

Author: Assoc. Prof. Dr. Eng. Săulescu Radu-Gabriel

Habilitation thesis title: Conceptual and applicable development of speed increasers used in the conversion of wind or hydro energy into electrical energy

Domain: Mechanical Engineering, Mechatronics and Robotics

PUBLICATIONS LIST

RELEVANT PAPERS

1. **Săulescu, R.**, Neagoe, M., Jaliu, C. Speed increaser for wind and hydro power systems. Vol I. Modeling the mechanical response of DC generating systems. Ed. Transilvania University of Brasov, 2018, ISBN: 978-606-19-0972-8. ISBN: 978-606-19-0973-5 (Vol I). (in romanian)
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 Braşov, 2015, ISBN: 978-606-19-0571-3.
3. **R. Saulescu**, M. Neagoe, C. Jaliu. Conceptual Synthesis of Speed Increasers 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 Increaser 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 Increaser 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 Increaser 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 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. 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.

PhD THESIS

Dynamic Optimization of n-Cardan Transmission with Shafts in a Spatial Configuration.

Transilvania University of Brasov, February 2005.

Coordinator: Prof.univ. DHC. dr.eng. Dudiță Florea.

PATENTS

Brevete de invenție

1. Cycloidal transmission with rollers A/00323 din 03.06.2008 summary published in BOPI nr. 1 from 29.01.2010, brevet nr. RO125177-B1. (in romanian)
2. Orientation mechanism A/00622 din 18.08.2008. summary published in BOPI nr. 2 from 26.02.2010, brevet nr. RO125253-A2 (in romanian)
3. Orientation mechanism A/00677/29.07.2010 summary published in BOPI nr. 5 from 30.05.2011, brevet nr. RO126335-A0 (in romanian)
4. Orientation mechanism A/00676/29.07.2010 summary published in BOPI nr. 5 from 30.05.2011, brevet nr. RO126334-A0 (in romanian)
5. Planetary transmission A/00326/08.04.2011 summary published in BOPI nr. 9 from 2011 brevet nr. RO126694-A0 (in romanian)
6. Monoaxial orientation mechanism with two linear actuators A/00467/22.06.2012 – summary published in BOPI nr. 11 from 29.11.2012, brevet nr. RO 127979 A0 (in romanian)
7. Planetary transmission with chain A/00084/10.02.2010 – summary published in BOPI nr. 1 from 30.01.2013, brevet nr. RO128109-A2 (in romanian)
8. Orientation mechanism articulated with gear A/01074/11.11.2010 summary published in BOPI nr. 4 from 2011, brevet nr. RO 126230 A0 (in romanian)

Propuneri de brevete

1. Orientation mechanism articulate A/01001/22.10.2010 summary published in BOPI nr. 3 from 2011, brevet nr. RO 126149 A0 (in romanian)
2. System and method of orientation of a solar thermal collector according to the thermal demand A/00109/20.02.2012 – summary published in BOPI nr. 7 from 30.07.2012, brevet nr. RO 127678 A0 (in romanian)
3. Orientation mechanism with articulated bars and planetary gear A/00391/01.06.2012 – summary published in BOPI nr. 10 from 30.10.2012, brevet nr. RO 127913 A0 (in romanian)
4. Low-speed actuator with intermittent articulated reducer A/00664/19.09.12 2010 – summary published in BOPI nr. 1 from 30.01.2013, brevet nr. RO128120 A0 (in romanian)
5. Orientation mechanism with two linear actuators in parallel for photovoltaic strings A/00710/08.10.2012 – summary published in BOPI nr. 4 from 2013, brevet nr. RO128315 A0 (in romanian)

6. Modular solar thermal collector to optimize conversion efficiency and increase architectural acceptance A/00939/02.12.14– summary published in BOPI nr. 5 from 2015, brevet nr. RO 130275 A0 (in romanian)
7. Counter-rotating monomobile wind system A/00539/29.07.2016 – summary published in BOPI nr. 11 from 2016, brevet nr. RO131512 A0 (in romanian)
8. Monomobil planetary speed increaser with two outputs counter-rotating A/00905/25.11.2016 – summary published in BOPI nr. 3 from 2017, brevet nr. RO 131740 A0 (in romanian)
9. Monoaxial orientation mechanism of high precision A/00930/28.11.2016 – summary published in BOPI nr. 4 from 2017, brevet nr. RO 131808 A0 (in romanian)
10. Differential speed increaser with two counter-rotating outputs A/00326/30.05.2017 – summary published in BOPI nr. 10 from 2017(in romanian)
11. Monomobil planetary speed increaser with 2-imputs and 2-ouputs. A/00880/27.10.2017 – documentation registered to OSIM still under review. (in romanian)

BOOKS / BOOK CHAPTERS

Lista monografii

1. **Săulescu, R.**, Neagoe, M., Jaliu, C. Speed increaser for wind and hydro power systems. Vol I. Modeling the mechanical response of DC generating systems. Ed. Transilvania University of Brasov, 2018, ISBN: 978-606-19-0972-8. ISBN: 978-606-19-0973-5 (Vol I). (in romanian)
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. Transilvania University of Brasov, 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. Ed. Transilvania University of Brasov, 2010, ISBN 978-973-598-481-6.
4. Neagoe, M., Diaconescu, D., Jaliu, C., Munteanu, O., **Săulescu, R.**, Crețescu, N. Linkage accuracy modelling. Ed. Transilvania University of Brasov, 2010, ISBN 978-973-635-921-7.
5. Diaconescu, D., Neagoe, M., Jaliu, C., **Săulescu, R.** Products' Conceptual Design. Ed. Transilvania University of Brasov, 2010, ISBN 978-973-598-230-0.
6. Jaliu, C., Diaconescu, D., Neagoe, M., **Săulescu, R.** Gear mechanisms. Structure. Kinematics. Dynamics. Ed. Transilvania University of Brasov, 2006, ISBN 973-635-623-X.
7. Bârsan, A., **Săulescu, R.** Cylindrical gears for speed reducers. Ed. Transilvania University of Brasov, 2005, ISBN: 973-635-361-3. (in romanian)
8. Diaconescu, D.V, Dudiță, FL., Neagoe, M, **Săulescu, R.** Mechanical transmissions. Mobile couplings with ball Weiss and Rzeppa. Ed. Transilvania University of Brasov, 2004, ISBN: 973-635-295-1. (in romanian)
9. Jaliu, C., Diaconescu, D., Neagoe, M., Ciobanu, D., **Săulescu, R.** Aplications of mechanism analysis and syynthesis. Ed. Transilvania University of Brasov, 2003, ISBN 973-635-155-6.
10. Dudiță, Fl., Diaconescu, D., Böhm, C, Neagoe, M, **Săulescu, R.** Cardan transmissions. Ed. Transilvania Expres, Brașov, 2003, ISBN: 973-8196-20-5. (in romanian)

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., Cre escu, 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.

JOURNAL ARTICLES

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 Braşov, 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., Cre escu 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. Cre escu 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.

PAPERS IN INTERNATIONAL CONFERENCES

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., Creescu 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.**, Comși, 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).
 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 12th 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 10th 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 10th 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 2nd 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 19th 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 19th 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 19th 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 11th 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 11th 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*, 4th 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*, 4th 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.

OTHER PAPERS / RELEVANT ACHIEVEMENTS

1. *Constantin Budeanu 2015 Prize* awarded by the Romanian Academy to the monograph: *The Role of Mechanisms in Sustainable Energy Systems*.
2. Winner of Festo young Researcher and Scientist Support Scholarship Award. Vienna 2008.

Date

01.09.2018

Săulescu Radu-Gabriel