



International Centre for Sustainable Development of Energy, Water and Environment Systems (SDEWES CENTRE), Ivana Lučića 5, 10000 Zagreb, Croatia

About SDEWES Centre

The International Centre for Sustainable Development of Energy, Water and Environment Systems ([SDEWES Centre](#)) is a non-governmental and a non-profit scientific organization based in Zagreb, Croatia.

SDEWES Centre has 650 regular and supporting members from more than 55 countries (6 continents). Its members are experts, professors, scientists, students and business people in the field of sustainable development and renewable energy.

Vision:	Providing a platform for communication and exchange of ideas between scientist and researchers that promotes multidisciplinary approach to sustainability
Mission:	Creating multidisciplinary research and development innovation teams and providing comprehensive R&D activities, assessment and consultation on the research subjects that represent the most important challenges of sustainable development
Goals:	<ul style="list-style-type: none">• Participation in projects in the field of sustainable development.• Providing guidance and expert opinion on important issues of sustainability• Organization of conferences, courses, summer schools etc. SDEWES conference emerged as the leading conference on the topic and is currently one of the best scientific conferences on the topic in the world. SDEWES SEE conference is a regional conference focused on South-East Europe.

Ongoing projects:

Project name:	AGROCYCLE - Sustainable techno-economic solutions for the agricultural value chain
Duration:	2016 - 2019
Role:	Co-ordinator of Croatian participation at the SDEWES Centre
Finance:	EC, H2020 (WASTE-2015)
Description:	AgroCycle addresses wastes from several agricultural sectors: wine, olive oil, horticulture, fruit, grassland, swine, dairy and poultry. The AgroCycle consortium is a large (25) multi-national group (including China) comprising the necessary and relevant multi-actors (i.e. researchers; companies in the technical, manufacturing, advisory, retail sectors (Large and SMEs); lead users; end users; and trade/producer associations) for achieving the project's ambitions goals. Farming's unique regional (rural) location means that AgroCycle will help reduce the EU's Innovation Divide and address the Regional Smart Specialisation Strategies for each partner country: impact will be Regional with National and International dimensions. The presence of three partners from China ensures international synergies and a global impact.



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Project name:	S2Biom - Delivery of sustainable supply of non-food biomass to support a “resource-efficient” Bioeconomy in Europe
Duration:	2013-2016
Role:	Co-ordinator of Croatian participation at the SDEWES Centre
Finance:	EC, FP7 (FP7-ENERGY-2013-1)
Description:	<p>The main aim of this project is to support the sustainable delivery of non-food biomass feedstock at local, regional and pan European level through developing strategies, and roadmaps that will be informed by a “computerized and easy to use” toolset (and respective databases) with update harmonized datasets at local, regional, national and pan European level for EU27, western Balkans, Turkey and Ukraine. The project will build up a concise knowledge base both for the sustainable supply and logistics of non-food biomass (quantities, costs, technological pathway options for 2020 and beyond), for the development of technology and market strategies to support the development of a “resource efficient” Bioeconomy for Europe.</p> <p>SDEWES centre in S2Biom project coordinates a group of experts from Croatia, Bosnia & Herzegovina, Albania, Macedonia and Moldova who collect data on forest, waste and different residuals from agriculture and industry sectors. Furthermore, S2Biom model will be tested in SDEWES expert’s countries and legislation framework in the field of bioenergy will be analysed.</p>

