

HYDRO 2004

A New Era for Hydropower

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ABSTRACTS

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- 8.04: Spillway with improved dissipation efficiency: a side dissipation beam – *D. Ciuha, IBE, Slovenia; J. Mlačnik, Institute for Hydraulic Research, Slovenia.*
- 8.05: Rehabilitation of Matala dam – *D.S. Matos and A. Camelo, EDP, Portugal.*
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- 8.08: Comparison of the methods for the design of the river Nile Barrages with respect to piping – *B.G.S. Mansour and M. Achmus, University of Hannover, Germany.*
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- 9.02: Global trends and Hydro-Québec sustainability reporting experience – *F. Levert and P-L. Degsagné, Hydro-Québec, Canada.*
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- 9.06: Siah Bisheh pumped-storage project's dam and the environment – *M. Gharavy and A.H. Izad-Doustdar, IWPC, Iran.*

- 9.07: Management of water level and design of flushing floods for environmental river maintenance downstream of the Riba-Roja reservoir, Spain – *A. Palau, E. Rosico and A. Meseguer, Endesa, Spain; R. Batalla, University of Lleida, Spain.*
- 9.08: Environmental project experience during construction of the Lajeado and Peixe Angical hydro stations – *A.N. Candido da Silva and N.K. Kano, EDP Brasil, SA, Brazil.*
- 9.09: Hydro and the decommissioning issue – *F. Isambert ISL, France.*
- 9.10: Hydroelectric power plants in the water supply system – *T. Tarnik and B. Grgić, Croatian Electricity Utility, Croatia.*
- 9.11: Contradiction between energy production and sustainability – *M. Kozák, University of Technology, Hungary.*

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- 10.07: Decision analysis applied to risk management in hydro maintenance – *F. Alessandroni, F. Beaudouin, C. Garreau and J. Lonchamp, EDF, France.*
- 10.08: 3-D digitalization: A new approach in the reconstruction and refurbishment of hydropower plants – *Z. Baršić, D. Tvrtković and N. Abramovic, Civil Engineering Institute of Croatia, Croatia; M. Gomerčić, GOM mbH, Croatia.*

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- 11.03: Sediment flushing through the delta of the Dez reservoir – *H. Samadi-Borujeni, S. Emamgholizade and S. Anders Brandt, Khuzestan Water and Power Authority, Iran.*
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- 11.05: Prediction of reservoir siltation: Case studies for Turkey – *S.Y. Altun, State Hydraulic Works, Turkey; I. Savary, Vituki Water Resources Research Center, Hungary and S. Tigrek, Middle East Technical University, Turkey.*

SESSION 12: Social issues and benefit sharing

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- 12.02: Benefit sharing from hydropower development in Nepal – *D.B. Singh, Dept of Electricity Development, Govt. of Nepal, Nepal.*

- 12.04: Building on partnerships with aboriginal communities – *D. Roux and K. Seelos, Hydro-Québec, Canada.*
- 12.04: Case study of best practice for environmental and social management and effective environmental mitigation measures – *R. Allen, Theun-Hinboun Power Co Ltd, Laos.*
- 12.05: Creating a consultation framework for informed decision-making by affected peoples – *S. Jackson and S. Knippel, Hobbs & Associates, Canada.*
- 12.06: Environmental management and social development at the Chamera II hydro project, India – *B. Mukand, V. Kumar and A.K. Tripathi, NHPC, India.*
- 12.07: Integrating indigenous knowledge in the EIA process: The case of the Tataskweyak Cree of Northern Manitoba and the proposed Keeyask generating station – *A.B. Ransom, E.E. Hobbs and J.I. Keeper, Hobbs & Associates, Canada.*
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- 12.09: Aiming towards sustainable hydropower development: Strategic environmental and social preparedness for 2000 MW Subansiri Lower project – *R. Chandra and A.K. Tripathi, NHPC, India.*

