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INTERNATIONAL GAS UNION  
UNION INTERNATIONALE DU GAZ



**34<sup>TH</sup>** INTERNATIONAL SCIENTIFIC & EXPERT  
MEETING OF GAS PROFESSIONALS  
OPATIJA, CROATIA, 8 - 10 MAY 2019



## DETAILED PROGRAMME

**TUESDAY,  
MAY 7<sup>TH</sup>**

14:00- 20:00 h Arranging of exhibition area  
17:00- 21:00 h Registration of participants

**WEDNESDAY,  
MAY 8<sup>TH</sup>**

7:00 Registration of participants

**8:45 Opening ceremony**

host: Assist.Prof. Dalibor Pudić, PhD.,  
President of Croatian Gas Association  
/ Welcome address / Short presentations of renowned  
gas experts from ministries, gas companies and agencies

### **1 INVITED PRESENTATIONS AND PANEL DISCUSSION: “CURRENT STATE AND TRENDS IN GAS SECTOR”**

Moderator: Assist.Prof. Dalibor Pudić, PhD. – President of  
Croatian Gas Association, Zagreb, Croatia, (C)

10:00 **Triennium Working Program 2018-21 IGU Task Force  
3 – Energy Policy**, Francisco de la Flor García, Enagás,  
Madrid, Spain, (E), (12 min)

10:12 **Geopolitical Influences on the Gas Sources Use, and  
Available Transport Routes**, Prof. Igor Dekanić, PhD.,  
Faculty of Mining, Geology and Petroleum Engineering,  
University of Zagreb, Zagreb, Croatia, (C), (12 min)

10:24 **Natural Gas Prices Predictability Compared with Other  
Energy**, Stevo Kolundžić, PhD., Croatian Gas Association,  
Zagreb, Croatia, (C), (12 min)

10:36 **PANEL DISCUSSION**, Moderator: Assist.Prof. Dalibor  
Pudić, PhD. – President of Croatian Gas Association,  
Zagreb, Croatia, Panelists: Prof. Igor Dekanić, PhD.,  
Faculty of Mining, Geology and Petroleum Engineering,  
University of Zagreb, Assist.Prof. Darko Pavlović, PhD.,  
Plinacro Ltd., Zagreb, Croatia, Tvrtko Perković, INA-  
Industrija nafte d.d., Petar Sprčić, HEP d.d., Barbara Dorić,  
LNG Hrvatska Ltd., Zagreb, (to be confirmed), Antonija  
Glavaš, Prvo plinarsko društvo Ltd., Vukovar, (C), (20 min)

10:56 **WELCOME COCKTAIL & NETWORKING BREAK**,  
Sponsor: **SIEMENS d.d.**, Zagreb, Croatia

### **2 EFFICIENT TECHNOLOGIES AND THE USE OF GAS WITH RENEWABLE ENERGY SOURCES**

Moderator: Stevo Kolundžić, PhD. – Croatian Gas  
Association, Zagreb, Croatia, (C)

11:16 **Energy Storages for Resilient Energy Systems with a  
High Amount of Renewables**, Prof. Dr.-ing. Gerhard  
Schmitz, Hamburg University of Technology, Hamburg,  
Germany, (E), (12 min)

11:28 **The Role of Russian Natural Gas in the European  
Hydrogen Future**, Leonid Loginov, PhD., Gazprom Export,  
Saint Petersburg, Russia, (E), (12 min)

11:40 **Enhancement of Fuel Flexibility of Industrial Gas  
Turbines by Development of Innovative Hydrogen  
Combustion Systems**, Nurettin Tekin, Dr.-Ing., Winfried  
Schmidt, Kawasaki Gas Turbine Europe, Bad Homburg,  
Germany, (E), (12 min)



## DETAILED PROGRAMME

11:52 **Integrated Energy and Climate Plan and Natural Gas Policy in Croatia**, Igor Grozdanić, MSc., Marija Šćulac Domac, MSc., Sector for Energy and Environmental Protection, Croatian Chamber of Economy, Zagreb, Croatia, (C), (12 min)

