



**UNITED NATIONS
UNIVERSITY**

GEOTHERMAL TRAINING PROGRAMME
Orkustofnun, Grensásvegur 9,
IS-108 Reykjavík, Iceland

30th Anniversary Workshop
August 26-27, 2008
22 August, 2008 / IBF-LSG

AGENDA OF THE 30TH ANNIVERSARY WORKSHOP OF THE UNU GEOTHERMAL TRAINING PROGRAMME

Grand Hotel Reykjavik, Sigtun 38, 105 Reykjavik

Tuesday 26th August

Chairman: Dr. Gudni A. Johannesson, Director General of Orkustofnun

- 09:00-09:10 Welcome
Dr. Ingvar Birgir Fridleifsson, Director, UNU-GTP
- 09:10-09:30 Opening address
Mrs. Ingibjörg Solrun Gisladdottir, Foreign Minister of Iceland
- 09:30-09:50 The United Nations University network and the co-operation with Iceland
Dr. Janos J. Bogardi, Vice-Rector of the United Nations University
- 09:50-10:10 Thirty years of geothermal training in Iceland
Dr. Ingvar Birgir Fridleifsson, Director UNU-GTP
- 10:10-10:15 Address
Mr. Zhang Keyuan, Ambassador of the People's Republic of China

10:15-10:45 **Coffee**

Chairman: Dr. Olafur G. Flovenz, General Director of ISOR

- 10:45-11:05 Contribution of UNU-GTP training to geothermal development in Africa: Update 2008
Mr. Martin M. Mwangi, KenGen, Kenya, UNU Fellow 1982
- 11:05-11:25 The role of UNU-GTP on geothermal development in China
Dr. Liu Jiurong, Beijing Institute of Geological Engineering, UNU Fellow 1999
- 11:25-11:45 UNU Fellows in Central America and Mexico 1979-2008
Mrs. Luz Antonina Barrios, LaGeo, El Salvador, UNU Fellow 1993
- 11:45-12:05 Contribution of UNU-GTP training to geothermal development in Central and Eastern Europe
Dr. Zbigniew Malolepszy, University of Silesia, Poland, UNU Fellow 1998
- 12:05-12:20 Contribution of UNU-GTP training to geothermal development in Pertamina Geothermal Energy, Indonesia
Mr. M. Achyar Karim, Pertamina Geothermal Energy, Indonesia, UNU Fellow 2005

12:20-13:30 **Lunch**

Chairman: Dr. Meseret Teklemariam, Geological Survey of Ethiopia, UNU Fellow 1985

- 13:30-13:45 Water-rock interaction in low-enthalpy back-rift geothermal system, New Zealand
Dr. Agnes G. Reyes, Inst. Geological Sciences, New Zealand, UNU Fellow 1979
- 13:45-14:00 Geothermal energy development in the Philippines with the Energy Development Corporation embarking into power generation
Mr. Danilo C. Catigtig, EDC, Philippines, UNU Fellow 1983
- 14:00-14:15 Philippine geothermal update 2008
Mrs. Alicia N. Reyes, Department of Energy, Philippines, UNU Fellow 1999
- 14:15-14:30 Conquering the challenges in geothermal utilization – the EDC experience
Mr. Erlindo Angcoy, EDC, Philippines, UNU Fellow 2006, MSc Fellow 2008
Presented by *Mr. Danilo C. Catigtig, EDC, Philippines.*

- 14:30-14:45 Background, history and status of geothermal utilization in Tianjin
Dr. Wang Kun, Tianjin Bureau of Land and Resources, China, UNU Fellow 1998
- 14:45-15:00 Geothermal utilization and economic development in Tianjin
Dr. Zhang Baiming, Tianjin Bureau Minerals Exploration, China, UNU Fellow 1994

15:00-15:30 **Coffee**

Chairman: Mr. Martin M. Mwangi, KenGen, Kenya, UNU Fellow 1982

- 15:30-15:45 Geothermal utilization and development in Hebei Province
Mrs. Li Hongying, Bureau of Land & Resources, Baoding, China, UNU Fellow 2000
- 15:45-16:00 A brief review of geological studies on geothermal systems in China, 1988-2008
Dr. Pang Zhonghe, Chinese Academy of Sciences, Beijing, China, UNU Fellow 1988
- 16:00-16:15 Government support to geothermal energy development in Mongolia
Mr. Purevsuren Dorj, NREC, Mongolia, UNU Fellow 2001, MSc Fellow 2003
- 16:15-16:30 Geothermal energy development in Indonesia: Country update 2005-2008
Mr. Tafif Azimudin, Pertamina Geothermal Energy, Indonesia, UNU Fellow 1995
- 16:30-16:45 Geothermal energy development in Tunisia: present status and future outlook
Mr. Mouldi Ben Mohamed, CRDA, Tunisia, UNU Fellow 1997
- 16:45-17:00 Pressure transient test analysis for two wells in the Hellisheidi geothermal system SW-Iceland
Mr. Daher Elmi, CERD, Djibouti, UNU Fellow 2005, MSc Fellow 2006
- 17:15-19:00 **Reception at Grand Hotel Reykjavik** at the invitation of
Her Excellency the Foreign Minister of Iceland, Mrs. Ingibjorg Solrun Gisladdottir

Wednesday 27th August

Chairman: Dr. Pang Zhonghe, Inst. Geol., Chinese Academy of Sciences, UNU Fellow 1988

