

3rd UIC workshop on masonry arch bridges
MIK PARTNERS' DAYS
17-18 October 2019, University of Pécs, Hungary



An event co-organised by:



UNIVERSITY OF PÉCS
Faculty of Engineering and
Information Technology



INTERNATIONAL UNION
OF RAILWAYS



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DAY 1	Time	Title	Who
	09:00-10:00	Arrival and registration	
	Official Opening & Plenary Session		
	10:00-12:00	Welcome speeches MIK 4.0, Awards	Leaders of the University G. Medvegy, Dean
		Quality in architecture (in Hungarian with English translation)	ÉMI - Technical Assessment and Innovation
		Solar Decathlon 2019 - Creation of energy-efficient home (in Hungarian with English translation)	T. Kondor
		Engineering research and education for sustainable development (in Hungarian with English translation)	Z. Orban
	12:00-13:00	Lunch	
	1st session: STRUCTURES AND SUSTAINABILITY		
	13:00-14:45	Doing more with less: optimization-driven conceptual design of structures	M. Gilbert
Safety of Reinforced Concrete Bridges dating back to the '50s and '60s: case studies, degradation, maintenance and future strategies		A. Brencich	
Innovative solutions for the preservation of heritage masonry structures		J. Martín-Caro	
Analysis and retrofitting existing structures to improve seismic resistance		I. Guljas	
Discussions		All speakers	
14:45-15:00	Coffee break		
2nd session: UIC WORKSHOP ON MASONRY ARCH BRIDGES			
15:00-16:30	Welcome & introduction of invited speakers	H. Sattler	
	General information on the Masonry Arch Bridges project	Z. Orban	
	Structural behaviour	W. Harvey	
	Deterioration, inspection, monitoring	J. Martín-Caro, Z. Orban	
16:30-16:45	Coffee break		
16:45-18:00	Assessment	W. Harvey, M. Gilbert, A. Brencich	
18:30	Social dinner		

DAY 2	3rd session: UIC WORKSHOP ON MASONRY ARCH BRIDGES		
	08:30-10:30	Serviceability, permissible load, life expectancy	M. Gilbert, J. Martín-Caro, A. Tomor
	10:30-11:00	Coffee break	
	11:00-13:00	Repair, strengthening, extension of service life	J. Martín-Caro, A. Brencich
		Case studies, further research, discussions	W. Harvey, M Gilbert, Z. Orban & all speakers
13:00- 14:00	Lunch		



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Speakers of the masonry arch bridges workshop

Speakers	Organisation	Position
Dr. Adrienn Tomor	Univ. of West of England, UK	Senior Lecturer
Dr. José Martín-Caro	INES Consultores, Spain	General Director, Chief Engineer
Dr. Antonio Brencich	University of Genoa	Associate Professor
Prof. Matthew Gilbert	Univ. of Sheffield, UK	Full Professor
Prof. Bill Harvey	Bill Harvey Associates, UK	Full Professor
Dr. Zoltán Orbán	University of Pécs, Hungary	Associate Professor

Zoltán Orbán

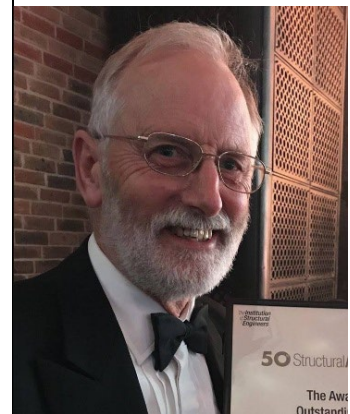
Zoltan Orban is Director of the Institute of Engineering and Smart Technology and leader of the Structural Diagnostics and Analysis Research Group at the University of Pécs, Hungary. Previously he worked as a bridge engineer at Hungarian Railways and was a member of UIC's Panel of Structural Experts Group from 2000 to 2014. He was initiator and chairman of the UIC project on the Assessment, Inspection and Maintenance of Masonry Arch Bridges and has been involved in numerous international projects related to bridges and historical structures.



Bill Harvey

Bill Harvey began researching arches in 1981. He wrote Archie-M, still a popular program for arch assessment in 1984, though it has been through many rebuilds since then. He set up a consultancy in 2000 where he and his son conduct analysis design and monitoring work, chiefly on arch bridges. Recent consulting work has included the Ordsall Chord and Manchester Museum of Science and Industry (The original Liverpool Road station of the Liverpool and Manchester railway). In 2016 he led the team conducting the Elevarch project which has won many awards.

After 37 years, he still gets surprises in arch behaviour and is still learning through challenging work.



Antonio Brencich

Antonio Brencich is Associate Professor of Structural Engineering and Director of the Civil Engineering Laboratories at the University of Genoa, Polytechnic School, since 2009. The Mechanics of Building Materials, Reinforced Concrete and Masonry Bridges have been his major research interests for the last 20 years. The application of theoretical and experimental results led to participating UIC projects and to the design of retrofitting of some bridges with innovative techniques in the Italian infrastructural network.



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Matthew Gilbert

Professor Matthew Gilbert is Director of Research in the Department of Civil & Structural Engineering at the University of Sheffield, UK. He has had an active interest in the behaviour of masonry arch bridges for more than 25 years, undertaking both experimental and numerical research studies. He is the recipient of prizes from both the Institution of Civil Engineers and the Institution of Structural Engineers for journal papers on masonry arch bridges. He is also the originator of the RING masonry arch bridge analysis software, in use in over 30 countries worldwide.



José Antonio Martín-Caro

Over his 20 years of experience, José A. Martín-Caro has combined teaching and research activities with a long track record of working on real world engineering projects. Taking a holistic approach, he has undertaken professional activities in the fields of structures, geotechnics and railway engineering, including monitoring, rehabilitation, repair and new works. His strong research background in infrastructure maintenance and cultural heritage puts him in a strong position to lead innovation in these areas, and to play an active role in national and international technological projects.



Adrienn Tomor

Adrienn Tomor is senior lecturer at the University of the West of England, Bristol, UK. Her research interest focuses on the long-term fatigue assessment and monitoring of masonry arch bridges. She is leading a series of bridges inspection courses for the UK Bridge Inspector Certification Scheme. Based the advantages (and limitations) of masonry arch bridges, she is working on reintroducing masonry arch bridges for new construction.



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