

Wednesday July 5, 2017 08:30-18:00
International Symposium: Knowledge Based Dam Engineering

OPENING PLENARY SESSION PROGRAMME (8:30-10:00)

Zenit&Nadir Hall (live stream - Tycho&Kepler Hall), CCHP

Ladislav Satrapa	<i>CZCOLD Chairman</i>	Welcome Message
Anton Schleiss	<i>ICOLD President</i>	ICOLD Opening Statement
Pavel Punčochář	<i>General Ministerial Councillor (Section of Water Management, Ministry of Agriculture)</i>	Welcome Message from Minister of Agriculture Water Resources Management in the Czech Republic
Michael F. Rogers	<i>ICOLD Vice President</i>	Keynote Opening Address
Michel de Vivo	<i>ICOLD Secretary General</i>	
Jaromír Říha	<i>CZCOLD</i>	Symposium Summary
Gerald Zenz	<i>ATCOLD President</i>	Invitation to ICOLD 2018

Symposium Time Schedule

<i>hall</i>		<i>Nadir</i>	<i>Zenit</i>	<i>Tycho&Kepler</i>	
8:30	10:00	OPENING PLENARY SESSION		<i>OPENING PLENARY SESSION- live stream</i>	
10:00	10:30	<i>Coffee Break, Exhibition and Poster Session</i>			
10:30	12:10	1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part I) <i>Marco CONRAD Jiří HODÁK</i>	2. Enhancements in dam surveillance systems for dam safety and site security (part I) <i>Jurgen FLEITZ Dalibor KRATOCHVÍL</i>	8. Assessment of aging dams considering remaining service life and decommissioning & 9. Hydro-electro-mechanical equipment of dams <i>Daniel JOHNSON Jiří ŠVANCARA</i>	
12:10	13:20	<i>Lunch, Exhibition and Poster Session</i>			
13:20	14:40	1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part II) <i>Maria BARTSCH Martin POLÁČEK</i>	2. Enhancements in dam surveillance systems for dam safety and site security (part II) <i>Laurent MOUVET Pavel KŘIVKA</i>	3. Uncertainties and risk-informed decision making in dam design, construction and operation (part I) <i>Ignacio ESCUDER BUENO Jaromír ŘÍHA</i>	
14:40	15:00	<i>Coffee Break, Exhibition and Poster Session</i>			
15:00	16:20	1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part III) <i>Francesco FEDERICO Miroslav BROUČEK</i>	4. Balancing technical, socio-economic and environmental aspects of dam engineering <i>Peter AMOS Milan ZUKAL</i>	3. Uncertainties and risk-informed decision making in dam design, construction and operation (part II) <i>Ignacio ESCUDER BUENO Jaromír ŘÍHA</i>	
16:20	16:40	<i>Coffee Break, Exhibition and Poster Session</i>			
16:40	18:00	1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part IV) & 7. Design and operational considerations of global climate change, regional droughts and other extreme events <i>Andy HUGHES Jiří POLÁČEK</i>	5. Advancements in analysis and design within flood protection reservoirs, levees and tailing dams <i>Harvey McLEOD Ladislav SATRAPA</i>	6. Recent improvements and modern applications in reservoir and catchment management <i>Tetsuya SUMI Richard KUČERA</i>	

Note: Zenit Hall will be equipped with simultaneous interpretation from English to French.

Topic: 1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part I)

Hall: **Nadir**
 Chairman: *CONRAD Marco (Switzerland)*
 Co-chairman: *HODÁK Jiří (Czech Republic)*

Time	ID	Title	Presenting Author
10:30 10:34		Introduciton	
10:34 10:46	203	Design and construction of high asphalt core embankment dams	Hoeg Kaare
10:46 10:58	52	Efficient repairing and reinforcement method for AFRD damaged by the earthquake	Tsukada Tomoyuki
10:58 11:10	34	Relationship between the production process and the long-term behavior of asphalt facings on rock-fill dams (AFRD)	Smesnik Mathias
11:10 11:22	368	Mechanical characterization of soil-rockfill mixtures	Brito Andrea
11:22 11:34	302	The application of a new type composite cementitious materials concrete in high velocity spillway tunnel	Xu Chuanwen
11:34 11:46	76	Trial mix and full-scale trial embankment for RCC dam at Nam Ngiep 1 hydropower project	Aosaka Yushi
11:46 11:58	31	The influence of early stress-relaxation creep on the design of large RCC dams	Tosun Hasan
11:58 12:10	461	Dams Design and Construction Challenges of Peter Sutherland Sr. G.S. Project	Bibeau Johanne
12:10 13:20	<i>Lunch, Exhibition and Poster Session</i>		