Project name:	INNOVER-EAST - Building a more effective pathway leading from research to innovation through cooperation between the European Union and Eastern Partnership countries in the field of energy efficiency
Duration:	2014-2017
Role:	Co-ordinator of Croatian participation at the SDEWES Centre
Finance:	EC, FP7 (FP7-INCO.2013-9.1)
Description:	<p>The INNOVER-EAST project targets five countries of the Eastern Partnership (in short, EPCs: Armenia, Azerbaijan, Belarus, Georgia and Ukraine) to overcome the bottlenecks of innovation and intensify the level of cooperation between research and business in the target countries. The project aims, on the one hand, to develop new skills and competences in innovation services at relevant organizations in the above countries, and, on the other hand, to contribute to the learning process on how to bridge knowledge and business with a direct focus on energy efficiency. SDEWES Centre will organize national and regional/international policy events. National workshops will be organised in each EPC to validate the draft national studies by the local energy efficiency/innovation community. A second national workshop will have the aim to overview and discuss lessons learnt and form recommendations for new directions of energy efficiency policy at the national level and for more effective exploitation of research results. Moreover, two international policy conferences will be organised by INNOVER-EAST. The first conference will give a status report on energy efficiency in the targeted countries based on the validated national studies and will discuss the major bottlenecks of innovation identified in this specific area. The second conference will summarize the lessons learnt in the 5 EPCs, provide a cross-country analysis and form recommendations for the EU Member States/Associated Countries and national EPC governments for a wider and more effective cooperation in energy issues. SDEWES Centre will also participate in training on supporting the participation of EPC partners in international project cooperation, esp. Horizon 2020, in order to increase potential STI cooperation between the EU Member States/Associated Countries and EPCs in these programmes. http://www.innovereast.eu/</p>



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Project name:	SMEP - Sustainable municipal energy policy (RES & EE)
Duration:	2015 (April – December)
Role:	Co-ordinator of Croatian participation at the SDEWES Centre
Finance:	START - Danube Region Project Fund of the European Union Strategy for the Danube Region
Description:	The main objectives of the project are to identify the current state of energy planning and the use of strategic energy plans and energy management systems like ISO 50001 in municipalities in the target countries and wider. The project involves partners from six countries: Czech Republic, Slovenia, Croatia, Austria, Hungary and Serbia.

Project name:	FosterREG - Fostering public capacity to plan, finance and manage integrated urban REGeneration for sustainable energy uptake
Duration:	2015 - 2017
Role:	Co-ordinator of Croatian participation at the SDEWES Centre
Finance:	EC, H2020 (EE-07-2014)
Description:	FosterREG aims at enhancing public capacity at local, regional and national levels to plan, finance and manage integrated urban regeneration for sustainable energy uptake, through capacity building, promotion and articulation of effective multilevel coordination, and national as well as European network strengthening. These objectives will be achieved through public stakeholders' engagement in joint analysis and knowledge development activities, as well as creation and dissemination of targeted training materials and activities across Europe. The project involves 10 partners from 4 Countries; Spain, Croatia, Netherlands and Poland with three partners coming from Croatia (SDEWES, APN and the City of Osijek). SDEWES has the role of work package leader within the project for WP4: Capacity Building.

Expert opinions and solutions:

Client:	DUNEA LLC, Regional Development Agency Dubrovnik Neretva County
Duration:	2014 -
Service:	Providing expert opinion and guidance on implementation of Sustainable Energy Action Plans in project „ALTERENERGY, Energy sustainability for Adriatic small communities“. It is the first strategic project funded within the cross-border Cooperation Programme IPA-Adriatic 2007-2013, focused on new energy sustainability challenge which aims to promote energy efficiency and renewable energy production across the Adriatic area

Client:	Fondacija Mreža za promjene Jugoistočne Evrope (SEE Change Net Foundation)
Duration:	2014 -



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Service:	Offering solutions on energy modelling effort of the SEE SEP regional modelling team for the Activity: Energy modelling within the “South East Europe Sustainable Energy Policy or SEE SEP”, between SEE Change Net and European Commission
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Organization of conferences and other events

