

**Final Programme** 

### Introduction

Wroclaw University of Technology is honoured to organize the next edition of the International Conference Footbridge. After successful three previous editions in 2002 (Paris), 2005 (Venice) and 2008 (Porto), the 4<sup>th</sup> International Conference Footbridge is held in **Wrocław** (**Poland**) on July 6<sup>th</sup> – 8<sup>th</sup>, 2011.

The Conference is held in Poland, a country which after joining the European Union strives for a prompt modernization of the transport infrastructure. Many communities around the world also begin or continue the process of such modernization, including pedestrian footbridges, which may significantly contribute to their future economic and cultural development. The investment costs, technology and execution time are crucial issues nowadays, so it is important to discuss solutions which are inexpensive and universal. Then, the main objective of the Conference, except for the presentation of impressive architectural and engineering achievements, is also the introduction of universal, aesthetic footbridges.

The keynote of the Conference is 'Attractive Structures at Reasonable Costs'.

From 216 abstracts submitted to the Conference the Scientific Committee accepted 162 papers from 38 countries for presentation, including 7 keynote lectures prepared by recognized specialists invited by the Organizing Committee.

We sincerely hope that the Conference will provide numerous opportunities for specialists from different countries to exchange opinions and that it will contribute to the quality improvement of new projects.

We express our thanks to the Authors of the papers for their valuable contribution, to the Members of the Scientific Committee and Advisory Committee for their valuable effort, to the Members of the Organizing Committee for their hard work during the Conference arrangement and to the Publisher for thorough edition of the Conference materials.

We wish many benefits - scientific, technical as well as tourist, to all participants of the International Conference FOOTBRIDGE 2011.

### **Main Topics**

- Planning and conceptual design
- Aesthetics and architecture
- Footbridges in urban area
- Structural analysis and behaviour
- Dynamics, vibration tests and control
- New materials and innovations
- Maintenance and operation
- Renovation, repair and refurbishment
- Special case studies
- Guidelines and codes

### Workshop

Following the good tradition of the previous editions of Footbridge Conference a pre-conference workshop is arranged for those who would like to extend their knowledge and interests. The workshop is held on **July 5th**, **2011**.

This Workshop, with the main theme 'Materials for Footbridges - Recent Achievements' will handle major outcomes in application of modern material solutions for footbridges.

Traditional domination of structural steel and cement concrete in bridge structures is undeniable. However constant progress in development in structural design gives us several possibilities to consider modern materials recently predicted to the space and marine structures.

Industrial production of several unique materials makes them available on the common market. These phenomena coupled with much more reasonable price open new fields for wide range of advanced products. New fiber composites, modern metal alloys, chemically and structurally modified wood, structural glass and polymer concrete seem to be attractive alternative to traditional materials.

### Workshop topics

- Timber solution for footbridges
- Aluminum alloy in bridges
- Steel wires and tension rods
- Fiber composites structural solutions
- Fiber composites wires in structures
- Protective coating systems used on footbridges
- Glass for footbridges
- Footbridge analysis numerical approach

### **Conference Committees**

#### **Scientific Committee**

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# **General Programme**

Building	Time	5 <sup>th</sup> July (TUESDAY)
	9:00-10:00	Registration (foyer)
	10:00-11:10	Workshop session 1 (241)
	11:10-11:40	Coffee-break
A-1	11:40-13:15	Workshop session 2 (241)
	13:15-13:45	Discussion
	13:45-15:00	Lunch
	15:00-16:20	Workshop session 3 (241)
	16:20-17:00	General discussion
A-1	19:30-22:00	Welcome reception

Building	Time	6 <sup>th</sup> July (WEDNESDAY)				
	7:30-8:30	F				
A-1	8:30-9:30	Opening	Opening ceremony (ma			
A-1	9:30-11:00	Key	note lectur	e 2		
	11:00-12:00	Open	Keynote lecture 3 Opening of exhibition Coffee-break			
	12:00-14:00	Parallel session 1 (0.31)	Parallel session 2 (0.32)	Parallel session 3 (1.30)		
C-13	14:00-15:30	Lunch				
	15:30-17:30	Parallel session 4 (0.31)	Parallel session 5 (0.32)	Parallel session 6 (1.30)		
Town hall	19:30-22:00	Footbridge awards				

Building	Time	7th July (THURSDAY)				
	8:00-9:00	Coffee				
A-1	9:00-10:00	Keynote lecture 4 Keynote lecture 5				
	10:00-11:00	Plei	Plenary session 1			
	11:00-12:00		Poster presentations 1 Coffee-break			
	12:00-14:00	Parallel session 7 (0.31)	Parallel session 8 (0.32)	Parallel session 9 (1.30)		
C-13	14:00-15:30	Lunch				
	15:30-17:30	Parallel session 10 (0.31)	Parallel session 11 (0.32)	Parallel session 12 (1.30)		
Centennial hall	19:30-00:00		Gala dinner			

Building	Time	8 <sup>th</sup> July (FRIDAY)				
	8:00-9:00	Coffee				
A-1	9:00-10:00	Keynote lecture 6 Keynote lecture 7				
A-1	10:00-11:00	Plenary session 2				
	11:00-12:00	Poster presentations 2 Coffee-break				
C-13	12:00-14:00	Parallel session 13Parallel session 14Parallel session 15 (0.31)(0.31)(0.32)(1.30)				
	14:00-15:30	Lunch				
A-1	15:30-17:00	Closing ceremony (main hall)				

# **Detailed Programme of Workshop**

5<sup>th</sup> July (TUESDAY)

10:00 - 17:00

Start	End		Workshop session 1		
10:00	11:10				Room: 241 / A-1
10:00	10:10	1	Krzysztof Żółtowski Gdańsk University of Technology	WELCOME	
10:10	10:40	2	Henryk Zobel, Thakaa Alkhafaji Warsaw University of Technology	TIMBER AS A STRUCTURAL MATERIAL	
10:40	11:10	3	Tomasz Siwowski Rzeszów University of Technology	ALUMINIUM ALLOYS - AN EXCELLENT FOOTBRIDGES	MATERIAL FOR

