

**Autorul tezei de abilitare: Conf. Dr. Ing. Săulescu Radu-Gabriel**

**Titlul tezei de abilitare: Dezvoltarea conceptuală și aplicativă a amplificatoarelor de turație utilizate în conversia energiei eoliene sau hidro în energie electrică**

**Domeniul: Inginerie mecanică, mecatronică și robotică**

## LISTA DE LUCRĂRI

### LUCRĂRI RELEVANTE

1. **Săulescu, R.**, Neagoe, M., Jaliu, C. Amplificatoare de turație pentru sistemele eoliene și hidroenergetice. Vol I. Modelarea răspunsului mecanic al sistemelor cu generator de curent continuu. Ed. Universitii Transilvania din Brașov, 2018, ISBN: 978-606-19-0972-8. ISBN: 978-606-19-0973-5 (Vol I).
2. Visa, I., Duta, A., Jaliu, C., Neagoe, M., Comsit, M., Moldovan, M., Ciobanu, D., Burduhos, B., **Săulescu, R.** The Role of Mechanisms in Sustainable Energy Systems. Ed. Universită ii Transilvania din Brașov, 2015, ISBN: 978-606-19-0571-3.
3. **R. Saulescu**, M. Neagoe, C. Jaliu. Conceptual Synthesis of Speed Increaseers for Wind Turbine Conversion Systems. *Energies* 2018, 11, 2257; doi: 10.3390/en11092257.
4. **R Saulescu**, M Neagoe, C Jaliu. Improving the Energy Performance of Wind Turbines Implemented in the Built Environment Using Counter-rotating Planetary Transmissions, Iasi, Romania, 2016, journal: *Materials Science and Engineering – IOP Conference Series: Materials Science and Engineering* 147 (1), 012089. doi:10.1088/1757-899X/147/1/012089.
5. **R Saulescu**, M Neagoe, O Munteanu, N Cretescu. Performance Analysis of a Novel Planetary Speed Increaseer used in Single-Rotor Wind Turbines with Counter-Rotating Electric Generator. Iasi, Romania, 2016, journal: *Materials Science and Engineering – IOP Conference Series: Materials Science and Engineering* 147 (1), 012090, doi:10.1088/1757-899X/147/1/012090.
6. **R. Saulescu**, C. Jaliu, M. Neagoe. Structural and Kinematic Features of a 2 DOF Speed Increaseer for Renewable Energy Systems, *Applied Mechanics and Materials*, Vol. 823, pp. 367-372, 2016, doi: 10.4028/www.scientific.net/AMM.823.367.
7. **R. Saulescu**, M. Neagoe, C. Jaliu, O. Munteanu. Comparative Analysis of Two Wind Turbines with Planetary Speed Increaseer in Steady-State, *Applied Mechanics and Materials*, Vol. 823, pp. 355-360, 2016, doi: 10.4028/www.scientific.net/AMM.823.355.
8. **Saulescu, R.**, Jaliu, C, Munteanu, O., Climescu, O. *Planetary Gear for Counter-rotating Wind Turbines*. *Applied Mechanics and Materials* Vol. 658 (2014) pp 135-140, doi:10.4028/www.scientific.net/AMM.658.135.
9. **Săulescu, R.**, Jaliu, C., Climescu, O., Diaconescu, D. *On the use of 2 DOF planetary gears as "speed increaseer" in small hydros and wind turbines*. *Proceedings of the ASME 2011 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2011*, 28 - 31.08, 2011, Washington, DC, USA, CD Proceedings, ISBN: 987-0-7918-3856-3.

10. Climescu, O., **Săulescu, R.**, Jaliu, C. *Specific features of a counter-rotating transmission for renewable energy systems*. Environmental Engineering and Management Journal, August 2011 Vol.10, ISSN 1582 - 959, pp. 1105-1113.

---

**TEZA DE DOCTORAT**

---

Optimizarea dinamică a transmisiilor policardanice cu arbori în configura ie spațială. Universitatea Transilvania din Brașov, februarie 2005.

Conducător Științific: Prof. univ. DHC. dr.ing. Dudiță Florea.

