

1-2 July 2010 | Istanbul, Turkey



Sixth International Hydrail Conference

1-2 July 2010 - Bahcesehir University - Istanbul, Turkey

The Sixth International Hydrail Conference has been scheduled for 1 & 2 July 2010 on the campus of Bahcesehir University in Istanbul, Turkey. Through the generous support of the International Centre for Hydrogen Energy Technologies (ICHET), a project of the United Nations Industrial Development Organization (UNIDO), the conference is being offered at no charge to attendees. However, because space is limited, we ask that you register via the www.hydrail.org website.

Focused on facilitating global collaboration among researchers, industry and government, the conference is the world's only event dedicated to the development of a niche hydrogen transportation technology. The event will feature the latest research, deployment opportunities and industry developments in the Middle East, Japan, Korea, European Union and the United States, as well as a presentation by the first-ever doctoral candidate focused on hydrogen train technology.

• Websites & Information

- **Conference & Registration** - www.hydrail.org
- UNIDO-ICHET - www.unido-ichet.org
- Bahcesehir University - <http://english.bahcesehir.edu.tr>



**INTERNATIONAL CENTRE
FOR HYDROGEN ENERGY TECHNOLOGIES**

A project of the United Nations Industrial Development Organization
supported by the Turkish Ministry of Energy and Natural Resources



Speakers & Presentations

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subject to change

Presenter	Country	Affiliation
Dr. Seky Chang	South Korea	Korean Railway Research Institute
Dmitry Grigorovich <i>(invited)</i>	Russia	All-Russia Institute of Rail Technology
Dr. Mustafa Hatipoglu	Turkey	International Centre for Hydrogen Energy Technologies (UNIDO-ICHET)
Jason Hoyle	United States	Appalachian State University
Tarun Huria	Italy / India	University of Pisa / Indian Railways
Dr. Keiichiro Kondo	Japan	Chiba University
Andreas Hoffrichter	United Kingdom	University of Birmingham
Stan Thompson	United States	Hydrogen Economy Advancement Team
Dr. Carlos Navas	Spain	EU Hydrogen & Fuel Cells
Herbert Wancura	Austria	NTDA Energia
Dr. Cecilia Wallmark	Sweden	Svenska Rotor Maskiner AB



AGENDA (draft version 21-June-2010)

Sixth International Hydrail Conference, 1-2 July 2010, Bahcesehir University Auditorium, Istanbul

Date	Start Time	Segment	Activity	Name	Title	
1-Jul-2010	8:30	Arrive & Sign-In				
		Welcome				
	9:15		Introduction		Introduce conference schedule, agenda, etc.	
			Welcome		Welcome, introduce Turkish Railways	
			Turkish Railways		Past, present and future of rail in Turkey	
			Hydrail Basics			
	10:15		Presentation	Stan Thompson	The Vision of Hydrail	
			Presentation	Jason Hoyle	The Value of Hydrail	
			Hydrogen & Fuel Cells			
			Moderator			
	11:00		Presentation	Dr. Mustafa Hatipoglu	Hydrogen, The Fuel of the Future and the ICHET Projects	
			Presentation	Dr. Carlos Navas	EU Hydrogen and Fuel Cells Policy	
			Presentation	Dr. Cecilia Wallmark	Fuel cell air supply systems on trains	
			Questions	(Moderator)		
	12:30		LUNCH	<i>provided courtesy of UNIDO-ICHET</i>		
			Hydrail - 1			
			Moderator			
	13:30		Presentation	Dr. Seky Chang	Green Growth and Vision of Hydrogen in Korea	
			Presentation	Tarun Huria	<i>University of Pisa / formerly Indian Railways</i>	
			Presentation	Dr. Keiichiro Kondo	Two Pioneering Hydrail Projects in Japan and technical issues for the hydrails	
		Presentation (invited)	Dr. Anatoly Lokhach	All-Russia Institute of Rail Technology		
		Questions	(Moderator)			
15:30		BREAK				
		Hydrail - 2				
		Moderator				
15:45		Presentation	Herbert Wancura	<i>NTDA Energia</i>		
		Presentation	Andreas Hoffrichter	Environmental Efficiency of Railway Technology		
		Presentation	Jason Hoyle	Hydrail Development in North America		
		Questions	(Moderator)			
17:30		ADJOURN				
19:00		EVENING MEAL				
2-Jul-2010	8:30	Arrive & Sign-In	Bahcesehir University Auditorium (same location as previous day)			
	8:45	Welcome & Introduction				
		Istanbul Site Visit				
	9:00		Travel by boat to Eminonu and Haydarpasa			
			Tour oldest train station in turkey			
11:00		ADJOURN CONFERENCE				