2016	11th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Lisbon, Portugal)
2016	2nd SEE on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Piran, Slovenia)
2015	10th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Dubrovnik, Croatia)
2015	Seminar BUS2015 Future of comfort housing , sponsored by SDEWES Centre, organized by a student association SUPEUS (Zagreb, Croatia)
2015	Workshop „Scientific publishing“ and the presentation of the Journal of Sustainable Development of Energy, Water and Environment Systems (Zagreb, Croatia)
2014	Conference „Future of district heating systems in Croatia“ (Zagreb, Croatia)
2014	9th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (MSC Preziosa, Italy-Turkey)
2014	Workshop "ERASME - Energy Audits in SMEs" (Zagreb, Croatia)
2014	1st South East European Conference on Sustainable Development of Energy, Water and Environment Systems – SEE SDEWES (Ohrid, Macedonia)
2014	Workshop "Energy efficiency in prisons and penitentiaries" (Zagreb, Croatia)
2014	Interactive Workshop „Little school of energy efficiency“ (Ston, Croatia)
2013	8th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Dubrovnik, Croatia)
2012	7th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Dubrovnik, Croatia)
2010	6th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Dubrovnik, Croatia)
2008	5th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference (Dubrovnik, Croatia)


SDEWES Centre research group

SDEWES Centre research group is a leading group in sustainable development of power supply, covering the following main areas: renewable energy sources, power plants technologies, optimisation and control, cogeneration technology and optimisation, energy management and energy efficiency, integrated environmental studies, energy policies and energy planning, sustainability, capacity building in energy and environment, energy related climate change and promotion of energy technologies, among others.

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Title/Name/Surname:		prof. dr. sc. Neven Duić
	Position:	President of SDEWES Centre SDEWES in-house consultant
	Contact:	neven.duic@fsb.hr +38591 5285443, +385 1 6168126
	Website:	http://powerlab.fsb.hr/neven/
	Key skills and qualification: energy policy and planning, energy economics, sustainable development policy and resource planning, climate change mitigation, research and innovation policy Currently engaged on INNOVER EAST and S2Biom project	
<p>Prof. Neven Duić is a Full professor at the Department of Energy, Power Engineering and Environment at UNIZAG FSB. He has taken part in various fields of Sustainable Energy Development including energy management, energy planning, climate change, etc. Prof. Duic is coordinating CFD combustion and radiation modelling group and currently he is coordinating Croatian participation in several Intelligent Energy for Europe (IEE) projects as well as national and projects from seventh Framework Programme (FP7) and also Horizon2020, IPA and MED projects.</p> <p>He is Croatian national coordinator for researcher's mobility at the Agency for Mobility and EU Programmes, Co-ordinator of Croatian participation of 20 international scientific research projects and national representative of Horizon 2020 for ERC/MSCA/FET.</p> <p>Prof. Neven Duić published 71 scientific papers in journals referred in SCI and CC and 20 scientific papers in journals referred in other significant databases. 49 papers are in journals with the first quartile score, of which 30 papers are in the best 5% journals in category. He was cited 967 times in Scopus (h-index 19) and 790 times in WoS (h-index 18). He gave more than 100 invited and keynote lectures.</p>		


Title/Name/Surname:		prof. dr. sc. Daniel Rolph Schneider
	Position:	Vice president of SDEWES Centre SDEWES in-house consultant
	Contact:	daniel.schneider@fsb.hr +385 1 6168157
	Website:	http://www.powerlab.fsb.hr/daniel/
	Key skills and qualification: emissions and waste treatment Currently engaged on INNOVER EAST project and providing expert opinion	
<p>Prof. Daniel Rolph Schneider is Associate Professor at the Department of Energy, Power Engineering and Environment (DEPEE) at UNIZAG FSB where he has been working from 1993. He was Assistant Minister and head of the Directorate for Environmental Management of the Ministry of Environmental Protection, Physical Planning and Construction of the Republic of Croatia from 2007 to 2009. From 2004 to 2007 he was Head of the Renewable Energy Sources and Energy Efficiency Programs and Projects Department in the Environmental Protection and Energy Efficiency Fund of Republic of Croatia. He was a project manager of programs: Financing Renewable Energy Sources, Energy efficiency and Sustainable Buildings projects (National competitive bidding) and Financing</p>		


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Energy Audits in Industrial and Service Sectors and Renewable Energy Sources and Energy efficiency Demonstration Activities. Currently he is the Head of the Power Engineering and Energy Management Chair at DEPEE, UNIZAG FSB.

