

**RISE Marie Skłodowska-Curie Projects CONFERENCE &
SATELLITE WORKSHOPS**

ODAE 2019

**International Conference on Open Dialog in Applied
Engineering: Recent Advances and New Frontiers**



14-17 November, 2019 Funchal, Portugal

Nanomaterials – based innovative engineering solution to ensure sustainable safeguard to indoor air is the “NANOGUARD2AR” 696809 project H2020-MSCA-RISE-2015

Advanced Humidity to Electricity Converter is the “HUNTER” 691010 project H2020-MSCA-RISE-2015

Nanoporous and Nanostructured Materials for Medical Applications is the “NANOMED” 734641 project H2020-MSCA-RISE-2016

**CONFERENCE & Satellite WORKSHOPS 2019 meeting H2020-MSCA-RISE-2015 690968,
601010 and H2020-MSCA-RISE-2016 734641 projects**

Scope:

Open Dialog in Applied Engineering will bring together scientists and engineers around the world, to discuss the most recent development and trends in applied engineering and to disseminate the latest innovation resulted from the EU founded Marie Curie RISE projects HUNTER 691010, NANOGUARD2AR 690968 and NANOMED 734641.

ODAE addresses recent advance, progress proven practice and new frontiers in the listed topics, thus aimed at creation a forum/platform for interdisciplinary or multidisciplinary engineering dialog, to provide sustainability for the EU funded project/initiatives

TOPICS covered

- Materials Engineering
- Nanoelectronics
- Chemical Engineering
- Environmental Engineering
- Renewable Energy Engineering
- Nanomedicine
- Industrial Engineering Management
- Economics and Business

Conference and Workshop Organizers:

Prof. Dr. Svitlana Lyubchik
NANOGUARD2AR 690968, Coordinator
NOVA.id.FCT, Associação para a Inovação e Desenvolvimento at Faculdade de Ciências e Tecnologia, Portugal E-mail: s.lyubchik@fct.unl.pt

Prof. Jose Oliveira Santos E-mail: p540@ulusofona.pt
Prof. Fernando Catarino
ULHT- UNIVERSIDADE LUSÓFONA, Portugal E-mail: fernando.catarino@ulusofona.pt

Dr. Andriy Lyubchik
HUNTER 691010, Coordinator
UNINOVA Instituto de Desenvolvimento de Novas Tecnologias, Portugal
E-mail: andrey.lyubchik@campus.fct.unl.pt

Prof. Joaquín Silvestre Albero
NANOMED 734641 Coordinator,
Department of Inorganic Chemistry, University of Alicante, Spain
E-mail: joaquin.silvestre@ua.es

Venue: hotel Savoy Palace, Av. do Infante 25, 9004-542 Funchal, Madeira

Conference Website: <http://www.eng-odae2019.org/>

Projects Websites <http://www.nanoguard2ar.eu/>; <http://hunter-greenenergy.com/>;
<http://www.nanomed-project.eu/>

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601010 and H2020-MSCA-RISE-2016 734641 projects**

Thursday, November 14

19:00- 21:30

Registration + Welcome Party Hibiscus Restaurant (Floor 0), at 19:30
Av. do Infante 25, 9004-542 Funchal, Madeira

Friday, November 15

Boardroom of the Jacarandá, 16th floor hotel Savoy Palace
Av. do Infante 25, 9004-542 Funchal, Madeira

8:30- 8:50

Opening Address

Prof. Dr. Jose Oliveira Santos ULHT- UNIVERSIDADE LUSÓFONA, Engineering Faculty, Dept. Industrial Management, PORTUGAL

Madeira Government & Industry Representatives

Dr.ª Filipa Azevedo- Diretora Invest Madeira, *Eng Luís Duarte Silva* -Presidente Xis Group, *Eng Jorge Dias Fernandes*: Diretor EXPEDITA, *Eng Jose Freitas*

Prof. Dr. Svitlana Lyubchyk, Project Coordinator, NOVA id FCT and REQUIMTE, Faculdade

