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**Habilitation thesis title: Virtual Instrumentation – Applications in Remote Laboratories and Renewable Energy Sources**

**Domain: Electronics Engineering, Telecommunications and Information Technologies**

## PUBLICATIONS LIST

### RELEVANT PAPERS

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#### Books

1. **P. A. Cotfas**, D. T. Cotfas, D. Ursutiu, C. Samoila, D. Iordache, "Chapter 3 New Tools in Hardware and Software Design Applied for Remote Photovoltaic Laboratory", Abul K.M. Azad, A.K.M., Auer, M., V. Judson Harward, V.J. "Internet Accessible Remote Laboratories: Scalable E-Learning Tools for Engineering and Science Disciplines", IGI Global, pp. 40-59, 2011.

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1. S. Mahmoudinezhad, S. Ahmadi Atouei, **P.A. Cotfas**, D.T. Cotfas, L.A. Rosendahl, A. Rezanian, Experimental and numerical study on the transient behavior of multi-junction solar cell-thermoelectric generator hybrid system, *Energy Conversion and Management*, Vol. 184, 2019, pp. 448-455 (6.377);
2. S. Mahmoudinezhad, A. Rezanian, **P.A. Cotfas**, D.T. Cotfas, L.A. Rosendahl, Transient behavior of concentrated solar oxide thermoelectric generator, *Energy* 168, 2019, 823-832 (4.968);
3. S. Mahmoudinezhad, A. Rezanian, D.T. Cotfas, **P.A. Cotfas**, L.A. Rosendahl, Experimental and numerical investigation of hybrid concentrated photovoltaic - Thermoelectric module under low solar concentration, *Energy* 159, 2018, pp. 1123-1131 (4.968);
4. **P. A. Cotfas**, D.T. Cotfas, P.N. Borza, D. Sera, R. Teodorescu, "Solar Cell Capacitance Determination Based on an RLC Resonant Circuit, *Energies*, 11, 672, 2018 (2.676);
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8. **P. A. Cotfas**, D. T. Cotfas, C. Gerigan: Simulated, hands-on and remote laboratories for studying the solar cells, *IEEE Xplore - Intl Aegean Conference on Electrical Machines & Power Electronics (ACEMP)*, 2015 Intl Conference on Optimization of Electrical & Electronic Equipment (OPTIM) & 2015 Intl Symposium on Advanced Electromechanical Motion Systems (ELECTROMOTION), 2015, Side, Turkey;
9. D. T. Cotfas, **P. A. Cotfas**, S. Kaplanis: Methods to determine the dc parameters of solar cells: A critical review, *Renewable and Sustainable Energy Reviews*, vol. 28, 2013, pp. 588–596, (9.184);

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**PATENTS**

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1. Patent proposal, R0130952 (A0) - Cotfas Daniel-Tudor, **Cotfas Petru-Adrian**, Floroian Dan-Ion, Floroian Laura: Method and Device for Accelerated Testing of Ageing Time in Photovoltaic Cells – ARCL, 2016
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1. S. Mahmoudinezhad, S. Ahmadi Atouei, **P.A. Cotfas**, D.T. Cotfas, L.A. Rosendahl, A. Rezanian, Experimental and numerical study on the transient behavior of multijunction solar cell-thermoelectric generator hybrid system, Energy Conversion and Management, Vol. 184, 2019, pp. 448-455 (6.377);
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15. G. Șerban, D. T. Cotfas, **P. A. Cotfas**, Significant differences in crop albedo among romanian winter wheat cultivars, *ROMANIAN AGRICULTURAL RESEARCH*, NO. 28, 2011, Print ISSN 1222-4227; Online ISSN 2067-5720; (0.458)
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1. Octavian Machidon, Alina Machidon, **Petru Adrian Cotfas**, Daniel Tudor Cotfas, Implementing a Remote Laboratory on a Chip, SIITME2017, Constanta, Romania, 2017.
2. Cotfas, **P.A., Cotfas**, D.T., Gerigan, C., Machidon, O.M., System design to study hybrid systems in concentrated light using Fresnel lens,. In: *International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Brasov, Romania, 753 – 758, 2017..
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  20. D.T. COTFAS, **P.A. COTFAS**, D. URSUTIU, C. SAMOILA: "Current-Voltage Characteristic Raising Techniques for Solar Cells. Comparisons and Applications", proceedings Optim 2010, IEEEExplore, 10.1109/OPTIM.2010.5510373, ISSN: 1842-0133, Print ISBN: 978-1-4244-7019-8
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