# **Table Of Contents**

### Lectures

Measures for the termination of the history of "no concrete dam without cracking"

Zhu Bofang (China)

Overview of RCC Dams at the end of 2006

M.R.H.Dunstan (UK)

Rcc Dams In Spain

De Cea, J. C., Berga Casafont, L., Yagüe Córdova, J., Soriano. A., Alonso Franco, M. (Spain)

A High RCC Dam with Low Grade Aggregates

Bernard Bouyge, Brian A Forbes (France)

The Technology Development of RCC Dam Construction in China

Wang Sheng pei (China)

Effect Of Foundation Condition On Static And Dynamic Behaviour Of Proposed Nam

Theun 1 Rcc Arch-Gravity Dam In Laos

Martin Wieland, Sujan Malla, Richard Guimond (Switzerland)

A New Model For The Behaviour Of Roller Compacted Concrete In Dams Under Early Thermal Loading

Quentin HW Shaw Robert P Greyling (South Africa)

Detail Design And Construction Considerations In Jegin Rcc Dam

Hamid Reza Kazemi Esfeh, Aboulfazl Shabanzadeh, Abbass Kamali (Iran)

Distributed Fibre Optic Temperature Measurements – A Competitive Alternative For

Temperature Monitoring In Large Rcc Dams

Markus Aufleger, Matthias Goltz, Marco Conrad (Germany)

Safety Of Rcc Gravity Dams Over 200M Considering Hydraulic Fracturing

Jia Jinsheng, Zheng Cuiying, Li Xinyu (China)

#### Theme 1: New Trends

Key Technology for Temperature Control and Anti-crack for Longtan RCC Dam

Luosheng Pan (China)

Grouting Temperature and Thermal Load of RCC Arch Dam

Zhang Guoxin, Zhang Jinghua, Yang Bo (China)

Scenario Of Rcc Dams In Pakistan, Selection Of Rcc Dam For Bunji Hydropower Project (A Case Study)

Zahid Majeed, Azam Islam (Pakistan)

An Overview Of The Development Of The Yeywa Hydropower Project, Myanmar

U.Win Kyaw, U.Myint Zaw, A. Dredge, K.Steiger (Myanmar)

RCC field water pressure test and permeability research

Wang Hongbin Zhu Yueming (China)

Desing Concepts Of Formwork For Rcc Dams

Ortega S., F (Germany)

A Fragility Curve Model For Rcc Gravity Dams

Restrepo-Vélez, L.F., Vélez, A.F. (Colombia)

The RCC double-curvature arch dam of Linhekou Hydropower Project

ZHAO Quan-sheng WANG Guo-feng YANG Ling-tao (China)

Taishir Rcc Dam In Mongolia

Scuero A., Vaschetti G. (Switzerland)

Rcc Dams - Inclined Internal Drain Holes

George Casagran, Pham Nguyen Hung (Canada)

Simulation Design and New Structure of RCC Arch Dam

Liu Guangting, Li Penghui, Hu Yu, Chen Fengqi (China)

New alternative method for bonding RCC layers

S. Y .Barony, M .J .Rouis, A. M. Mansor (Libya)

Study On High-Intensity Rcc And Aggregate Production Workmanship For Longtan Dam Jianping Tan, Lei Yang (China)

Zirdan RCC Dam, Lessons Learned

M.S. Roushan Jahromi, M.R Hajialikhani, A.Ormaz (Iran)

Comparative Analysis of the Results of the Laboratory /Field Shear Strength Tests of Longtan RCC

Pan Luosheng , Wang Jingang, Wang Shuyin (China)

Application of MgO Content to RCC Arch Dam

Zhang Guoxin , Zhang Yi (China)

# **Theme 2: Planning And Design**

A General Face of Study on Key Techniques for the Design of Longtan High RCC Dam Feng Shurong, Luo Junjun, Shi Qingchun, Xiao Feng (China)

Design consideration of Badovli RCC dam

Maryam GHaffari Dolama (Iran)

