



**2nd Conference on Sustainable Energy**  
**Transilvania University of Brasov**  
**July 3-5, 2008**



**Plenary Session**

<b>Nr. Crt.</b>	<b>Titlu lucrare</b>	<b>Autori lucrare</b>	
<b>July 3<sup>rd</sup>, 2008</b>			
1	Supporting Renewable Energy Technologies within EU	I. Farkas	PL1
2	Applying Research of Excellence for Environmental Growth	C. Enachioiu	PL2
3	European Technology Platform "Photovoltaics" - Support for Large Scale Development of Renewables	D. Teodoreanu	PL3
4	Strategies for Promoting Solar Energy Conversion Systems by Research and Education	I. Visa	PL4
<b>July 4<sup>th</sup>, 2008</b>			
5	Photovoltaic Systems at Mugla University Campus	S. Oktik	PL5
6	Elaboration of The Flotable Micro-Hydropower Station With Multiblade Vertical Axis	I. Bostan, V. Dulgheru, V. Bostan, O. Ciobanu, A. Sochireanu, R. Ciobanu, I. Dicusara	PL6
7	Small Hydropower - incentives, barriers and engineering	B. Pelikan	PL7
8	Solutions and technologies for reducing the energy bill by means of RES	Gh. Olteanu Gh. Pauna	PL8



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Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 1, Oral Presentations</b> <b>July 3<sup>rd</sup>, 2008</b>			
1.	Spectrally Selective Solar Absorber Coatings Obtained Through Electrochemical Procedures onto Al Substrates	A. Florea, L. Anicai, T. Visan	O1.1
2.	Hydrothermal Synthesis of Nanostructured ZnO Doped With Transition Metallic Ions	R. R. Piticescu J. Fidelusz W. Lojkowski, R. M. Piticescu	O1.2
3.	Highly Versatile Plasma Deposition Tool for Advanced Thin Film Applications	C.C. Surdu-Bob	O1.3
4.	Metal/Metal Oxide Composites Used As Absorbers For Solar Thermal Collectors	E. Ienei, M. Voinea, C. Bogatu, L. Isac, A. Duta	O1.4
5.	Structural Characterization of Thin Films for Solar Cells Using X-Ray Diffraction And Optical Microscopy	S. A. Mitrea, S. M. Hodorogea, G. B. Sbarcea, L. Isac, E. Purghel, M. Voinea, P. Garoi	O1.5
6.	Designing A Photoelectrochemical Cell (PECC) For Hydrogen Production	A. Enesca, A. Duta	O1.6
7.	A.Solid State Solar Cells With Sulphide Materials	S. Manolache, L. Isac, D. Perniu, A. Duta	O1.7
8.	Thin Film Materials for Solar Energy Conversion	A. Duta	O1.8
<b>Total Section 1 - Oral</b>			<b>8</b>
<b>Section 1, Poster Presentations</b> <b>July 4<sup>th</sup>, 2008</b>			
1.	Hydrogen Evolution in Photodissociation of Water	M. Momirlan	P1.1
2.	Hydrothermal synthesis of Compounds from Cu-Mn-Co-O System	A. Motoc, R. R. Piticescu, A. Duta	P1.2
<b>Total Section 1 - Poster</b>			<b>2</b>



