

PETROLEUM ENGINEERING SUMMER SCHOOL  
INTER-UNIVERSITY CENTRE  
DUBROVNIK, CROATIA

JUNE 14 - 18, 2010



University of Zagreb  
**FACULTY OF MINING,  
GEOLOGY AND PETROLEUM  
ENGINEERING**



PETROLEUM  
ENGINEERING  
SUMMER  
SCHOOL

Inter  
University  
Centre  
Dubrovnik 

Interactive Seminar - Workshop 29

# Exploration and Production of Hydrocarbon Reserves from Unconventional Deposits

Short Course - Round Tables:

Production Integration and Management,  
Energy Security and Energy Supply to the South East of Europe

**FINAL PROGRAM**



Inter-University Centre  
4, Don Frana Bulića



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Ina's Exploration and Production Segment, deals with the exploration, development and production of oil and natural gas in Croatia and abroad. It was founded in 1952. Since then, Croatia has recorded a constant surge in the area of exploration and development. Soon upon its inception, Ina's Exploration and Production Segment started its business operations abroad. So far, it has been involved in 20 foreign countries, and currently it runs operations in Angola, Egypt, Syria, Namibia and Iran.



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# **Exploration and Production of Hydrocarbon Reserves from Unconventional Deposits**

Short Courses – Round Tables:  
Production Integration and Management,  
Energy Security and Energy Supply to the South East of Europe

## Final Program

Inter-University Centre  
4, Don Frana Bulića

DUBROVNIK  
JUNE 14 - 18 , 2010

## DIRECTORS

**Zaki Bassiouni** (*Louisiana State University, USA*)

**Igor Dekanić** (*University of Zagreb, Croatia*)

**Andrew Wojtanowicz** (*Louisiana State University, USA*)

**Ivanka Jüttner Preradović** (*University of Zagreb, Croatia*)

## INTERACTIVE SEMINAR - WORKSHOP DESCRIPTION

The course will cover all aspects of exploration and production of hydrocarbon reserves from unconventional deposits, including thin deposits and gas deposits with carbon dioxide. The purpose of the course is to explore the unconventional reservoirs, methodology and technology for oil and gas production. The Short Courses – Round Tables will include the lecturing and follow up discussion on reserve management and management of complex projects in oil and gas exploration and production.

The format of this 5-day interactive seminar-workshop provides morning and afternoon sessions which include lectures (about three quarter of total working time available) and exchanging the experience (panel discussion, short scheduled presentations). One day of the time will be reserved for each Short Course-Round Table.

## PARTICIPANTS

Petroleum industry professionals and managers, upstream technology and R&D experts, geoscientists, academic staff, PhD students, PE educators, oil and gas company consultant, energy and economics experts.

## SOCIAL ACTIVITIES

- Welcome Cocktail – Monday, June 14, 1.00 p.m., IUC Atrium
- Excursion by bus to Pelješac Peninsula – Wednesday, June 16 - afternoon
- Walking tour (guided) through the historic sights of the Old City of Dubrovnik – Thursday, June 17 - afternoon
- Reception – Thursday, June 17, 8.30 p.m., Hotel Bellevue
- Farewell Cocktail - Friday, June 19

# GENERAL INFORMATION

[www.rgn-pess.com](http://www.rgn-pess.com)

[www.iuc.hr](http://www.iuc.hr)

[www.dubrovnik-online.com](http://www.dubrovnik-online.com)

## Inquiries about the Seminar - Workshop:

*Secretariat of the Inter-University Centre,  
don Frana Bulića 4, 20000 Dubrovnik, Croatia  
Phone: ++ 385-20-413-626, and ++ 385-20-413-627;  
Fax: ++ 385-20-413-628;  
e-mail: [iuc@iuc.hr](mailto:iuc@iuc.hr)*

*PESS Executive Director  
Professor Igor Dekanić, University of Zagreb  
Faculty of Mining, Geology and Petroleum Engineering,  
Pierottijeva 6, 10000 Zagreb, Croatia  
Phone: ++385-1-5535-823, GSM: ++385-98-227-911,  
Fax: ++385-1-4836-074  
e-mail: [igor.dekanic@rgn.hr](mailto:igor.dekanic@rgn.hr)*

*PESS Organization Committee  
University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering,  
Pierottijeva 6, 10000 Zagreb, Croatia*