8:50- 10:10

Advance in Physics and Chemical Engineering

Keynote 1:

Prof. Dr. Igor Lukyanchuk, Département de Physique, Université de Picardie Jules Verne, FRANCE

Nanoscale ferroelectrics for nanoelectronics

Keynote 2

Prof. Dr. Paulo Mota Department of Chemistry, Faculdade de Ciência e Tecnologia, Universidade Nova de Lisboa, PORTUGAL

Advance and Innovation in Chemical Engineering Materials and Processes

Chair – Prof. Jose Oliveira Santos ULHT- UNIVERSIDADE LUSÓFONA, PORTUGAL

10:10- 10:40

Coffee Break Jacarandá Lounge, the 16th floor

10:40- 12:00

Advance in Environmental Engineering and Medicine

Keynote 3

CEO Dr. Paulo Zaragoza Pedro, Ar Diagnostic Ltd., PORTUGAL

Aquaponics – How to grow vegetables and fish in harsh conditions

Keynote 4

Prof. Mikhail Eroshkin Laboratory of Influenza Evolutionary Variability, Department of Molecular Virology, Research Institute of Influenza, RUSSIAN FEDERATION

Antiviral drug design – the example of influenza

Chair – Prof. Dr. Svitlana Lyubchyk, LAQV/REQUIMTE, FCT/UNL, PORTUGAL

12:00- 14:00

Conference Lunch Jacarandá Lounge, the 16th floor Saoy Hotel Palace

<p>14:00- 15:30</p>	<p>Introduction to the Panel 1 discussion: Advance in Nanomaterials Engineering for Nanoelectronics, Renewable Energy application</p> <p>Keynote 5.</p> <p>CONCEPT “HUNTER” Main Developments, Current Progress & Perspectives <i>Dr. Andriy Lyubchyk, UNINOVA, Department of Materials, Faculdade de Ciência e Tecnologia, Universidade Nova de Lisboa, PORTUGAL</i></p> <p>Oral Presentation.</p> <p><i>Dr. Alexander Doroshkevich JINR Dubna State University, RUSSIAN FEDERATION & DIPE Donetsk Institute for Physics and Engineering UKRAINE</i></p> <p><i>Technology of adsorption electric generators</i></p> <p>Keynote 6.</p> <p><i>Prof. Daoud Mezzane Dept of Physics, Cadi Ayyad University, MORROCO</i></p> <p><i>Electromechanical and Electrocaloric Properties of Lead-Free BCT, BCZT and BCT-BCZT Ceramics</i></p> <p>Chair – Prof. Igor Lukyanchuk, Université de Picardie Jules Verne, FRANCE</p>
<p>15:30- 16:00</p>	<p>Coffee Break Jacarandá Lounge, the 16th floor</p>
<p>16:00- 18:00</p>	<p>Panel 1: Nanomaterials, Nanoelectronics, Renewable Energy</p> <p>Chair – Dr. Andriy Lyubchyk, UNINOVA, FCT/UNL, PORTUGAL</p> <p>Oral Presentations</p> <p><i>Prof. Alexey Evstratov, IMT INSTITUT MINES-TELECOM, FRANCE</i> <i>Renewable energy sources based on continuous electric charge recovery from aqueous media</i></p> <p><i>CEO. Jacques Frisonroche SOLENE-R, FRANCE</i> <i>Urban waste water as electric charge provider</i></p> <p><i>Prof. Vitalii Ksenevich BSU- BELARUSIAN STATE UNIVERSITY, BELARUS</i> <i>Nonstoichiometric tin dioxide films: fabrication, properties and applications</i></p> <p><i>Prof. Miroslav Kulik JINR Dubna State University, RUSSIAN FEDERATION</i> <i>Rutherford Backscattering Spectrometry and nuclear reactions (RBS/NR) measurements in modern scientific research. Influence of Al ion implantation temperature on the atomic and chemical composition of the GaAs surface layer</i></p> <p><i>PhD Student Alisa Tatarinova JINR Dubna State University, RUSSIAN FEDERATION</i> <i>The Rutherford Backscattering Spectrometry in studying of the elemental composition of the generalized phase boundary of the functional layer of an adsorption electric generator based on ZrO₂ – nanopowders</i></p> <p><i>CEO, Dr. Mario Boucinha Blueorizon Lda, PORTUGAL</i> <i>NZEB...W.W.W.H.</i></p>
<p>19:15- 22:30</p>	<p>CONFERENCE DINNER (Bus at 19:15) Restaurant Santo António</p>