His field of work includes energy conversion technologies, renewable energy and waste-to-energy systems, waste management and climate change. He participated on number of EU and nationally funded research projects. He is author or co-author of 48 published papers.

Title/Name/Surname:		ass. prof. dr. sc. Goran Krajačić
	Position:	Secretary of SDEWES Centre SDEWES in-house consultant
	Contact:	goran.krajacic@fsb.hr +385 91 5658884
	Website:	http://www.powerlab.fsb.hr/gkrajacic/
Key skills and qualification:		field of renewable energy systems planning and sustainable development with a particular experience in island and isolated regions energy systems
Currently engaged		on INNOVER EAST project and providing expert opinion
<p>Ass. prof. dr. sc. Goran Krajačić is assistant professor at the DEPEE (UNIZAG FSB). He graduated at UNIZAG FSB (2004) with final thesis "Energy planning of Mljet Island with condition of maximized penetration of renewable energy". He defended his PhD thesis "The role of energy storage in planning of 100% RES systems" at FSB in 2012. Since 2002 he has been member of Local organising committee of Dubrovnik Conference on Sustainable Development of energy, water and environment systems and since 2004 he has been working on many EU projects: ADEG, WEB-ENV, WEB-MOB, STORIES, GERONIMO, SMART, BIOSIRE as well as on national project Smart Energy Storage for Sustainable Development of Energy Systems and project for development of H2RES programme. Results of his work have been published in 14 papers listed in CC/SCI and cited more than 100 times.</p>		

Title/Name/Surname:		dr.sc. Marko Ban
	Position:	President of SDEWES Centre Supervisory Board SDEWES Centre expert
	Contact:	marko@sdewes.org +385 1 6168494
	Website:	http://powerlab.fsb.hr/ban/
Key skills and qualification:		numerical simulations
Currently engaged		on S2Biom and INNOVER-EAST projects
<p>Dr. Ban is SDEWES Centre junior expert and researcher engaged on EU projects and SDEWES conferences. While working on UNIZAG FSB he participated in several projects, such as i-RESEV and</p>		

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ADRIACOLD, during which he developed advanced skills in the use of computing resources whether it be on numerical simulations or on simple calculations. Research in which he participated includes sustainable development, environmental protection, with particular emphasis on the reduction of harmful emissions, increasing the share of renewable energy sources and energy efficiency. He is author of scientific papers in the field of Computational Fluid Dynamics (CFD) and combustion modelling and co-editor of few books of abstracts of SDEWES conferences. He is also responsible for creation of [COMET](#) (COnference Management and EdiTorial) system which is a fully customizable and adaptable editorial system for conferences or journals.

Title/Name/Surname:		Boris Ćosić, dipl. ing.
	Position:	Member of SDEWES Centre SDEWES in-house consultant
	Contact:	boris.cosic@fsb.hr +385 1 6168242
	Website:	http://powerlab.fsb.hr/bcosic/
	Key skills and qualification: renewable energy sources (biomass and biofuels)	
Currently engaged on S2Biom and providing expert opinion		

Boris Ćosić works as a project manager and researcher at the Adria Section of the Combustion Institute. He graduated at UNIZAG FSB in 2008 and he worked as project manager on various projects such as BIOSIRE, ENERCOAST and ADRIACOLD. He was EU Erasmus PhD scholar at Mechanical Engineering Faculty of the University of Niš in Serbia.

His main research areas are renewable energy sources (biomass and biofuels) and 100% renewable energy systems with special interest on South East Europe Community. He is author of a scientific paper: "Geographic distribution of economic potential of agricultural and forest biomass residual for energy use - Case study Croatia" and he worked on national study for biomass potential in Croatia: "Analysis of Croatian potential for construction of biomass power plants of size 5-20 MW".

