

INVITATION

Programme from december 3rd
to december 6th 2009

International Seminar - Workshop on Power
Transmission in High Speed Railway Systems

Friday December 4th 2009
from 9am to 6pm

POSSIBILITIES OFFERED

TO PARTICIPANTS

Day 1

Thursday december 3rd
Arrival
Installation at Hotel

Day 2

Friday december 4th
Seminar - Workshop
Official dinner at ESIEE-Amiens

Day 3

Saturday december 5th
Morning: visit of The Marquenterre Park, in the Somme Bay
Afternoon: visit of Amiens' Cathedral and tour of the city
Dinner

Day 4

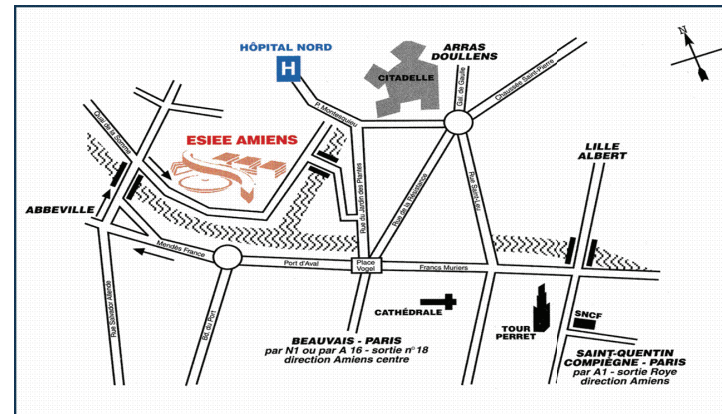
Sunday december 6th
Departure

PRICES*

All duration - Day 1 to 4 :	175 €
Day 1 & 2 :	85 €
Dinner day 1 & Official dinner included	
Day 2 only :	65 €
Official dinner included	
Day 2 & 3 :	155 €

* without Hotel

ACCESS MAP



By car

From PARIS
motorway A16-exit 17 >> AMIENS sud / DURY
motorway A1-exit 1 >> ROYE

From LILLE

motorway A1 then A29-towards >> AMIENS centre
cross the city centre-always straight

By train

From PARIS 1:10 from «gare du Nord»
From LILLE 1:30 from «gare LILLE Flandres»

From LONDON 2:38 - Eurostar

From BRUSSELS 1:21 - Thalys

By plane

From airport PARIS-BEAUVAIS-TILLE
From airport LILLE-LESQUIN
From airport PARIS-CHARLES DE GAULLE

www.esiee-amiens.fr

Power Transmission in High Speed Railways Systems

Keeping Innovations on Track



ESIEE
AMIENS

i-trans
Le ferroviaire au cœur des systèmes
de transport innovants



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International Seminar - Workshop on Power Transmission in High Speed Railway Systems

Key points of this Seminar - Workshop

Keeping Innovations on Track

In Europe, the railway industry is enjoying steady growth and success; however, the increasing harmonisation, legislation, and required standards of service (such as higher speed) are bringing new engineering problems.

Electric power collection is essential for the operation of the train, and this relies heavily on the reliable transmission of current between the catenary and the contact strip of the pantograph.

In 2011, as part of the i-Trans pole of competitiveness, ESIEE-Amiens is planning to establish a dynamic test platform, dedicated to current transmission systems for railway applications.

This associated project has been named "CADEMCE", for "Caractérisation Dynamique et Environnementale de Moyens de Captage Electrique", which means 'dynamic and environmental characterization of techniques for electric transmission'.

The aim of this project is to carry out experimental tests on the diverse electrical and mechanical sub-systems of the catenary and the pantograph contact strip of high-speed trains.

During this seminar, we will investigate the operating risks and interactions between harmonised railway networks and will identify and discuss the problems related to current transmission and to the 'catenary - contact strip - pantograph', including, but not limited to : wear, overheating, loss of contact and electric arcs.

We will then review the development tracks studied and assess the risks for railway stakeholders ; this work will then lay the foundations for future innovations.

December 4th 2009, Amphitheatre «Jules Verne» at ESIEE-Amiens.

9:00	Welcoming Coffee
9:15	Welcoming Speech by the Chairman of Workshop Session 1 : Dr Roger CESCHI, General Director, ESIEE-Amiens
	Opening Speech* Gilles DEMAILLY - President, Amiens Métropole Claude GEWERC - President, Conseil Régional de Picardie Michel DELBEQ - President, i-Trans
9:45	SNCF Mechanical and Thermal Simulation Tools for Designing the Pantograph-Catenary Interface Dr A. BOBILLOT, SNCF, France
10:15	Design and testing of innovative pantographs : a general overview Prof B. ALLOTTA & Dr L. PUGI, Università degli Studi di Firenze, Italy
10:45	Break
	Chairman of Workshop Session 2 : Prof Ahmed RACHID, UPJV
11:00	The functioning principle of a pantograph and its interface with the contact wire Dr Steve CULLINGFORD & Bernard LANGENHAN, Brecknell Willis, UK
11:30	Simulation models of catenary-pantograph dynamic interaction, Validation and Applications Prof A. CARNICERO, ICAI UPCOMILLA, Madrid, Spain
12:00	Assessment quality of contact between pantograph & catenary , Simulation and Validation Dr Salima MANAI & Mohammed LEOUATNI, Alstom Transport, France
12:30	Lunch with the introduction of Bernard MULOT, Lead Project Manager, CLAE - ESIEE-Amiens

*subject to the participation of the speakers

	Chairman of Workshop Session 3 : Dr Simon WALTERS, University of Brighton
14:00	CADEMCE PROJECT Pantograph control by stochastic optimal control Dr R. CESCHI, ESIEE-Amiens, France
	Real time test rig and hardware-in-the-loop simulation platform for testing pantographs & catenaries interactions Dr A. MPANDA, ESIEE-Amiens, France
15:00	Characteristics of electromagnetic noises produced by the sliding contact between the catenary and pantograph and impacts on the GSM-R transmissions Dr V. DENIAU, INRETS, France
15:30	Break
	Chairman of Workshop Session 4 : Dr Augustin MPANDA, ESIEE-Amiens
15:45	Modelling pantograph catenary interaction using SIMPACK : EN50318 Test Case Thomas PARTARRIEU, Kevin CROS & François BARRAL, INTEC France SAS
16:15	Pantograph/Catenary Interaction Framework for Intelligent Control, Framework of PACIFIC Project Dr S. WALTERS, University of Brighton, UK, & Prof. A. RACHID, UPJV, France
16:45	Achievements on contact strip material for high-speed & high-current for electrified railway systems, Framework of INOCAP Project Dr L. CEBULSKI, Carbone Lorraine Applications Electriques, France
17:15	Round Table Dr D. CADET, Research Director, Alstom Transport
17:45	Closing Speech Prof Y. RAVALARD / Prof M. SHAWKY, i-Trans
	Conclusion* Christian MANABLE - President, Conseil Général de la Somme Michel DELPUECH - Préfet
20:30	Official Dinner Welcoming Speech by Bernard DESERABLE - President, CCI Amiens and ESIEE-Amiens