Saturday, November 16

Boardroom of the Jacarandá, 16th floor hotel Savoy Palace

Av. do Infante 25, 9004-542 Funchal, Madeira

8:30- 10:10	<p>Introduction to the Panel 2 discussion: Advance in Environmental Engineering</p> <p>Keynote 7. Twin Presentation CONCEPT “NANOGUARD2AR Innovation & Main Developments <i>Prof. Dr. Svitlana Lyubchyk, NOVA id FCT, Department of Chemistry, Faculdade de Ciência e Tecnologia, Universidade Nova de Lisboa, PORTUGAL</i></p> <p>Full size prototype testing Current Progress <i>Eng. Dr. Joao Viegas, LNEC-Laboratório Nacional de Engenharia Civil, PORTUGAL</i></p> <p>Oral Presentation. <i>CEO Dr. Paulo Zaragoza Pedro, Ar Diagnostic Ltd., PORTUGAL</i> <i>Airborne Pathogens and Indoor Air Quality Current</i></p> <p><i>Prof. Alexey Evstratov, IMT INSTITUT MINES-TELECOM, FRANCE</i> <i>New processes and new materials for indoor air antimicrobial conditioning</i></p> <p>Chair – <i>Prof. Dr. Paulo Mota, Universidade Nova de Lisboa, PORTUGAL</i></p>
10:10- 10:40	<p>Coffee Break Jacarandá Lounge, the 16th floor</p>
10:40- 12:00	<p>Panel 1: Advance in Environmental Engineering Chair – <i>CEO Dr. Paulo Zaragoza Pedro, Ar Diagnostic Ltd., PORTUGAL</i></p> <p>Oral Presentations <i>Prof. Christophe Colbeau-Justin, LCP-Laboratoire de Chimie Physique, UPS-UNIVERSITÉ PARIS-SUD, FRANCE</i> <i>Industrial Photocatalysis</i></p> <p><i>Prof. Nikolai Poklonski BSU- BELARUSIAN STATE UNIVERSITY, BELARUS</i> <i>Low-dimensional carbon systems vs. water vapor</i></p> <p><i>Prof. Tatiana Strelakova School of Mental health and Neuroscience, Department of Neuroscience, Maastricht University, NETHERLANDS</i> <i>Environmentally healthy water with optimal isotope content: a quest to re-visit our standards?</i></p> <p>Twin Presentations <i>Environment and Health Risk Assessment</i></p> <p><i>Prof. Dr. Svitlana Lyubchyk, NOVA id FCT, Department of Chemistry, Faculdade de Ciência e Tecnologia, Universidade Nova de Lisboa, PORTUGAL</i></p> <p><i>Dr. Nina Taran, Bogomolets National Medical University, UKRAINE</i></p>
12:00- 14:00	<p>Conference Lunch Jacarandá Lounge, the 16th floor Saoy Hotel Palace</p>

CONFERENCE & Satellite WORKSHOPS 2019 meeting H2020-MSCA-RISE-2015 690968, 601010 and H2020-MSCA-RISE-2016 734641 projects



