

# Smart Rivers 2019 Detailed Programme

## Monday 30th September 2019

8:00 – 21:00	Reception Hall, CCC Lyon	Registration
09:00 – 17:30	Hotel des Congrès	WG & Com Meetings
09:00 – 12:30	CCC Lyon	Short course – Characteristics of the waterways (WG 141)
09:00 – 12:30	CCC Lyon	Short course – MDTP (marina design training program)
11:00 – 12:30	CCC Lyon	Special session University Task Force
14:00 – 17:30	CCC Lyon	In Memoriam Claude Gressier
14:00 – 17:30	CCC Lyon	Short Course – Inland Waterway et banks protections
19:00 – 21:00	CCC Lyon	Welcome Reception

## Tuesday 1st October 2019

8:00 – 18:00	Reception Hall, CCC Lyon	Registration
09:00 – 10:30	Auditorium, CCC Lyon	Opening Ceremony

11:00 – 12:30	SESSION SPECIALE – IAGF	Room 1	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-1 Infrastructures technical design	Room 2 Chair: Xavier Bancal	IW TRANSPORT_ ECONOMICS – C-1 Corridor Strategies	Room 3 Chair: Michael Fastenbauer	SMART TRANSPORT – D-1 River Information Services 1	Room 4 Chair: Juergen Troegl	ENVIRONMENT–WWN – E-1 Engineering with Nature	Room 5 Chair: Jasna Muskatirovic
	Session spéciale IAGF Initiative pour l'Avenir des Grands Fleuves	Facilitator: Erik Orsenna	Optimization of the protection of a building site in the river: nautical aspects of the doubling of the SNCF bridge named « Pont des Anglais »	Bertrand de Bruyn	The Méditerranée Rhône Saône waterway logistic	Charles-Elie Allier	Inland Electronic Navigation Charts: new approach or new purpose?	Gert Morlion	Engineering With Nature for Rivers and Inland Water Infrastructure	Todd Bridges
			Conception standardisée sur les itinéraires Aisne et Meuse	Julien Vanwarreghem	Low water levels on the Rhine in 2018 and their economic impact on the inland navigation industry and on the industrial sector in Germany	Norbert Kriedel	A Spatial Data Infrastructure as the backbone of RIS – About the necessity to bring spatial awareness to flat-file nautical data	Jonathan Gallagher	Guidance for Thin Layer Placement of Dredged Material	Tim Welp
			Hydraulic loads on bottom constructions behind a storm surge barrier or weir: development of a rapid assessment method	Otto Weiler	Good Navigation Status (GNS) – A suitable concept for navigation improvements on rivers and canals? Lessons learned at the Rhine	Kai Kempmann	e-RIS, service d'information fluviale pour une navigation intelligente sur le Rhin supérieur	Raphaël WisselMann	Linking Ecosystem Services To Estuary Restoration At The German North Sea Coast	Johann Krebs
			Bouchures gonflables : quelles capacités de régulation ?	Julien Aubonnet	Multifunctional and multimodal role of waterways : Waterborne, Land development and water resources : the case of Seine-Scheldt	Nicolas Bour	Project Masterplan Digitalisation of Inland Waterways	Therry van der Burgt	Strategic Placement of Dredged Material from Riverine Environments for Restoring Marsh Habitat	Burton Suedel