Topic: 1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part II)

Hall: **Nadir**
 Chairman: *BARTSCH Maria (Sweden)*
 Co-chairman: *POLÁČEK Martin (Czech Republic)*

Time	ID	Title	Presenting Author
13:20 13:23		Introduciton	
13:23 13:35	446	Investigation of venting turbidity currents in the Rudbar-Lorestan reservoir in Iran	Schleiss Anton
13:35 13:47	451	Spiral flow and pressure fluctuation in shaft spillways	Broucek Miroslav
13:47 13:59	8	Waves in underground pumped storage plants	Pummer Elena
13:59 14:11	392	Numerical modeling for seepage analysis at Selorejo dam, Indonesia	Windianita Kamsiyah
14:11 14:23	348	Optimization of grout curtains parameters in relation to water pressure tests and water losses criteria	Skvarka Juraj
14:23 14:35	230	Evaluating permeability and groutability at the Karun 4 dam Iran using Lugeon values and grout Take	Hosseiny Sohi Seyed Mohammad
14:40 15:00	<i>Lunch, Exhibition and Poster Session</i>		

Topic: 1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part III)

Hall: **Nadir**
 Chairman: *FEDERICO Francesco (Italy)*
 Co-chairman: *BROUČEK Miroslav (Czech Republic)*

Time	ID	Title	Presenting Author
15:00 15:03		Introduciton	
15:03 15:15	372	Evaluation of the Effect of Concrete Blocks on Seismic Response of Bhumibol Dam using In-Situ Dynamic Tests	Chaiprakaikeow Susit
15:15 15:27	360	Dynamic analysis for fixing dam general foundation and expected permanent deformation of logia dam	Abdurahman Mohammed Abdulkadir
15:27 15:39	365	Engineering simplified method for calculating earthquake-induced settlement and pore pressure rise	Kteich Ziad
15:39 15:51	354	Stability analyses of Atatürk dam, Turkey as based on the updated seismic data and design code	Tosun Hasan
15:51 16:03	56	Seismic analysis based on results of the laboratory shaking table tests for the dam-model	Ieda Hiroyuki
16:03 16:15	345	Developments in the Design, Construction and Operation of Large Capacity Multi Strand Anchors in Australia	Sinclair Mark
16:20 16:40	<i>Coffee Break, Exhibition and Poster Session</i>		

Topic: 1. Investigation and application of advanced materials, technologies and solutions in dam engineering (part IV)

Hall: **Nadir**
 Chairman: *HUGHES Andy (United Kingdom)*
 Co-chairman: *POLÁČEK Jiří (Czech Republic)*

Time	ID	Title	Presenting Author
16:40 16:44		Introduciton	
16:44 16:56	381	Investigation creep Behavior of underground gallery (case study: Givi Dam)	Negahdar Alireza
16:56 17:08	138	Eastern Nile trans-boundary cascade dams: spillway design flood estimation techniques and selection criteria	Abebe Haile Michael
17:08 17:20	133	Dam foundation design for the main dam at Nam Ngiep1 hydropower project in Laos	Tabuchi Takahisa

Topic: 7. Design and operational considerations of global climate change, regional droughts and other extreme events

Hall: **Nadir**
 Chairman: *HUGHES Andy (United Kingdom)*
 Co-chairman: *POLÁČEK Jiří (Czech Republic)*

Time	ID	Title	Presenting Author
17:20 17:24		Introduciton	
17:24 17:36	422	Decision support system for water resources planning in karun river basin	Bozorgzadeh Eisa
17:36 17:48	453	Mitigate the hydro-geological risk interconnecting reservoirs	Frigerio Antonella
17:48 18:00	264	Balancing Water Resources and Power Generation for the Metlakatla Indian Community	Hutton Jesse

Topic: 2. Enhancements in dam surveillance systems for dam safety and site security (part I)

