# Theo Hofman

List of Publications by Year
in descending order

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| 63 | 1,482 | 430754 | 377752 |
|---|---|---|---|
| papers | citations | 18 h-index | 34 g-index |

| 63 | 63 | 63 | 1078 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Rule-based energy management strategies for hybrid vehicles. International Journal of Electric and Hybrid Vehicles, 2007, 1, 71. | 0.2 | 189 |
| 2 | Review of Optimization Strategies for System-Level Design in Hybrid Electric Vehicles. IEEE Transactions on Vehicular Technology, 2016, , 1-1. | 3.9 | 143 |
| 3 | Optimal Control of the Gearshift Command for Hybrid Electric Vehicles. IEEE Transactions on Vehicular Technology, 2012, 61, 3531-3543. | 3.9 | 104 |
| 4 | Topology Optimization for Hybrid Electric Vehicles With Automated Transmissions. IEEE Transactions on Vehicular Technology, 2012, 61, 2442-2451. | 3.9 | 76 |
| 5 | Energy efficiency analysis and comparison of transmission technologies for an electric vehicle. , 2010, , . | | 74 |
| 6 | Synthesis of Realistic Driving Cycles With High Accuracy and Computational Speed, Including Slope Information. IEEE Transactions on Vehicular Technology, 2016, 65, 4118-4128. | 3.9 | 72 |
| 7 | Fast and smooth clutch engagement control for dual-clutch transmissions. Control Engineering Practice, 2014, 22, 57-68. | 3.2 | 59 |
| 8 | Functional and Cost-Based Automatic Generator for Hybrid Vehicles Topologies. IEEE/ASME Transactions on Mechatronics, 2015, 20, 1561-1572. | 3.7 | 52 |
| 9 | Optimal Control of a Mechanical Hybrid Powertrain. IEEE Transactions on Vehicular Technology, 2012, 61, 485-497. | 3.9 | 51 |
| 10 | Fast and Smooth Clutch Engagement Control for a Mechanical Hybrid Powertrain. IEEE Transactions on Control Systems Technology, 2014, 22, 1241-1254. | 3.2 | 38 |
| 11 | Electric Powertrain Topology Analysis and Design for Heavy-Duty Trucks. Energies, 2020, 13, 2434. | 1.6 | 37 |
| 12 | Design of CVT-Based Hybrid Passenger Cars. IEEE Transactions on Vehicular Technology, 2009, 58, 572-587. | 3.9 | 36 |
| 13 | Hybrid Vehicle Energy Management: Singular Optimal Control. IEEE Transactions on Vehicular Technology, 2017, 66, 9654-9666. | 3.9 | 30 |
| 14 | Driving-Cycle-Aware Energy Management of Hybrid Electric Vehicles Using a Three-Dimensional Markov Chain Model. Automotive Innovation, 2019, 2, 146-156. | 3.1 | 29 |
| 15 | Energy management of hybrid vehicles with state constraints: A penalty and implicit Hamiltonian minimization approach. Applied Energy, 2020, 260, 114149. | 5.1 | 29 |
| 16 | A Convex Optimization Framework for Minimum Lap Time Design and Control of Electric Race Cars. IEEE Transactions on Vehicular Technology, 2021, 70, 8478-8489. | 3.9 | 28 |
| 17 | Comparison of Bi-Level Optimization Frameworks for Sizing and Control of a Hybrid Electric Vehicle. , 2014, , . | | 27 |
| 18 | Predictive gear shift control for a parallel Hybrid Electric Vehicle. , 2011, , . | | 24 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Sizing Stack and Battery of a Fuel Cell Hybrid Distribution Truck. Oil and Gas Science and Technology, 2012, 67, 563-573. | 1.4 | 23 |
| 20 | Topology and Flywheel Size Optimization for Mechanical Hybrid Powertrains. IEEE Transactions on Vehicular Technology, 2014, 63, 4192-4205. | 3.9 | 23 |
| 21 | Implementation of Dynamic Programming for Optimal Control Problems With Continuous States. IEEE Transactions on Control Systems Technology, 2015, 23, 1172-1179. | 3.2 | 23 |
| 22 | Improvement of fuel economy in Power-Shift Automated Manual Transmission through shift strategy optimization - an experimental study. , 2010, , . | | 22 |
| 23 | Improved Implementation of Dynamic Programming on the Example of Hybrid Electric Vehicle Control. IFAC-PapersOnLine, 2019, 52, 147-152. | 0.5 | 20 |
| 24 | Joint Design and Control of Electric Vehicle Propulsion Systems. , 2020, , . | | 18 |
| 25 | Modified Computational Design Synthesis Using Simulation-Based Evaluation and Constraint Consistency for Vehicle Powertrain Systems. IEEE Transactions on Vehicular Technology, 2018, 67, 8065-8076. | 3.9 | 17 |
| 26 | Optimal Control of a Mechanical Hybrid Powertrain With Cold-Start Conditions. IEEE Transactions on Vehicular Technology, 2014, 63, 1555-1566. | 3.9 | 16 |
| 27 | A Review of the Integrated Design and Control of Electrified Vehicles. Energies, 2020, 13, 5454. | 1.6 | 16 |
| 28 | Extending Energy Management in Hybrid Electric Vehicles with explicit control of gear shifting and start-stop. , 2012, , . | | 15 |