Temperature Control For Rcc Dam At Longtan Hydropower Station

Wei Dazhi Wu Xu (China)

The Dinh Binh Rcc Dam In Vietnam

Pham Hong. Giang, Nguyên Luong Am, Nguyên Huu Ngoc, M. Ho Ta Khanh (Vietnam)

Major technical problems in Jin'angiao hydropower project

Hong Yongwen, Deng Liangjun (China)

Exposure Time Between Lifts At Rcc Dams. A New Method Used At "El Esparragal" Spanish Dam

Emilio Benítez Pascual, Manuel Enrique Grosso Casalini, Juan Carlos de Cea Aza?edo, and José Camero Flores. (Spain)

Design and Practice of Zhaolai River Roller-Compacted Concrete Double-Curvature Thin Arch Dam

Li Haitao (China)

Temperature-Control Design And Statistics And Analysis Of Monitoring Data Of Longtan High Rcc Dam

Zhou Huifen (China)

Development Rcc Dams Design And Construction In Morocco

Ahmed F. CHRAIBI (Morocco)

RCC Interlayer Quality Control Standard of Longtan Dam

Wang Shuyin Qin lili (China)

Control Of Rcc Temperature

Tom Read (UK)

An Investigation Into The Thermal Behaviour Of Roller Compacted Concrete In Large Dams

Quentin HW Shaw (South Africa)

Design And Preliminary Full-Scale Trial For Son La Rcc Dam

Dredge A, Dunstan, M.R.H, Dao The Hung, Morris D and Nguyen Quyet Thang (Vietnam)

The Initial Design for Roller Compacted Concrete(RCC) Gravity Dam of a Water-control Project in Cold Area

Luo Weibang Liu Tao (China)

Gomal Zam Roller Compacted Concrete (R.C.C) Curved Gravity Dam

Rashid Ali Khan (Pakistan)

Design of Hydraulic Structures of Badovli RCC Dam

Fakhreddin Takhte Mina, Arash Omidvar, Masoumeh Ameri (Iran)

### Theme 3: Materials

Limestone Powder – a New Type of Supplementary Mineral Fines for Roller Compacted Concrete

Chen Gaixin, Kong Xiangzhi (China)

Study on phosphorous slag used as mineral admixture of RCC

Fang Kun-he (China)

Trial Mix Programmes And Full-Scale Trials For Yeywa Hydropower Project, Myanmar

U. Win Kyi, Dunstan, M.R.H, U. Khin Lat and U. Zaw Min San (Myanmar)

Research on the Effects of the Powder-coated Aggregate on RCC Properties

Long Jiankai Xiao Kaitao (China)

Tests on Air Content Increase of Roller Compacted Concrete

Ji Guojin , Jiang Rongmei , Jiang Futian (China)

Experimental Study of Prevent Dehiscence Characteristic of Hydrotechnic Roller

Compacted Concrete Using Phosphorus Slag as Addition

LI GUANGWEI (China)

Materials investigation and mix design programme for the Jahgin RCC dam in Iran

M.E.Omran, M.R,.Dunstann, M.Mohammadpour (Iran)

Analysis On In-Situ Shear Test Results Of Longtan Rcc

Feng Xiao, Hongbin Wang (China)

Material properties of RCC in Guangzhao hydropower station

Tan Jianjun, He Jinrong, Wang Jianqi (China)

Laboratory Mixture Proportions And Preliminar Design For The Zapotillo Gravity Dam,

Mexico

Amanda Garduno, Salvador Sanchez (Mexico)

Effect of Phosphorus Slag on the Performance of Roller Compacted Concrete

Wu Dingyan1, Wang Haifeng (China)

Comparative Analysis on the Parameters of Property for RCC Core Samples and the

Materials Sampled by the Mixer's Outlet

Long Jiankai and Wang Shuyin (China)

Mixture proportioning of Badovli RCC dam

Hamidreza Araghian, Kamran Qavami (Iran)