*Assistant Professor Lidia Hrnčević,  
Phone: ++385 1 5535 837, GSM: ++385 91 5039 082  
Fax: ++385 1 4836 074  
E-mail: [lidia.hrncevic@rgn.hr](mailto:lidia.hrncevic@rgn.hr)*

*Assistant Professor Daria Karasalihović Sedlar,  
Phone: ++385 1 5535 829, GSM: ++385 98 554 507  
Fax: ++385 1 4836 074  
E-mail: [daria.karasalihovic-sedlar@rgn.hr](mailto:daria.karasalihovic-sedlar@rgn.hr)*

*Adriatic Luxury Services Travel Agency & PCO  
Tomašičeva 10, 10 000 Zagreb, Croatia  
Phone: ++385 1 4886 777, Mobile: ++385 91 4372 899  
Fax: +385 1 4886 770,  
E-mail: [andrea.grospic@als.hr](mailto:andrea.grospic@als.hr)  
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Only the participants with paid Registration fee are entitled to Conference bag with Conference Proceedings and materials and also entitled to participate in all Workshop's activities.

Dress code: Opening, Closing session & Reception – Business Casual.  
Other part – Casual.

## KEYNOTE SPEAKERS

### **Zoltán Áldott**

*(Executive Vice President of E&P, MOL Plc. and the President of the INA Management Board, Hungary)*

### **Bojan Milković**

*(Chief Executive Officer and Executive Director for Exploration and Production, INA Plc., Croatia)*

### **Hasan Fetullah Özelci**

*(Retired Director of Geology and Geophysics Research, Associate Professor, Eisenhower Fellow 1974, Turkey)*

## LECTURE TOPICS

### Professor **Zaki Bassiouni**, PhD

*(Professor Emeritus of Petroleum Engineering Chair Emeritus, Louisiana State University, USA)*

- Concept and Aspects of Integrated Reservoir Analysis
- Integration of Well Logging, Well Testing and Seismic Data in Reservoir Management
- Case Study of Integrated Reservoir Analysis

### Professor **Andrew Wojtanowicz**, PhD

*(Petroleum Engineering Department, Louisiana State University, USA)*

- Heavy Oil Resources and Methods
- Cold Production and Water Problems

### Professor **Igor Dekanić**, PhD

*(Faculty of Mining Geology and Petroleum Engineering, University of Zagreb, Croatia)*

- Energy Security and Energy Supply in SE of Europe
- Global Financial Crisis, Energy Consumption and Energy Companies

## ROUND TABLES & SHORT COURSES

- **Production Integration and Management**
- **Energy Security and Energy Supply to the South East of Europe**

## LECTURER BIOGRAPHIES



Dr. **Zaki Bassiouni** recently retired from Louisiana State University where he was a professor and chair of the Craft and Hawkins Department of Petroleum Engineering from July 1983 to June 2004 and Dean of the College of Engineering from 2004 to 2008. Dr. Bassiouni received a B.S. in Petroleum Engineering from Cairo University, a diploma in Geophysics from the Ecole Nationale Supérieure de Petrole et des Moteurs of Paris, France, and an M.S. (DEA) and Ph.D. (Docteur Es Sciences) from the University of Lille, France. Dr. Bassiouni is the recipient of SPE Distinguished Achievement Award for Petroleum Engineering Faculty for 1995, and the 2006 SPE Formation Evaluation Award. He was also a distinguished speaker for SPE's 2004-05 and 2008-09 seasons.



Dr. **Andrew K. Wojtanowicz**, Texaco Environmental Chair and Professor in the Petroleum Engineering Department at the Louisiana State University, has held faculty positions at the New Mexico Institute of Mining and Technology and the University of Mining and Metallurgy in Krakow, Poland. A UN expert in drilling engineering, Wojtanowicz has worked in Europe and Africa. Wojtanowicz studies were reported in 180 publications and four books. In 1992/93 he worked for Conoco Inc. as an Environmental Research Fellow. In 1996, Petroleum Engineer International awarded him a Special Meritorious Award for Engineering Innovation for water coning control technology with Downhole Water Sink (DWS). Since 1997, Wojtanowicz has directed a Joint Industry Project (JIP) concerning R&D and field implementation of DWS. He has also served as the 2003–04 SPE Distinguished Lecturer of the Downhole Water Separation technology. Presently, he is an Editor-in Chief of ASME Transactions Journal of Energy Resources Technology. He holds PhD and DSc degrees in petroleum engineering from the University of Mining and Metallurgy, and a Polish title of Professor of Technical Sciences.