Title/Name/Surname:		Tomislav Pukšec, dipl.ing.
	Position:	Member of SDEWES Centre Supervisory Board SDEWES in-house consultant
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	Website:	http://powerlab.fsb.hr/tpuksec/
	Key skills and qualification: energy efficiency and energy planning	
Currently engaged on providing expert opinion		



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Tomislav Pukšec, is a researcher at the DEPEE (UNIZAG FSB). He graduated at UNIZAG FSB in 2008 and he works on various national and international projects. He was an EU Erasmus PhD scholar at American University of Beirut, Lebanon and a recipient of a Croatian Science Foundation scholarship for his project NEP-HR on energy demand forecasting that he conducted in cooperation with Aalborg University Denmark.

His main research areas are long term energy demand planning with special emphasis on different influencing mechanisms, energy efficiency assessments in buildings sector/SMEs and biogas. He worked as a project manager for two IEE SAVE projects that deal with energy efficiency assessments (for SMEs and public buildings – prisons) and one IEE ALTENER project dealing with biogas assessments on farms. He worked on energy efficiency issues in building sector through other national and EU projects, including energy efficiency issues regarding behavioural changes of the target group (IEE SAVE - Flick the switch). He also worked on projects such as DISKNET, ADRIACOLD, BEAST and a H2020 project STRATEGO - Multi-level actions for enhanced Heating & Cooling plans.



Relevant publications of SDEWES Centre group:

1. Pfeifer, Antun; Dominković, Dominik Franjo; Ćosić, Boris; Duić, Neven, **Economic feasibility of CHP facilities fueled by biomass from unused agriculture land: Case of Croatia.** // Energy conversion and management. 125 (2016) [IF 3.590, Q1, 0 cit]
2. Dominković, Dominik Franjo; Ćosić, Boris; Bačelić Medić, Zlatko; Duić, Neven, **A hybrid optimization model of biomass trigeneration system combined with pit thermal energy storage.** // Energy conversion and management. 104 (2015) [IF 3.590, Q1, 0 cit]
3. Tomić, Tihomir; Ćosić, Boris; Schneider, Daniel Rolph, **Influence of legislative conditioned changes in waste management on economic viability of MSW- fuelled district heating system – case study** // Thermal science (2016) [IF 0.939, Q3, 0 cit]
4. Vujanović, Milan; Petranović, Zvonimir; Edelbauer, Wilfried; Baleta, Jakov; Duić, Neven, **Numerical Modelling of Diesel Spray Using the Eulerian Multiphase Approach** // Energy conversion and management (2015) [IF 3.590, Q1, 0 cit]
5. Segurado, Raquel; Costa, Mário; Duić, Neven; Da Graça Carvalho, Maria, **Integrated analysis of energy and water supply in islands. Case study of S. Vicente, Cape Verde** // Energy (2015) [IF 4.159, Q1, 0 cit]
6. Baleta, Jakov; Vujanović, Milan; Pachler, Klaus; Duić, Neven, **Numerical modeling of urea water based selective catalytic reduction for mitigation of NOx from transport sector** // *Journal of Cleaner Production* **88**, 262-271 (2015) [IF 3.590, Q1, 0 cit]
7. Wang, Xuebin; Xu, Zhaoxia; Wei, Bo; Zhang, Lan; Tan, Houzhang; Yang, Tao; Mikulčić, Hrvoje; Duić, Neven, **The Ash Deposition Mechanism in Boilers Burning Zhundong Coal with High Contents of Sodium and Calcium: a Study from Ash Evaporating to Condensing** // *Applied Thermal Engineering* **80**; 150-159 (2015) [IF 2.624, Q1, 0 cit]
8. Mikulčić, Hrvoje; Vujanović, Milan; Duić, Neven, **Improving the sustainability of cement production by using numerical simulation of limestone thermal degradation and pulverized coal combustion in a cement calciner** // *Journal of Cleaner Production* **88**, 262-271 (2015) [IF 3.590, Q1, 0 cit]
9. Gašparović, Goran; Krajačić, Goran; Duić, Neven; Baotić, Mato, **New Energy Planning Software for Analysis of Island Energy Systems and Microgrid Operations - H2RES Software as a Tool to 100% Renewable Energy System** // *Computer Aided Chemical Engineering* **33** (2014), pp. 1855-1860
10. Bačelić Medić, Zlatko; Pukšec, Tomislav; Mathiesen, Brian Vad; Duić, Neven, **Modelling energy demand of Croatian industry sector** // *International Journal of Environment and Sustainable Development* **13** (1) (2014), pp. 74-92
11. Novosel, Tomislav; Gaparović, Goran; Ćosić, Boris; Mustafa, M.; Krajačić, Goran; Pukšec, Tomislav; Duić, Neven: **Integration of desalination and renewables, a demonstration of the desalination module in the H2RES model: Case study for Jordan** // *Chemical Engineering Transactions* **Volume 39**, Issue Special Issue (2014), Pages 355-360
12. Batas Bjelic, Ilija. B.; Skokljev, Ivan; Pukšec, Tomislav; Krajačić, Goran; Duić, Neven, **Integrating the flexibility of the average Serbian consumer as a virtual storage option into the planning of energy systems** // *Thermal science* **18**, 3; 743 - 754 (2014) [IF 0.962, Q2, cit 0]
13. Cerovac, Tin; Ćosić, Boris; Pukšec, Tomislav; Duić, Neven, **Wind energy integration into future energy systems based on conventional plants – The case study of Croatia.** // *Applied energy*. **135** (2014) ; 643-655 [IF 5.261, Q1, 1 cit]