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Tuesday 1st October 2019

14:00 – 15:30	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-1 Project Management	Room 1 Chair: Luc Van Damme	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-2 Asset Management 1	Room 2 Chair: Valérie Chabrier	IW TRANSPORT ECONOMICS – C-2 Port Strategies	Room 3 Chair: Nicolas Bour	SMART TRANSPORT – D-2 River Information Services 2	Room 4 Chair: Esteban Biondi	ENVIRONMENT-WWN – E-2 Climate & Extreme E-Weathers Effect	Room 5 Chair: Turi Fiorito	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-6 Navigable River Design	Room 6 Chair: B Soenghen
	Early contractor Involvement	Kenneth Willems	Mississippi Lock and Dam 21: Rehabilitation vs. Replacement for Submergible Tainter Gates	Chris Willcox	City-Port relationship and its influence in the social environment	Ramiro Lopez Saubidet	PIANC WG 125 – New challenges for RIS	Piet Creemers	Assesment of climate change effects on navigables conditions on the river branches of the Rhine in The Netherlands	Frederik Vinke	Guidelines for inland waterways in rivers	Dick ten Hove
	The social and environmental contributions of the increasing of gauge and capacity of Ampsin-Neuville lock site on the Meuse River	Stephane Barlet	Life Cycle Investment Strategies and Operational Risk Exposure for Critical Assets on the McClellan Kerr Arkansas River Navigation System	Robert Patev	Comparing national port strategies paves the way for new PIANC works	Geoffroy Caude	Interaction between RIS in inland navigation and ITS for roads. The bridge opening dilemma.	Mike Fafieanie	Accommodating Climate Change Uncertainties in Option Selection, Design and Investment for Resilient Waterborne Transport Infrastructure, up to and Beyond 2050	Laure Herbert	Impact of an irregular bank on the sailed trajectory of an inland ship	Antoine Bedos
	Contrat de Partenariat pour le remplacement de 29 barrages sur l'Aisne et la Meuse. Mise en Œuvre de 4 centrales hydroélectrique.	Laura Chapital	Safety and Security. Some experiences in Unauthorized	Sebastian Garcia	Le Port de Lyon, outil multimodal au service du développement du territoire	Pierre Meffre	AIRIS-PS Project for the complete implementation of RIS (River Information Services), in the Port of Seville and in the Guadalquivir Waterway	Rodrigo Garcia Orera	Understanding the Costs and Consequences of Extreme Weather Events	Jan Brooke	Automated Methodology to Assess Navigable Areas of Long Rivers for different vessels and hydraulic-meteo conditions	Raul Redondo
	DBFM New Flood Barrier Limmel, why integrated contracts lead to better performance	Ken Watzeels	Inventaires de qualification du patrimoine d'infrastructures VNF	Luc Bazerque	Development of the Port of Barranqueras and its role in the Paraguay – Parana Waterway	Ariel Jose Savarese	Enhancing Accessibility and Usability of Automatic Identification System (AIS) Data	Supriti Jaya Ghosh	Strengthening Resilience and Adapting Waterborne Transport Infrastructure	Panel discussion – invited experts	Waterway dimensions in perspective – Evolution du dimensionnement des voies navigables	Jean-Marc Deplaix

16:00 – 17:45	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-2 Channel Design	Room 1 Chair: Didier Bousmar	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-3 Asset management 2	Room 2 Chair: Jose Sanchez	IW TRANSPORT ECONOMICS – C-3 Modal shift to Waterway	Room 3 Chair: Andreas Dohms	SMART TRANSPORT – D-3 River Information Services 3	Room 4 Chair: Piet Creemers	ENVIRONMENT-WWN – E-3 Environmental issues	Room 5 Chair: Todd Bridges
	Analysis of Flow Fluctuation Characteristic and Improvement Measures in Navigable Tunnel	Long Zhu	Scheduling of maintenance interventions based on network reliability	Francesca Marsili	The modal shift process – ways to achieve an increased use of inland waterway transportation	Vendela Santén	Rhine Ports Informations System: a front running Port Community System in Europe	Emilie Gravier	RiverTri, une déchèterie fluviale de proximité, dans le centre-ville de Lyon	François Pyrek
	Optimisation des investissements dans les infrastructures de navigation grace à une chaine complète de modélisation	Nicolas Nerinx	Maintenance Management Without Using Probabilistic Methods? Step 1: Decision Preparation	Heike Schmidt-Baumlér	Constraints suffered and resources developed by a carrier	Christophe Mundutéguy	Smart reporting – Reducing reporting burdens along the Danube waterway Introducing reporting only once with single entering of data for IWT	Katrin Haselbauer	Reducing the Risk of Asian Carp Establishment in the Great Lakes: Challenges with Adapting Waterways to Protect Ecosystems	Kevin Knight
	Simulateur de navigation sur le Rhone et la Saone	Philippe Miroudot	Robustness of Navigation Infrastructure in Context of Risk-Based Maintenance	Jan Akkermann	Medlink Ports: Port Cooperation as a Key Factor of Modal Shift in Freight Developments	Fabienne Margail	Implementing River Information Services (RIS) – Lessons learned from the Rhine –	Gernot Pauli	Passe à poissons de Sauveterre	Frédéric Aury
	The influence of a waterway cross section size on a fuel consumption of an inland vessel – a sensitivity analysis	Wojciech Misiag	Risk based inspection and maintenance planning of miter gates	Thuong Dang Van	Assessing the robustness of Dutch Inland Ports	Poonam Taneja	The introduction of AIS AtoNs on the river Danube	Juergen Troegl	Approche innovante de compensation pour un grand canal	Emilie Ledein
							COMEX Elbe-Weser Corridor – Providing digital Aids to Navigation information via AIS and ECDIS	Stefan Bober	Thirty years' experience of reed belt protection in urban waterways	Christian Wolter