14:00- 14:30	<p>NANOMED Satellite Workshop Registration Boardroom of the Jacarandá on the 16th floor Hotel Savoy Palace Av. do Infante 25, 9004-542 Funchal, Madeira</p>
14:30- 16:00	<p>Introduction to the Panel 3 discussion: Nanomaterials, Advance in NanoBioMedicine</p> <p>Keynote 8 <i>Prof. Jorge Rodriguez Navarro, Universidad de Granada, SPAIN</i> <i>Biomedical and environmental applications of metal organic framework based materials</i></p> <p>Keynote 9 <i>Prof. Francisco del Monte, Instituto de Ciencia de Materiales de Madrid, SPAIN</i> <i>Bioinspired Materials</i> Chair – Prof. Joaquín Silvestre Albero, Department of Inorganic Chemistry, University of Alicante, SPAIN</p>
16:00- 16:30	<p>Coffee Break Jacarandá Lounge, the 16th floor</p>
16:30- 18:00	<p>Panel 3: Nanomaterials, Advance in NanoBioMedicine</p> <p>Chair – Prof. Dr. Elisaveta Snezhkova, Palladin Institute of biochemistry of NAS of Ukraine, UKRAINE</p> <p>Oral Presentations</p> <p><i>Prof. Joaquín Silvestre Albero, Department of Inorganic Chemistry, University of Alicante, SPAIN</i> <i>Metal Organic Framework MOF-based materials for ophthalmological therapeutics</i></p> <p><i>Prof. Mikhail Eropkin Laboratory of Influenza Evolutionary Variability, Department of Molecular Virology, Research Institute of Influenza, RUSSIAN FEDERATION</i> <i>Biological effects of fullerenes and their derivatives studied in cell cultures</i></p> <p><i>Prof. Jakpar Jandosov Institute of Combustion Problems, REPUBLIC OF KAZAKHSTAN</i> <i>Novel hybrid enterosorbents with core-shell structure based on pectin and rice husk-derived biochar</i></p> <p><i>Dr. Volodymyr Chernyshenko Palladin Institute of biochemistry of NAS of Ukraine, UKRAINE</i> <i>Per oral application of activated carbon inhibits systemic blood coagulation activation in rats after X-ray irradiation</i></p> <p><i>Dr. Nina Taran, Bogomolets National Medical University, UKRAINE</i> <i>Nanotoxicity Assesment. Animal Mode Data</i></p>
20:00- 22:00	<p>CONFERENCE Farewell Party, NANOMED Workshop Welcome Party the Jacarandá Lounge, 16 th floor, Savoy Palace Hotel</p>



Sunday, November 17

Satellite Workshop NANOGUARD2AR

8:30- 10:30	<p>Panel 4: NANOGUARD2AR Round Table</p> <p><i>Prof. Dr. Svitlana Lyubchyk, Project Coordinator, NOVA id FCT, Portugal</i></p> <p><i>Speakers:</i></p> <p>Prof. Joao Viegas, LNEC-Laboratório Nacional de Engenharia Civil, PORTUGAL</p> <p>Prof. Dr. Svitlana Lyubchyk, LAQV/REQUIMTE, NOVA id FCT, PORTUGAL</p> <p>Prof. Dr. Paulo Mota, LAQV/REQUIMTE, NOVA id FCT, PORTUGAL</p> <p>Prof. Dr. Sergiy Lyubchyk, LAQV/REQUIMTE, NOVA id FCT, PORTUGAL</p> <p>Dr. Igor Danilenko, DIPE Department of the Material Science, UKRAINE</p> <p>Dr. Oxana Gorban, DIPE Department of the Material Science, UKRAINE</p> <p>CEO Dr. Paulo Zaragoza Pedro, AR DIAGNOS, PORTUGAL</p> <p>Prof. Dr. Jose Oliveira Santos ULHT- UNIVERSIDADE LUSÓFONA, Engineering Faculty, Dept. Industria Management, PORTUGAL</p> <p>Prof. Fernando Catarino ULHT- UNIVERSIDADE LUSÓFONA, CICANT Centre for Research in Applied Communication, Culture, and New Technologies , PORTUGAL</p> <p>Prof. Christophe Colbeau-Justin, Université Paris-Sud, FRANCE</p>
10:00- 10:30	Coffee break Jacarandá Lounge, the 16 th floor
10:30- 11:30	Panel 4: Dissemination Actions, Project Sustainability Aspects discussion, Secondments plan implementation, Final Report preparation
11:30- 12:00	Closing Remarks: Looking Ahead

