

[Indico] Registration for EURIZON Fellowship Programme: Remote Research Grants for Ukrainian Researchers

1 повідомлення

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5 травня 2023 р. о 18:01

Кому: olha.zvirko@gmail.com

EURIZON Fellowship Programme: Remote Research Grants for Ukrainian Researchers

Online Application Form

ref: #253

Dear Olha Zvirko,

Thank you! Your registration for the event **EURIZON Fellowship Programme: Remote Research Grants for Ukrainian Researchers** (1 Apr 2023, 12:00 - 8 May 2023, 12:00) has been received.

We would like to inform you that you can edit your application until 8 May 12:00 (Brussels time). All submitted applications will be evaluated after 8 May.

To edit your application please scroll down to the end of this e-mail and click on "Manage my registration".

In case of any questions please send an email to applications@eurizon-project.eu.

We will announce the results of the evaluation to all applicants in June 2023.

The starting time of the projects is scheduled for July 2023.

Please do not reply to this e-mail.

Best regards,
EURIZON Secretariat

1. Research Project overview

1.1 Title of the research project:	Development of methodology for assessment of susceptibility to brittle fracture and hydrogen embrittlement of existing gas infrastructure steels at green hydrogen transportation
1.3 Research Project duration:	12 Months duration
1.4 Keywords:	Materials science, hydrogen transportation, gas pipeline, hydrogen embrittlement, fracture
1.5 Research thematic area:	2-ENERGY;
1.6 Ethical issues:	No

2. Research project description

2.1 Brief outline of the research project (abstract):	Hydrogen energy is considered as an important component of Ukraine's energy security. There is a need to repurpose existing Ukrainian gas grids for hydrogen. Considering its significant service life, it is important to assess the possibility of safe transportation of hydrogen or its mixtures with natural gas through existing gas transportation networks. Therefore, the project aims at developing
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ping a methodology for assessing the hydrogen effect on the mechanical performance and corrosion resistance of pipeline steels, combining experimental evaluation of hydrogen-affected mechanical and corrosion properties with modelling stress and strain distributions in the crack tip. Pipeline steels, which are the most commonly used in Ukrainian natural gas transmission system, will be investigated. Experimental combination of gaseous and electrochemical hydrogen charging of steels simulating operational conditions will be applied. The properties and fracture mechanism of operated steels will be compared with that for steels in the as-received state (from reserved pipes), which enables evaluating the effect of aging on hydrogen embrittlement sensitivity of pipeline steels. A special attention will be paid to the characteristics of resistance to brittle fracture, in particular, fracture toughness. The European partner's research focused on modelling the stress-strain state at the crack tip will be used for prediction susceptibility of operated pipeline steels to brittle fracture considering the influence of the hydrogen charging on the metal stress-strain state. The obtained scientific and practical results will be useful for the development of hydrogen energy both in Ukraine and in the EU countries.

2.2 RESEARCH PROJECT DESCRIPTION TEMPLATE:

research project full description, impact, dissemination and collaboration with the European partners:

EURIZON Fellowship_Research Project Description_Signed.pdf

3. European Partner(s)

3.1 European partner(s) first name and last name:

Dr. hab. Inz. Ihor DZIOBA, Prof., Department of Machine Design, Faculty of Mechatronics and Mechanical Engineering, Kielce University of Technology;
Prof. Dr. hab. Inz. Grzegorz SWIT, Dean Faculty of Civil Engineering and Architecture, Kielce University of Technology
pkmid@tu.kielce.pl

3.2 European partner(s) e-mail address:

3.3 Name, address and/or website of the European RIs/Institute(s) of affiliation of the European Partner:

Kielce University of Technology; Av. 1000-an. of Polish State, 7, 25-314 Kielce, Poland; <https://international.tu.kielce.pl>

3.4 Have you already contacted the suggested partners?:

Yes, I have already contacted them

3.5 (optional) Supporting document from European partners:

Support_letter EURIZON Fellowship Programme.pdf

4. Principal Investigator (PI)

Title:

Prof.

4.1 First Name (English alphabet):

Olha

4.2 Family Name (English alphabet):

Zvirko

4.3 Gender:

F

4.4 Date of birth:

01/03/1977

4.5 Citizenship:

Ukraine

4.6 Email Address:

olha.zvirko@gmail.com

4.7 Current personal address:

[7/7, Troleibusna St., Lviv](#), 79053, Ukraine

4.8 Country of current residence:

Ukraine

4.9 Phone Number:	+380322632133
4.10 Affiliation Institute:	Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine
4.11 Affiliation Institute address:	5, Naukova St., Lviv, 79060, Ukraine
4.12 Affiliation institute website:	https://www.ipm.lviv.ua/
4.13 Position:	Head of Department
4.14 Knowledge of English:	Very Good
4.15 Details of the doctoral degree:	D.Sc. in Materials Science, 2018. Ph.D. in Chemical Resistance of Materials and Corrosion Protection, 2006.
4.16 Institute of graduation:	Doctorate program, Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, 2016-2018. Post-graduate course, Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, 2001–2005.
4.17 Possible experience in managing international collaborations (optional):	Joint Ukrainian-Polish R&D Project "Interfacial strength examination of new hybrid composite materials using fracture mechanics approach, 2020–2021, Project leader.

5. Research team overview

5.1 Does your team include women researchers?:	Yes
5.2 Does your team include young researchers (<35 years old)?:	Yes
5.3 Number of team members (including the PI):	More than 5 Members

6. Self-declaration statement

Self-declaration statement:	EURIZON Fellowship_Self-declaration of vulnerability_Signed.pdf
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7. Resumes (CV) of the team members

CV of the research team members:	CV.pdf
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8. Publication Lists

Publication list (applicable only for the researchers of the team):	Publications.pdf
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9. Recommendations letter (OPTIONAL)

Recommendation letters (optional):	Reccomendation EURIZON Fellowship Programme.pdf
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Contact: applications@eurizon-project.eu

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