---

**BREVETE**

---

**Brevete de invenție**

1. Transmisie cicloidală cu role A/00323 din 03.06.2008 rezumat publicat in BOPI nr. 1 din 29.01.2010, brevet nr. RO125177-B1.
2. Mecanism de orientare A/00622 din 18.08.2008. rezumat publicat in BOPI nr. 2 din 26.02.2010, brevet nr. RO125253-A2
3. Mecanism de orientare A/00677/29.07.2010 rezumat publicat in BOPI nr. 5 din 30.05.2011, brevet nr. RO126335-A0
4. Mecanism de orientare A/00676/29.07.2010 rezumat publicat in BOPI nr. 5 din 30.05.2011, brevet nr. RO126334-A0
5. Transmisie planetara A/00326/08.04.2011 rezumat publicat in BOPI nr. 9 din 2011 brevet nr. RO126694-A0
6. Mecanism de orientare monoaxială cu două actuatore liniare A/00467/22.06.2012 – rezumat publicat in BOPI nr. 11 din 29.11.2012, brevet nr. RO 127979 A0
7. Transmisie planetara cu lant A/00084/10.02.2010 – rezumat publicat in BOPI nr. 1 din 30.01.2013, brevet nr. RO128109-A2
8. Mecanism de orientare articulata cu ro i din ate A/01074/11.11.2010 rezumat publicat in BOPI nr. 4 din 2011, brevet nr. RO 126230 A0

**Propuneri de brevete**

1. Mecanism de orientare articulata A/01001/22.10.2010 rezumat publicat in BOPI nr. 3 din 2011, brevet nr. RO 126149 A0
2. Sistem și metodă de orientare a unui colector solar termic plan în func ie de necesarul termic A/00109/20.02.2012 – rezumat publicat in BOPI nr. 7 din 30.07.2012, brevet nr. RO 127678 A0
3. Mecanism de orientare cu bare articulate si angrenaj planetar A/00391/01.06.2012 – rezumat publicat in BOPI nr. 10 din 30.10.2012, brevet nr. RO 127913 A0
4. Actuator de joasă viteză cu reductor articulata intermitent A/00664/19.09.12 2010 – rezumat publicat in BOPI nr. 1 din 30.01.2013, brevet nr. RO128120 A0
5. Mecanism de orientare cu doua actuatore liniare in paralel pentru siruri fotovoltaice A/00710/08.10.2012 – rezumat publicat in BOPI nr. 4 din 2013, brevet nr. RO128315 A0

6. Colector solar termic modular pentru optimizarea prin testare a eficienței conversiei și creșterea acceptanței arhitecturale A/00939/02.12.14– rezumat publicat in BOPI nr. 5 din 2015, brevet nr. RO 130275 A0
7. Sistem eolian contrarotativ monomobil A/00539/29.07.2016 – rezumat publicat in BOPI nr. 11 din 2016, brevet nr. RO131512 A0
8. Amplificator de turație planetar monomobil cu două ieșiri contrarotative A/00905/25.11.2016 – rezumat publicat in BOPI nr. 3 din 2017, brevet nr. RO 131740 A0
9. Mecanism de orientare monoaxială de înaltă precizie A/00930/28.11.2016 – rezumat publicat in BOPI nr. 4 din 2017, brevet nr. RO 131808 A0
10. Amplificator de turație diferențial cu două ieșiri contrarotative A/00326/30.05.2017 – rezumat publicat in BOPI nr. 10 din 2017
11. Amplificator de turație planetar monomobil cu două intrări și două ieșiri A/00880/27.10.2017 – documentație înregistrată la OSIM încă în analiză