| 29 | Multi-Level Energy Management for Hybrid Electric Vehiclesâ€”Part I. Vehicles, 2019, 1, 3-40. | 1.7 | 15 |
| 30 | Hybrid component specification optimisation for a medium-duty hybrid electric truck. International Journal of Heavy Vehicle Systems, 2008, 15, 356. | 0.1 | 14 |
| 31 | Powertrain Control for Hybrid-Electric Vehicles Using Supervised Machine Learning. Vehicles, 2020, 2, 267-286. | 1.7 | 14 |
| 32 | Automated Dynamic Modeling of Arbitrary Hybrid and Electric Drivetrain Topologies. IEEE Transactions on Vehicular Technology, 2018, 67, 6921-6934. | 3.9 | 12 |
| 33 | Intelligent Synthesis of Driving Cycle for Advanced Design and Control of Powertrains. , 2018, , . | | 10 |
| 34 | Co-Design of CVT-Based Electric Vehicles. Energies, 2021, 14, 1825. | 1.6 | 10 |
| 35 | Integrated Energy and Thermal Management for Electrified Powertrains. Energies, 2019, 12, 2058. | 1.6 | 9 |
| 36 | Optimal design of energy storage systems for hybrid vehicle drivetrains. , 0, , . | | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | A Comparative Study and Analysis of an Optimized Control Strategy for the Toyota Hybrid System. World Electric Vehicle Journal, 2009, 3, 563-571. | 1.6 | 8 |
| 38 | An optimal control-based algorithm for Hybrid Electric Vehicle using preview route information. , 2010, , . | | 8 |
| 39 | From Optimal to Real-Time Control of a Mechanical Hybrid Powertrain. IEEE Transactions on Control Systems Technology, 2015, 23, 670-678. | 3.2 | 8 |
| 40 | Optimal Control of Engine Warmup in Hybrid Vehicles. Oil and Gas Science and Technology, 2016, 71, 14. | 1.4 | 7 |
| 41 | Belt-pulley friction estimation for the Continuously Variable Transmission. , 2011, , . | | 6 |
| 42 | Integrated Plant and Control Design of a Continuously Variable Transmission. IEEE Transactions on Vehicular Technology, 2021, 70, 4212-4224. | 3.9 | 6 |
| 43 | Optimal Design of Electric Micromobility Vehicles. , 2021, , . | | 6 |
| 44 | Parametric Modeling of Components for Selection and Specification of Hybrid Vehicle Drivetrains. World Electric Vehicle Journal, 2007, 1, 215-224. | 1.6 | 5 |
| 45 | Analysis of modelling and simulation methodologies for vehicular propulsion systems. International Journal of Powertrains, 2011, 1, 117. | 0.1 | 5 |
| 46 | Optimal Control of an Integrated Energy and Thermal Management System for Electrified Powertrains. , 2019, , . | | 5 |
| 47 | Analysis of optimal mechanical-hybrid powertrain topologies. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 41-48. | 0.4 | 4 |
| 48 | Multi-Level Energy Managementâ€"Part II: Implementation and Validation. Vehicles, 2019, 1, 41-56. | 1.7 | 4 |
| 49 | Transmission Ratio Design for Electric Vehicles via Analytical Modeling and optimization. , 2020, , . | | 4 |
| 50 | Modeling for simulation of hybrid drivetrain components. , 2006, , . | | 3 |
| 51 | Analysis of modeling and simulation methodologies for vehicular propulsion systems. , 2009, , . | | 3 |
| 52 | Performance simulations of a low-cost hybrid powertrain with large fuel savings. International Journal of Powertrains, 2012, 1, 377. | 0.1 | 3 |
| 53 | Semi-empirical power dissipation modelling of mechanical hybrid powertrain components. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2014, 228, 443-456. | 1.1 | 3 |
| 54 | Topology Optimization of Hybrid Power Trains. Lecture Notes in Control and Information Sciences, 2014, , 181-198. | 0.6 | 3 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 55 | Evolution and Classification of Energy and Thermal Management Systems in Electrified Powertrains. , 2019, , . | | 2 |
| 56 | Automated Multi-Level Dynamic System Topology Design Synthesis. Vehicles, 2020, 2, 603-624. | 1.7 | 2 |
| 57 | Optimal energy management for a flywheel-based hybrid vehicle. , 2011, , . | | 1 |
| 58 | Clamping Strategies for Belt-Type Continuously Variable Transmissions: An Overview. , 2017, , . | | 1 |
| 59 | Decomposition-Based Integrated Optimal Electric Powertrain Design. IEEE Transactions on Vehicular Technology, 2022, 71, 6044-6058. | 3.9 | 1 |
| 60 | Battery-Electric Powertrain Design Analysis for an Efficient Passenger Vehicle. , 2021, , . | | 1 |
| 61 | New educational demands for the future: Automotive Technology - Master of Science. , 2010, , . | | 0 |
| 62 | Control Strategy Development for Integrated Continuous Variable Transmission Design. , 2019, , . | | 0 |
| 63 | The Influence of Mode Change Penalties on the Comparison of Hybrid Drivetrain Topologies. IFAC-PapersOnLine, 2020, 53, 14141-14146. | 0.5 | 0 |