11:10 11:40

Coffee-break

Start	End		Workshop session 2		
11:40	13:45				Room: 241 / A-1
11:40	12:10	1	Erik Mellier Freyssinet International	CABLE TECHNOLOGIES FOR FOOTBRI	DGES
12:10	12:25	2	Andrzej Berger Mosty Gdańsk	CABLES IN FOOTBRIDGES - POLISH IM	PLEMENTATIONS
12:25	12:55	3	Morten Gantriis Sørensen Fiberline Composites	FRP BRIDGE DECKS - LIGHT AND DUR	ABLE SOLUTIONS
12:55	13:15	4	Monika Miłek <i>Megachemi</i> e	PROTECTIVE COATING SYSTEMS USE	D ON FOOTBRIDGES
13:15	13:45			Discussion	

13:45	15:00	Lunch
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Start	End		Workshop session 3		
15:00	17:00				Room: 241 / A-1
15:00	15:20	1	Andreas Keil Schlaich Bergermann und Partner	GLASS FOR FOOTBRIDGES - A SUBTLE	TUBE IN LISBON
15:20	15:50	2	Thomas Fink SOFiSTiK	CASE STUDIES OF FOOTBRIDGES DES SOFTWARE	GIGNED WITH SOFISTIK
15:50	16:20	3	Jürgen Bellmann SOFiSTiK	CONSTRUCTION STAGES AND FORCE IN FOOTBRIDGE ANLYSIS	SHAPE OPTIMIZATION
16:20	17:00			General discussion	



# **Detailed Programme of Oral Presentations**

### 6<sup>th</sup> July (WEDNESDAY) 8:30 – 9:30

Start	End		Opening ceremony								
08:30	09:30	Cha	Chairs: Jan Biliszczuk, Jan Bień, Wojciech Radomski, Tadeusz Więckowski, Antoni Szydło, Helena Russell, Paweł Hawryszków, Kazimierz Furtak, Ueli Brunner								
	1		Jan Biliszczuk	WELCOME							
	00.30	09:30	09:30	09:30		2	Tadeusz Więckowski	WELCOME			
					3	Wojciech Radomski	WELCOME				
08:30					4	Ueli Brunner	WELCOME				
00.50	09.50	6	Jan Bień	SHORT INFORMATION ABOUT POLAND,	WROCŁAW AND WUT						
	-							7	Maciej Hildebrand	BRIDGES IN POLAND	
		8	Jan Bień	MEDALS OF POLISH SOCIETY OF BRIDG	E ENGINEERS						
		9	Paweł Hawryszków	ORGANIZING INFORMATION							

### 6<sup>th</sup> July (WEDNESDAY) 9:30 – 11:00

Start	End	Keynote lectures			
9:30	11:00		Chairs: Wojciech R	adomski, Enzo Siviero	Place: Main Hall / A-1
09:30	10:00	K1	Brian Duguid	BENCHMARKING COST AND VALUE OF FOOTBRIDGES	LANDMARK
10:00	10:30	K2	Cezary Bednarski	THE 'CHAINED' BRIDGE (ATTRACTIVE STRUCTURES AT REASONABLE COST?)	
10:30	11:00	K3	3 Jan Biliszczuk, Wojciech Barcik FOOTBRIDGES IN POLAND – THE HISTORY AND PRESENT STATE		ORY AND PRESENT

# 6<sup>th</sup> July (WEDNESDAY) 12:00 – 14:00

Start	End		Parallel session 1			
12:00	14:00		Inspiration	s and Limitations in Footbridge Desig	n	
12.00	14.00		Chairs: Krzysztof	Berger, Andrzej Kulawik	Room: 0.31 / C-13	
12:00	12:15	1	Avery Louise Bang, Amy Floren	CORPORATE / NGO PARTNERSHIP FOR FOOTBRIDGE TECHNOLOGIES IN THE DI		
12:15	12:30	2	Nan Hu, Gonglian Dai	THE NECESSITY OF ADDING AESTHETIC FUTURE CODES	CONTENTS TO	
12:30	12:45	3	Martin Knight, Simon Fryer	COMBINING ENGINEERING AND AESTHE CENTRE LINK, LONDON	TICS: THE TOWN	
12:45	13:00	4	Guillermo Capellán Miguel, Héctor Beade, Juan José Arenas de Pablo, Pablo Alfonso, Marianela García	FOOTBRIDGE OVER THE TIRÓN RIVER IN A DESIGN INSPIRED BY THE WINE CULTI		
13:00	13:15	5	Marek Salamak	INSPIRATIONS IN FOOTBRIDGE DESIGNI	NG	
13:15	13:30	6	Beate Vlaanderen - Geimer	ARCHITECTURE, INFRASTRUCTURE AND	) ENVIRONMENT	
13:30	13:45	7	Alessandra Tosone, Renato Morganti, Danilo Di Donato	THE FINITE LIGHT: SYMBOL AND CONST FOOTBRIDGE	RUCTIVE NATURE OF	
13:45	14:00	8	Christian Ernst	KØGE PEDESTRIAN BRIDGE. (INTERNAT IN SMALL SCALE	IONAL) COOPERATION	

Start	End	Parallel session 2				
12:00	14:00		Footbi	idges over Transportation Routes	ges over Transportation Routes	
12.00	14.00		Chairs: Wojciech Siwowski, Paul Sanders Room: 0.32 / C-13			
12:00	12:15	1	John Anderson, Marlize van Zyl	MARKGRAAFF PEDESTRIAN BRIDGE: AN NETWORK ARCH BRIDGE	UN-BRACED STEEL	
12:15	12:30	2	Tiaan Kramer, Edwin Kruger, Raimond Miller	LYNNWOOD GLEN PEDESTRIAN AND PIF	PE BRIDGE	
12:30	12:45	3	Alan Mordey	THE REPLACEMENT OF HEATH TOWN FO WOLVERHAMPTON, ENGLAND	OOTBRIDGE,	
12:45	13:00	4	Douglas Watt, Pankaj Garg, Alan Mordey	FOOTBRIDGES FOR THE M50 PPP UPGRADE, DUBLIN, IRELAND		
13:00	13:15	5	Jiří Stráský, Petr Mojzik, Vladimir Puda, Radim Nečas	BICYCLIST AND PEDESTRIAN BRIDGE AU MOTORWAY D1, BOHUMIN, CZECH REPU		
13:15	13:30	6	Sarah Skorpen, Gerrit Visser, Edwin Kruger	THE DESIGN AND CONSTRUCTION OF T PEDESTRIAN BRIDGE	HE NEW 7TH AVENUE	
13:30	13:45	7	Guillermo Capellán Miguel, Miguel Sacristán M., Juan José Arenas de Pablo	DELICIAS FOOTBRIDGE IN ZARAGOZA (S STRUCTURE TO RECEIVE THE HIGH SPE		
13:45	14:00	8	Xavier Font	CAN GILI FOOTBRIDGE OVER THE BV-14 GRANOLLERS	32 HIGHWAY IN	



