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Kenya Renewable Energy Bootcamp

Training sessions with Italian experts

Kenya, 11-14 July 2023

MINISTERO DELL'AMBIENTE
E DELLA SICUREZZA ENERGETICA

Mr. Claudio Alimonti

Università Sapienza di Roma

- Deep borehole heat exchanger, possible solution to use dry well
- Geothermal application to direct use, e.g. anaerobic digestor for biogas production

Claudio Alimonti is an Associate Professor in Fluid mechanics in porous media at the Department of Chemical Engineering Materials Environment at Sapienza University of Rome. He holds a Laurea degree in mining engineering from the Sapienza University of Rome, and a Ph.D. degree in mechanical engineering from Université Catholique de Louvain. Before joining Sapienza, Alimonti worked with ENI-Agip, Université Catholique de Louvain, covering research development assignments. From 1992 he was in charge of a multiphase meter development project. He is also concerned in production allocation policy and well performance. At present he is working on geothermal energy projects like deep borehole heat exchanger and implementation of cascade system design.

Mr. Andrea Dini

Consiglio Nazionale delle Ricerche (CNR)

- Mineral extraction
- Water-rock interaction

During his PhD research, Dr. Andrea Dini addressed the origin of plutonic-subvolcanic Li-B-F-rich granites and their relationships with ore deposits and geothermal systems. After PhD, he worked as a consulting geologist for the Sardinia Gold Mining Ltd. (regional exploration of epithermal gold deposits). Since 1999 he is researcher at the Istituto di Geoscienze e Georisorse - National Research Council (CNR), where he is responsible for the Mineral Separation and Electron Microscopy laboratories. His area of interest is the understanding of mass and energy transfer in the lithosphere ruled by magmatic-hydrothermal systems, with particular attention to anatectic granites, ore deposits and geothermal systems.

Mr. Alberto Marcello Fantozzi

Enel Green Power Italy

- Typical Drilling Organization & Operational Strategy for Geothermal Wells Drilling Project
- Geothermal Well Delivery Process

Head of Well Management at Enel Green Power Italy and in charge of managing geothermal well execution activities (drilling, work-over, well testing). He is an engineer with 20+ years of experience in Oil&Gas and Geothermal upstream industry working with Schlumberger, Baker Hughes, Edison SpA and ENEL. During his career, he has been involved, as Drilling Manager, in various Drilling Projects (Oil&Gas/Geothermal, Onshore/Offshore, Production/Injection/Storage) in different countries: Mediterranean Area, North Africa and recently Chile and USA.

Ms. Adele Manzella

Consiglio Nazionale delle Ricerche (CNR)

- Recommendations for environmental safety: a case study from Europe
- Social aspects and public engagement of geothermal communities

Adele Manzella is a Senior Scientist and a geophysicist at the National Research Council of Italy (CNR). She received her M.Sc. at Padua University, a Diploma of the International Geothermal Course (Pisa, Italy) and took graduate courses in geophysics at the University of Berkeley, USA. She worked for geothermal exploration as a geophysicist, conducting magnetotelluric surveys and theoretical investigations of geothermal systems in Italy and abroad. She coordinated for CNR two Italian geothermal resource evaluation projects and led the participation of CNR and was WP leader in ten European research projects. She participates in the Boards of international (IGA, ETIP Geothermal, EERA Joint Programme Geothermal) and national geothermal associations and research networks and has been President of the Italian Geothermal Association.

Mr. Renato Papale

Unione Geotermica Italiana (UGI)

- Long Term Strategy for a Geothermal Project, from Exploration to Cultivation
- Pros&Cons of Flash Steam and High Enthalpy ORC technologies

Engineer who worked in Geothermal Design for Enel Green Power since 1981 in Italy, USA and Chile. He participated in several projects, the last of which has been Cerro Pabellón Geothermal Power Plant, designed in High Enthalpy ORC technology. In 2014 he became a Partner and Business Development Manager at Steam Srl, a Consulting firm for Geothermal Development, and still collaborating with them. He looked after the design of Olkaria V Geothermal Project as Project Manager and Olkaria I Rehabilitation as Project Engineer. He also worked for other small Projects, one of them in Bolivia. Since 2021 he is Board Member of UGI - the Italian Geothermal Union.

Mr. Luca Pastorelli

Opus Automazione

- Predictive Diagnostic systems and Remote Diagnostic services (condition monitoring) for the industrial plant production control improvement and the machine reliability enhancement

Graduating in Mechanical Engineering at the University of Pisa (Italy) in 2002, with 6+ years of experience in Steel making and production, as Steelworks Process Engineering Manager in an Italian steel plant. Currently his position is Manager for what concerns Field Testing activities, Diagnostic Services and Industrial-IoT solutions supplied by Opus Automazione Spa. He has gained 13+ years of experience regarding testing and diagnostic activities on turbo-compressor and turbo-generator plants in Oil&Gas sector, performing these activities on the Customer sites as well.

Mr. Tommaso Pivetta

Istituto Nazionale di Geofisica e Vulcanologia - Osservatorio Vesuviano (INGV-OV)

- Introduction to INGV activities and aims
- Methods to characterize geothermal resources
- Numerical modelling of the reservoir
- Monitoring of geothermal areas during exploitation

Tommaso Pivetta holds a MSc (2014) and a PhD (2021) in Earth Sciences both from the University of Trieste. He is currently a permanent researcher at the National Institute of Geophysics and Volcanology – Vesuvian Observatory (INGV-OV) in Naples, where he is in charge of the laboratory of analysis and elaboration of gravity data that is part of the activities for the surveillance of the Neapolitan volcanoes. His research interests include using both satellite and ground-based gravimetric data to study and characterize crustal structures, especially in remote and hardly-accessible areas, and employing gravity observations to remotely monitor underground geo-fluids.

Ms. Loredana Torsello

Consorzio per lo Sviluppo delle Aree Geotermiche (COSVIG)

- Harnessing direct utilization opportunities, investment attraction in geothermal areas, diversification of economic development drivers by encouraging geothermal uses
- Local population engagement in geothermal projects

Ms. Torsello is an economist, with a PhD in “Agricultural Policy and Economics” and a Master of Science in “Environmental and resource economics”. She started her career in renewable energies as an Expert and Advisor for energy planning in 2001 and started working at COSVIG (Consortium for the Development of Geothermal Areas) in 2008. Loredana is Cluster Manager of the DTE2V (Cluster on Energy and Green Economy of the Tuscany Region) since 2011 and was General Manager of EnerGea. She was also one of the Co-Chairs of the SETPLAN working group on deep geothermal energy and still represents Italy. Currently she coordinates the CEGLab (Laboratory of the Centre of Excellence for Geothermal energy) in Larderello, Italy.

Mr. Luca Xodo

Steam Group

- Binary bottoming power plants for the increase in efficiency of the single-flash geothermal power plants
- Implementation of silica scaling management strategies

Luca Xodo is Director of Sales and Business Development at Steam. He completed a post-graduate master in Business Administration in Energy Industry at Scuola Mattei – Eni Corporate University, after a master's degree in Energy Engineering at Politecnico di Milano, Italy. He is author and co-author of several scientific papers and books. He began his career as expert in geothermal power plant technologies with a 10-year experience in Exergy, an ORC binary plants manufacturer, and is now leading the development of geothermal solutions and consultancy for project developers, power plant operators and technology providers.