Research on Test Method of GEV-RCC Grout

Ji Guojin, Chen Gaixin, Jiang Futian (China)

Study on application of blending ground stone dust with unqualified fly ash in RCC

CHEN Guo-xin, XING You-hong, HUANG Guo-hong, LU An-qi, ZHU Ye-ran (China)

Test And Study On Construction Materials Of Longtan Rcc Dam

Jin Shuangquan, Zhu Yuming, Li Shuangyan, Lin Changnong (China)

Zirdan RCC Dam, Mix Designs Modifications

M.S. Roushan Jahromi, M.R Hajialikhani, M.Jafarbegloo (Iran)

Neural network prediction method of RCC durability

Shi Yan, Fang Kunhe (China)

Researches on interlayer shearing resistance of RCC in Guangzhao hydropower station

Ao Dahua, Zeng Zhengbin, Chen Jiafuo (China)

Proportioning research of RCC prepared by basalt aggregate

Yang Jindi, Zhang Xihe, Li Yong (China)

Application researches on high frost-resistant durability RCC in severe cold region

Zeng Zhengbin HE Jinrong Tian xiaoyan (China)

Interlayer and Size Effects on the Mechanical Properties of the Full Grade RCC

Jiang Rongmei, Feng Wei (China)

Effect Of Fly Ash On Dissolution Characteristic Of Roller Compacted Concrete

Ruan Yan, Fang Kunhe, Zeng Li, Wu Dingyan (China)

The Characteristic Analysis of Chinese RCC Mix Proportion Design Experiment

Tian Yugong (China)

Influential Factors Of Air Content In Rcc

Ke-liang LI, Zu-rong CHEN, Quan LIN, Yi WANG, Jin-bao WEN (China)

Study on the Influence of Limestone Powder on Roller Compacted Concrete Performance and Action Mechanism

Kaitao Xiao Yun Dong (China)

Mineral Admixture's Impact on RCC Anti-crack Performance

CHEN Xia FangKun-He, ZengLi (China)

Study on Factors Affecting RCC (Roller Compacted Concrete) Anti-crack Performance

ZengLi, FangKun-He, WuDingyan, RuanYan (China)

Study on Material Property of RCC Arch Dam in China

GE Xueliang FANG Kunhe ZENG Li (China)

Influence Of Rcc Super Retarding Compound Additive On The Compatibility And

**Durability Of Concrete** 

Dong Wang, Yeran Zhu, Anqi Lu (China)

Analysis on Cause of Fast Setting of Cement after Mixing Superplasticizers

Jiazheng Li Kaitao Xiao (China)

Test and Application Study on Set Retarding Superplasticizer in Silin Hydropower Station WANG Yi ,WEN Jin-bao, LI Ke-liang ,HUANG Guo-hong (China)

Study for High Efficiency Water Reducing Agents with High Temperature Retardation setting and Its Application to RCC

Wen Jinbao, Wu Xiurong, Wang Y1i, Li Keliang, Huang Guohong (China)

## **Theme 4: Numerical Analysis**

Research on Thermal Stress and Temperature Control of Roller Compacted Concrete Dam

Zhang Guoxin (China)

The Comparative Study Of Discrete Crack And Smeared Crack Methods In Concrete Gravity Dams

R. Attarnejad, A. R. Lohrasbi (Iran)

Research on the Effect of Cooling Pipe of RCC Gravity Dam

Li Shouyi Zhao Lijuan Zhou Wei Yang Sheng (China)

3-D Nonlinear Finite Element Dynamic Analysis On Guandi Rcc Gravity Dam

CHEN Xiutong, LI Lu (China)

Simulation of Temperature Control and Crack Prevention of Longtan RCC Gravity Dam Hu Ping, Yang Ping, Zhang Guoxin (China)

Simulation Analysis on Thermal Stress of Longtan RCC Gravity Dam

Zhiqi Hu, Huifen Zhou, Jianping He, Yirui Zhang (China)