14. Novosel, Tomislav; Ćosić, Boris; Krajačić, Goran; Duić, Neven; Pukšec, Tomislav; Mohsen, S. Mousa; Ashhab, S. Moh'd; Ababneh, K. Amer, **The influence of reverse osmosis desalination in a combination with pump storage on the penetration of wind and PV energy: A case study for Jordan.** // *Energy (Oxford)*. **76** (2014) ; 73-81 [IF 4.159, Q1, 3 cit]
15. Pukšec, Tomislav; Mathiesen, Brian Vad; Novosel, Tomislav; Duić, Neven, **Assessing the impact of energy saving measures on the future energy demand and related GHG emission reduction of Croatia.** // *Energy (Oxford)*. **76** (2014) ; 198-209 [IF 4.159, Q1, 2 cit]
16. Mikulčić, Hrvoje; Vujanović, Milan; Ashhab, Moh'd Sami; Duić, Neven, **Large Eddy Simulation of a Two-Phase Reacting Swirl Flow inside a Cement Cyclone** // *Energy (Oxford)* **75**; 89-96 (2014) [IF 4.159, Q1, 0 cit]
17. Mikulčić, Hrvoje; von Berg, Eberhard; Vujanović, Milan; Duić, Neven, **Numerical Study of Co-firing Pulverized Coal and Biomass inside a Cement Calciner** // *Waste management & research* **32**, 661-669 (2014) [IF 1.114, Q3, cit 0]
18. Petruschke, Philipp; Gašparović, Goran; Voll, Philip; Krajačić, Goran; Duić, Neven; Bardow, Andre, **A hybrid approach for the efficient synthesis of renewable energy systems** // *Applied energy* **135**; 625-633 (2014) [IF 5.261, Q1, 0 cit]
19. Petranović, Zvonimir; Vujanović, Milan; Duić, Neven **Towards a More Sustainable Transport Sector by Numerically Simulating Fuel Spray and Pollutant Formation in Diesel Engines** // *Journal of cleaner production* **79**; 0959-6526 (2014) [IF 3.590, Q1, cit 1]
20. Perković, Luka; Priesching, Peter; Bogensperger, Michael; Duić, Neven **Framework of coherent structure method (CSM) for the simulation of isothermal and reacting swirling flows** // *Chemical Engineering Transactions* **39** Special Issue (2014), pp. 883-888
21. Hublin, Andrea; Schneider, Daniel Rolf; Džodan, Janko **Utilization of biogas produced by anaerobic digestion of agro-industrial waste: Energy, economic and environmental effects.** // *Waste management & research*. **32** (2014) , 7; 626-633 [IF 1.114, Q3, cit 0]
22. Bačelić Medić, Zlatko; Ćosić, Boris; Duić, Neven. **Sustainability of remote communities: 100% renewable island of Hvar.** // *Journal of Renewable and Sustainable Energy*. 5 (2013) , 4; 041806-1-041806-9
23. Ban, Marko; Perković, Luka; Duić, Neven; Penedo, Ricardo. **Estimating the Spatial Distribution of High Altitude Wind Energy Potential in South East Europe.** // *Energy (Oxford)*. 57 (2013) , 1; 24-29
24. Batas Bjelić, Ilija; Rajaković, Nikola; Ćosić, Boris; Duić, Neven. **Increasing wind power penetration into the existing Serbian energy system.** // *Energy (Oxford)*. 57 (2013) ; 30-37
25. Ćosić, Boris; Markovska, Nataša; Taseska, Verica; Krajačić, Goran; Duić, Neven. **Increasing the renewable energy sources absorption capacity of the Macedonian energy system.** // *Journal of Renewable and Sustainable Energy*. 5 (2013) , 4; 041805-1-041805-8
26. Dedinec, Aleksandar; Markovska, Nataša; Taseska, Verica; Duić, Neven; Kanevce, Gligor. **Assessment of climate change mitigation potential of the Macedonian transport sector.** // *Energy (Oxford)*. 57 (2013) ; 177-178
27. Haas, Reinhard; Lettner Georg; Auer, Hans; Duić, Neven. **The looming revolution: How photovoltaics will change electricity markets in Europe fundamentally.** // *Energy (Oxford)*. 57 (2013) ; 38-43
28. Pukšec, Tomislav; Krajačić, Goran; Lulić, Zoran; Mathiesen, Brian Vad; Duić, Neven. **Forecasting long-term energy demand of Croatian transport sector.** // *Energy (Oxford)*. 57 (2013) ; 169-176