Start	End		Parallel session 3					
12:00	14:00		Footbridges and Environment I					
12.00	14.00		Chairs: Andreas	s Keil, Vladimir Slivker	Room: 1.30 / C-13			
12:00	12:15	1	David Baird, Chris Hendy, Rachel Jones, Patrick Wong, David Smith	DESIGN OF THE OLYMPIC PARK BRIDGE L01				
12:15	12:30	2	Stanisław Sipiński, Krzysztof Topolewicz, Marek Jusik, Mirosław Filipiak	MALTA FOOTBRIDGE – POZNAŃ – POLAND				
12:30	12:45	3	Edmund Budka, Wojciech Lorenc, Adam Stempniewicz, Paweł Wątroba	DESIGN OF A NEW FOOTBRIDGE NEXT TO EURO 2012 STADIUM IN WROCŁAW				
12:45	13:00	4	Conor Lavery, Keith Brownlie	UNIVERSITY OF LIMERICK 'LIVING' BRID	GE			
13:00	13:15	5	José Romo, José Soriano, Daniel Jimenez	NAJERA FOOTBRIDGE				
13:15	13:30	6	Giorgio Masotti, Luca Humair	FOOTBRIDGE OVER VERZASCA RIVER (CH) - SWITZERLAND				
13:30	13:45	7	Giorgio Masotti, Fabio Gervasoni	CABLE-STAYED FOOTBRIDGE OVER TICINO RIVER (CH) - SWITZERLAND				
13:45	14:00	8	Massimo Majowiecki, Nicola Cosentino	EXPERIENCES ON FOOTBRIDGE CONCE VS. DYNAMIC PERFORMANCES	PTUAL DESIGN			

# 6<sup>th</sup> July (WEDNESDAY) 15:30 – 17:30

Start	End		Parallel session 4				
15:30	17:30	Footbridge Dynamics I					
15.50	17.50		Chairs: Antonio Adão	da Fonseca, João Fonseca	Room: 0.31 / C-13		
15:30	15:45	1	Gee-Cheol Kim, Joo-Won Kang	APPLICATION OF EQUIVALENT WALKING ANALYSIS OF FOOTBRIDGE VIBRATION	LOADS FOR EFFICIENT		
15:45	16:00	2	Krzysztof Żółtowski, Andrzej Kozakiewicz	THE NEW FOOTBRIDGE IN CITY OF CRAC DESIGN AND FINAL VERIFICATION IN TE			
16:00	16:15	3	Caspar Breman, Herke Stuit, Bert Snijder	DYNAMIC ANALYSIS OF THE ROTTERDAM CENTRAL STATION FOOTBRIDGE			
16:15	16:30	4	Daia Zwicky, Julien Bielmann				
16:30	16:45	5	Carmelo Gentile, Annibale Luigi Materazzi, Filippo Ubertini	OPERATIONAL MODAL TESTING AND AN SPAN FOOTBRIDGE	ALYSIS OF A LONG		
16:45	17:00	6	Albert Ortiz, Jhon Sanchez, Peter Thomson	DYNAMIC CHARACTERIZATION OF COLOMBIAN FOOTBRIDGE DUE TO PEDESTRIAN LOADS			
17:00	17:15	7	Peter Tanner, Juan Luis Bellod, David Sanz	DYNAMIC LOAD TESTS ON NON CONVENTIONAL FOOTBRIDGES			
17:15	17:30	8	João Fonseca, Clemente Pinto, Carlos Azevedo	ABOUT THE CONSTRUCTION AND DYNAL CARPINTEIRA FOOTBRIDGE	MIC BEHAVIOR OF		

Start	End	////	Parallel session 5				
15:30	17:30			Urban Footbridges I			
10.00	17.50		Chairs: Manfred	Kauser, Jerzy Onysyk	Room: 0.32 / C-13		
15:30	15:45	1	Juan José Arenas de Pablo, Guillermo Capellán Miguel, Emilio Merino Rasillo	LA CAVA FOOTBRIDGE IN LOGROÑO. INNOVATIVE DESIGN FOR AN URBAN CROSSING			
15:45	16:00	2	Jamey Barbas, Michael Williams	DESIGN AND CONSTRUCTION OF LINK BRIDGE, YAS HOTEL, ABU DHABI			
16:00	16:15	3	Juan A. Sobrino, Ricardo Ferraz	THREE PEDESTRIAN BRIDGES IN URBAN ENVIRONMENT			
16:15	16:30	4	Pier Giorgio Malerba, Paolo Galli, Marco di Domizio, Matteo Patelli	THE NEW EUROPA PEDESTRIAN BRIDGE IN PARMA			
16:30	16:45	5	Davood Liaghat, Kit Powell-Williams, Massimo Capasso	PONTE DELLA MUSICA: AN URBAN BRIDGE IN ROME			
16:45	17:00	6	Rudolf Brandstötter	LINK 27. A NEW FOOTBRIDGE IN THE WEST OF VIENNA, AUSTRIA			
17:00	17:15	Т	Bartlomiej Halaczek, Martin Knight	A NEW, SUSTAINABLE BRIDGE FOR THE MARGARETENGÜRTEL BRIDG			

Start	End		Parallel session 6				
15:30	17:30		Fo	potbridges and Environment II			
10.00	17.50		Chairs: Massimo M	ajowiecki, Marek Łagoda	Room: 1.30 / C-13		
15:30	15:45	1	Enzo Siviero, Lorenzo Attolico	FOOTBRIDGE OVER BRENTELLA CHANI THE CYCLE TRACK IN VIA PELOSA (PAE			
15:45	16:00	2	Héctor Beade, Guillermo Capellán Miguel, Juan José Arenas de Pablo, Pablo Alfonso, Juan Ruiz	BUTTERFLY WINGS. LAS NORIAS FOOTBRIDGE OVER THE EBRO RIVER IN LOGROÑO (SPAIN)			
16:00	16:15	3	Jonah Ptak, Ravi Ronny	CONTEXT-SENSITIVE SOLUTIONS IN COMMUNITY DEVELOPMENT PROJECTS			
16:15	16:30	4	Thomas Hermeking, Michael Rinklin	INSTALLATION OF A CABLE SUSPENDED BRIDGE IN THE NATURE RESERVE URFTSEE: VICTOR NEELS BRIDGE			
16:30	16:45	5	Andreas Keil, Sebastian Linden	FOOTBRIDGE OVER THE RHEIN-HERNE GELSENKIRCHEN, GERMANY	-CANAL IN		
16:45	17:00	6	Stanislav Brtan, Tomas Kulhavy	FOOTBRIDGE ACROSS OSTRAVICE RIVER IN FRYDEK-MISTEK, CZECH REPUBLIC			
17:00	17:15	7	James Marks, Kandiah Kuhendran	PEACE BRIDGE, DERRY~LONDONDERRY			
17:15	17:30	8	Sławomir Barczak	FOOTBRIDGE ON THE SAN RIVER IN TH TO ULUCZ	E TOWN OF WITRYLOW		



