

Contacts and overall information about institution

Name of Organisation:	Ivano-Frankivsk National Technical University of Oil and Gas		
City	Ivano-Frankivsk	Zip Code:	76019
Street	Karpatska st., 15		
Status of Organisation:	Higher education establishmen (University, etc.)		
Name of Research Unit:	R&D Institute of Oil and Gas Power Engineering and Ecology		
S & T Activity Fields:			
FP7 Priorities	Energy		
Frascati classification	2. Engineering and Technology		
Description of activities	The institute is focused on the problem of the energy determination of natural gas using low cost instruments. The instruments has to be developed in the frame of the project. Research idea of the project: simultaneous measurement of the speed of sound and carbon dioxide concentration in natural gas and calculation of the heating value using specialized software (neural network-based). Instruments for heating value determination are required by ISO 15112 Natural Gas. Energy determination		
Website:	http://science.nung.edu.ua		
Overall Description of Institute (Research Unit)	Consumers are willing to put the cost of the consumed natural gas in relation to the obtained energy, not only the volume. Existing industrial systems for natural gas heating value determination are based either on direct (calorimetric) method or chromatographic measurements. These methods and their embodiments are quite expensive, off-line and suffer from many obstacles in their industry application. Main European gas companies during last 5 years focused their research on the problem of development of the efficient and low-cost systems which could be easier applied and will enable on-line measurements of the natural gas heating value.		
Head of Research Unit:	Name: Maksym Karpash		
Position Title:	Dr.		
Work Phone:	+380342242002	Other Phone:	+380342504708
Fax:	+380342242002	Email:	mkarpash@nung.edu.ua
Contact Person of Research Unit :	Name: Dr. Maksym Karpash		
Work Phone:		Other Phone:	

Fax:

Email:

Resources and international Activities

Number of Researchers in Unit:

Research Facilities:

As the concept of commercial calculations between consumers and providers of natural gas based on actual heating value and volume of the consumed gas is being implemented in EU member states, the outputs of the project will be more effectively recognised by ERA, rather than Ukrainian or local authorities

Number of International Projects:

3

Name and Number of major Publications:

O.Karpash, I.Darvay, M.Karpash. New approach to natural gas quality determination // Journal of Petroleum Science and Engineering, Vol. 71, Issues 3-4, April 2010, pages 133-137

Participation in 7th Framework Programme:

Food, Agriculture, Fisheries and Biotechnology:

Energy:

Environment (Including Climate Change):

Health:

Information and Communication Technologies:

Nano Sciences, Nano Technologies, Materials and New Production Technologies:

Security

Socio-economic Sciences and the Humanities

Space

Transport (Including Aeronautics)

Capacities

Other international project experience:

Project TEMPUS UNINET 159239-TEMPUS-1-2009-1-SE-TEMPUS-JPGR "Innovation cross-university network for development of partnership with enterprises" (2010-2013).
Project 159327-TEMPUS-1-AT-TEMPUS-SMGR "E- internalisation for collaborative learning" (2010-2013)