From 16:00	TBC	Young Professionnal Event
18:30 – 21:00	Congress Pier	Optionnal cruise to Lyon Confluences

Wednesday 2nd October 2019

8:00 – 18:00	Reception Hall, CCC Lyon	Registration
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Wednesday 2nd October 2019

09:00 – 10:30	SESSIONS SPÉCIALE – Développement des fleuves africains	Room 1 Chair: Bruno Georges	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-4 Lock Lengthening	Room 2 Chair: Erwin Pechtold	IW TRANSPORT_ ECONOMICS – C-4 Urban Waterway Logistics	Room 3 Chair: Pierre Meffre	SMART TRANSPORT – D-4 Remote Lock Operation	Room 4 Chair: Lieven Dejonckheere	ENVIRONMENT-WWN – E-4 Morphology of european rivers	Room 5 Chair: Zhao Gensheng
	CICOS _ Congo	Judith ENAW	Incom WG 206 _ Updating Pianc locks report : first results	John Clarkson	Waterborne city logistics: Bringing together inland shipping, logistics education and urban development	Lars Stemmler	Téléconduite des ouvrages du Nord-Pas-de-Calais	Luc Getto	Programme de rééquilibrage du lit de la Loire entre Les Pont-de-Cé et Nantes	Benoit Cortier
	ACP _ Egypt	Mohammed Askar								
	Sogenav_Senegal	Mahamadou Thioub	Allongement de l'écluse de Rochetaillée	Frédéric Aury	Du vrac au colis: le mériteoire ajustement du transport fluvial aux besoins de la cité contemporaine	Marie Douet	Automation and remote operation of locks at Saar River	Rainer Strenge	Danube Sediment Management – Restoration of the Sediment Balance in the Danube River	Barbara Keri
	Ministry of Equipement_Niger	Seidou Sodja	Allongement de l'écluse de Quesnoy-sur-Deule	Philippe Schalkwijk	Livrer la ville par le fleuve, quelles conditions ?	Manon Sudre	InCom Workgroup 192: Developments in the Automation and Remote Opetation of Locks and Bridges	Albert Barnes	Dealing with hydro-morphological challenges on the Austrian Danube	Robert Toegel
	A new paradigm for river management: Application to the Niger Inner Delta in Mali	Jean-Michel Hiver	Concept for standardized restoration and extension of ship locks	Claus Kunz	La charte Métropolitaine 'ville et fleuve de Lyon.	Métropole de Lyon			Bathymetric monitoring of the Rhone River bed: diachronic analysis of the hydromorphological evolution of the Rhone	Reynaud Sylvain

11:00 – 12:30	SESSIONS SPÉCIALE – Développement des fleuves africains	Room 1	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-5 Locks and ship lift design 1	Room 2 Chair: John Clarkson	IW TRANSPORT_ ECONOMICS – C-5 On Board Instrumentation and Bathymetry Models	Room 3 Chair: Sebastian Garcia	SMART TRANSPORT – D-5 Self Navigating Vessels	Room 4 Chair: Gernot Pauli	ENVIRONMENT-WWN – E-5 Morphodynamic modelling	Room 5 Chair: Julien Vanwarreghem
	Faisabilité de la navigabilité sur le Fleuve Niger, Bief Ayourou-Gaya	Arnaud De Bonviller	Reconstruction et allongement des écluses de Méricourt : étude du fonctionnement hydraulique de l'ouvrage	Gwenael Chevallet	Modeling tidal propagation in Guadalquivir Estuary Spain). Model output application to vessel navigation	Rodrigo Garcia Orera	Command and Control of Vessel Trains in Inland and Short-sea Shipping	Alexander Lutz	Use of hydrodynamic models for decision-making in dredging works. Uruguay River waterway case (Argentina).	Sebastiàjn Villalba
	Amélioration de l'accès du port de Brazzaville par la navigation	Francis Fruchart et Nicolas Fraysse					Automation in inland navigation: current projects and future regulatory challenges	Benjamin Boyer		
	Design of the navigation channel on the Senegal River	Sébastien Page	Performance of lock with vertical lift gates after renovation; case study including measurements and optimisation of levelling system	Johannes J. Veldman	Navigation with Nature	Tiedo Vellinga	Towards Smart Shipping in the Netherlands	Michael Schreuder	Sediment Transport Modeling and Morphodynamic Analysis of Navigation Improvement Designs on the Madeira River, Brazil	Calvin Creech
	Spatial altimetry to improve inland navigation in the Congo basin	Sebastien Legrand			Dynamic draft from ship informed depths at the mouth of mazon River, Brazil	Susana Vinzon	Approaches to Automatic Entering of Locks	Martin Sandler	Sediment Transport in middle and lower Yangtze River after Three Gorges Dam, China	Gensheng Zhao
	Développement d'un outil d'aide à la navigation sur le bassin du Congo issu d'un Système d'Informations	Damien Brunel	Challenges in the design and construction of the New Lock in Temeuzen; A unique Dutch-Flemish collaboration	Erwin Pechtold	CoVadem:Sailing with foresight	Meeuwis van Wirdum			Assessing hydraulic and morphological effects near small hydropower plants	Anton de Fockert