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- 13.02: Thermal or hydraulic powerplants? A comparison from the viewpoint of the operation of the electrical systems – *M.A.P. Lefèvre and R.J.G. Correa da Silva, Itaipu, Brazil; J.M. Ordacgi Filho, ONS, Brazil.*
- 13.03: Using the operational reserve of hydropower stations for demand supply during critical periods – *A. Bastos, M.N. Tavares and H. Azevedo, REN, Portugal.*
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- 13.07: Purulia pumped storage in India and its role in the power system – *B. Das, Erinco India PVT Ltd, India*
- 13.08: Design of Romania's Tarnita-Lapustesti pumped-storage scheme – *G. Popa, G. Lazar and A.T. Constantin, Politehnica University of Timisoara, Romania.*
- 13.09: The Venda Nova II pumped storage scheme – *M.A. Oliveira, V. Ribeiro, V. Apolinário and J.A. Costa, EDP, Portugal.*

SESSION 14: Workshop on turbine flow measurement

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- 14.02: Cost-effective turbine flow measurement in short intakes – *D.D. Lemon and J. Lampa, ASL AQFlow Inc, Canada.*

SESSION 15: Aesthetics in dam and powerplant design

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- 15.02: Aesthetics of dams – *H. Kreuzer, Consultant, Switzerland.*
- 15.03: Aesthetics of Austrian dams and powerplants – *A. Krisch, Verbundplan GmbH, Austria.*
- 15.04: Small hydro aesthetics – *P. Giacomelli, Studio Frosio, Italy.*
- 15.05: Aesthetics of dams and hydro plants: the use of Landscape & Visual Impact Assessment (LVIA) techniques – *E. Parry and K. Hanson, British Hydropower Association.*

SESSION 16: Refurbishment and upgrading

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- 16.02: Upgrading multipurpose hydro schemes: Increasing the capacity of Tavropos reservoir – *J. Thanopoulos, PPC, Greece.*
- 16.03: Refurbishment of the Castelo do Bode hydro plant in Portugal – *J.C. Teixeira de Freitas, EDP Production/CPPE, Portugal.*
- 16.04: Fierza station rehabilitation on the Drin river, Albania – *M. Celo, KESH, Albania; J.H. Gummer, Hydro-Consult Pty Ltd, Australia; H. Obermoser, Colenco Power Engineering, Switzerland.*
- 16.05: Miljacka hydro plant refurbishment: technical solutions – *Z. Sever and V. Jurić, Elektroprojekt Consulting Engineers, Croatia.*
- 16.06: Advanced design of Francis runners for refurbishment projects – *M. Sallaberger, Ch. Gentner, M. Haas and Ch. Michaud, VA TECH Hydro AG, Switzerland.*
- 16.07: Hydro turbine rehabilitation – *B. Michel, M. Couston and M. François, Alstom Power Hydro, France; M. Sabourin, Alstom Canada Inc, Canada.*
- 16.08: Rehabilitation of Póvoa dam – *M.P. Miranda and M.S Oliviera, EDP Produção EM, Portugal.*

SESSION 17: Electrical equipment

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- 17.02: Application of plastic thrust bearings for pumped-storage plants – *H. Goto, R. Fujimoto, K. Sano and T. Suganami, Mitsubishi Electric Corporation, Japan; J. Yahara and T. Fujioka, Shikoku Electric Power Co. Inc, Japan.*
- 17.03: Challenges of modern insulation systems – *C. Kramer and T. Hildinger, Voith Siemens Hydro Power Generation, Brazil.*
- 17.04: Computational modelling of stator core faults in large hydro generators and turbogenerators – *T.W.L. Chan and D. Bertenshaw, Adwel International Ltd, UK; A.C. Smith and C.W. Ho, UMIST, UK.*
- 17.05: Improved no-load loss calculation for large hydro generators – *A. Schwery and G. Traxler-Samek, Alstom Ltd, Switzerland.*
- 17.06: High performance thermoplastics for bearing loss reduction – *C.A. Mahieux, Alstom Generator Technology Center, Switzerland.*

Additional Papers:

SHP

- 18.01: 25 years experiences of China made small hydroelectric units with USA made digital technology installed in USA and Central America – *A.A. Tseng, Orenco, USA.*
- 18.02: Application of evolutionary algorithms for the optimal design of a small hydroelectric power plant – *D.E. Papantonis and J.S. Anagnostopolulos, National Technical University of Athens, Greece.*

Hydraulics/Gates

- 19.01: Recommendations for the design of wheel gate embedded parts – *C.K. Sehgal and H. Saxena, MHW Americas Inc, USA.*
- 19.02: Experimental verification of the frequency similitude based on Froude's number by means of model families – *C. Reibenwein, R. Prenner and H. Drobir, Vienna University of Technology, Austria.*