## **CĂRȚI / CAPITOLE DE CĂRȚI**

### **Lista monografii**

1. **Săulescu, R.**, Neagoe, M., Jaliu, C. Amplificatoare de turație pentru sistemele eoliene și hidroenergetice. Vol I. Modelarea răspunsului mecanic al sistemelor cu generator de curent continuu. Ed. Universitii Transilvania din Brașov, 2018, ISBN: 978-606-19-0972-8. ISBN: 978-606-19-0973-5 (Vol I).
2. Visa, I., Duta, A., Jaliu, C., Neagoe, M., Comsit, M., Moldovan, M., Ciobanu, D., Burduhos, B., **Săulescu, R.** The Role of Mechanisms in Sustainable Energy Systems. Ed. Universității Transilvania din Brașov, 2015, ISBN: 978-606-19-0571-3.
3. Jaliu, C., Diaconescu, D., Neagoe, M., Munteanu, O., **Săulescu, R.**, Pascale, L., Gall, R. Planetary gearset modelling. Editura Universității Transilvania, 2010, ISBN 978-973-598-481-6.
4. Neagoe, M., Diaconescu, D., Jaliu, C., Munteanu, O., **Săulescu, R.**, Crețescu, N. Linkage accuracy modelling. Editura Universității Transilvania, 2010, ISBN 978-973-635-921-7.
5. Diaconescu, D., Neagoe, M., Jaliu, C., **Săulescu, R.** Products' Conceptual Design. Editura Universității Transilvania, 2010, ISBN 978-973-598-230-0.
6. Jaliu, C., Diaconescu, D., Neagoe, M., **Săulescu, R.** Gear mechanisms. Structure. Kinematics. Dynamics. Editura Universității Transilvania, 2006, ISBN 973-635-623-X.
7. Bârsan, A., **Săulescu, R.** Angrenaje cilindrice pentru reductoare de turație. Ed. Universitii Universității Transilvania Brașov, 2005, ISBN: 973-635-361-3.
8. Diaconescu, D.V, Dudiță, FL., Neagoe, M, **Săulescu, R.** Transmisii mecanice. Cuplaje mobile cu bile de tip Weiss și Rzeppa. Ed. Universitii Universității Brașov, 2004, ISBN: 973-635-295-1.
9. Jaliu, C., Diaconescu, D., Neagoe, M., Ciobanu, D., **Săulescu, R.** Applications of mechanism analysis and synthesis. Editura Universității Transilvania, 2003, ISBN 973-635-155-6.
10. Dudiță, FL., Diaconescu, D., Böhm, C, Neagoe, M, **Săulescu, R.** Transmisii cardanice. Ed. Transilvania Expres, Brașov, 2003, ISBN: 973-8196-20-5.

**Capitole de carte in edituri straine**

1. Neagoe, M., Diaconescu, D., Jaliu, C., **Săulescu, R.** DAAAM International Scientific book: A Conceptual Application Based on new Generalized Algorithm. Publisher: DAAAM International Vienna 2009, cap. 63, pp. 653-664, ISSN 1726-9687, ISBN 978-3-901509-69-8.
2. Neagoe, M., Diaconescu, D., Jaliu, C., Stan, S.D., Crețescu, N., **Săulescu, R.** Computational intelligence and modern heuristics: On the Accuracy of a Stewart Platform: Modelling and Experimental validation. Published: In-Tech, Olajnica, Croatia, 2010, cap. 6, pp. 75-98, ISBN 978-953-7619-28-2.
3. Diaconescu, D., Jaliu, C., Neagoe, M., **Săulescu, R.** DAAAM International Scientific book: Product conceptual design modeling: A new generalized algorithm. Publisher: DAAAM International Vienna 2010, cap. 53, pp. 607-616, ISSN 1726-9687, ISBN 978-3-901509-74-2.