Location & Lodging

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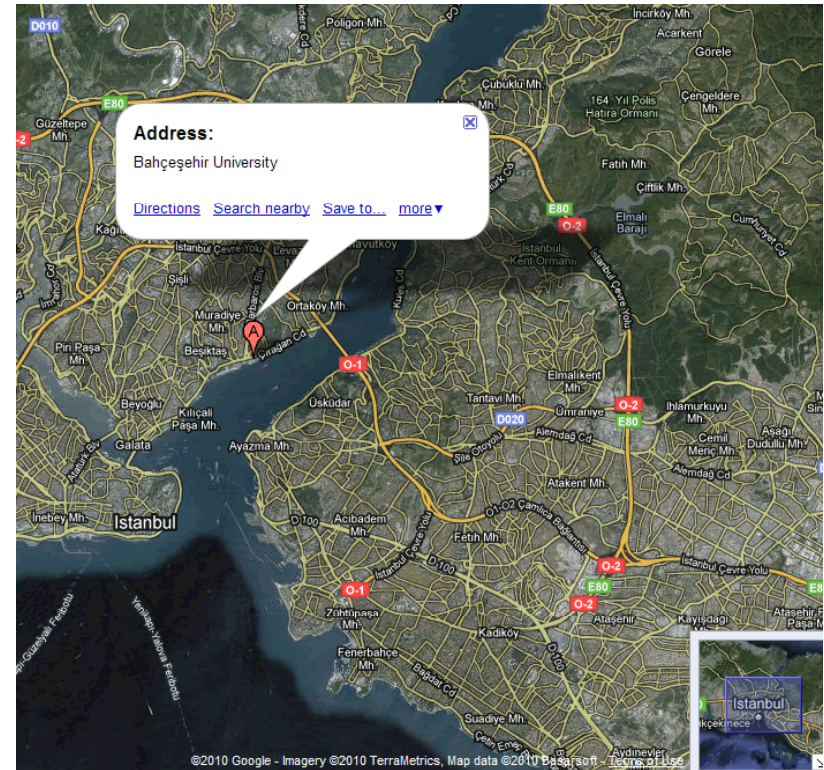
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- **Bahçeşehir University Auditorium**

- Çırağan Caddesi 34353 Beşiktaş / İSTANBUL
- Tel: 0 212 381 00 00
- [Google Maps™ location](#)

- **Local Hotels (about 1 km)**

- [La Maison](#)
 - Müvezzi Caddesi No:43 Çırağan, Beşiktaş, 34349 Istanbul
 - Tel: +90 212 227 42 63
- [Conrad Hotel](#)
 - Cihannuma Mah Saray Cd No5 Besiktas, Istanbul, 34353
 - Tel: +90 212 310 25 25
- [Taslik Hotel](#)
 - Süleyman Seba Caddesi No75, Valideçeşme P.K. 34357, Maçka, Istanbul
 - Tel: +90 212 227 83 10