14:00 – 15:30	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-3 Traffic studies	Room 1 Chair: Brian Tetrault	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-6 Locks and ship lift design 2	Room 2 Chair: Wu Peng	IW TRANSPORT_ ECONOMICS – C-6 Waterway Logistic Issues	Room 3 Chair: Laure Roux	SMART TRANSPORT – D-6 Vessel's Optimization	Room 4 Chair: Pierre Jean Pompée	ENVIRONMENT-WWN – E-6 Sustainable waterways	Room 5 Chair: Catherine Swartenbroekx
	Modelling the traffic capacity of the narrow canal Roeselare-Lys, Flanders (Belgium)	Toon Goormans	Incom WG 207 _ Ship Lifts : first results	Gensheng Zhao	Contribution of Blockchain-Technology to secure and efficient information sharing between stakeholders in Danube transport	Lisa-Maria Putz	Design of Standardized Vessels for the National Waterway 1 in India	Thomas Guesnet	Sustainable Inland Waterways	Luc Bazerque
	A comprehensive traffic model of the ECMT class Va inland waterway network of Nord-Pas-de Calais, France	Roeland Adams	Innovative Design of Hydro-Floating Ship Lift with Lift Weight of Kiloton	Chao Guo	A Case Study of Sustainable Transportation Using Inland Waterway in South Korea	D Choonghyo Lee	Optimal vessel class for container transport from hinterland to seaport, costs comparison between Class IV and Class Va	Johannes J. Veldman	Applying the Ecosystem Service Concept to Waterborne Transport Infrastructure	Jochen Hack
	Calcul de l'Estimation du Temps d'Arrivée (ETA)	Jean-Matthieu Farenc	Maintien de la navigation lors de la réhabilitation d'écluses : impacts sur la stabilité des ouvrages	A Doradoux	Les enjeux logistiques pour la réussite du projet de canal Seine Nord Europe	Franck Rousseau	Nouvelles perspectives de réduction des émissions de moteurs fluviaux	Christophe Belot	Natural riverbanks in a regulated waterway – A full restoration approach in the Meuse River	Gonzalo Duro
	Optimization of ship locks waiting times and operations	Florian Linde			Container logistics in Paraguay, Terport case	Jose Grau	Gestion de l'énergie à bord et hybridation de sources d'énergie	Jean-Pierre Husson	Hydraulic regulation of La Mojana, working with Nature in the Cauca River in Colombia	John Michael Polo