**ARTICOLE ÎN REVISTE**

1. **R. Saulescu**, M. Neagoe, C. Jaliu. Conceptual Synthesis of Speed Increaseers for Wind Turbine Conversion Systems. **Energies** 2018, 11, 2257; doi:10.3390/en11092257.
2. **R Saulescu**, R Velicu, M Lates. Geometric modelling of the contact point between the bushing and sprocket in chain drives. Rotrib'16. Galați, Romania, 2016, journal: **Materials Science and Engineering – IOP Conf. Series: Materials Science and Engineering** 174 (2017) 012049 doi:10.1088/1757-899X/174/1/012049.
3. M. Neagoe, **R. Saulescu**, C. Jaliu, N. Cretescu. Novel Speed Increaseer used in Counter-Rotating Wind Turbines. *New Advances in Mechanisms, Mechanical Transmissions and Robotics, Mechanisms and Machine Science* 46, 143-151, 2017, DOI 10.1007/978-3-319-45450-4\_15, Ed. Springer.
4. N. Cretescu, M. Neagoe, **R. Saulescu**. Kinematic and Dynamic Analysis of a 4DOF Parallel Robot with Flexible Links. *New Advances in Mechanisms, Mechanical Transmissions and Robotics, Mechanisms and Machine Science* 46, 473-481, 2017, DOI 10.1007/978-3-319-45450-4\_48, Ed. Springer.
5. **R. Săulescu**, D. Ciobanu, C. Jaliu. Kinematic and Static Modelling of the Adjustable-Blade Mechanism Used in Kaplan Turbines. *Bulletin of the Transilvania University of Brașov, Vol. 9 (58) No. 2 - Special Issue- 2016 Series I: Engineering Sciences*, pp.243-250.
6. **R. Saulescu**, C. Jaliu, M. Neagoe. Structural and Kinematic Features of a 2 DOF Speed Increaseer for Renewable Energy Systems, **Applied Mechanics and Materials**, Vol. 823, pp. 367-372, 2016, doi: 10.4028/www.scientific.net/AMM.823.367
7. **R. Saulescu**, M. Neagoe, C. Jaliu, O. Munteanu. Comparative Analysis of Two Wind Turbines with Planetary Speed Increaseer in Steady-State, **Applied Mechanics and Materials**, Vol. 823, pp. 355-360, 2016, doi: 10.4028/www.scientific.net/AMM.823.355
8. **R Saulescu**, M Neagoe, C Jaliu. Improving the Energy Performance of Wind Turbines Implemented in the Built Environment Using Counter-rotating Planetary Transmissions, Iasi, Romania, 2016, journal: **Materials Science and Engineering – IOP Conference Series: Materials Science and Engineering** 147 (1), 012089. doi:10.1088/1757-899X/147/1/012089
9. **R Saulescu**, M Neagoe, O Munteanu, N Cretescu. Performance Analysis of a Novel Planetary Speed Increaseer used in Single-Rotor Wind Turbines with Counter-Rotating Electric

- Generator. Iasi, Romania, 2016, journal: **Materials Science and Engineering – IOP Conference Series: Materials Science and Engineering** 147 (1), 012090, doi:10.1088/1757-899X/147/1/012090
10. R Velicu, **R Saulescu**, L Jurj. Contact point of bush – sprocket tooth depending on pitch differences of bush chain transmissions. Iasi, Romania, 2016, journal: **Materials Science and Engineering – IOP Conference Series: Materials Science and Engineering** 147 (1), 012039, doi:10.1088/1757-899X/147/1/012039
  11. I Visa, A Duta, M Comsit, M Moldovan, D Ciobanu, **R Saulescu**, B Burduhos. Design and experimental optimisation of a novel flat plate solar thermal collector with trapezoidal shape for facades integration. **Applied Thermal Engineering** 90, 432-443, 2015
  12. **Saulescu, R.**, Neagoe, M. Jaliu, C., and Munteanu, O, On a New Chain Planetary Transmission for Renewable Energy. Systems. Part I: Product Design. **Applied Mechanics and Materials** Vol. 760 (2015) pp 147-152, Doi:10.4028/www.scientific.net/AMM.760.147
  13. **Saulescu, R.**, Jaliu, C., Neagoe, M. and Climescu O., On a New Chain Planetary Transmission for Renewable Energy. Systems. Part II: Virtual prototyping and Experimental Testing. **Applied Mechanics and Materials** Vol. 760 (2015) pp 153-158, Doi:10.4028/www.scientific.net/AMM.760.153
  14. **Saulescu, R.**, Jaliu, C, Munteanu, O., Climescu, O. *Planetary Gear for Counter-rotating Wind Turbines.* **Applied Mechanics and Materials** Vol. 658 (2014) pp 135-140, doi:10.4028/www.scientific.net/AMM.658.135.
  15. Neagoe, M., **Saulescu, R.**, Munteanu, O., Burduhos, B. *Low Speed Linear Actuator for Accurate Orientation of Concentrated Solar Convertors.* **Applied Mechanics and Materials** Vol. 658 (2014) pp 99-104, doi:10.4028/www.scientific.net/AMM.658.99.
  16. Ciobanu, D., Jaliu, C,**Saulescu, R.** *Chain Tracking System for Solar Thermal Collector.* **Applied Mechanics and Materials** Vol. 658 (2014) pp 35-40 doi: 10.4028/www.scientific.net/AMM.658.35.
  17. Ciobanu, D., **Saulescu, R.**, Jaliu, C, Climescu. *Wind Potential Analysis in Brasov Built Environment..* **Applied Mechanics and Materials** Vol. 659 (2014) pp 337-342, doi:10.4028/www.scientific.net/AMM.659.337.
  18. Neagoe M., Crețescu N., **Săulescu R.**, *Dynamic modelling of a 3DOF medical parallel robot with one decoupled motion.* **Advanced Materials Research** Vols. 837 (2014) pp 594-599, Trans Tech Publications, Switzerland, doi: 10.4028/www.scientific.net/AMR.837.594.
  19. Crețescu N., Neagoe M., **Săulescu R.**, *Kinematic modelling and VR simulation of a 3DOF medical parallel robot with one decoupled motion.* **Advanced Materials Research** Vols. 837 (2014) pp 567-572, Trans Tech Publications, Switzerland, doi: 10.4028/www.scientific.net/AMR.837.567.
  20. Todi-Eftimie, A., Velicu, R., **Săulescu, R.**, Jaliu C. *Bearing friction vs. chain friction for chain drives.* **Advanced Materials Research** Vols. 753-755 (2013) pp 1110-1113, Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMR.753-755.1110.