# 7<sup>th</sup> July (THURSDAY) 9:00 – 11:00

Start	End		Keynote lectures				
09:00	10:00		Chairs: Jan Biliszczuk, Mike Schlaich Place: Main Hall / A				
09:00	09:30	K4	Henryk Zobel, Thakaa Alkhafaji	CONTEMPORARY STRUCTURAL SOLUTIONS OF TIMBER PEDESTRIAN BRIDGES			
09:30	10:00	K5	Enzo Siviero, Michele Culatti, Danila Natalini	CONCEPTUAL DESIGN OF FOOTBRIDGES IN THE SCHOOL OF ARCHITECTURE IN VENICE - ITALY			

Start	End		Plenary session 1				
10:00	11:00		Chairs: Jan Bie	eń, Graeme Dundas	Place: Main Hall / A-1		
10:00	10:15	P1	David Baird, Steven Cook, Patrick Wong, Martin Kirk	FOOTBRIDGES FOR THE LONDON 2012 OLYMPIC AND PARALYMPIC GAMES			
10:15	10:30	P2	Tomasz Siwowski, Piotr Żółtowski, Krzysztof Żółtowski, Jan Biliszczuk	THE NEW ARCH FOOTBRIDGE OVER VISTULA RIVER IN CRACOW			
10:30	10:45	P3	David Smith, Tony Smith, Manuela Chiarello, Alan Ho	DUBAI METRO FOOTBRIDGE DESIGN			
10:45	11:00	P4	Dietmar Feichtinger, José Luis Fuentes, Andreas Keil, Michael Zimmermann	PASSERELLE SUR NANTERRE – SPATIA	L PLAY OF FORCES		

# 7<sup>th</sup> July (THURSDAY) 12:00 – 14:00

Start	End		Parallel session 7				
12:00	14:00		Footbridge Dynamics II				
12.00	14.00		Chairs: Zbigniew	/ójcicki, Ingbert Mangerig Room: 0.31 / C-13 RESONANT VIBRATIONS OF A CABLE-STAYED FOOTBRIDGE			
12:00	12:15	1	Danuta Bryja Anna Woszczyna	RESONANT VIBRATIONS OF A CABLE-STA UNDER GUSTY WIND WITH TIME DEPENDE VELOCITY			
12:15	12:30	2	Hongli Li, Christos T. Georgakis, Z.Q. Chen	THE RESPONSE SPECTRUM METHODOLOGY CONSIDERING INTER- AND INTRA-SUBJECT VARIABILITY			
12:30	12:45	3	Hadi Moghadasi Faridani, Majid Barghian, Leila Moghadasi	PROPOSING A NEW MODEL OF HANGERS IN PEDESTRIAN SUSPENSION BRIDGES TO SOLVE HANGERS SLACKNESS PROBLEM			
12:45	13:00	4	Katrien Van Nimmen, Peter Van den Broeck, Bram Gezels, Guido De Roeck, Geert Lombaert	OPERATIONAL MODAL ANALYSIS AND VIBRATION SERVICEABILITY ASSESSMENT OF A FOOTBRIDGE			
13:00	13:15	5	Henryk Jan Ciurej, Piotr Gwozdziewicz	OPTIMIZATION OF LOCALIZATION AND PA MULTIPLE TUNED MASS DAMPERS ON LIG FOOTBRIDGES			
13:15	13:30	6	Jörn Scheller, Uwe Starossek	DESIGN AND EXPERIMENTAL VERIFICATION OF A NEW ACTIVE			
13:30	13:45	7	Andrzej Flaga, Michał Polak	EFFECTIVENESE OF NON-LINEAR TUNED VISCOUS-PENDULUM DAMPER IN HORIZONTAL VIBRATION REDUCTION OF FOOTBRIDGES			
13:45	14:00	8	Christiane Butz, Christian Schuermann, Oliver Benicke	TUNED MASS DAMPERS FOR THE FOOTBI AUTOSTADT IN WOLFSBURG, GERMANY	RIDGE OF VW		

Start	End		Parallel session 8				
12:00	14:00			Urban Footbridges II			
12.00	14.00		Chairs: Paweł Haw	ryszków, Bratislav Stipanic	Room: 0.32 / C-13		
12:00	12:15	1	John Anderson, Mervyn Lewis, Stephen Agar	STEEL CABLE STAYED BRIDGES: ATTRACTIVE STRUCTURES THAT CAN BE DEVELOPED AT AN AFFORDABLE PRICE			
12:15	12:30	2	John Anderson, Paul Vink				
12:30	12:45	3	W. Victor Anderson, Joanne McCall				
12:45	13:00	4	Jan Biliszczuk, Tomasz Kamiński, Robert Toczkiewicz	THE TECHNICAL DESIGN OF KAZIMIERZ-LUDWINOW			
13:00	13:15	5	Robert Beasley	OHIO AND ERIE CANAL TOWPATH	PEDESTRIAN BRIDGES		
13:15	13:30	6	Peter Lyttle, Jesper Henriksen	TRADESTON FOOTBRIDGE			
13:30	13:45	Т	Werner Sobek, Wolfgang Straub, Wolfgang Sundermann	RECONSTRUCTION OF THE JOSEF EBERLE BRIDGE IN			
13:45	14:00	8	Enzo Siviero Lorenzo Attolico	RARI NANTES FOOTBRIDGE IN PA	DUA		