Back Analysis of Temperature Field and Temperature Stress of Jinghong RCC Dam

Liu Yi, Zhang GuoXin, Liang JianWen, Yang Ping, Dai YiHua, Gong YongSheng (China)

Crack Propagation Analysis In Concrete Gravity Dams By Discrete Crack Method

R. Attarnejad1, A. R. Lohrasbi (Iran)

Simulating analysis of Construction of Dahuashui RCC Double-curvature Arch Dam

Zheng Cuiying, Zhang Guoxin, Yang Bo, Fei Jing, Chen Hong (China)

3-D Simulating Analysis for Thermal Control during Construction Period on DAHUASHUI RCC Arch Dam

Li Penghui, Chen Hong, Luo Hongbo, Hu Yu, Jin Feng (China)

The Appliance Of 3-D Composite Layerrd Element In Rcc Arch Dam

Yang Linggiang, Ma Jing (China)

Dynamic Analysis on Nong-ling RCC Gravity Dam by Considering the Effect of Infinite Foundation Radiation Damping

SHAO Yong, REN Xu-hua (China)

A unified viscoplasticity damage constitutive model for concrete materials

LIU Changchun, FENG Minghui, GUAN Ping, LÜ Hexiang (China)

Shrinkage Compensation Effect Analysis and Stress Simulation of Yujian He RCC Arch Dam with MgO content

Zhang Guoxin, Luo Heng, Luo Jian (China)

Simulation Analysis of temperature stress in RCC Gravity Dam Based on Feedback

Information of On-site Construction

Liu You-zhi, Zhang Guo-xin, Liu wei-ming, Shi Zi-ming (China)

Badovli Dam Thermal Analysis

Hamidreza Araghian (Iran)

Research on Temperature Control Standard of Initial Impounding of Jinghong RCC Gravity

Dam

Wu Zhipeng, Zhang Guoxin (China)

Study on the Computation Method of Temperature Field of RCC Dam

Zhang Xiao-fei, Chen Yao-long, Xu Yun-ming (China)

3-D Finite Element Relocating Mesh Method Analysis on Overfolw Section of Roller Compacted Concrete Dam

Zhang Jinkai Li Shouyi Zhang Mingxia Zhao Lijuan (China)

The sensitivity analysis on thermal stress of rolled compacted concrete dam mixed gentle MgO swelling concrete

Jingchun Ju weili Zhang Shouyi Li Jing Lv Chunguo Wang (China)

A Case Study Of Deformation Measurments In Rudbar Lorestan Rcc Dam (Iran)

R. BERRY DIZAJI and K.ZEINALI & J. Tyson (Iran)

Chaotic Prediction Method of Autogenous Volume Deformation of RCC Added with MgO Based on Lyapunov Exponent

SONG Jun-wei, FANG Kun-he, TU sheng-jing, WANG hai-feng (China)

Effect of Random Local weakness in the Levels on the Reliability and Stability of LongTan RCC Gravity Dam

Li Tongchun, Li Dandan, Wu Dan (China)

The study on temperature control measures of some roller compacted concrete gravity dam

Jinke Ren, Shouyi Li, Pengfei Chen, Zhongming wu, Lijuan Zhao (China)

Experimental Studies on Adiabatic Temperature Rise and Analysis of Regressive Models in RCC

Xiusheng Tang, Xingrong Liu, Guohong Huang, Ming Cai (China)

## Theme 5: Construction, Operation and Performance

Compaction Test In Sile For Thick Layers Of Rcc For Huanghuazhai Hydropower Station Li Chun Min, Liu Shu Kun (China)

Studies on the Construction Technology under High Temperature Condition and Its Application in Longtan Dam

By Bo Dai, Gangwei Cheng (China)

Construction of full Section Roller Compacted Concrete Gravity Dam on Guizhou

Suofengying Hydropower project

Zheng Zhiren (China)

Plans For The Construction Of La Breña li Dam In Spain

Francisco Romero, Antonio Sandoval, Rafael Ibáñez de Aldecoa, Gonzalo Noriega (Spain)