Sunday, November 17

Satellite Workshop HUNTER

9:00- 12:00	<p>Panel 5: HUNTER Round Table</p> <p><i>Dr. Andriy Lyubchyk, Project Coordinator, UNINOVA, Portugal</i></p> <p><i>Speakers:</i></p> <p>Dr. Alexandr Doroshkevich, DIPE Department of the Material Science, UKRAINE</p> <p>Prof. Vitali Ksenevich, BSU BELARUSIAN STATE UNIVERSITY, BELARUS</p> <p>Prof. Nikolay Poklonski, BSU BELARUSIAN STATE UNIVERSITY, BELARUS</p> <p>CEO Dr. Mario Boucinha, Blueorizon Lda, PORTUGAL</p> <p>CEO Jacques Frisonroche, SOLENE-R, FRANCE</p> <p>Prof. Dr. Jose Oliveira Santos ULHT- UNIVERSIDADE LUSÓFONA, Engineering Faculty, Dept. Industria Management, PORTUGAL</p> <p>Prof. Alexei Evstratov IMT Mines Ales, FRANCE</p>
10:30- 10:30	Coffee break Jacarandá Lounge, the 16 th floor
18:00- 18:30	Panel 5: Dissemination Actions, Project Sustainability Aspects discussion, Secondments plan implementation, Final Report preparation
18:00- 18:30	Closing Remarks: Looking Ahead

Sunday, November 17

Satellite Workshop NANOMED

Boardroom of the Jacarandá, 16th floor hotel Savoy Palace

Av. do Infante 25, 9004-542 Funchal, Madeira

9:00- 12:00

Panel 6: Main Results discussion for three years project lifetime, Partners Interaction, Type of Knowledge transfer, Training, Secondments plan implementation, Deliverables preparation

NANOMED workshop Programme is attached in Annex

Prof. Joaquín Silvestre Albero, Project Coordinator, Universidad de Alicante, Spain

Speakers/Participants:

Dr. Juan Carlos Ivorra, Universidad de Alicante, SPAIN

Dr. Erika Jardim, Universidad de Alicante, SPAIN

Prof. Miroslava Vaclavikova, Institute of Geotechnics Slovak Academy of Sciences, SLOVAKIA

Prof. Tudor Lupascu, Institute of Chemistry of the Academy of Sciences of Moldova, MOLDOVA

Eng. Vladimir Rusanovschii, ECOSORBENT Ltd., MOLDOVA

CEO Oleg Borovetki, ECOSORBENT S.R.L, MOLDOVA

Dr. Kontantin Kozlov, TECNOLOGICA Ltd., UKRAINE

Prof. Krisztina Lazlo, Budapest University of Technology and Economics, HUNGARY

Dr. Volodymyr Chernyshenko, Palladin Institute of biochemistry, NAS of UKRAINE

Prof. Elisaveta Snezhkova, Palladin Institute of biochemistry of NAS of UKRAINE

Prof. Jakpar Jandosov Institute of Combustion Problems, KAZAKHSTAN

10:30- 10:30

Coffee break Jacarandá Lounge, the 16th floor

13:00- 14:00

Lunch NANOMED project Jacarandá Lounge, the 16th floor Saoy Hotel Palace

14:00- 16:00

Panel 7: Implementation roadmap discussion for forth project year, Partners Interaction, Samples Exchange, Knowledge transfer, Training, Events, Dissemination Actions, Secondments plan implementation

Prof. Joaquín Silvestre Albero, Project Coordinator, Spain

Dr. Juan Carlos Ivorra, Project Maager, Universidad de Alicante, SPAIN

20:00- 22:00

NANOMED project Dinner