Hall: **Zenit**

Chairman: *FLEITZ Jurgen (Spain)*

Co-chairman: *KRATOCHVÍL Dalibor (Czech Republic)*

Time	ID	Title	Presenting Author
10:30 10:34		Introducion	
10:34 10:55	Keynote Lecture	Update on activities at Mosul Dam (USACE)	COL. Farrell Michael
10:55 11:07	339	Dam monitoring and rehabilitation works on Kayabeyi RCC Dam	Verdianz Markus
11:07 11:19	460	The use of InSAR data to monitor slope stability of dams and water reservoirs	Raventós Josep
11:19 11:31	98	Inspection of construction joints in the concrete dam body by the impact elastic wave method	Oshima Shinsuke
11:31 11:43	498	The enhanced seismic surveillance system for Chirkey dam safety (Caucasus, Russia)	Antonovskaya Galina
11:43 11:55	11	Experience and prospect of dam surveillance system in China	Wang Shi-jun
11:55 12:07	338	Some practical thoughts on inspection galleries and their role in dam safety and dam security	G. Membrillera Ortuño Manuel
12:10 13:20	<i>Lunch, Exhibition and Poster Session</i>		

Topic: 2. Enhancements in dam surveillance systems for dam safety and site security (part II)

Hall: **Zenit**

Chairman: *MOUVET Laurent (Switzerland)*

Co-chairman: *KŘÍVKA Pavel (Czech Republic)*

Time	ID	Title	Presenting Author
13:20 13:23		Introducion	
13:23 13:35	276	The thermal behavior of the concrete of Cahora Bassa dam	Carvalho Ezequiel Fernandes
13:35 13:47	349	Fibre-optic temperature monitoring for seepage detection in embankment and tailings dams	Johansson Sam
13:47 13:59	291	Structural measurements of dynamic response of hydraulic structures	Klun Mateja
13:59 14:11	115	Deformation monitoring of rockfill dams in normal times and after earthquakes using satellite SAR data	Sato Hiroyuki
14:11 14:23	322	Study on distribution of displacement observation points for inverse analysis requirement of gravity dams	Lin Chaoning
14:23 14:35	418	Analysis of dam displacements by spaceborne SAR interferometry	Lazecky Milan
14:40 15:00	<i>Coffee Break, Exhibition and Poster Session</i>		

Topic: 4. Investigation and application of advanced materials, technologies and solutions in dam engineering (part III)

Hall: **Zenit**

Chairman: *AMOS Peter (New Zealand)*

Co-chairman: *ZUKAL Milan (Czech Republic)*

Time	ID	Title	Presenting Author
15:00 15:04		Introduciton	
15:04 15:16	492	Improving biodiversity management	Vanier Benoit
15:16 15:28	186	Development and operation of sustainable hydropower infrastructures: examples as good practices	Branche Emmanuel
15:28 15:40	352	The Hampstead Heath Scheme in the City of London - a very difficult scheme	Hughes Andy
15:40 15:52	480	Improving Modified ICOLD Method With Loss Of Life Index For Dam Safety Risk Assessment In Indonesia	Henrianto Anto
15:52 16:04	407	Planning and design of environmentally sustainable Thana-Plaun hydroelectric project on Beas river in India	Hemant Kumar Gupta
16:04 16:16	438	The socio economical, technical and environmental concerns in regard with Chitgar Lake through design and implementation of integrated hydraulic system	Zolfagharian Mahdi
16:20 16:40	<i>Coffee Break, Exhibition and Poster Session</i>		

Topic: 5. Advancements in analysis and design within flood protection reservoirs, levees and tailing dams

Hall: **Zenit**

Chairman: *McLEOD Harvey (Canada)*

Co-chairman: *SATRAPA Ladislav (Czech Republic)*

Time	ID	Title	Presenting Author
16:40 16:44		Introduciton	
16:44 16:56	17	Internal erosion in flood protection embankments, levees and tailings dams	Bridle Rodney
16:56 17:08	192	Assessment of internal erosion in the glacial till core of a Swedish dam	Silva Ingrid
17:08 17:20	80	Contribution to the increase of the hydrological safety of tailings dams	Petkovski Ljupcho
17:20 17:32	367	Non-intrusive method for evaluating the condition of tailings dam	Hughes Andy
17:32 17:44	394	Characterization of tailings in the Iron Ore Quadrangle of Brazil	Castilho Breno
17:44 17:56	249	Challenges with conducting tailings dam breach assessments	Martin Violeta

Topic: 8. Assessment of aging dams considering remaining service life and decommissioning

Hall: **Tycho+Kepler**
 Chairman: *JOHNSON Daniel (United States of America)*
 Co-chairman: *ŠVANCARA Jiří (Czech Republic)*