21. Neagoe, M., Vatasescu, M., **Săulescu, R.**, Creanga, N. *On New High Performance Systems with Linear Actuators for Diurnal Orientation of PV Platforms. Applied Mechanics and Materials*, Vol. 162 in 2012, ISSN: 1662-7482, pp. 214-223, ISSN/ISO: Periodical of Applied Mechanics and Materials with the title Mechanisms, Mechanical Transmissions and Robotics, ISBN-13: 978-3-03785-395-5
22. Climescu, O., **Săulescu, R.**, Jaliu, C. *Specific features of a counter-rotating transmission for renewable energy systems. Environmental Engineering and Management Journal*, August 2011 Vol.10, ISSN 1582 - 959, pp. 1105-1113.
23. Vișa, I., Diaconescu, D., **Săulescu, R.**, Vătășescu, M., Burduhos, B. *New Linkage with Linear Actuator for Tracking PV Systems with Large Angular Stroke. Chinese Journal Of Mechanical Engineering*, pp. 744-751, Volume 24, No: 5, 2011, ISSN: 1000-9345.
24. Jaliu, C., Diaconescu, D., Neagoe, M., **Săulescu, R.** *The eco-impact of small hydro implementation. Environmental Engineering and Management Journal*, July/August 2009 Vol.8 No. 4, ISSN 1582 - 959, pp. 837-841.

#### ARTICOLE PUBLICATE IN VOLUME ALE CONFERINȚELOR INTERNAȚIONALE

1. O Climescu, C Jaliu, **R Săulescu**. Comparative Analysis of Horizontal Small Scale Wind Turbines for a Specific Application. The 14th IFToMM World Congress, Taipei, Taiwan, October 25-30, 2015 DOI Number: 10.6567/IFToMM.14TH.WC.OS16.005
2. **Săulescu, R.**, Climescu O., Jaliu C. Assessment of Wind Energy Resources in Communities. Case Study: Brasov, Romania; Springer Proceedings in Energy. Sustainable Energy in the Built Environment-Steps Towards nZEB. Proceedings of the Conference for Sustainable Energy (CSE) 2014, november 6-8, pp. 151-166, 2014, ISBN: 978-3-319-09707-7, ISSN: 2352-2534, DOI 10.1007/978-3-319-09707-7\_12.
3. **Săulescu, R.**, Climescu O., Jaliu C. Assessment of Wind Energy Resources in Communities. Case Study: Brasov, Romania; Springer Proceedings in Energy. Sustainable Energy in the Built Environment-Steps Towards nZEB. Proceedings of the Conference for Sustainable Energy (CSE) 2014, november 6-8, pp. 151-166, 2014, ISBN: 978-3-319-09707-7, ISSN: 2352-2534, DOI 10.1007/978-3-319-09707-7\_12.
4. **Săulescu R.**, Munteanu O., Neagoe M., Crețescu N., *On the eccentricity effects in solar tracking triangular linkage with linear actuator*, The 11th IFToMM International Symposium on Science of Mechanisms and Machines- SYROM 2013 Mechanisms and Machine Science 18, november 11-12, pp. 209-216, 2013, ISBN: 978-3-319-01844-7, ISSN: 2211-0984, DOI 10.1007/978-3-319-01845-4\_21.
5. Jaliu C., Neagoe M., Săulescu R, Dobre E. B., *Low-speed actuator used in solar tracking systems*, The 11th IFToMM International Symposium on Science of Mechanisms and Machines- SYROM 2013. Mechanisms and Machine Science 18, november 11-12, pp. 381-389, 2013, ISBN: 978-3-319-01844-7, ISSN: 2211-0984, DOI 10.1007/978-3-319-01845-4\_38. Ed. Springer.
6. Todi-Eftimie, A., Velicu, R. , **Săulescu, R.**, Jaliu, C. *Geometric modeling of power joints from bush chain drives*, The 11th IFToMM International Symposium on Science of Mechanisms and Machines- SYROM 2013. Mechanisms and Machine Science 18, november 11-12, pp. 471-

