo)
- EUROSTEEL 2008 - 5th European Conference on Steel and Composite Structures, Graz (03.-05.09.2008)
- Response of Bridges to Steady and Random Wind Load (A. Domaingo, J. Stampler, D. Janjic)
- EUROSTEEL 2008 - 5th European Conference on Steel and Composite Structures, Graz (03.-05.09.2008)
- Consistent Analysis Method for Long Term Effects in Composite Bridges (D. Janjic, J. Stampler, H. Bokan)
- EUROSTEEL 2008 - 5th European Conference on Steel and Composite Structures, Graz (03.-05.09.2008)
- Application of pre-cast segmental method to increase construction efficiency (D. Janjic, J. Stampler, A. Domaingo, H. Bokan)
- SECON - International Conference and EurekaBuild event - Networks for sustainable environment and high quality of life, Dubrovnik, (23.-25.05.2008)
- Life cycle surveillance and management of bridges – Bridge Information Modelling (D. Janjic, J. Stampler, A. Domaingo, H. Bokan)
- SECON - International Conference and EurekaBuild event - Networks for sustainable environment and high quality of life, Dubrovnik, (23.-25.05.2008)
- Use of specialized software tools for modern bridge design (H. Bokan, D. Janjic, J. Stampler)
- China Bridge Congress 2007, Chongqing, China (28.-30.10.2007)
- Structural Analysis of the Sutong Bridge (D. Janjic)
- China Bridge Congress 2007, Chongqing, China (28.-30.10.2007)
- Balanced Cantilever Bridge: One typical example of necessary full non-linear analysis of piers (M. Beier, D. Janjic), IBRACON – 49° Congresso Brasileiro do Concreto, Sao Paulo, Brasil (01.-05.09.2007)
- Integrated Computer Wind Design for Bridge Engineering (J. Stampler, D. Janjic, A. Domaingo)
- IABSE conference "Improving Infrastructure – Bringing People closer worldwide", Weimar (19.-21.09.2007)
- Computer Aided Design & Erection of Long Suspension Bridges (D. Janjic, H. Sorsky, H. Bokan)
- IABSE conference "Improving Infrastructure – Bringing People closer worldwide", Weimar 19.-21.09.2007)
- The Discrete Vortex Method for Estimating the Aerodynamic Coefficients of Bridge Decks in Preliminary Design: A Wind Tunnel Validation with three Brazilian Projects (M. Beier, D. Janjic)
- IABSE conference "Improving Infrastructure – Bringing People closer worldwide", Weimar 19.-21.09.2007)
- Computational Fluid Dynamics als Ergänzung zu Windkanalmessungen im Brückenbau (J. Stampler, D. Janjic, A. Domaingo)
- D-A-C-H-Tagung 2007 – Aktuelle Themen des Erdbebeningenieurwesens und der Baudynamik, Wien (27.-29.09.2007)
- Long Span Bridges Computer Aided Wind Design (D. Janjic)
- 13th National Conference on Structural Wind Engineering, Tongji University, Shanghai, China (10.-14.10.2007)
- Standardized Serviceability Tests of Railway Bridges (M. Heiden, J. Stampler, D. Janjic, C. Handel)
- EVACES07 – Experimental Vibration Analysis of Civil Engineering Structures, Porto, Portugal (24.-26.10.2007)
- Consistent Non-Linear Structural Analysis of Long-Span-Bridges (D. Janjic, H. Sorsky)
- ACECOMS - The Tenth East Asia Pacific Conference on Structural Engineering and Construction, Bangkok (03.-05.08.2006)
- Use of specialized software tools for modern bridge design (J. Stampler, D. Janjic, H. Bokan, M. Heiden)