Dr. **Igor Dekanić** graduated from the Mining, Geology and Petroleum Engineering Faculty of the University of Zagreb 1975; M.S. degree in 1977 and PhD in 1981. In 1987 he acquired Eisenhower Exchange Fellowships in USA. He received some other special training in USA 1996 and 2000, Northern Ireland 1998 and Great Britain 1999. He worked for INA (Oil Industry), Zagreb, as research specialist and the Advisor to the General Director of INA Group; 2000 – 2005 he was the Advisor to the President of the Republic of Croatia. Since 1990 Associate Professor, 1999 elected Full Professor, and since 2004 Permanent Full Professor at the University of Zagreb. He is author of 7 books and some 90 articles on petroleum economics and energy geopolitics. He led several research projects in energy economics, energy geopolitics and development strategies. He was involved in a number of projects and consulting in the energy sector of Croatia. He was elected as Vice President of the Energy Council of Croatian Academy of Sciences & Arts.

## LIST OF ROUND TABLES PRESENTATIONS

1. **Boris Kuznetsov** (Center for International and Regional Policy, Russian Federation): *European Energy Security: The Case of Nord Stream and South Stream*
2. **Damir Vrbić** (Janaf Plc. Croatia): Oil Pipelines and Security of Supply to South East Europe
3. **Dražena Kreković** (INA Plc. Croatia): Security of Energy Supply- Key Postulates
4. **Konstantin Simonov** (National Energy Security Fund, Russian Federation): *The Role of Russian Federation in Global Energy Supply*

## LIST OF SHORT PRESENTATIONS

1. **Alan Feigl** (INA Plc. Croatia): Influence of Trapped Gas Saturation on Oil Recovery During Application of Secondary Processes
2. **Hrvoje Jurčić**, Srećko Maretić (INA Plc. Croatia): Petrophysical Parameters Evaluation in Unconventional Reservoirs
3. **Ines Hemetek Potroško**, Lidija Jaković (INA Plc. Croatia): Importance of Domestic Production from Gas Field Molve- The Contribution to Croatian Energy Sector
4. **József Dormán**, László Győry (MOL Plc. Hungary): A Challenging Issue: Drilling Fluids for Development of Deep, Hot Unconventional Resources
5. **András Németh** (MOL Plc. Hungary): Unconventional Gas Prospectivity of Zala Basin, Sw Hungary
6. **Károly Kiss** (MOL Plc., Hungary): Overview of Mol's Unconventional Exploration with Special Focus on Drava & Zala-Mura Basins, Hungary-Croatia
7. **Arso Putniković**, Lilit Cota (INA Plc. Croatia): Unconventional Gas in the NW Drava and Mura Basins - Area and Well Candidates for Fracturing and Horizontal Drilling
8. **Ivica Vulama** (INA Plc. Croatia): Unconventional Play of Assorted Hydrocarbon Source Rocks Localities in Croatia
9. **Sonja Koščak Kolin**, Marin Čikeš (University of Zagreb, Croatia): Advances in Hydraulic Fracturing Technologies Applied to Tight Gas Sand Reservoirs



# PROGRAM

## Sunday – June 13, 2010

4.00 p.m. – 7.00 p.m. Registration of Participants  
(Inter-University Center (IUC),  
4 Don Frana Bulića, Dubrovnik)

## Monday – June 14, 2010

8.00 a.m. – 9.15 a.m. Registration of Participants  
(IUC, PESS Office, First Floor)

9.30 a.m. – 10.00 a.m. Opening Ceremony  
Welcome Addresses  
(IUC, Conference Room, Ground Floor)  
**Gordan Bedeković** (Vice Dean of Faculty of Mining Geology  
and Petroleum Engineering, University of Zagreb, Croatia)

10.00 a.m. – 10.30 a.m. Coffee Break

**10.30 a.m. – 1.00 p.m. The First Session -  
Production Integration and Management**  
(IUC, Conference Room, Ground Floor)

Chairmen / Moderators: **Igor Dekanić** (University of Zagreb, Croatia),  
**Zaki Bassiouni** (USA)

