

Italian-Kazak bilateral Symposium

“Our Common Future: Energy, Environment & Development”

EXPO2017, Italian Pavilion, 30-31 August 2017

Fondazione Alessandro Volta (Italy)

&

Environmental Science and Technology Group ESTg, Nazarbayev University (Kazakhstan)

With the kind support of the

Elsevier Publishers & the Society of Petroleum Engineers, NU Students Chapter

Chairmen

Vassilis J. Inglezakis
School of Engineering
Chemical Engineering Department
Nazarbayev University
Astana, Kazakhstan

Antonio Terrasi
Department of Physics and Astronomy
University of Catania
Catania, ITALY

FIRST DAY: AUGUST 30th

Welcome Speeches 09:30-10:45 (5' talk)

- Dr. Stefano Ravagnan, Italian Ambassador
- Prof. Giulio Casati, Alessandro Volta Foundation
- Prof. Andrea Biondi, Vice Rector, Milano Bicocca University
- Ilesanmi Adesida, Provost of Nazarbayev University
- Erkan Topal, Dean of School of Engineering, Nazarbayev University (Kazakhstan)
- Aliya Ospanova, Regional Representative, Elsevier Publishing Company (The Netherlands)
- Tassos Bountis, Professor, School of Science & Technology, Nazarbayev University, (Kazakhstan)

Experts talks 10:45-11:45

- *Environment & Development (10 mins)*
S.G.Poulopoulos, Chemical Engineering Department, Nazarbayev University, Astana, Kazakhstan
- *Water-Energy Nexus (15 mins)*
V.J. Inglezakis, Chemical Engineering Department, Nazarbayev University, Kazakhstan
- *Sea waves and tidal energy harvesting devices (15 mins)*
K.Kostas, Mechanical Engineering Department, Nazarbayev University, Astana, Kazakhstan
- *Low power neuromorphic electronics for future internet and cyber physical systems (15 mins)*
A. Papachen James, Associate Professor & Chair of Department, Electrical and Electronic Engineering, Nazarbayev University, Kazakhstan

Coffee Break 11:45-12:30

Country Focus: Kazakhstan 12:30-13:30

- *TBC (15 mins)*
Kanat Baigarin, Vice President for Innovation & Research at Nazarbayev University (Kazakhstan)
- *The Economics and Geopolitics of Hydropower in Central Asia (25 mins)*
Janybek Omorov, Kirgistan
- *The place and role of Kazakhstan in ensuring international energy security (15 mins)*
Zhanat Kazbekova, Higher School of Economics and Business, Al-Farabi Kazakh National University, Almaty, Kazakhstan

Lunch 13:30-14:30

Country Focus: Kazakhstan 14:30-15:30

- *GNSS Geo-information opportunities for the energy efficiency in Kazakhstan, Central Asia (15 mins)*
Zhanay Sagintayev, Civil Engineering Department, Nazarbayev University, Astana, Kazakhstan
- *World Energy Challenges and Status of Clean Energy Technologies. Case of Kazakhstan (15 mins)*
Luis Rojas-Solórzano, Mechanical Engineering Department, Astana, Nazarbayev University, Kazakhstan
- *Dynamics of the UHI (Urban Heat Island) in continental climate of the Astana (15 mins)*
Kulyash Meiramkulova, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan
- *Waste-to-Energy Solutions for the Future (15 mins)*

Diyar Tokmurzin and Yerbol Sarbassov, Center for Energy and Advanced Materials,
National Laboratory Astana, Astana, Kazakhstan

Panel & Interactive Session; Open Questions & Answer Session 15:30-16:15

Theme: *Oil, Gas & Coal – what is the future of alternative energy sources in Kazakhstan?*

Cultural events 16:15-17:30

SECOND DAY: AUGUST 31st

Experts talks: 9:30-11:30

- *Energy and Sustainability: the Big Picture (45' + questions)*
Simona De Iuliis, ENEA Energy Technologies Department, Technical-Strategic Support Unit (DTE-USTS)
- *Hydrogen as energy carrier: research and applications (30' + questions)*
Sabrina Sartori, Prof. at the University of Oslo, Oslo (Norway)
- *Renewables, Emission Trading System (ETS) and the energy mix problem(30' + questions)*
Paolo Falbo, Prof. at the University of Brescia, Brescia (Italy)

Coffee Break 11.30-12:00

Country Focus: Italy

- 1) **Renewable and Sustainable Energy: Research 12:00-14:00 (15'/talk + questions)**
 - a) *Solar Energy Research & innovation activity at ENEA*
Simona De Iuliis, ENEA Energy Technologies Department, Technical-Strategic Support Unit (DTE-USTS)
 - b) *Chalcogenide thin film solar cells: research activity at UNIMIB-MIBSOLAR center*
Simona Binetti, University of Milano Bicocca, Milano (Italy)
 - c) *Innovative materials and nanotechnologies for high efficiency solar cells*
Antonio Terrasi, University of Catania, Catania (Italy)
 - d) *Biomethane/Biogas generation for a circular economy*
Maurizio Acciarri, University of Milano Bicocca, Milano (Italy)
 - e) *Optimal operation of medium-voltage AC networks with distributed generation and storage devices*
Maria Teresa Vespucci, University of Bergamo, Bergamo (Italy)

- f) *Renewable bio-oil from wastewater: from black water to black gold*
Andrea Capodaglio, University of Pavia, Pavia (Italy)

Lunch 13:30-14:30

***...and Production* 15.00-17.00 (25'/talk + questions)**

- g) *Renewable Power Generation in Oil & Gas Industry*
Donato Azzarone – Renewable Energy Solutions Vice President – Eni, Milan (Italy)
- h) *Eni Energy Transition Program: natural gas as a «bridge fuel» toward a new energy system*
Paolo Pollesel, Research & Technological Innovation, Energy Transition Program
Vice President - Eni, Milan (Italy)
- i) *The 3SUN Factory of EGP: a European Excellence at the Forefront of PV Technology*
Cosimo Gerardi, Head of R&D, 3SUN-Enel Green Power, Catania (Italy)
- l) *Enel Green Power story: competition and growth in a fast evolving business environment*
Marcello Pasquali, Head of Business Development New Countries of Europe Area,
Enel Green Power, Rome (Italy)

Panel & Interactive Session; Open Questions & Answer Session 17:00-17:30

- Open discussion

Students Project Contest 17:30-18:00

Beyond Future Energy; The Alternative Energy Sources of the Deep Future

- Fire presentation (5 mins) - 5 finalists will contest
- A prize of 150 USD will be offered to the best idea presented

Fire presentations (5-7 minutes) by Sicilian Small/Medium Enterprises 18:00-19:00