SECON – International Conference on Bridges, Dubrovnik (21.-24.05.2006)
Optimisation of the Tensioning Schedule for Cable-Stayed-Bridges using Dynamic Software (H. Bokan, D. Janjic, M. Heiden)
IABSE Conference – Responding to Tomorrows' Challenges in Structural Engineering, Budapest (13.-15.09.2006)
Erection Control TDV's single tool solution for bridge design and construction (H. Bokan, D. Janjic)
IABSE Conference – Responding to Tomorrows' Challenges in Structural Engineering, Budapest (13.-15.09.2006)
Computer Aided Design of Prestressed Concrete and Composite Bridges using novel TDV software (D. Janjic), AUSTROADS – Bridge Conference Bridging the Gap, Perth, Australia (12.-15.09.2006)
Aspects of Wind Buffeting Response and Non-linear Structural Analysis for Cable-Stayed Bridges (D. Janjic), International Conference on Bridge Engineering – Challenges in the 21st Century, Hong Kong (01.-03.11.2006)
Global Analysis of the Su tong Cable-Stayed Bridge (J. Miao, R. Xiao, M. Pei, X. Zhang, M. Pircher, D. Janjic)
IABSE Conference “Role of Structural Engineers towards Reduction of Poverty”, New Delhi (19.-22.02.2005)
Consistent Numerical Model for Wind Buffeting Analysis of Long-Span Bridges (D. Janjic, H. Pircher)
IABSE Conference “Metropolitan Habitats and Infrastructure”, Shanghai, China (22.-24.09.2004)
Long Term Effects & Specific Problems in Concrete and Composite Bridges (D. Janjic, M. Pircher)
SECON Conference “Durability and Maintenance of Concrete Structures”, Dubrovnik (21.-23.10.2004)
Rolling Stock Analysis of Various Railway Bridges in Austria (M. Heiden, M. Pircher, H. Pircher, D. Janjic)
IABSE Conference “Structures for high-speed railway transportation”, Antwerp, Belgium (27.-29.08.2003)
Towards a Wholistic Approach to Bridge Design (M. Pircher, D. Janjic, H. Pircher, R. Q. Bridge)
IABSE Conference “Towards a Better Built Environment – Innovation, Sustainability, Information Technology”, Melbourne (11.-13.09.2002)

ARTICLES:

Consistent Analysis Method for Long Term Effects in Composite Bridges (D. Janjic, H. Bokan, J. Stampler), Konstrukce Media, Issue # 4 -2010

Un Metodo Coerente per L'Analisi degli Effetti a Lungo Termine (Strutture Compositel) (D. Janjic, H. Bokan, J. Stampler), Strade & Autostrade, Issue # 4 - 2010

L'Affidabilità Nell'Analisi Dei Ponti Strallati (D. Janjic, J. Stampler), Strade & Autostrade, Issue # 4-2009.

Complete Computer Aided Design of Precast Segmental and Balanced Cantilever Bridges (A. Domaingo, D. Janjic), Bridge Design & Engineering, Issue # 50/2008.

Chinese Checkers (D. Janjic, J. Stampler), Bridge Design & Engineering, Issue # 46/2007.

Consistent Analysis of Cable Stayed Bridges (D. Janjic, J. Stampler), ACECOMS Magazine, June 2007.

Tough Challenge (D. Janjic, A. Bruer), Bridge Design & Engineering, Issue # 44/2006.

Graphic details (D. Janjic, J. Stampler), Bridge Design & Engineering, Issue # 42/2006.

One-stop shop (D. Janjic, B. Bintley), Bridge Design & Engineering, Issue # 41/2005.

Brückenbaustoftware für Verbundkonstruktionen. Stahlbau # 74/2005, Heft 9.

Optimization of Cable Tensioning in Cable-Stayed Bridges (D. Janjic, M. Pircher, H. Pircher)
Journal of Bridge Engineering © ASCE, MAY/JUNE 2003.

Computer Aided Deflection Control in Bridge Design (M. Pircher, D. Janjic, R. Q. Bridge), Australian Journal of Structural Engineering, Volume 4, No. 1, 2003.

The Unit Load Method – Some Recent Applications (D. Janjic, M. Pircher, H. Pircher), Advances in Steel Structures, Vol II, Chan, Teng and Chung (Eds.) © 2002 Elsevier Science Ltd.

Dorian Janjic
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TDV Consulting Group
Dorian & Partner GmbH
Gleisdorfer Gasse 5
8010 Graz, Austria