**2nd Conference on Sustainable Energy**  
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Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 2, Oral Presentations</b> <b>July, 3<sup>rd</sup> 2008</b>			
1.	Numerical and Experimental Investigation of Wind Induced Pressures on a Photovoltaic Solar Panel	A. Damian, C. Cosoiu, R. M. Damian, B. Caracaleanu	O2. 1
2.	About The Using Possibilities Of The 4R Linkage In The Azimuthal Tracking Systems	V. Popa, I. Visa And D. Diaconescu	O2. 2
3.	On the Orientation Cycle Optimization of a PV Testing Tracked Platform	B. Burduhos, I. Visa, C. Rusu, D. Diaconescu	O2. 3
4.	Lagrange Model for a System of Orientation	M. Botis	O2. 4
5.	Controller PD and PID for a System of Orientation	M. Botis	O2. 5
6.	Designing a Two-Axis Sun Tracking Controller	A. Tzachanis, N. Ninos	O2.6
7.	Modeling the Tracking System of a Photovoltaic Platform Using the ADAMS & EASY5 Software Solutions	C. Alexandru, M. Comsit	O2.7
8.	Virtual Prototyping of A Cam Type Tracking System	D. Ciobanu, I. Visa	O2.8
<b>Total Section 2</b>			<b>8</b>
<b>Section 2 – Poster Presentations</b> <b>July 4<sup>th</sup> , 2008</b>			
1.	On The Dynamic Answers Of A PV Panel Tracked With A Mechatronic System	C. Rusu, D. Diaconescu, B. Burduhos	P2.1
2.	MPPT Using Sliding Mode Observer for Estimation of Solar Array Current	F. Moldoveanu, D. Floroian, P. Mateoc	P2.2
3.	Local Meteorological Data Needed In Pv Tracking System Design	Valentina Popa, Elena Eftimie, Ion Visa	P2.3
4.	Constructive Aspects On The Altitude System Of A Solar Tracking Pv Platform	R. Velicu, Gh. Moldovean C.C. Gavrila	P2.4
<b>Total Section 2 - Poster</b>			<b>4</b>



**2nd Conference on Sustainable Energy**  
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**July 3-5, 2008**



Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 3+4, Oral Presentation, July 3<sup>rd</sup> 2008</b>			
1.	An Optimal Sizing And Simulation Of The Small Scale Stand Alone Pv-Wind Energy System For Remoute Areea	S. Bartha, D. I. Teodoreanu, V. Ursu, C. Negreanu, I. Badarau	O3.1
2.	A New Method For The Solar Cells Calibration	D. Cotfas, S. Kaplanis, P. Cotfas, D. Ursutiu, C. Samoila	O4.1
3.	Testing Possibilities For Flat Plate Solar Thermal Collectors In Product Design For Sustainable Development Centre At Transilvania University Of Brasov	R. Lates, I. Visa	O4.2
4.	PV grid-connected systems with storage capabilities	N. Olariu, F. Dragomir, L. Olteanu, G. Mantescu	O4.3
5.	Performance Analysis Of Ground Source Heat Pump Systems Located In Romania	I. Boian, K. Bartos	O4.4
6.	Mechanical Structure For Deposition Systems Using The SPD Technique	M. L. Enescu, P. Alexandru	O4.5
7.	Photochemical Solar Energy Conversion By Olefin Sensitized Photooxidation Reaction With Fullerenes And/Or Porphyrins	R. – M. Ion	O4.6
8.	Technico-Economical Model Designed For Improving The Energy Efficiency Of An Enterprise's Administrative Building Through The Implementation Of Solar Photovoltaic Modules	C. Covrig	O4.7
9.	Net Zero Energy Schools By The Use Of Renewable Energy Sources	C. Ticleanu, D. Chisalita, I. Boian	O4.8
<b>Total S3+S4 Oral Presentations</b>			<b>9</b>
<b>Section 3 + 4 – Poster Presentations July 4<sup>th</sup> 2008</b>			
1.	Mathematical model and Spice simulation for BIPV modules	Mantescu G., Lakatos E., Olariu N., Olteanu L, Badea M	P3.1
2.	The Necessity Of Energy Storage Systems In Low Voltage Grids With A High Rate Of Photovoltaic Plants	M. Bodach, J. Körner, B. Veit	P4.1
3.	About The Conceptual Design Of A Testing PV Panel Platform Fitted With A Dual-Axis Tracking System	R. Saulescu, D. Diaconescu, M. Comsit, M. Neagoe	P4.2
4.	Grid Connected Pv Inverter Controlled By The Proportional Resonant Controller With Harmonic Compensation	M. Valcan, C. Marinescu	P4.3
5.	Steps in Developing a Portable Water Heating Installation with Variable Capacity	S. Bobancu, G. Dragusin	P4.4
6.	Some Aspects Regarding The Relationship Between SMEs And Innovation Process	D. Savescu	P4.5
7.	Technological And Business Incubators, A Good Opportunity In Developing The Technological Transfer In Sustainable Energy	D. Savescu	P4.6
<b>Total Section 4 - Poster</b>			<b>6</b>



