Related publications

a) Publications in journals with impact factor:

1. Simon, V., “Design of Face-Hobbed Spiral Bevel Gears with Reduced Maximum Tooth Contact Pressure and Transmission Errors”, Chinese Journal of Aeronautics, Vol. 26, 2013, pp.777-790.

2. Simon, V., “Optimal Tooth Surface Modifications in Face-Hobbed Hypoid Gears”, Key Engineering Materials, Vol. 572, 2013, pp. 351-354.

3. Simon, V., “Optimization of Face-Hobbed Hypoid Gears”, Mechanism and Machine Theory, Vol. 77, 2014, pp. 164-181.

4. Simon, V., “Manufacture of Optimized Face-Hobbed Spiral Bevel Gears on Computer Numerical Control Hypoid Generator”, ASME Journal of Manufacturing Science and Engineering, Vol. 136, 2014(3), Art. No. 131009, pp. 1-9.

5. Simon, V., “Optimal Tooth Modifications in Face-Hobbed Spiral Bevel Gears to Reduce the Influence of Misalignments on Elastohydrodynamic Lubrication”, ASME Journal of Mechanical Design, Vol. 136, 2014(7), Art. No. 071007, pp. 1-9.

6. Simon, V., “Optimal Machine Tool Settings for the Manufacture of Face-Hobbed Spiral Bevel Gears”, ASME Journal of Mechanical Design, Vol. 136, 2014(8), Art. No. 081004, pp. 1-8.

7. Simon, V., “Micro Tooth Surface Topography of Face-Milled Hypoid Gears”, Mechanism and Machine Theory, Vol. 104, 2016, pp. 370-381.

8. Simon, V., “Optimal Machine Tool Settings for Face-Hobbed Hypoid Gears Manufactured on CNC Hypoid Generator”, The International Journal of Advanced Manufacturing Technology, Vol. 88(5-8), 2017, pp. 1579-1594.

9. Simon, V., “Improvements in the Micro Tooth Surface Topography of Hobbed Spur and Helical Gears”, Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. 40(4), April 2018, Art. 210.

b) Publications in the proceedings of congresses and conferences:

1. Simon, V., “Optimal Machine Tool Settings for the Manufacture of Face-Hobbed Spiral Bevel Gears”, ASME International Power Transmission and Gearing Conference, Portland, USA, 2013, Paper No. DETC2013/PTG-12058, pp. 1-16.

2. Simon, V., “Minimization of the Influence of Misalignments on EHD Lubrication in Face-Hobbed Spiral Bevel Gears”, ASME International Power Transmission and Gearing Conference, Portland, USA, 2013, Paper No. DETC2013/PTG-12080, pp. 1-11.

3. Simon, V., “Optimal Tooth Surface Modifications in Face-Hobbed Hypoid Gears”, 5th International Conference on Advanced Design and Manufacture (ADM2013), Valencia, Spain, 2013, Paper No. A1315, pp. 1-4, Key Engineering Materials, Vol. 572, pp. 351-354.

4. Simon, V., “Gear Optimization”, Proceedings of the 8th International Symposium Machine and Industrial Design in Mechanical Engineering, Balatonfüred, Hungary, 2014, pp. 155-162.

5. Simon, V., “Optimal Tooth Surface Modifications of Face-Hobbed Hypoid Gears Manufactured on CNC Hypoid Generator”, Proceedings of the TrC-IFToMM Symposium on Theory of Machines and Mechanisms, Izmir, Turkey, 2015, pp. 280-293.

4. Simon, V., “Micro Aspects of Gear Manufacture”, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015, Invited Paper, pp. 1-7.

5. Simon, V., “Optimization of Face-Hobbed Spiral Bevel Gears to Improve EHD Lubrication”, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015, Paper No. OS18-009, pp. 1-11. (Best Paper Award)

6. Simon, V., “Micro Surface Topography of Face-Milled Hypoid Gears”, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 2015, Paper No. OS6-008, pp. 1-11.

7. Simon, V., “Improvements in Gear Lubrication”, Proceedings of the Lubrication, Maintenance and Tribology Conference, Bilbao, Spain, 2016, pp. 646-650.

8. Simon, V., “Advanced Manufacture of Spiral Bevel and Hypoid Gears”, Proceedings of the International Conference on Advanced Technology Innovation 2016, Bali, Indonesia, 2016, Vol. 2., No. 3, pp. 61-67.

9. Simon, V., “Optimization of Gear Design and Manufacture”, Proceedings of the 2017 International Conference on Mechanical and Mechatronics Engineering, Bangkok, Thailand, 2017, pp. 259-263.

10. Simon, V., “Advanced Design and Manufacture of Spiral Bevel, Hypoid and Worm Gears”, Proceedings of the Fifth International Conference on Advances in Mechanical and Robotics Engineering – AMRE 2017, 2017, Rome, Italy, pp. 12-16.

11. Simon, V., “Mixed Elastohydrodynamic Lubrication of Hypoid Gears”, Proceedings of the Lubmat 2018 – Sixth Congress in Lubrication, Tribology and Condition Monitoring, San Sebastian, Spain, 2018, pp. 1-6.

12. Simon, V., “Optimized Manufacture to Improve Operating Characteristics of Gears”, Proceedings of the Tenth International Conference Engineering Computational Technology 2018, Sitges, Barcelona, Spain, 2018, Paper No. 03.44, pp. 1-4.

13. Simon, V. “Multi-Objective Optimization of Hypoid Gears to Improve Operating Characteristics”, Proceedings of the 15th IFToMM World Congress, Krakow, 2019.