Views from equipment manufacturers:

12:04 **Vaillant: Changes in Energy Sector and Example of the Manufacturer's Production Program Adjustment**, Mario Opačak, Vaillant Ltd., Zagreb, Croatia, (C), (8 min)

12:12 **Viessmann: An Investment in Greater Efficiency is an Investment in the Ecological Future**, Vladimir Turina, Viessmann Ltd., Zagreb, Croatia, (C), (8 min)

12:20 **ROUND TABLE: Rotary All by One, Empowered for Highest Rangeability and Accuracy**, Patrick Keiffer, Honeywell Process Solutions (HPS), Mainz-Kastel, Germany, (E), (12min)

12:32 **DISCUSSION: SESSION 2** (10 min)

12:45 **PRESS CONFERENCE** (room Camelia 2) Coordinator: Assist.Prof. Dalibor Pudić, PhD. - President of Croatian Gas Association, Zagreb, Croatia, (C), (30 min)

12:45 **OPENING OF THE POSTER SESSION** (exhibition area)  
Coordinator: Zoran Dojčinović- Croatian Gas Association, Zagreb, Croatia, (C), (30 min)

- **Utilization of Cryogenic Energy from the Natural Gas Regasification Terminal**, Radoslav Radonja PhD., Bruno Reljac, University of Rijeka, Faculty of Maritime Studies, Rijeka, Croatia, (C)
- **New Opportunities of Gas Supply in the Frame of New Geopolitical Influence**, Prof. Sofija Adžić, PhD., Faculty of Economics Subotica, University of Novi Sad, Subotica, Serbia, (S)
- **In-Line Inspection of Pipeline Ivana K – Pula Terminal**, Hrvoje Krpan, Nikica Brusić, INA Jadran Ltd., Zagreb, Croatia, (C)
- **The Influence of the Introduction of the Natural Gas to Coal and Wood Biomass Combustion on the Emissions of the Components of Flue Gases**, Nihad Hodžić, Sadjit Metović, Senid Delić, University of Sarajevo, Faculty of Mechanical Engineering Sarajevo, Sarajevo, Bosnia and Herzegovina, (B)
- **Turbo Expander - Potential for Application in City Gate Stations**, Ramon Köstner, MSc., Andrej Miljevic, MSc., 2K technology GmbH, Edermünde, Germany, (E)
- **Implementation of Process Safety Management in INA Jadran**, Tanja Golubić, Ivana Ilišević, INA d.d., Zagreb, Croatia, (C)
- **Development of European Gas Transport System**, Luka Krilić, Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Zagreb, Croatia, (C)



## DETAILED PROGRAMME

13:15 **LUNCH BREAK** (until 16,00 o'clock)

### 3 FUTURE CONSTRUCTION OF GAS INFRASTRUCTURAL FACILITIES IN CROATIA AND IN EUROPE

Moderator: Assist.Prof. Darko Pavlović, PhD. – Plinacro Ltd., Zagreb, Croatia

16:00 **New Main Gas Pipeline Zlobin-Omišalj (Evacuation Gas Pipeline)**, Aleksandar Karre, Dubravko Proštenik, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)

16:12 **Current State of the Construction of the First Compressor Station on the Croatian Transmission System**, Zoran Bulić, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)

16:24 **“Grubišno Polje” Gas Field - Additional Exploration and Underground Gas Storage Construction Project**, Bruno Ernečić, Pavo Rajič, dr. sc. Ivan Zelenika, Siniša Đura, Podzemno skladište plina Ltd., Zagreb, Croatia, (C), (12 min)

16:36 **Flexible Pipes Solutions in Gas Transmission**, Ivan Fugaš, Elizabeta Hribar, Krešimir Gomboc, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)