- 479, 2013, ISBN: 978-3-319-01844-7, ISSN: 2211-0984, DOI 10.1007/978-3-319-01845-4\_47.
7. Moldovan, M., Vișa, I., **Săulescu, R.**, Comșiț, M. *Four Bar Linkages with Linear Actuators Used for Solar Trackers with Large Angular Diurnal Strokes*. The 11th IFToMM International Symposium on Science of Mechanisms and Machines- SYROM 2013. Mechanisms and Machine Science 18, november 11-12, pp. 411-423, 2013, ISBN: 978-3-319-01844-7, ISSN: 2211-0984, DOI 10.1007/978-3-319-01845-4\_41.
  8. Climescu, O., Jaliu, C., **Săulescu, R.** On the Efficiency of a Planetary Speed Increaser Usable in Small Hydros. Power Transmissions. Mechanism and Machine Science, Vol. 13, 2013, pp 259-268 ([http://link.springer.com/chapter/10.1007/978-94-007-6558-0\\_18](http://link.springer.com/chapter/10.1007/978-94-007-6558-0_18))
  9. **Săulescu, R.**, Jaliu, C., Climescu, O., Diaconescu, D. *On the use of 2 DOF planetary gears as "speed increaser" in small hydros and wind turbines*. Proceedings of the ASME 2011 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2011, 28 - 31.08, 2011, Washington, DC, USA, CD Proceedings, ISBN: 987-0-7918-3856-3
  10. Diaconescu, D.V., Vișa, I., Vătășescu, M., **Săulescu, R.**, Burduhos, B. The Optimization of a Bi-Axial Adjustable Mono-Actuator PV Tracking Spatial Linkage Azimuth Tracking Linkage Influence on the Efficiency of a Low CPV System. Proceedings of EUCOMES 2010. New Trends in Mechanism Science. Analysis and Design. Mechanism and Machine Science, Vol. 5, Cluj Napoca, România, pp. 181-188, Septembrie 2010, Ed. Springer, ISBN 987-90-481-9688-3.
  11. Jaliu, C., Diaconescu, D., **Săulescu, R.**, Climescu, O., On a New Planetary Speed Increaser Drive Used in Small Hydros. Part I. Conceptual Design. Proceedings of EUCOMES 2010. New Trends in Mechanism Science. Analysis and Design. Mechanism and Machine Science, Vol. 5, Cluj Napoca, România, pp. 199-207, Septembrie 2010, Ed. Springer, ISBN 987-90-481-9688-3.
  12. **Săulescu, R.**, Jaliu, C., Diaconescu, D., Climescu, O., On a New Planetary Speed Increaser Drive Used in Small Hydros. Part II. Dynamic Model. Proceedings of EUCOMES 2010. New Trends in Mechanism Science. Analysis and Design. Mechanism and Machine Science, Vol. 5, Cluj Napoca, România, pp. 209-216, Septembrie 2010, Ed. Springer, ISBN 987-90-481-9688-3.
  13. Jaliu, C., Vișa, I., Diaconescu, D.V., **Săulescu, R.**, Neagoe, M., Climescu, O. Dynamic Model of a Small Hydropower Plant. OPTIM 2010. Proceedings of the 12<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment. Renewable Energy Conversion and Control. May 20-21.10, Brașov, pp. 1216-1223. ISSN: 1842-0133, ISBN 978-973-131-080-0.
  14. Jaliu, C., **Săulescu, R.**, Diaconescu, D., Neagoe, M., Climescu, O. *Dynamic Features of a Planetary Speed Increaser Usable in Small Hydropower Plants*. Proceedings of the 5th IASME / WSEAS International Conference on ENERGY & ENVIRONMENT (EE '10), pp. 241-246, February 23-25, 2010, University of Cambridge, UK. ISSN: 1790-5095, ISBN: 978-960-474-159-5.