Start	End		Parallel session 9				
12:00	14:00		Footbridges and Environment III				
12.00	14.00		Chairs: Igor Koly	ushev, Kazimierz Łatak	Room: 1.30 / C-13		
12:00	12:15	1	Josef Schmees, Mirosław Kubiak, Bartłomiej Karpiński	BETWEEN THE TREETOPS - FOOTBRIDGE IN THARANDT BOTANIC GARDEN			
12:15	12:30	2	Malcolm Robert Sutton	A TALE OF TWO FOOTBRIDGES – PROOF THAT A REDESIGN CAN STILL ACHIEVE SIGNATURE STATUS AT AN AFFORDABLE COST			
12:30	12:45	3	Carlos Castanon, Alvaro Serrano, Julio Martinez-Calzon	ARGANZUELA HELICOIDAL FOOTBRIDGE OVER THE MANZANARES RIVER			
12:45	13:00	4	Mario Guisasola	VARIABLE DEPTH FOOTBRIDGES			
13:00	13:15	5	Rok Mlakar, Viktor Markelj	A BRIDGE TO THE CAVE. THE NEW 'MARII ŠKOCJAN CAVES PARK IN SLOVENIA	NIČ' BRIDGE IN THE		
13:15	13:30	6	Manuel Reventós Rovira, Jordi Pascual Gilabert, Guillem Collell Mundet, Juan Carlos Rosa Garcia, Oriol Garcia Arribas	, WORKS. ENGINYERIA REVENTÓS.			
13:30	13:45	7	Alessio Pipinato	DESIGN OF A NEW FOOTBRIDGE OVER THE ADIGE RIVER			
13:45	14:00	8	Thomas Cooper, Brent Whitcomb, Stanley Szabelak	PEDESTRIAN BRIDGE FOR TRANSIT ORIE	NTED DEVELOPMENT		

# 7<sup>th</sup> July (THURSDAY)

15:30 - 17:30

Start	End		Parallel session 10			
15:30	17:30			Footbridge Dynamics III		
13.30	17.30		Chairs: Ian Air	worth, Michał Majka Room: 0.31 / C-13		
15:30	15:45	1	Marek Pańtak	DYNAMIC CHARACTERISTICS OF MEDIUM SPAN TRUSS, CABLE- STAYED AND SUSPENSION STEEL FOOTBRIDGES UNDER HUMAN- INDUCED EXCITATION		
15:45	16:00	2	Federica Tubino, Giuseppe Piccardo	A LOADING MODEL FOR THE INTERPRET VIBRATIONS OF FLEXIBLE FOOTBRIDGES		
16:00	16:15	3	Jarosław Bęc, Tomasz Lipecki, Andrzej Flaga	AERODYNAMIC ANALYSIS OF TWO FOOTBRIDGES IN CRACOW		
16:15	16:30	4	Elsa Caetano, Álvaro Cunha, Luís Câncio Martins	ASSESSMENT OF RUNNING PEDESTRIAN INDUCED VIBRATIONS		
16:30	16:45	5	Thomas Canor, Gaëtan Kerschen, Vincent Denoël			
16:45	17:00	6	Francesco Ricciardelli, Michele Mafrici, Einar T. Ingólfsson	MOTION-DEPENDENT LATERAL WALKING FOOTBRIDGES	FORCES ON	
17:00	17:15	7	Jan Biliszczuk, Zbigniew Wójcicki, Wojciech Pakos, Janusz Tadla, Jacek Grosel, Wojciech Sawicki	CABLE-STAYED FOOTBRIDGE MODEL		
17:15	17:30	8	Andrzej Flaga, Marek Pańtak	CASE STUDY OF LIGHTWEIGHT STEEL FO VIBRATIONS WITH RESPECT TO OWN VIE CRITERIA FOR FOOTBRIDGES		

Start	End	Parallel session 11					
15:30	17:30		Investigation, Analysis and Design I				
13.30	17.50		Chairs: Heinrich Kre	euzinger, Janusz Hołowaty	Room: 0.32 / C-13		
15:30	15:45	1	Paul Archbold, Brian Mullarney	THE INFLUENCE OF SELECTED GAIT PA VERTICAL PEDESTRIAN LOADING	ARAMETERS ON		
15:45	16:00	2	Petr Kocourek, Michal Jurík, Radim Nečas, Jiří Stráský	CURVED STRESS RIBBON AND FLAT ARCH PEDESTRIAN BRIDGES			
16:00	16:15	3	Jozef Gocál, Josef Vičan, Marián Sýkora	THEORETICAL AND EXPERIMENTAL ANALYSIS OF TIMBER FOOTBRIDGE			
16:15	16:30	4	Radim Nečas, Michala Hrnčířová, Jiří Stráský	FLAT ARCH STIFFENED BY A SUSPENSION CABLE			
16:30	16:45	5	Bruno Briseghella, Baochun Chen, Luigi Fenu, Wenjin Huang, Tobia Zordan	TENSEGRITY FOOTBRIDGES WITH ARCH AND STRIGHT DECK: COMPARISON OF THEIR STRUCTURAL BEHAVIOUR			
16:45	17:00	6	Schaun Valdovinos	STAWAMUS CHIEF PEDESTRIAN BRIDGE, BRITISH COLUMBIA, CANADA			
17:00	17:15	7	Philippe Pécol, Stefano Dal Pont, Silvano Erlicher, Joanna Bodgi, Pierre Argoul	A 2D DISCRETE MODEL FOR CROWD-STRUCTURE INTERACTION			
17:15	17:30	8	Tim Black	OPTMISATION IN FOOTBRIDGE DESIGN			

Start	End		Parallel session 12					
15:30	17:30		Operation, Mair	ntenance and Revitalization of Footbridges				
13.30	17.30		Chairs: Marek Sala	amak, Edward Marcinków	Room: 1.30 / C-13			
15:30	15:45	1	Manuel Reventós Rovira, Jordi Pascual Gilabert, Guillem Collell Mundet, Jaume Guàrdia Tomàs	FOOTBRIDGES IN BRIDGES				
15:45	16:00	2	Charles Redfield, Sajid Abbas	BIKEPATH ON THE SAN FRANCISCO-OAK	LAND BAY BRIDGE			
16:00	16:15	3	Michel Moussard	WIDENING EXISTING BRIDGES WITH LATERAL FOOTBRIDGES: THE CALLENGE OF MATCHING OLD AND NEW				
16:15	16:30	4	Giancarlo Guadagnini, Maurizio Merli, Giuseppe Musinu	"PONTE NUOVO" AND CONSTRUCTION OF TWO NEW STEEL				
16:30	16:45	5	Jerzy Onysyk, Jerzy Jasieńko, Mariusz Sułkowski, Jacek Szczepański	REVITALIZATION OF FOOTBRIDGES AS C CULTURAL LANDSCAPE	OMPONENTS OF			
16:45	17:00	6	Enzo Siviero, Alessandro Stocco	NEW FOOTBRIDGE OVER MALONE RIVEF CANAVESE (TURIN)	R IN SAN BENIGNO			
17:00	17:15	7	Luca Zanaica, Roberto Zanon	VINTAGE-STYLE LATTICE FOOTBRIDGE II NATURAL PARK	N THE TICINO			
17:15	17:30	8	Héctor Beade, Guillermo Capellán Miguel, Pablo Alfonso, Santiago Guerra Soto, Marianela García	RECONSTRUCTION OF A STEEL FOOTBR GRAND HARBOUR BREAKWATER (MALTA				