10.30 a.m. – 12.30 p.m. Keynote speakers:  
**Zoltán Áldott** (Executive Vice President of E&P, MOL Plc.  
and the President of the INA Management Board, Hungary)  
**Bojan Milković** (Chief Executive Officer and Executive Director  
for Exploration and Production, Croatia)

**Hasan Fetullah Özelci** (Turkey): *Production Integration  
and Management*

**Zaki Bassiouni** (USA): *Production Integration  
and Management*

12.30 p.m. – 1.00 p.m. Panel Discussion

1.00 p.m. – 2.00 p.m. Welcome Cocktail  
(IUC Atrium)

**4.00 a.m. – 7.00 p.m.**

**The Second Session -  
Lectures / Discussion**

(IUC, Conference Room, Ground Floor)

Chairmen / Moderators:

**Andrew K. Wojtanowicz** (Louisiana State University, USA)  
**Ivanka Juttner Preradović** (University of Zagreb, Croatia)

4.00 p.m. – 5.00 p.m.

**Zaki Bassiouni** (USA): *Production Integration and Management*

5.00 p.m. – 5.30 p.m.

Coffee Break

5.30 p.m. – 6.30 p.m.

**Zaki Bassiouni** (USA): *Production Integration and Management*

6.30 p.m. – 7.00 p.m.

Panel Discussion

**Tuesday – June 15, 2010**

**9.30 a.m. – 1.30 p.m.**

**The Third Session -  
Lectures / Short Presentations / Discussion**

(IUC, Conference Room, Ground Floor)

Chairmen / Moderators:

**Arso Putniković** (INA Plc. Croatia)  
**Sonja Koščak-Kolin** (University of Zagreb, Croatia)

9.30 a.m. – 10.15 a.m.

**Zaki Bassiouni** (USA): *Production Integration and Management*

10.15 a.m. – 11.00 a.m.

**Andrew K. Wojtanowicz** (Louisiana State University, USA):  
*Heavy Oil Resources and Methods – Cold Production and  
Water Problems*

11.00 a.m. – 11.30 a.m.

Coffee Break

11.30 a.m. – 12.15 p.m.

**Andrew K. Wojtanowicz** (Louisiana State University, USA):  
*Heavy Oil Resources and Methods – Cold Production and  
Water Problems*

12.15 p.m. – 1.00 p.m.

**Alan Feigl** (INA Plc. Croatia): *Influence of Trapped Gas Saturation  
on Oil Recovery During Application of Secondary Processes*

**Hrvoje Jurčić**, Srećko Maretić (INA Plc. Croatia): *Petrophysical  
Parameters Evaluation in Unconventional Reservoirs*

**Ines Hemetek Potroško**, Lidija Jaković (INA Plc. Croatia):  
*Importance of Domestic Production from Gas Field Molve-  
The Contribution to Croatian Energy Sector*

1.00 p.m. – 1.30 p.m.

Panel Discussion

**4.00 a.m. – 7.00 p.m.**

**The Forth Session -  
Short Presentations / Discussion**  
(IUC, Conference Room, Ground Floor)

Chairmen / Moderators:

**Lidia Hrnčević** (University of Zagreb, Croatia)  
**Hrvoje Jurčić** (INA Plc. Croatia)

4.00 p.m. – 5.00 p.m.

Short presentations:  
**József Dormán**, László Győry (MOL Plc. Hungary):  
*A Challenging Issue: Drilling Fluids for Development of Deep,  
Hot Unconventional Resources*

**András Németh** (MOL Plc. Hungary): *Unconventional Gas  
Prospectivity of Zala Basin, Sw Hungary*

**Károly Kiss** (MOL Plc., Hungary): *Overview of Mol's  
Unconventional Exploration with Special Focus on Drava &  
Zala-Mura Basins, Hungary-Croatia*

5.00 p.m. – 5.30 p.m.

Coffee Break

5.30 p.m. – 6.30 p.m.

**Arso Putniković**, Lilit Cota (INA Plc. Croatia): *Unconventional  
Gas in the NW Drava and Mura Basins - Area and Well  
Candidates for Fracturing and Horizontal Drilling*

**Ivica Vulama** (INA Plc. Croatia): *Unconventional Play of  
Assorted Hydrocarbon Source Rocks Localities in Croatia*

**Sonja Koščak Kolin**, Marin Čikeš (University of Zagreb,  
Croatia): *Advances in Hydraulic Fracturing Technologies  
Applied to Tight Gas Sand Reservoirs*

6.30 p.m. – 7.00 p.m.