15. Jaliu, C., **Săulescu, R.**, Diaconescu, D., Neagoe, M., Conceptual design of a chain speed increaser for small hydropower stations. Proceedings of the ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, IDETC/CIE 2009, 30.08 – 2.09, 2009, San Diego, California, USA, CD Proceedings, ISBN: 987-0-7918-3856-3.
16. C.Jaliu, D.V., Diaconescu, M.Neagoe, **R. Săulescu**, M. Vătășescu. Conceptual Synthesis of Speed Increaseers for Renewable Energy Systems. The 10<sup>th</sup> IFToMM International Symposium on Science of Mechanisms and Machines, Brașov, SYROM 2009, September 12-15, pp. 171-183, 2009, ISBN: 978-90-481-3521-9.
17. D.V., Diaconescu, I. Vișa, M. Vătășescu, I. Hermenean, **R. Săulescu**. Synthesis of a Bi-Axial Tracking Spatial Linkage with a Single Actuator. The 10<sup>th</sup> IFToMM International Symposium on Science of Mechanisms and Machines, Brașov, SYROM 2009, September 12-15, pp. 617-632, 2009, ISBN: 978-90-481-3521-9. Springer.
18. **Saulescu, R.**; Climescu, O.; Jaliu, C.; Diaconescu, D. Optimization of a Planetary Chain Speed Increaser for Small Hydros. *Annals of DAAAM & Proceedings*. 2010, p465-466 (EBSCO)
19. Climescu, O.; Jaliu, C.; **Saulescu, R.**; Neagoe, M.; Badea, M. Laboratory Small Hydropower Plant Testing Stand. *Annals of DAAAM & Proceedings*. 2010, p1125-1126 (EBSCO)
20. C.Jaliu, D.V., Diaconescu, **R. Săulescu**, M.Neagoe. *Conversion Analysis of A Planetary Chain-Set Speed Reducer into A Speed Increaser to Be Used in RES*. Proceedings of the Third International Conference On Mechanical Engineering and Mechanics, Beijing, China, oct. 21-23, 2009, Vol. 1 and 2, pp 767-770, ISBN: 978-1-933100-33-3, Publisher: SCIENCE PRESS USA INC, ISI Document Delivery No.: BOE55
21. Ciobanu, D., Vișa, I, Diaconescu, D., **Săulescu, R.**: *WSEAS Virtual Prototyping of a New Tracking System*, 4Proceedings of the 2<sup>nd</sup> International Conference on Enviromental and geological science an Engineering (EG'09), Brașov, România, 22-24 September, 2009, ISSN: 1790-2769, ISBN 987-960-474-119-9, pp 142-146.
22. Jaliu, C., Diaconescu, D.V., Neagoe, M., **Săulescu R.** Dynamic features of speed increaseers from mechatronic wind and hydro systems. Part I. Structure. Kinematics. Proceedings of EUCOMES 08. The Second European Conference on Mechanism Sciece, Casino, Italia, pp. 355-363, Septembrie 2008, Ed. Springer, ISBN 987-1-4020-8914-5.
23. Jaliu, C., Diaconescu, D.V., Neagoe, M., **Săulescu R.** Dynamic features of speed increaseers from mechatronic wind and hydro systems. Part II. Dynamic aspects. Proceedings of EUCOMES 08. The Second European Conference on Mechanism Sciece, Casino, Italia, pp.365-373, Septembrie 2008, Ed. Springer, ISBN 987-1-4020-8914-5.
24. Vișa, I., Diaconescu, D.V., Popa, V., Burduhos, B., **Săulescu R.** The Synthesis of a Linkage with Linear Actuator for Solar Tracking with Large Angular Stroke. Proceedings of EUCOMES 08. The Second European Conference on Mechanism Sciece, Casino, Italia, pp.457-464, Septembrie 2008, ISBN Ed. Springer, ISBN 987-1-4020-8914-5.