## 8<sup>th</sup> July (FRIDAY) 9:00 – 11:00

Start	End	Keynote lectures			
09:00	10:00	Chairs: Krzysztof		Żółtowski, Elsa Caetano	Place: Main Hall / A-1
09:00	09:30	K6	Aleksandar Pavic	VERTICAL CROWD DYNAMIC ACTION ON FOOTBRIDGES: REVIEW OF DESIGN GUIDELINES AND THEIR APPLICATION	
09:30	10:00	K7	Andrzej Flaga	WIND TUNNEL TESTS AND AERODYNAMICAL CALCULATIONS OF NON-TYPICAL FOOTBRIDGES	

Start	End	Plenary session 2				
10:00	11:00	Chairs: Andrze		j Flaga, Danuta Bryja	Place: Main Hall / A-1	
10:00	10:15	P5	Jan Koláček, Radim Nečas, Jiří Stráský	RDIDGES		
10:15	10:30	P6	Qi Ye, Jingang Chen, Guang-Nan Fanjiang, Dayong Jin	DESIGN OF A 3D DOUBLE-HELIX FOOTBRIDGE FOR XINJIN, CHINA		
10:30	10:45	P7	Paweł Hawryszków	ANALYSIS OF DYNAMICAL SENSITIVITY AND COMFORT OF FOOTBRIDGES		
10:45	11:00	P8	lan Ainsworth, Kathy Franklin, Peter Burnton	KURILPA BRIDGE – A CASE STUDY		

# 8<sup>th</sup> July (FRIDAY)

12:00 - 14:00

Start	End	Parallel session 13				
12:00	14:00	Innovative Materials in Footbridge Construction				
12.00	14.00	Chairs: Tomasz		Kamiński, Daia Zwicky	Room: 0.31 / C-13	
12:00	12:15	1	Alessio Pipinato	LIGHTWEIGHT STRUCTURES AND INNOVATIVE MATERIALS FOR FOOTBRIDGES		
12:15	12:30	2	Alessandro Adilardi, Salvatore Russo	FIRST CONSTRUCTED FULL COMPOSITE PEDESTRIAN BRIDGE IN ITALY		
12:30	12:45	3	Juan A. Sobrino, Arantxa Olmo, Lara Pellegrini, Ricardo Ferraz	DESIGN AND CONSTRUCTION OF HYBRID STEEL AND GFRP FOOTBRIDGES		
12:45	13:00	4	Andrey Ushakov, Sergey Ozerov, Alexander Safonov	SPIRAL PEDESTRIAN BRIDGE MADE OF COMPOSITE MATERIALS		
13:00	13:15	5	Alistair Oliver	INTEGRATED TIMBER AND STEEL FOOTBRIDGES		
13:15	13:30	6	Vitaliy Temirgaliev	ANALYSIS OF POSSIBILITIES OF FOOTBRIDGE CONSTRUCTION APPLYING INNOVATE SYNTHETIC MATERIALS		
13:30	13:45	7	Markus Hennecke, Georg Kusser			
13:45	14:00	8	David Greenwold, Simon Fryer, Karl Haglund	DESIGN AND CONSTRUCTION OF THE NORTH BANK BRIDGE		

Parallel session 14 Investigation, Analysis and Design II Chairs: Maciei Hildebrand, Aleksandar Pavic Room: 0.32 / C-13 Sigrid Adriaenssens. 1 FINDING FORMS FOR FOOTBRIDGES: A DESIGNER'S TOOLBOX 12.00 12.15 Patrick d'Ambrosio APPLICATION OF SUSTAINABILITY RATING SYSTEMS TO Allison B. Halpern, 12.15 12.30 2 Sigrid Adriaenssens FOOTBRIDGE DESIGN Witold Doboszyński, INTEGRATED FOOTBRIDGES - IS IT WORTH TO CONTINUE 3 12:30 12:45 Krzvsztof Kania. CONSTRUCTING THEM? Marcin Wróbel Michal Maika. DESIGN ASPECTS OF INTEGRAL FOOTBRIDGES ON EXAMPLE 12.45 13:00 4 Michael Carroll OF THE BROADMEADOW ESTUARY FOOTBRIDGE THE USE OF FINITE ELEMENT ANALYSIS IN THE DESIGN OF 13:00 13:15 5 Philip Icke FOOTBRIDGES AN EXTENDED FORCE DENSITY METHOD FOR THE FORM 6 13:15 13:30 Manuel Quagliaroli FINDING OF SUSPENDED PEDESTRIAN BRIDGES ANALYSIS OF THE FOOTBRIDGE OF THE BORYSPIL AIRPORT Mvkhailo Malgin. 7 13:30 13:45 Kostiantvn Medvediev TRAFFIC INTERCHANGE Przemysław Kuras, DETERMINING THE DYNAMIC CHARACTERISTICS OF 8 FOOTBRIDGES USING GROUND-BASED INTERFEROMETRIC 13:45 14:00 Janusz Rusek, Olga Sukta RADAR

Start	End	Parallel session 15				
12:00	14:00	Sponsors' session				
12.00	14.00		Chair: E	Room: 1.30 / C-13		
12:00	12:20	1	Redaelli	SPONSOR'S PRESENTATION		
12:20	12:40	2	Robert Herceg SOFiSTiK	FINITE ELEMENT ANALYSIS WITH SOFISTIK SOFTWARE		
12:40	13:00	3	Krzysztof Berger Freyssinet Polska	EUGÈNE FREYSSINET – 100 YEARS OF PRESTRESSING		
13:00	13:20	4	Jerzy Onysyk Research and Design Office MOSTY-WROCŁAW	TECHNOLOGICAL ASPECTS OF CONTRUCTION OF A CONCRETE CABLE-STAYED BRIDGE ALONG THE HIGHWAY RING ROAD OF WROCLAW		