Travel Information

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- Visa Information

- [Ministry of Foreign Affairs](#)
- <http://www.mfa.gov.tr/default.en.mfa>

- Tourism

- <http://www.goturkey.com/>
- <http://www.tourismturkey.org/>

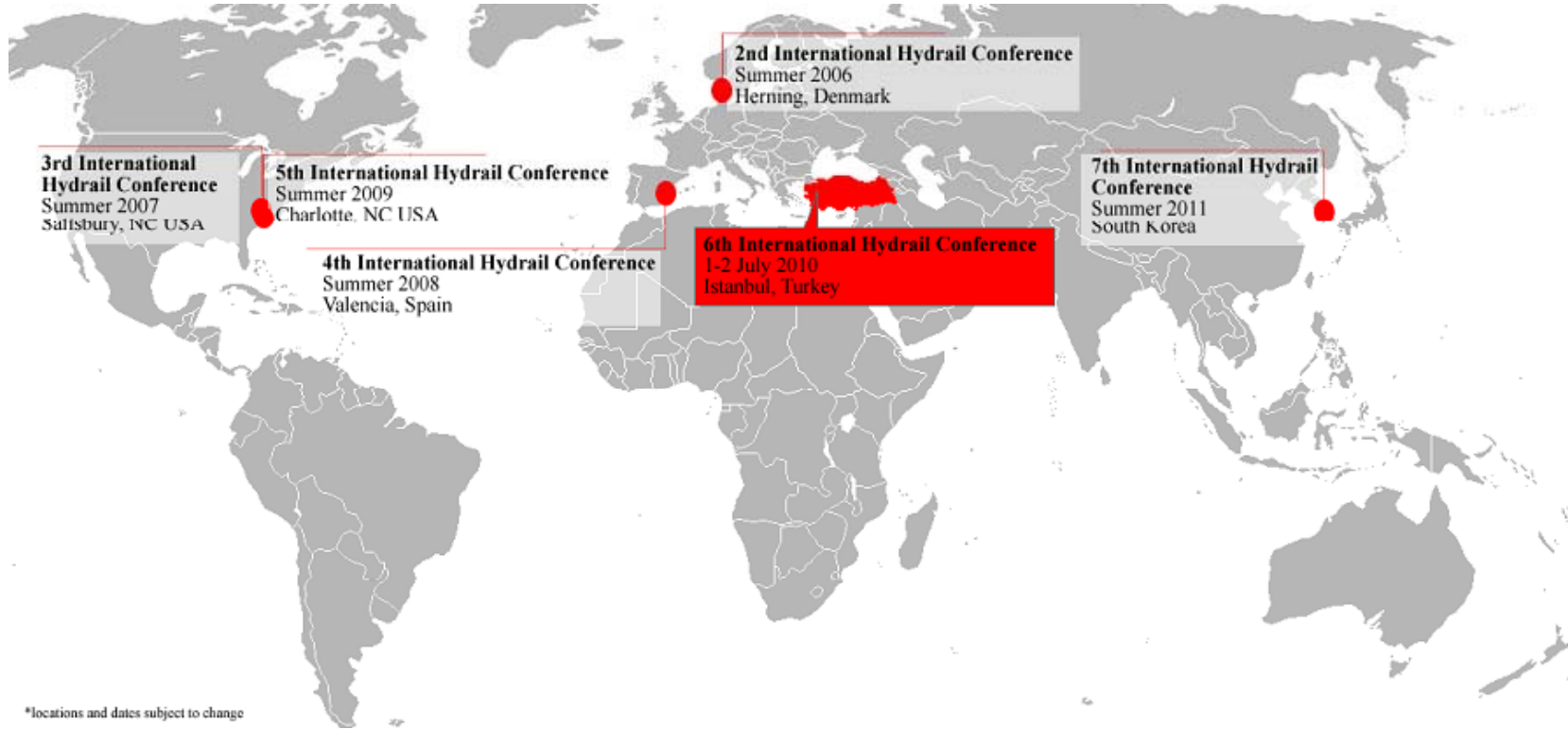


Hydrail Conference History

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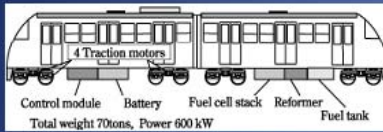


Hydrail Technology Timeline

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Railway Train, 2001



Railway Technical Research Institute (Japan)
http://www.rtri.co.jp/infocent/PC2/UCT_3/azusa.html

Mine Locomotive, 2002

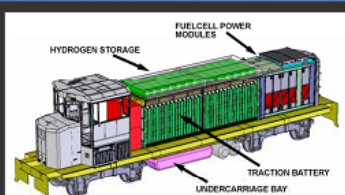


Vehicle Projects & Fuel Cell Propulsion Institute (USA and Canada)
<http://www.fuelcellpropulsion.org/Mining/Websites/FCMineLoco.htm>

Fuelcell-Hybrid Switcher, 2008



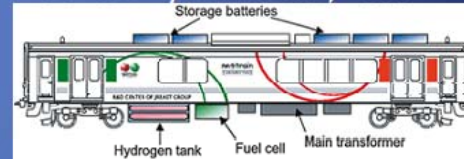
Fuelcell-Hybrid Switcher - The switcher platform vehicle is shown prior to painting. At present, the diesel fuel tank and generator have been removed in preparation for installing the fuel cell powerplant and hydrogen storage. (Photo courtesy of FuelPower Hybrid Technologies)



CAD Model of the Switcher Locomotive - The locomotive's fuel cell prime mover provides 250 kW of continuous power for traction or power-to-grid, and the auxiliary traction battery allows it transient power in excess of 1 MW.

Vehicle Projects & Fuel Cell Propulsion Institute (USA)
<http://www.fuelcellpropulsion.org/FCM/Websites/FCM10.htm>

Fuel Cell Hybrid Railcar, 2006



East Japan Railway Co. (Japan)
<http://www.jr-east.co.jp/EN/press/2006/04/040604.htm>