Rapid RCC Construction Technology of Longtan Hydropower Dam Project

Wu Xu (China)

Construction of Roller Compacted Concrete Dam in Suofengying Hydropower Station Huang Houlong , Qiao hong (China)

Construction Planning, Plants And Equipment For Concrete Works At Yeywa Hpp

Aung Koe, Aung Zaw Naing, Knoll K., Ortega S., F (Myanmar)

Overview of RCC Dam Construction Technologies of several dams

Liu Yansheng, Huang Wei (China)

Operation of RCC Dam in Yantan Hydropower Station

Tao Honghui LuoYan Pan Chunjun (China)

Vertical Vibration Roller For Rapid Construction Of Rcc Dams

Yukinori Tsukimoto, Hideki Iwakuma, Chun Min Li, Shu Kun Liu (Japan)

RCC Construction Quality Indicators and Their Influencing Factors Analysis

Gao Peng, Wang Yi (China)

Dynamic Simulation of Construction Process for Longkaikou RCC Gravity Dam

Chunju ZHAO, Yihong ZHOU (China)

Innovative Monitoring Devices For An Integral Observation Of Thermal Stress Behaviour Of Large Rcc Dams

Dr.-Ing. Marco Conrad1, Dip.-Ing. Roland Hoepffner, Univ.-Prof. Dr.-Ing. habi. Markus Aufleger (Switzerland)

Research and Application of Longshou Arch Dam RCC of Dry severely Cold Local Tian Yugong Xi Xiangjun (China)

Experimental research on RCC construction technology of Pengshui hydropower station Cai Shenghua, Yang Huaguan, Wang Xiaojun, Wang Yingchun, Lin Yugiang (China)

Final Phase Of The Cooling Process Of The Rialb Dam (Lerida, Spain)

Raimundo La Fuente, José Antonio Gesti, Jesús Goméz Arruche, Stefan Hoppe (Spain)

Construction Technology of RCC Dam Temperature Control for Suofengying Hydropower Project

Li Zhongyong Pan Dehui (China)

Construction Of The First Rcc Dams In India At Ghatghar

Shelke, V.C., Sapre, S.D. and Dunstan, M.R.H (India)

The Significance of Calibration of Surface Nuclear Density Gauges

Li Li, Zongbo Liu (China)

Study and Application of New RCC Sand Production Technology

Ruan Guanghua, Zhu Dongmin (China)

## Theme 6: Development of CSG and Other RCC Applications

Analysis Of Safety Monitoring Results On Tgp'S Rcc Cofferdam

Sanda Yu Hongbing Yao (China)

Roller Compacted Concrete Under The Barrage Fuse Plug – A Technically Superior And Cost Effective Solution

Jahangir Akhtar and Abdus Salam Khan (Pakistan)

Design and Construction of Phase III RCC Cofferdam of the Three Gorges Project Li Ruchao, Fan Wuyi (China)

Study on the Reserved Bricks made with Roller Compacted Concrete technique for flood control

Ping Wang, Guanghe Zheng, Qing Shao, Haiting Song (China)

Designing The Tallest Rcc Dam Raise For San Vicente Dam In Southern California

Jim Zhou1, Vic Bianes, Jeffrey A. Shoaf, Michael F. Rogers, Glenn S. Tarbox, Malcolm R.

H. Dunstan, Jesus Meda, Thomas O. Keller (USA)

Research And Application Of Mgo Concrete In Longtan Rcc Cofferdams

Feng Shurong, Lin Hongmei, Sun Junsen, Yao Jihong (China)

Study on seismic safety of CSG dam

XIONG Kun, HE Yunlong, PENG Yunfeng (China)

Study On The Structural Safety Of CSG Dam

PENG Yunfeng, HE Yunlong, XIONG Kun (China)

Research on Asphalt Concrete Impervious Structure of Rolled Compacted Concrete Dam

Yu Liangshu Wang Wenjing Zhang Yingbo Ren Shaohui (China)