Time	ID	Title	Presenting Author
10:30 10:32		Introduciton	
10:32 10:44	353	The problem of redundant assets and how to deal with them	Hughes Andy
10:44 10:56	235	A practical concept for the safety assessment of small dams	Stahl Helmut
10:56 11:08	430	Assessment of remaining service life and extension of lifespan of high hydraulic fill storage facilities	Bellendir Evgeniy
11:08 11:20	147	Condition grade valuation of medium and large dams in South Africa	Barta Bohuslav

Topic: 9. Hydro-electro-mechanical equipment of dams

Hall: **Tycho+Kepler**
 Chairman: *JOHNSON Daniel (United States of America)*
 Co-chairman: *ŠVANCARA Jiří (Czech Republic)*

Time	ID	Title	Presenting Author
11:20 11:22		Introduciton	
11:22 11:34	156	Turbine bypass system – design for reliability to ensure environmental protection	Vines Joshua
11:34 11:46	295	The pinion toothed rack climbing vertical ship lift	Wu Xiaoyun
11:46 11:58	54	Seismic aspects of safety relevant hydro-mechanical and electro-mechanical elements of large storage dams	Wieland Martin
11:58 12:10	486	Automatic spillway gates to remove problems with electro-mechanical gates	Townshend Peter

12:10 13:20 *Lunch, Exhibition and Poster Session*

Topic: 3. Uncertainties and risk-informed decision making in dam design, construction and operation (part I)

Hall: **Tycho+Kepler**
 Chairman: *ESCUDE BUENO Ignacio (Spain)*
 Co-chairman: *ŘÍHA Jaromír (Czech Republic)*

Time	ID	Title	Presenting Author
13:20 13:23		Introduciton	
13:23 13:35	371	System approach and simulation in risk assessment of dams	Zielinski Przemyslaw
13:35 13:47	201	Addressing the Failure Modes of Risk Informed Decision Making	Halpin Eric C.
13:47 13:59	355	Total risk and seismic hazard analyses of large dams in northwest Anatolia, Turkey	Tosun Hasan
13:59 14:11	160	Risk assessment for a dam with a vegetation-lined spillway	Bowles David

14:11	14:23	174	Use of quantitative risk results to inform dam safety governance application to Vado dam (Spain)	Galán Martín David
14:23	14:35	242	Reliability-based rock erodibility for dam foundations, spillways and tunnels	George Michael

14:40 15:00

Coffee Break, Exhibition and Poster Session

Topic: 3. Uncertainties and risk-informed decision making in dam design, construction and operation (part II)

Hall: ***Tycho+Kepler***Chairman: *ESCUDE BUENO Ignacio (Spain)*Co-chairman: *ŘÍHA Jaromír (Czech Republic)*

	Time	ID	Title	Presenting Author
	15:00		Introduciton	
	15:03	385	Uncertainties and Risk-Informed Decisions Making of Keureuto Dam Grouting Works Design	Ardiana Junira
	15:15	375	Bedrock erosion in spillways – remediation measures proposed for two large dams	Eriksson Per
	15:27	108	Site selection of the proposed Noordoewer/Vioolsdrift Dam in the Orange River, South Africa	Badenhorst Danie
	15:39	59	Valley narrowing of an arch dam during its initial impounding	Zhu He
	15:51	341	Dam categorization in Czech Republic using the GIS data	Černý Ondřej
	16:03	280	Operation rules at Poiana Uzului dam imposed by risk level constrains	Stematiu Dan

16:20 16:40

Coffee Break, Exhibition and Poster Session

Topic: 6. Recent improvements and modern applications in reservoir and catchment management

Hall: ***Tycho+Kepler***Chairman: *SUMI Tetsuya (Japan)*Co-chairman: *KUČERA Richard (Czech Republic)*

	Time	ID	Title	Presenting Author
	16:40		Introduciton	
	16:43	70	Review of experience in upgrading and rehabilitation of hydraulic structures	Petkov Martin
	16:55	306	Intelligent Water Facilities Operation in the Cisangkuy River Basin, Indonesia	Ko Ick Hwan
	17:07	262	Rapid calculation of lake level statistics in The Netherlands	Kuijper Bastiaan
	17:19	121	Field experiment of bedload transport rate measurement at sediment bypass tunnel	Koshiba Takahiro
	17:31	37	Assessing sediment risks in reservoir operation	Detering Michael
	17:43	81	The importance of Sabo dams system in volcanic catchment management; case of Tambakboyo Small Dam, Yogyakarta, Indonesia	Ariyanti Vicky