16:48 **The Outlook of LNG Imports to Europe Using LNG Terminals**, Wouter Koopman, MSc., SHELL, The Hague, Netherlands, (E), (12 min)

17:00 **Certification of an LNG Floating Receiving Terminal**, Philippe Cambos, Bureau Veritas, La Défense Cedex, France, (E), (12 min)

17:12 **DISCUSSION: SESSION 3** (10 min)

### 4 SMART TECHNOLOGIES IN GAS AND ENERGY SYSTEMS

Moderator: Laslo Farkas Višontai, INAgip Ltd., Zagreb, Croatia

17:22 **Providing Information to Transport System Users in Accordance with EU Regulation 312/2014 - Challenges and Solutions**, Josip Jovanovac, Vlatka Predavec, Zlatko Vizec, Marko Štedul, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)

17:34 **Failure Prediction in Gas Transmission System Using Advanced Technology**, Barbara Lojen, Ivona Štritof, MSc., Ernst & Young Savjetovanje Ltd., Zagreb, Croatia, (C), (12 min)

17:46 **Influence of Gas Composition on Accuracy of Gas Flow With Different Measurement Technology – Preliminary Report**, Berislav Pavlović, PhD., Goran Panić, Gradska Plinara Zagreb Ltd., Prof. Hrvoje Kozmar, PhD., Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, Zagreb, Croatia, (C), (12 min)

17:58 **Possibilities of Gas Transmission System Development within the Future Energy Development Strategy of the Republic of Croatia until 2030 with a View to 2050**, Robert Bošnjak, Florijana Đedović, Marijan Svjetličić, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)

18:10 **ROUND TABLE: Suppression, with Extinguishing Powder, of Flames that Appeared at the Outlet of the Vent on LNG Tank Relief Valve**, Philippe Bichon, PhD., Ai Group, Naintre, France, (E), (12 min)



## DETAILED PROGRAMME

THURSDAY,  
MAY 9<sup>TH</sup>

- 18:22 **DISCUSSION: SESSION 4** (10 min)
- 20:30 **NETWORKING COCKTAIL PARTY** for all participants,  
**Main restaurant of the Grand Hotel Adriatic** (until 22,30 o'clock )

### 5 INNOVATION AND TRANSFER OF TECHNOLOGIES AND THEIR ROLE IN THE GAS INDUSTRY

Moderator: Matija Zečević, Končar- Inženjering za energetiku i transport d.d., Zagreb, Croatia

- 9:00 **ROUND TABLE: LPWAN Basis for IoT and Digital Transformation in Gas Business. Sigfox in Croatia**, Bruno Crnički, IoT Net Adria Ltd., Zagreb, Croatia, (C), (15 min)
- 9:15 **Innovation, Technology Transfer and their Role in Oil & Gas Industry**, Mislav Kovačec, Siemens d.d. , Zagreb, Croatia, (C), (12 min)
- 9:27 **Revitalization of Remote Control System in NDC/RDC Plinacro**, Matija Zečević, Matej Nikola Raič, Končar- Inženjering za energetiku i transport d.d., Zlatko Vizec, Plinacro Ltd., Zagreb, Croatia, (C), (12 min)
- 9:39 **Digital System for Maintenance of Industrial Environments with Augmented Reality Visualization and SCADA Integration**, Miro Antonijević, PhD., Stjepan Sučić, PhD., Zlatan Sičanica, Hrvoje Keko, Končar inženjering za energetiku i transport, Zagreb, Croatia, (C), (12 min)
- 9:51 **Application of WEB GIS in Development of Smart Gas Grid**, Marko Horvacki Zivalov, Dražen Guberac, Nebojša Pavlović, Prvo plinarsko društvo - Distribucija plina Ltd., Vukovar, Croatia, (C), (12 min)