- 09:00-09:20 Glimps of the history of Hitaveita Sudurnesja Ltd. – the Resource Park concept
Mr. Albert Albertsson, Hitaveita Sudurnesja, Iceland
- 09:20-09:40 District heating in Reykjavik, past, present and future
Dr. Einar Gunnlaugsson, Reykjavik Energy, Iceland
- 09:40-10:00 Two-way geothermal technology transfer via UNU-GTP training
Dr. Gudni Axelsson, ISOR, Iceland
- 10:00-10:20 Cooperation between the United Nations University Geothermal Training Programme and the University of Iceland
Dr. Stefan Arnorsson, University of Iceland

10:20-10:45 **Coffee**

Chairman: Mr. Jose Luis Henriquez, LaGeo, El Salvador, UNU Fellow 1997

- 10:45-11:00 Overview of geothermal resource utilization and potential in East African Rift System
Dr. Meseret Teklemariam, Geological Survey of Ethiopia, UNU Fellow 1985
- 11:00-11:15 Geothermal exploration and development in Ethiopia
Dr. Berhanu Gizaw, Geological Survey of Ethiopia, UNU Fellow 1985
- 11:15-11:30 Status of geothermal exploration and development in Uganda
Mr. James Natukunda, Dep. Geological Survey and Mines, Uganda, UNU Fellow 2005
- 11:30-11:45 Status of geothermal exploration in Kenya and future plans for its development
Dr. Silas Simiyu, KenGen, Kenya, UNU Fellow 1990
Presented by *Mr. John Lagat*, KenGen, Kenya, UNU Fellow 1994, MSc Fellow 2002
- 11:45-12:00 Olkaria I reservoir after 26 years of production
Mr. Cornel Ofwona, KenGen, Kenya, UNU Fellow 1996, MSc Fellow 2001

- 12:00-12:15 Need for enhanced environmental auditing of geothermal projects - A case study
Mrs. Pacifica F.A. Ogola, KenGen, Kenya, UNU Fellow 2004, PhD Fellow 2009
- 12:15-12:30 Public participation in EIA and socioeconomic issues relating to the proposed 2.5 MW pilot Eburru pilot Eburru geothermal power project, Kenya
Mr. Gabriel Wetangula, KenGen, Kenya, UNU Fellow 2001, MSc F. 2002, PhD Fell.08
Presented by *Mrs. Pacifica F.A. Ogola*, KenGen, Kenya
- 12:30-12:45 Geothermal mapping using temperature measurements
Mr. Godwin Mwawongo, KenGen, Kenya, UNU Fellow 2004

12:45-14:00 **Lunch**

Chairman: Mr. Danilo C. Catigtig, EDC, Philippines, UNU Fellow 1983

- 14:00-14:15 An update on the geothermal development in El Salvador
Mr. Jose Luis Henriquez, LaGeo, El Salvador, UNU Fellow 1997
- 14:15-14:30 An innovative Environmental Impact Assessment applied to the Chinameca deep exploration project
Ms. Ana Silvia Arévalo, LaGeo, El Salvador, UNU Fellow 1998
- 14:30-14:45 Geothermal resources development in Costa Rica
Mr. Antonio Yock Fung, ICE, Costa Rica, UNU Fellow 1998
- 14:45-15:00 Soil gas radon measurements as a tool to identify permeable zones at Las Pailas geothermal field, Costa Rica
Mr. Alejandro Rodríguez, ICE, Costa Rica, UNU Fellow 2006
- 15:00-15:15 Twenty five years of production history at the Momotombo geothermal field, Nicaragua
Dr. Enrique A. Porras M., Ormat, Nicaragua, UNU Fellow 1991
- 15:15-15:30 Geothermal resources and development in Guatemala
Mr. Francisco Asturias, ENEL Guatemala, UNU Fellow 2003

15:30-16:00 **Coffee**

Chairman: Dr. Wang Kun, Tianjin Bureau of Land and Resources, UNU Fellow 1998

- 16:00-16:15 Geothermal energy use in Europe
Dr. Beata Kepinska, AGH University of Sci. and Technol., Krakow, UNU Fellow 1994
- 16:15-16:30 The environmental and hydrogeochemical properties of the Tuzla-Kestanbol-Hidirlar geothermal sources, Turkey
Dr. Alper Baba, Canakkale Onsekiz Mart University, Turkey, UNU Fellow 2003
- 16:30-16:45 Status and outlook of geothermal development on the Balkan Peninsula
Dr. Klara Bojadgieva, Geol. Inst., Bulgarian Academy of Sciences, UNU Fellow 1990
- 16:45-17:00 Geothermal energy utilization in Serbia – new approach
Mr. Mica Martinovic, University of Belgrade, Serbia, UNU Fellow 1990
- 17:00-17:15 Current status of geothermal development in Romania
Rector Cornel Antal, Oradea University, Romania, UNU Fellow 1995
- 17:15-17:30 Closing of the 30th Anniversary Workshop of the UNU-GTP
Dr. Ingvar Birgir Fridleifsson, Director UNU-GTP

Papers written for the 30th Anniversary Workshop but not presented due to unforeseen circumstances

- The geothermal resource in Sabalan, Iran
Mr. Khosrow Khosrawi, SUNA, Iran, UNU Fellow 1996
- GM-GRE: an integration method for geothermal potential site selection
Dr. Younes Noorollahi, SUNA, Iran, UNU Fellow 1999, MSc Fellow 2003
- Thermal water resources in Jordan
Dr. Ali Swarieh, Natural Resources Authority, Jordan, UNU Fellow 1994