Panel Discussion

**Wednesday – June 16, 2010**

**9.30 a.m. – 1.00 p.m.**

**The Fifth Session -  
Lectures / Discussion**  
(IUC, Conference Room, Ground Floor)

Chairmen / Moderators:

**Ines Hemetek Potroško** (INA Plc., Croatia)  
**Damir Vrbić** (Janaf Plc., Croatia)

9.30 a.m. – 11.00 a.m.

**Andrew K. Wojtanowicz** (Louisiana State University, USA):  
*Heavy Oil Resources and Methods – Cold Production  
and Water Problems*

11.00 a.m. – 11.30 a.m.	Coffee Break
11.30 a.m. – 12.30 p.m.	<b>Andrew K. Wojtanowicz</b> (Louisiana State University, USA): Heavy Oil Resources and Methods – Cold Production and Water Problems
12.30 p.m. – 1.00 p.m.	Panel Discussion
2.00 p.m. – 8.00 p.m.	<b>Excursion</b> (Pelješac Peninsula)

## Thursday – June 17, 2010

<b>9.30 a.m. – 1.00 p.m.</b>	<b>The Sixth Session - Short Course / Round Table: Energy Security and Energy Supply to the SE of Europe</b> (IUC, Conference Room, Ground Floor)
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Chairmen / Moderators:	<b>Daria Karasalihović Sedlar</b> (University of Zagreb, Croatia) <b>József Dormán</b> (MOL Plc. Hungary)
9.30 a.m. – 10.30 a.m.	<b>Igor Dekanić</b> (University of Zagreb, Croatia): <i>Energy Security and Energy Supply in SE of Europe</i>
10.30 a.m. – 11.00 a.m.	<b>Boris Kuznetsov</b> (Center for International and Regional Policy, Russian Federation): <i>European Energy Security: The Case of Nord Stream and South Stream</i>
11.00 a.m. – 11.30 a.m.	Coffee Break
11.30 a.m. – 12.30 p.m.	<b>Damir Vrbić</b> (Janaf Plc. Croatia): <i>Oil Pipelines and Security of Supply to South East Europe</i>  <b>Dražena Kreković</b> (INA Plc. Croatia): <i>Security of Energy Supply- Key Postulates</i>
12.30 p.m. – 1.00 p.m.	Panel Discussion
4.00 p.m. – 7.00 p.m.	<b>Walking Tour</b> – Old City of Dubrovnik
8.30 p.m.	<b>Reception</b> (Hotel Bellevue)

Friday – June 18, 2010

9.30 a.m. – 1.00 p.m.

**The Final Session -  
Lectures / Discussion / Closing Ceremony**  
(IUC, Conference Room, Ground Floor)

Chairmen / Moderators:

**Igor Dekanić** (University of Zagreb, Croatia)  
**Andrew K. Wojtanowicz** (Louisiana State University, USA)  
**Zaki Bassiouni** (USA)

9.30 a.m. – 10.15 a.m.

**Konstantin Simonov** (National Energy Security Fund, Russian Federation): *The Role of Russian Federation in Global Energy Supply*

10.15 a.m. – 11.00 a.m.

**Igor Dekanić** (University of Zagreb, Croatia): *Energy Consumption, Global Financial Crisis and Energy Companies*

11.00 a.m. – 11.30 a.m.

Coffee Break

11.30 a.m. – 12.00 a.m.

Panel Discussion

12.00 a.m. – 12.30 p.m.

**Closing of Interactive Seminar – Workshop 29**

12.30 p.m. – 1.00 p.m.

**Press Conference**

1.00 p.m.

**Farewell Cocktail** (IUC Atrium)



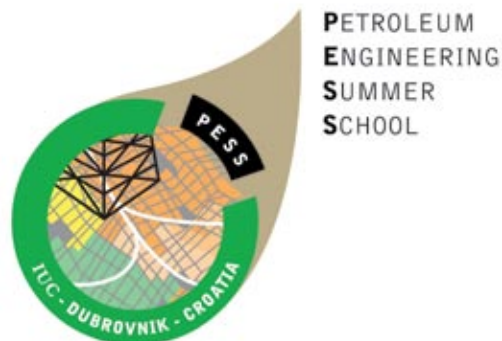
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