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Wednesday 2nd October 2019

16:00 – 17:45	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-4 Navigation optimization	Room 1 Chair: Florian Linde	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – Monitoring- SHM – BIM Structural Health Monitoring- B-7 Building Information Modeling)	Room 2 Chair: Claus Kunz	IW TRANSPORT_ ECONOMICS – C-7 Waterway Logistic Issues and Digital tools	Room 3 Chair: Eloi Flipo	SMART TRANSPORT – D-7 Energy Issues with Waterways	Room 4 Chair: Didier Baudry	ENVIRONMENT-WWN – E-7 Ecological bank	Room 5 Chair: Franck Pressiat
	Passing ship effects on inland vessels moored in a side harbor next to a fairway	Lutz Schweter	Innovative solution for navigation locks monitoring	Mikael Carmona	The Global Grain Model and its Potential Role in Investment Decisions on the U.S. Inland Waterway System	Kevin Knight	Abstract CNR – Le solaire innovant au fil de l'eau	Hélène Wagret	Theoretical Research on the Evaluation of the Green Ecological Bank Slope Treatment for Inland Waterways	Dianguang Ma
	Validation of squat formulas for inland vessels	Anke Cotteleer	Operation of a monitoring system including fiber optics on the Rhine Levees between Strasbourg and Iffezheim	Cyril Guidoux	Cybersecurity in Inland Navigation	Gernot Pauli	Hydroquest River Turbines –Hydroliennes	Jean François Simon	Best Practice Approach of indirect technical-biological bank protection on waterways with strong ship-induced impacts	Jeroen Verbelen
	Real-time optimization of inland ship energy consumption Based on machine learning	Intissar Razgallah	DEF-pathology in concrete supporting a lock-gate: use of numerical modelling to re-assess structural behaviour	Jean-Francois Seignol	Using augmented reality to transfer knowledge about inland waterway logistics	Lisa-Maria Putz	Stratégie Région AURA_ mobilité hydrogène	Brigitte Ducourtill	Application of three-dimensional Geonet Grass Planting Technology on inland waterway bank protection at lower Beijiang River in China	Yan Xing
	Prototype observation of navigable Safety of Inland River ships under complex flow conditions	Xin Wang	Le BIM pour les infrastructures hydrauliques : une expérience croisée de Maitrise d'ouvrage, d'exploitation et d'ingénierie	Franck Rangognio	Escale de La Roche-Guyon – Seine	Benoît Seidlitz	European strategy for a climate neutral EU by 2050 and need for navigation sector to engage	Laure Roux	Willow brush mattresses – a promising method of direct technical-biological bank protection on waterways	Petra Fleischer
			A French experience of Structural Health Monitoring of scour affecting river infrastructures	Frédérique Lamarte					First steps towards a Best Practice Approach for selection of technical-biological bank protections – status and findings of PIANC InCom WG 128	Bernhard Soehngen

19:30 – 23:00	Lyon City Hall	Gala dinner
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Thursday 3rd October 2019

8:00 – 18:00	Reception Hall, CCC Lyon	Registration
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09:00 – 10:30	WATERWAYS : MANAGEMENT AND GENERAL DESIGN – A-5 Network governance	Room 1 Chair: S Gastarriet	IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-8 Lock hydraulics	Room 2 Chair: Carsten Thorenz	IW TRANSPORT_ ECONOMICS – C-8 Recreation and Passenger Transport	Room 3 Chair: Sim Turf	ENVIRONMENT-WWN – E-9 Environmental strategy	Room 4 Chair: Luc Bazerque	ENVIRONMENT-WWN – E-8 Sediment monitoring and dredging	Room 5 Chair: Jean-Michel Hiver
	Building a strategic scheme for management and investments on the Walloon waterways network	Didier Bousmar	Lanaye Lock – Perturbation in the lock chamber induced by an asymmetrical filling	Savary Celine	Les freins au développement du transport du quotidien par navettes fluviales et maritimes	Didier Baudry	Influence of climate, garbage, sedimentation	Christophe Moiroud	Innovative use of dredge material for upgrading a concrete embankment	Edwin Zengerink
	Romanian Inland Waterways Transportation System – Engineering and Maintenance	Victor Dumitrescu Feasibility	Feasibility study of Itaipu Locks	Wim Ridderinkhof	Réappropriation industrielle et touristique de la Sambre à Hautmont	Vincent Azemard	Incorporating Ecological and Social Benefits into Land Planning through Engineering With Nature and Landscape Architectural Practices	Jeffrey King	Monitoring watershed sediment supplies in Walloon waterways	Catherine Swartenbroeckx
	EDF, exploitant 4.0 du multi-usage de l'eau sur le Rhin Supérieur	Lucas Husson	Study on the Filling and Emptying System of Wan'an Second Lock	Peng Wu	Recreational Navigation Infrastructure as part of Resilient and Sustainable Transportation Systems and Urban Development	Esteban Biondi	Implementation of a strategy for structuring information relating to Seine estuary management issues – SCRIPTES project	Anne Levasseur	Water Injection Dredging and Fluid Mud Trapping Pilot in the Port of Rotterdam	Ronald Rutgers
			Retour d'expériences sur le fonctionnement des écluses avec blocs de remplissage dissociés et porte intermédiaire en période d'étiage	Pierre Roumieu					Projet SEDIFLUV : Effet de la variabilité des propriétés des sédiments franciliens sur les propriétés des bétons	Amor Ben Fraj

11:00 – 12:30	Auditorium, CCC Lyon	Closing Ceremony
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14:00 – 17:30	Various	Technical visits – Entrance H
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