8<sup>th</sup> July (FRIDAY)

15:30 - 17:00

Start	End	Closing ceremony				
15:30	17:00			Jan Bień, Wojciech Radomski, awryszków, Krzysztof Żółtowski	Place: Main Hall / A-1	
15:30		1	Krzysztof Żółtowski	WORKSHOP SUMMARY		
	17:30	2	Mike Schlaich	CONFERENCE SUMMARY		
		3	Jan Bień	YOUNG AUTHORS PRIZE		
		4	Jan Biliszczuk	ANNOUNCEMENT OF FOOTBRIDGE 2014 ORGANIZER	CONFERENCE	
		5	Paweł Hawryszków	ORGANIZING SUMMARY		



# **Detailed Programme of Poster Presentations**

# 7<sup>th</sup> July (THURSDAY)

11:00 – 12:00

Start	End	Poster presentations 1			
11:00	12:00			Place: Foyer / A-1	
		1	Paolo Legrenzi, Emanuele Arielli	PSYCHOLOGY AND ENVIRONMENT: HOMAGE TO WROCLAW'S FOOTBRIDGES	
		2	Kazimierz Flaga, Krystyna Januszkiewicz	ON THE AESTHETICS AND TECHNICAL EFFICIENCY OF CURRENT ARCHED FOOTBRIDGES	
		3	Ewa Maria Kido	FOOTBRIDGES UPON THE WATER - AESTHETIC INTEGRATION	
		4	Janusz Hołowaty	THE CONSTRUCTION OF AN ARCH FOOTBRIDGE OVER AN INNER RING-ROAD IN SZCZECIN	
		5	Manuel Reventós Rovira, Guillem Collell Mundet, Jaume Guàrdia Tomàs, Jordi Pascual Gilabert	WORKS IN PROGRESS	
		6	Przemysław Pielach, Dariusz Malinowski	REALIZATION OF A RECREATIONAL PIER ON THE VISTULA RIVER IN PŁOCK	
		7	Grażyna Łagoda, Marek Łagoda	FOOTBRIDGE ACROSS VISTULA RIVER BETWEEN KAZIMIERZ DOLNY AND JANOWIEC	
	12:00	8	Michał Pigoń, Sławomir Biegański, Marek Jagiełło, Roman Höffner	THE CABLE-STAYED FOOTBRIDGE NEAR THE EURO 2012 STADIUM IN WROCLAW	
11:00		9	Jan Biliszczuk, Piotr Woźny, Hanna Onysyk	SEARCH OF SUITABLE ARCHITECTURAL FORM OF FOOTBRIDGES LOCATED IN ATTRACTIVE TOURIST AREAS	
			10	Marcin Wrzesiński	FOOTBRIDGES ON HYDROTECHNICAL BUILDINGS OF WROCŁAW WATERWAY SYSTEM
		11	Krzysztof Kolasa, Mirosław Kubiak	IN HARMONY WITH NATURE	
		12	Marek Jagiełło, Piotr Wanecki, Tomasz Boniecki	CONCEPT OF FOOTBRIDGE CONNECTING SEPOLNO WITH SZCZYTNICKI PARK	
		13	Kazimierz Łatak, Piotr Lewicki	KAZIMIERZ-LUDWINÓW BIKE- AND FOOTBRIDGE OVER THE RIVER VISTULA IN KRAKOW	
		14	Bratislav Stipanic, Milos Zivanovic	CONCEPT DESIGN PROPOSAL OF PEDESTRIAN-CYCLE BRIDGE ACROSS IBAR RIVER IN KRALJEVO (SERBIA)	
			15	Francisco Burgos Ruiz, Ginés Garrido Colmenero, Alejandro Bernabeu Larena	LENT-TABOR FOOTBRIDGE, MARIBOR, SLOVENIA
		16	Kazimierz Łatak, Piotr Lewicki	LENT - TABOR BIKE- AND FOOTBRIDGE ON THE DRAVA IN MARIBOR	
		17	Tomasz Piotrowski	FAIRMONT PEDESTRIAN BRIDGE, CITY OF FAIRMONT, WV	
		18	Tomasz Siwowski, Artur Wysocki	THE CIRCULAR FOOTBRIDGE IN THE CITY CENTER	