**2nd Conference on Sustainable Energy**  
**Transilvania University of Brasov**  
**July 3-5, 2008**



Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 5 – Oral Presentations</b> <b>July 3<sup>rd</sup> 2008</b>			
1.	Green Building As A Purpose For The Sustainable Built Environment	I. Boian, I. Tuns	O5.1
2.	Increase Of Energy-Efficiency In Lighting By Means Of Renewable Energy	C. Ticleanu	O5.2
3.	Daylight Transport Into Buildings Through Branched Sun-Pipe Systems	C. Ticleanu	O5.3
4.	Energy Saving By Using Heat Pipes	Gh. Bacanu	O5.4
5.	Highly Efficient Photocatalytic Systems For Dyes Removal	L. Andronic, R. A. Carcel, A. Duta	O5.5
6.	Method And Instalation For Chlorine Production And Potable Water Clorination By Direct Injection Into The Water Pipe	M.C.Mirica, M.Iorga, N.Mirica, I.Balcu	O5.6
7.	Electrodes For Chlorine Production And Potable Water Chlorination By Direct Injection Into The Water Pipe	N.Mirica, I.Balcu, M.I.Iorga, M.C.Mirica, A.Dragos	O5.7
8.	Fly Ash - Based Systems For Advanced Removal Of Heavy Metals	M. Visa, A. Duta	O5.8
9.	Polymer - Inorganic Composites On Advanced Recycling Solution	C. Vladuta, A. Duta	O5.9
10.	Converting Of Post - Consumer Polyethylene Waste To Engineering Thermoplastic Materials	M. Zanoaga, Y. Mamunya, V. Myshak, E. Lebedev	O5.10
11.	Estimation Of Mechanical Properties And Morphology of a Modified Polyamide With Wooden Filler	M. Zanoaga, Y. Mamunya, V. Myshak, E. Lebedev	O5.11
12.	A Management Issue: Implementing Solar Conversion Systems And Improving The Energy Efficiency Of Certain Companies (Case Studies)	C. Covrig	O5.12
13.	Phase Equilibria Modeling Of R23 Alkylbenzene Mixtures	C. Bogatu, R. Vilcu, D.Geana, T. Deloss, A. Duta	O5.13
14.	The Evaluation Of Performances Of Installations By Power Plants From Romania Concerning Professional Risks - Case Studies Rovinari Power Plant	A. Raducanu , A. Stanca, A. Suvergel, S. Popescu, S. Varlan, A. Meghea	O5.14
<b>Total Section 5</b>			<b>14</b>
<b>Section 5 – Poster Presentations</b> <b>July 4<sup>th</sup>, 2008</b>			
1.	Echological Method For Separation Of Bioactive Compounds From Phytoextracts Using Molecularly Imprinted Poly (Vinyl Alcohol) Materials	C. Croitoru, Patachia Silvia	P5.1
2.	Environmental Protection By Valorising Lignocellulosic Materials	L. Dumitrescu, I. Manciulea	P5.2
3.	Green Fuels From Biomass	L. Dumitrescu, I. Manciulea	P5.3
4.	Catalytic Oxidation Of Onf In Aqueous Solutions	I. Dumitriu, R. M. Ion, R. C. Fierascu, S. M. Avramescu	P5.4
5.	Porphyrin Applications In Solar Energy Conversion	I. Dumitriu, R. M. Ion, R. C. Fierascu	P5.5
6.	New Materials For Water Treatment	R. C. Fierascu, R. M.Ion, I. Dumitriu	P5.6
7.	Corrosion Protection With Solar Cells	J. M. Rosca, A. S. Lopez	P5.7
8.	Neutral Red and Malachite Green Separation from Waste Waters, by Using Materials Based on Poly (Vinyl Alcohol)	G. Moise, S. Patachia	P5.8
<b>Total Section 5 - Poster</b>			<b>8</b>



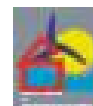
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**Transilvania University of Brasov**  
**July 3-5, 2008**



Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 6 – Oral Presentations</b> <b>July 4<sup>th</sup>, 2008</b>			
1.	Study of the microhydrostation rotor blade's with hidrodynamic profile	I. Bostan, V. Dulgheru, V. Bostan, O. Ciobanu	O6.1
2.	Elaboration of a small power system for wind energy recovery	I. Bostan, I. Sobor, V. Dulgheru, R. Ciuperca	O6.2
3.	Contributions to the Developing of Pintle Wind Turbines with Helical Blades	I. Bostan, I. Visa, V. Dulgheru, R. Ciuperca	O6.3
4.	Blades Design For A Small Wind Turbine	I. Negrea, I. Visa, S. Bobancu	O6.4
5.	Effects of large-scale photovoltaic power generation on autonomous power system of Crete Island	E.S.Karapidakis, A.Vlisis	O6.5
6.	Limitations And Control Of Lithium Bromide Chillers	I. BOIAN, A. TZACHANIS, R. CAMPEANU	O6.6
7.	The comparative study for wooden biomass use in the form of combustible briquettes and pellets	A. Lunguleasa, G. Budau	O6.7
8.	Main features of briquettes obtained from renewable wooden biomass and the impact upon environment	A. Lunguleasa	O6.8
9.	Energy Management in small Buildings	A. Vlissidis, I. Popescu, G. Kaliakatsos	O6.9
10.	Eco-Design of an Energy Hybrid System for Electrical Vehicles	C. Lungoci, A. Mailat, E. Helerea	O6.10
<b>Total Section 6</b>			<b>10</b>
<b>Section 6 – Poster Presentations</b> <b>July 4<sup>th</sup>, 2008</b>			
1.	Study Of The Pressure Distribution On A Blade Cross-Section	D. Ionescu, M. T. Lates	P6.1
2.	On The Use Of The Cycloidal Transmission As Speed Increaser In RES Applications	C. Jaliu, D. Diaconescu, M. Neagoe, R. Saulescu	P6.2
3.	Hybrid Systems Implementation For Domestic Users	M. T. Lates, P. U. Hansen	P6.3
4.	On The Overall Dimension Of Speed Multipliers With Cylindrical Gears Used For Small Power Wind Turbines	G. Moldoveanu, C. A. Bozan, R. Velicu	P6.4
5.	Novel Design of a Low Cost, Small Power Wind Turbine	I. Negrea; S. Bobancu; I. Visa;	P6.5
6.	Combining Hydro and Wind energy sources in the Romanian specific conditions	A. Forcos, C. Marinescu	P6.6
7.	New design solutions for the illumination system of the "Transilvania" University campus	V. Sisman	P6.7
<b>Total Section 6 - Poster</b>			<b>7</b>



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Nr. Crt.	Paper title	Authors	Indicativ
<b>Section 7</b> <b>July 4<sup>th</sup> 2008</b>			
1.	Regarding to European Market and Legislation in Renewable Energy Branch (Synthesis 1)	I. Daj	O7.1
2.	On the New Incentive Regulations to Be Provided for Renewable Energy Development (Synthesis 2)	I. Daj	O7.2
3.	Promoting Photovoltaics In Romania - How To Do It?	M.C.Mirica, M.Iorga, D.Buzatu	O7.3
4.	Opportunities For Education For Sustainability In Pre-University Curriculum	D. Perniu	O7.4
5.	High School Apprach On RES	M. Visa, A. Duta	O7.5
6.	Integration Of Sustainable Energy Into Vocational Training Methods	L. Cardon	O7.6
7.	An Erasmus Curriculum Development Project Supporting The Ecodesign Education For Engineers	A. Barsan, L. Barsan	O7.7
<b>Total Section 7 – Oral Presentations</b>			<b>7</b>
<b>Section 7 – Poster Sessions</b> <b>July 4<sup>th</sup> 2008</b>			
1.	Cohesion Founds And Project Management In The Academic Area	R. Popovici, A. Duta, I. Visa	P7.1
2.	Regional Initiatives In The Field Of Renewable Energies: Renerg Eureg Project	O. Tandrau	P7.2
3.	Teacher Education On Project-Based Learning With Renewable Energy Technologies	D. Alimisis	P7.3
4.	Educationg the innovative spirit in the Doctoral School	S. Bobancu	P7.4
<b>Total Section 7 - Poster</b>			<b>3</b>