- 10:03 **AIR-RMLD Aerial Remote Methane Leak Detector**, Milan Domazet, AIR-RMLD Ltd., Davor Sladović, Sladović Ltd., Ivan Vidaković, Hexaworx, Zagreb, Croatia, (C), (12 min)
- 10:15 **ROUND TABLE: PLEXOR, A New and Innovative Way of Functional and Visual Inspection of Gas Pressure Regulating Stations**, Jan Sietsma, MSc., Wigersma & Sikkema, Doesburg, Netherlands, (E), (15 min)
- 10:30 **ROUND TABLE: Intelligent Pipeline Integrity Management System**, Silvio Martinec, Feromihin Ltd., Novoselec, Croatia, (C), (15 min)
- 10:45 **DISCUSSION: SESSION 5** (10 min)
- 10:55 **COFFEE & NETWORKING BREAK**, Sponsor: **Gradska Plinara Zagreb – Opskrba Ltd.**, Zagreb, Croatia, (20 min)

### 6 INTRODUCTORY PRESENTATIONS AND PANEL DISCUSSION: „TODAY'S GAS MARKET IN THE EU AND CROATIA AND CHALLENGES IN THE FUTURE“

Moderator: Prof. Igor Dekanić, PhD., Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Zagreb, Croatia

- 11:15 **Gas Price Under Stress Test**, Ivana Miloloža, Prvo plinarsko društvo Ltd., Vukovar, (Croatia), (C), (12 min)
- 11:27 **Demonstrating Compliant Gas Quality Measurements**, Paul Holland, PhD., EfecTech Limited, Uttroxteter, United Kingdom, (E), (12 min)
- 11:39 **Challenges of Public Procurement Procedures for Natural Gas Supply**, Central State Office for Central Public Procurement, Croatia, (C), (12 min)



## DETAILED PROGRAMME

11:51 **Digital Recording of Consumption Volumes in the Gas Supply by Reading APP'S**, Max Hammerer, hammerer-system-messtechnik, Klagenfurt, Austria, (E), (12 min)

12:03 **ROUND TABLE: Gas Trading on the Emerging Markets of CEEs**, Gottfried Steiner, Central European Gas Hub, (CEGH), Vienna, Austria, (E), (15 min)

12:18 **ROUND TABLE: Breakthrough into the Market of the Gradska Plinara Zagreb-Opkrba: Usage of the New Online Platforms for Stimulating End-Users**, Ena Ercegovac, MSc., Gradska Plinara Zagreb-Opkrba Ltd., Ognjen Roglić, Kristian-Renato Škovrlj, Modus Infinitum Ltd., Hrvatska, (C), (15 min)

12:33 **PANEL DISCUSSION**, Moderator: Prof. Igor Dekanić, PhD., Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Croatia, Panelists: Nikola Vištica, PhD., Croatian Energy Regulatory Agency, Marko Blažević, HEP Trgovina Ltd., Damir Škugor, INA-Industrija nafte d.d., Igor Pirija, Gradska Plinara Zagreb – Opkrba Ltd., Zagreb, (to be confirmed), Nenad Hranilović, Međimurje-plin Ltd., Čakovec, (C), (60 min)

13:33 **LUNCH BREAK** (until 16,00 o'clock)

### **7** **INTRODUCTORY PRESENTATIONS AND PANEL DISCUSSION: „THE POTENTIAL OF THE USE OF GAS IN TRANSPORT AND ASSOCIATED ISSUES“**

Moderator: Davor Matić, MSc. – Energetska akademija Ltd., Zagreb, Croatia

16:00 **Natural Gas as a Significant Motor Fuel in Air Quality Improvement**, Zoran Dojčinović, Croatian Gas Association, Davor Matić, MSc. – Energetska akademija

Ltd., Zagreb, Croatia, (C), (12 min)

16:12 **Funding Opportunities for NGVs: A Roadmap to Brussels**, Jeffrey M. Seisler, PhD., Clean Fuels Consulting, Brussels, Belgium, (E), (20 min)

16:32 **Evolution of Turkish LPG, Autogas and LNG Market**, Can Toydemir, MSc., SHV Energy Turkey IPRAGAZ, Istanbul, Turkey, (E), (12 min)