25. Diaconescu, D., Jaliu, C., Neagoe, M., **Săulescu, R.** On A Generalized Algorithm Of The Technical Products Conceptual Design. The 19<sup>th</sup> International DAAAM Symposium. Intelligent Manufacturing & Automation: Focus on Next Generation of Intelligent Systems and Solutions. 22-25th October 2008, Trnava, Slovakia, pp. 0377-0378, ISBN: 978-3-901509-68-1, ISSN: 1726-9679.
26. Neagoe, M., Diaconescu, D., Jaliu, C., **Săulescu, R.** A conceptual design application based on a generalized algorithm Part I. Generation of solving structural variants. The 19<sup>th</sup> International DAAAM Symposium. Intelligent Manufacturing & Automation: Focus on Next Generation of Intelligent Systems and Solutions. 22-25th October 2008, Trnava, Slovakia, pp. 0953-0954, ISBN: 978-3-901509-68-1, ISSN: 1726-9679.
27. Neagoe, M., Diaconescu, D., Jaliu, C., **Săulescu, R.** A conceptual design application based on a generalized algorithm. Part II. Solving structures' selection and evaluation. The 19<sup>th</sup> International DAAAM Symposium. Intelligent Manufacturing & Automation: Focus on Next Generation of Intelligent Systems and Solutions. 22-25th October 2008, Trnava, Slovakia, pp. 0955-0956, ISBN: 978-3-901509-68-1, ISSN: 1726-9679.
28. D.V., Diaconescu, I. Vișa, B. Burduhos, **R., Săulescu.** PV Orientation Data needed in the Design of the Pseudo-Equatorial Tracker's Control Program. OPTIM 2008. Proceedings of the 11<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment. Vol. II-B. Renewable Energy Conversion and Control. May 22-23.08, Brașov, pp. 455-460, IEEE Catalog Number 08EX1996. ISBN 987-973-131-028-2.
29. Neagoe, M., Diaconescu, D.V., Jaliu, C., Pascale, L., **Săulescu, R., Siscă, S** On a New Cycloidal Planetary Gear used to Fit Mechatronic Systems of RES. OPTIM 2008. Proceedings of the 11<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipment. Vol. II-B. Renewable Energy Conversion and Control. May 22-23.08, Brașov, pp. 439-449, IEEE Catalog Number 08EX1996. ISBN 987-973-131-028-2.
30. Munteanu, O., Jaliu, C., Neagoe, M., **Săulescu, R.:** *A New Approach to the Strategic Planning of an Advanced Education*, 4<sup>th</sup> WSEAS/ IASME International Conference on Educational Technologies (EDUTE'08), Corfu, Greece, 26-28 October, 2008, ISSN: 1790-5109, ISBN 987-960-474-013-0, pp 106-111.
31. Climescu, O.; Visa, I.; Jaliu, C.; **Săulescu, R.** COMPARATIVE ANALYSIS OF PLANETARY TRANSMISSIONS TO BE USED IN RES. *Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences*. 2010, Vol. 3 Issue 52, p55-62
32. Jaliu, C.; Neagoe, M.; **Săulescu, R.**; Grosu, A. ON A NEW PLANETARY SPEED INCREASER WITH DEFORMABLE ELEMENT USED IN R.E.S. *Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences*. 2009, Vol. 2 Issue 51, p81-88
33. Burduhos, B.; Diaconescu, D. V.; **Săulescu, R.** COMPARISON BETWEEN SINGLE-AXIS PV TRACKERS OF PSEUDO-EQUATORIAL AND AZIMUTHAL TYPE *Bulletin of the Transilvania University of Brasov, Series I: Engineering Sciences*. 2008, Vol. 1 Issue 50, p81-86
34. Munteanu, O., Jaliu, C., Neagoe, M., **Săulescu, R.:** *A New Approach to the Strategic Planning of an Advanced Education*, 4<sup>th</sup> WSEAS/ IASME International Conference on Educational Technologies (EDUTE'08), Corfu, Greece, 26-28 October, 2008, ISSN: 1790-5109, ISBN 987-960-474-013-0, pp 106-111.

**ALTE LUCRĂRI / REALIZĂRI RELEVANTE**

---

1. Premiul *Constantin Budeanu 2015* acordat de Academia Română monografiei: *The Role of Mechanisms in Sustainable Energy Systems*.
2. Winner of Festo young Researcher and Scientist Support Scholarship Award. Vienna 2008.

Data

01.09.2018

Săulescu Radu-Gabriel