# 8<sup>th</sup> July (FRIDAY)

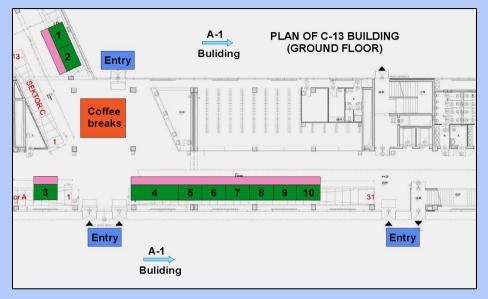
### 11:00 - 12:00

Start	End	Poster presentations 2			
11:00	12:00			Place: Foyer / A-1	
		1	Enzo Siviero, Fabrizia Zorzenon	PALESTRO CICLABILE: A PROJECT OF URBAN REGENERATION IN PADUA	
		2	Pat Moore, Job Schroën, Sander Den Blanken	THE CONCEPTUAL DESIGN OF THE PONTE PALAZZO	
		3	Enzo Siviero, Lorenzo Attolico	TRANSFORMATION OF THE CITY OF PADUA FOR THE BENEFIT OF "WEAK" USERS: FOOTBRIDGE OVER SAN GREGORIO CHANNEL (PADUA, ITALY)	
		4	Andrzej S. Nowak, Anna M. Rakoczy	LIVE LOAD MODEL FOR PEDESTRIAN BRIDGES	
		5	Piotr Bętkowski	ON A METHOD OF ESTIMATING FLEXIBILITY OF STRANDS OF CABLE-STAYED FOOTBRIDGES	
		6	Anna Makarova, Viktorija Volkova	THE INVESTIGATION OF THE DEFLECTED MODE OF SPAN STRUCTURES	
		7	Lee Franck, Aurelio Muttoni	DEVELOPMENT AND DESIGN OF AN INNOVATIVE OPENING MECHANISM FOR A FOOTBRIDGE	
		8	Hendrik Blontrock	MOVEABLE PEDESTRIAN BRIDGE AT BRUSSELS	
	12:00	9	Yanwen Xiao, Xin Ruan	CONCEPTUAL DESIGN OF A NEW MOVABLE SPANNING STRUCTURE PROTOTYPE WITH ADJUSTABLE UNDER- CLEARANCE	
		10	Peter Curran, Steve Thompson	MEDIA CITY FOOTBRIDGE, SALFORD QUAYS	
11:00		11	Jan Bień, Mieszko Kużawa	DETERIORATION OF FOOTBRIDGES	
			12	Jesús de Sebastián, Iván M. Díaz, Carlos M. Casado, Alí Vasallo, Alfonso V. Poncela, Antolín Lorenzana	ENVIRONMENTAL AND CROWD INFLUENCE ON THE DYNAMIC BEHAVIOUR OF AN IN-SERVICE FOOTBRIDGE
			13	Enzo Siviero, Alessandro Stocco	EXECUTIVE EXTREMELY URGENT PROJECT FOR THE REHABILITATION OF VEHICULAR AND PEDESTRIAN TRAFFIC OF THE BRIDGE OVER CORACE RIVER IN GIMIGLIANO MUNICIPALITY
		14	John Bourke, Su Taylor, Des Robinson	PRECAST CONCRETE ARCH FOOTBRIDGES USING THE FLEXIARCH™ SYSTEM	
		15	Józef Rabiega, Janusz Tadla	SUSPENTION FOOTBRIDGE OVER MAŁA PANEW IN KRUPSKI MŁYN	
		16	Viktorija Volkova	BRIDGE HEALTH MONITORING USING NONLINEAR APPROACHES: QUALITATIVE IDENTIFICATION	
		17	Albert Lantoukh- Liashchenko	MARKOV CHAIN MODELS FOR THE RESIDUAL SERVICE LIFE PREDICTION OF BRIDGES	
		18	Jan Biliszczuk, Maciej Hildebrand, Hanna Onysyk	EXPERIENCE IN STRUCTURAL MONITORING OF SELECTED LARGE BRIDGES AND ITS POSSIBLE APPLICATION FOR FOOTBRIDGES	



## Exhibition

### Plan of Exhibition Area



### List of Exhibitors



### **Evening Events**







#### Welcome reception

Date: 5th July (TUESDAY)

Time: 19:30 - 22:00

- Place: WUT A-1 Registration
- Welcome of participants
- Snacks and drinks
- Concert (string trio, piano quartet)

#### Footbridge awards

#### Place: Town hall Footbridge Awards

Date: 6th July (WEDNESDAY)

Time: 19:30 - 22:00

- Snacks and drinks
- Concert (harp)

### Gala dinner

Place: Centennial hall Date: 7th July (THURSDAY) Time: 19:30 - 00:00

- Gala dinner
- Concert (jazz trio, cello)
- Multimedia fountain show

### **Excursions**







#### Wrocław sightseeing

Additional programme for accompanying persons and participants of the Conference interested in Wrocław sightseeing. Two options are available: sightseeing using special vehicles (6th July) or cruise on the Odra River (7th July). A guide will be accompanying during the sightseeing.

Date: 6th and 7th July (WEDNESDAY and THURSDAY) Cost: 40 FUR / 160 PI N

#### Technical visit

Technical visit will be organised for interested Conference participants and accompanying persons on the construction site of the second longest cable-stayed bridge in Poland.

Date: 9th July (SATURDAY) Cost: FREE

#### Ksiaż Castle sightseeing

Conference participants could take the opportunity Ksiaż Castle sightseeing, which is located close to Wrocław and is one the most beautiful baroque buildings in Poland.

Date: 9th July (SATURDAY) Cost: 60 EUR / 240 PLN



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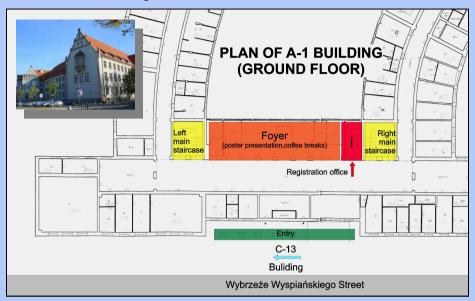


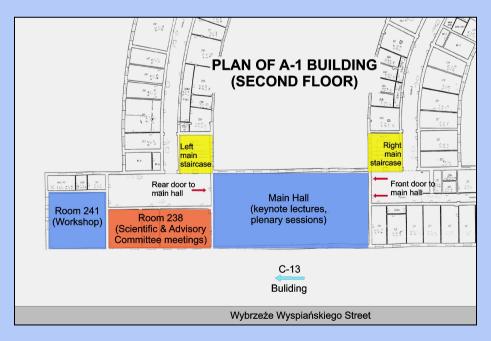
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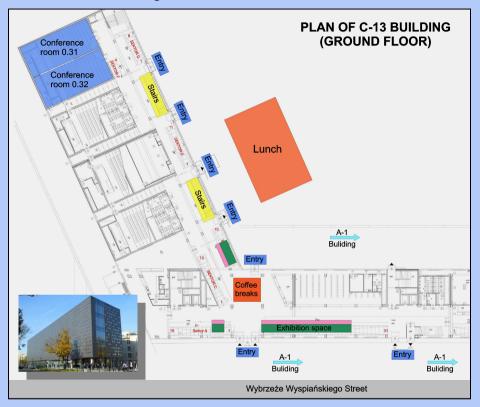
### Plan of A-1 Building

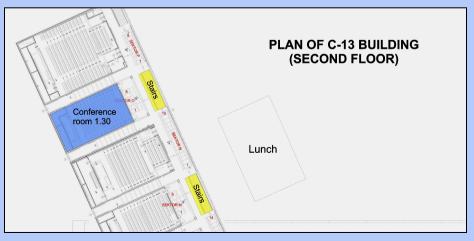




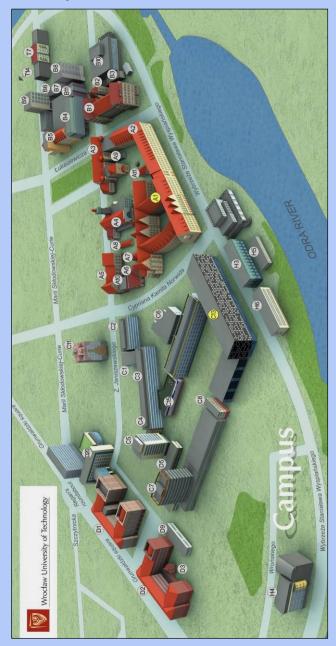
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Wrocław, Poland, July 6-8	

## Plan of C-13 Building





# Plan of WUT Campus



# Plan of Wrocław Centre