16:44 **ROUND TABLE: LNG Clean Fuel – Vehicle Fueling, Bunkering and Power Generation**, Tomas Knobloch, David Aščič, Chart Ferox, a.s., Děčín, Czech Republic, (E), (15 min)

16:59 **ROUND TABLE: Incentives for Use of Natural Gas Powered Vehicles in Transport**, Marko Hodalić, MSc., Iveco S.p.A. Representative Office, Belgrade, Serbia, (S), (15 min)

17:14 **Increasing the Use of Natural Gas in Transport in the Republic of Croatia**, Assist.Prof. Daria Karasalihović, PhD., Ivan Smajla, MSc., Lucija Jukić, MSc., Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Zagreb, Croatia, (C), (12 min)

17:26 **PANEL DISCUSSION, SPONSOR: IVECO**, Moderator: Davor Matić, MSc. Energetska akademija Ltd., Zagreb, Croatia, Panelists: Marko Hodalić, Iveco S.p.A. Representative Office, Belgrade, Serbia, (S), Zoran Dojčinović, Croatian Gas Association, Prof. Daria Karasalihović Sedlar, PhD., Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Zagreb, Croatia, (C), Jeffrey M. Seisler, PhD., Brussels, Belgium, Can Toydemir, MSc., SHV Energy Turkey IPRAGAZ, Istanbul, Turkey, Tomas Knobloch, Chart Ferox, a.s., Děčín, Czech Republic, (E), (20 min)





## DETAILED PROGRAMME

### 8 VARIOUS ISSUES IN THE GAS AND ENERGY PROFESSION

Moderator: Zoran Dojčinović, Croatian Gas Association, Zagreb, Croatia

- 17:46 **Utilizing the Fuel Flexibility of Gas Turbines to Support Renewables and Decarbonize Energy Production**, Michael Welch, Siemens Industrial Turbomachinery Ltd., Lincoln, United Kingdom, (E), (12 min)
- 17:58 **Current and Future Role of the Arab Region in Satisfying Europe's Gas Needs**, Wael Abdel Moati, MSc., Organization of Arab Petroleum Exporting Countries (OAPEC), Safat, Kuwait, (E), (12 min)
- 18:10 **The Results of Gas Production Increase by Mobile Compressors Skid Units from the Mature Gas Fields "Podravina Deep"**, Svetlana Petrović, PhD., INA Industrija nafte d.d., Zagreb, Croatia, (C), (12 min)
- 18:22 **Synergy of the Gas and Electric Power System Regulation**, Daniel Štimac, Tomislav Robina, Helena Benković, Nenad Švarc, MSc., HEP-Proizvodnja Ltd., Zagreb, Croatia, (C), (12 min)
- 18:34 **Challenges in the implementation of Commission Regulation (EU) No 813/2013 of 2 August 2013**, Mirta Pokršćanski Landeka, Ministry of Economy, Entrepreneurship and Crafts, Zagreb, Croatia, (C), (12 min)
- 18:46 **Gasification of Dalmatia: Support to Protection of Environment and Human Health**, Vlado Mandić, EVN Croatia Plin Ltd., Zagreb, Croatia, (C), (12 min)
- 18:58 **ROUND TABLE: Development Opportunities of Welding Quality Systems**, Vladimir Mitrović, INDUSTRIESERVICE Ltd., Šibenik, Croatia, (C), (15 min)

FRIDAY  
MAY 10<sup>TH</sup>

- 19:13 **LNG Regasification: Capital Optimization at Early Design Stages**, Randeep Agarwal, Queensland University of Technology, Brisbane, Australia, (E), (12 min)
- 19:25 **Waste Gas Usage on the Jakuševac-Zagreb Landfill and Challenges in the Future**, Tomo Krivačić, Antonija Hojnik Vukojević, Anita Udovičić, ZG holding Ltd. - Podružnica ZGOS, Zagreb, Croatia, (C), (12 min)
- 19:37 **DISCUSSION: SESSION 8** (10 min)
- 20:30 **NETWORKING COCKTAIL PARTY** for all participants, **Outdoor pool area of Grand Hotel Adriatic** (until 22,30 o'clock)