29. Krajačić, Goran; Lončar, Dražen; Duić, Neven; Zeljko, Mladen; Laca Arántegui, Roberto; Loisel, Rodica; Raguzin, Igor. **Analysis of financial mechanisms in support to new pumped hydropower storage projects in Croatia.** // *Applied energy*. **101** (2013) ; 161-171
30. Pukšec, Tomislav; Mathiesen, Brian Vad; Duić, Neven. **Potentials for energy savings and long term energy demand of Croatian households sector.** // *Applied energy*. **101** (2013) ; 15-25
31. Schneider, Daniel Rolph; Kirac, Mislav; Hublin, Andrea. **Cost-effectiveness of GHG emission reduction measures and energy recovery from municipal waste in Croatia.** // *ENERGY*. **48** (2012) 1; 203-211
32. Schneider, Daniel Rolph; Lončar, Dražen; Bogdan, Željko. **Cost Analysis of Waste-to-Energy Plant.** // *Strojarstvo*. **52** (2010) , 3; 369-378
33. Ban, Marko; Krajačić, Goran; Grozdek, Marino; Ćurko, Tonko; Duić, Neven. **The role of cool thermal energy storage (CTES) in the integration of renewable energy sources (RES) and peak load reduction.** // *Energy (Oxford)*. **48** (2012) , 1; 108-117
34. Ćosić, Boris; Krajačić, Goran; Duić, Neven. **A 100% renewable energy system in the year 2050: The case of Macedonia.** // *Energy (Oxford)*. **48** (2012) , 1; 80-87
35. Ćosić, Boris; Markovska, Natasa; Krajačić, Goran; Taseska, Verica; Duić, Neven. **Environmental and economic aspects of higher RES penetration into Macedonian power system.** // *Applied thermal engineering*. **43** (2012) ; 158-162
36. Irsag, Bojan; Pukšec, Tomislav; Duić, Neven. **Long term energy demand projection and potential for energy savings of Croatian tourism-catering trade sector.** // *Energy (Oxford)*. **48** (2012) , 1; 398-405
37. Perković, Luka; Silva, Pedro; Ban, Marko; Kranjčević, Nenad; Duić, Neven. **Harvesting high altitude wind energy for power production: The concept based on Magnus' effect.** // *Applied energy*. **101** (2012) ; 151-161
38. Pukšec, Tomislav; Duić, Neven. **Economic viability and geographic distribution of centralized biogas plants: case study Croatia.** // *Clean technologies and environmental policy*. **14** (2012) , 3; 427-433
39. Ćosić, Boris; Stanić, Zoran; Duić, Neven. **Geographic distribution of economic potential of agricultural and forest biomass residual for energy use: Case study Croatia.** // *Energy (Oxford)*. **36** (2011) , 4; 2017-2028
40. Krajačić, Goran; Duić, Neven; Carvalho, Maria da Graça. **How to achieve a 100% RES electricity supply for Portugal?.** // *Applied energy*. **88** (2011) , 2; 508-517
41. Krajačić, Goran; Duić, Neven; Tsikalakis, Antonis; Zoulias, Manos; Caralis, George; Panteri, Eirini; Carvalho, Maria Graça. **Feed-in tariffs for promotion of energy storage technologies.** // *Energy policy*. **39** (2011) , 3; 1410-1425
42. Krajačić, Goran; Duić, Neven; Zmijarević, Zlatko; Vad Mathiesen, Brian; Anić Vučinić, Aleksandra; Carvalho, Maria Da Graça. **Planning for a 100% independent energy system based on smart energy storage for integration of renewables and CO2 emissions reduction.** // *Applied thermal engineering*. **31** (2011) , 13; 2073-2083
43. Segurado, Raquel; Krajačić, Goran; Duić, Neven; Alves, Luis Manuel. **Increasing the penetration of renewable energy resources in S. Vicente, Cape Verde.** // *Applied energy*. **88** (2011) , 2; 466-472
44. Pukšec, Tomislav; Duić, Neven. **Biogas Potential in Croatian Farming Sector.** // *Strojarstvo*. **52** (2010) , 4; 441-448