### 9 ISSUES RELATING TO GAS DISTRIBUTERS IN TERMS OF SYSTEM EFFICIENCY AND SECURITY

Moderator: Nikica Dujmović, Gradska Plinara Zagreb Ltd., Zagreb, Croatia

- 9:00 **High Quality Steel Pipeline Maintenance - A Prerequisite for Long-Term Use**, Nikica Dujmović, Gradska Plinara Zagreb Ltd., Zagreb, Croatia, (C), (12 min)
- 9:12 **Balancing the Pressures of the Gas Distribution System City Gasworks Zagreb Ltd.**, Petar Ivančić, Nikica Dujmović, Gradska Plinara Zagreb Ltd., Zagreb, (C), (12 min)
- 9:24 **Application of GIS Technology and Artificial Intelligence in the Natural Gas Supply Sector**, Igor Majdandžić, ININ informatički inženjering Ltd., Slavonski brod, (C), (12 min)
- 9:36 **Reconstruction of the Gas Network – From the Idea Until Realisation**, Davor Kodba, Damir Pavišić, Tomislav Benčić, Termoplin d.d., Varaždin, Croatia, (C), (12 min)



## DETAILED PROGRAMME

9:48 **ROUND TABLE: Diagnostics of Cathodic Protection and Coating Condition of Buried Steel Pipelines Using the Combined CIPS / DCVG Technique**, Stjepan Pavliša, Veliko Trgovišće, Croatia, (C), (15 min)

10:03 **ROUND TABLE: Fastra Company, Ltd., Specialist in the Service of Pipelines System, Producer Special Equipment for Pipeline Systems, Supplier of Complete Pipeline Repair System**, Milan Bartl, Fastra Ltd, Kolín, Czech Republic, (E), (15 min)

10:18 **DISCUSSION: SESSION 9** (10 min)

### 10 TECHNICAL REGULATIONS, RULES OF THE PROFESSION AND CONSUMER RIGHTS

Moderator: Srećko Ezgeta – Elektrometal-distribucija plina Ltd., Bjelovar, Croatia

10:28 **DVGW Code of Practice G 600 - TRGI Technical Rule for Gas Installations**, Aida Bučo-Smajić, DVGW Deutscher Verein des Gas- und Wasserfaches e.V., Bonn, Germany, (B), (12 min)

10:40 **Energy Infrastructure, Energy Undertaking and Concessions on Maritime Demesne**, Mišo Mudrić, PhD., Faculty of Law, University of Zagreb, Zagreb, Croatia, (C), (12 min)

10:52 **The Rigidity of the Croatian Law on Flammable Liquids and Gases and the Responsibility of Gas Distribution System Operators**, Mario Jelić, Gradska Plinara Zagreb Ltd., Zagreb, Croatia, (C), (12 min)

11:04 **Legal Challenges for Companies and Regulators with Bundled Products**, Petra Šantić, LL.M., Petra Šantić in cooperation with Schönherr, Zagreb, Croatia, (C), (12 min)

11:16 **Impact of the General Data Protection Regulation (GDPR) on Blockchain Technology in Energetics**, Marija Bošković Batarelo, LL.M., Domagoj Bodlaj, Privacy Company d. o. o., Zagreb, Croatia, (C), (12 min)

11:28 **DISCUSSION: SESSION 10** (10 min)

11:38 **ORGANISER'S CLOSING SPEECH** (15 min)





## DETAILED PROGRAMME

### UNDER THE HIGH AUSPICES:



PRESIDENT OF THE REPUBLIC OF CROATIA  
KOLINDA GRABAR-KITAROVIC



REPUBLIC of CROATIA  
Ministry of Environment  
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