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45. Fowler, Patrick (Pat); Krajačić, Goran; Lončar, Dražen; Duić, Neven. **Modeling the Energy Potential of Biomass - H2RES.** // *International journal of hydrogen energy.* **34** (2009) ; 7027-1-7040-13
46. Krajačić, Goran; Duić, Neven; Carvalho, Maria Graça. **H2RES, Energy planning tool for island energy systems – The case of the Island of Mljet.** // *International journal of hydrogen energy.* **34** (2009) ; 7015-1-7026-11
47. Busuttil, A.; Krajačić, G.; Duić, N. **Energy scenarios for Malta.** *International Journal of Hydrogen Energy.* 33 (2008), 16; 4235-4246
48. Duić, N., Krajačić, G., Carvalho, M. G. **RenewIslands methodology for sustainable energy and resource planning for islands.** *Renewable and Sustainable Energy Reviews,* 12 (2008), 4; 1032-1062
49. Krajačić, G., Martins, R., Busuttil, A., Duić, N. Carvalho, M. G. **Hydrogen as an energy vector in the islands' energy supply.** *International Journal of Hydrogen Energy.* 33 (2008) , 4; 1091-1103
50. Krajačić, G., Duić, N., Mathiesen, B. V., Carvalho, M.G. **Smart Energy Storages for Integration of Renewables in 100% Independent Energy Systems.** *Chemical Engineering Transactions.* 21 (2010), 391-396.
51. Segurado, R., Alves, L. M., Duić, N., Krajačić, G. **Integrated Energy and Water Planning on an Arid Island, Case of S. Vicente,** Cape Verde. *Jordan Journal of Mechanical and Industrial Engineering.* 4 (2010), 1; 1-8.
52. Martins, R., Krajačić, G., Alves, L. M., Duić, N., Azevedo, T., Carvalho, M. G. **Energy Storage in Islands - Modelling Porto Santo' s Hydrogen System.** *Chemical Engineering Transactions,* 18 (2009), 367-372.