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|  | RESEARCHER INFORMATION  |
| **Name** | Dr Erik Schaltz  |
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| RESEARCH AREAS and ACHIEVEMENTS |
| Mechatronic Systems, Batteries, E-Mobility and Drives  |
| 14 projects, 51Journal article, 46 Article in proceeding, 11 Conference article , 16 pub in press and media |
| Best Paper on Ecological Vehicles and The ITS Outstanding Application Paper |

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| SHORT SUMMARY OF COMPLETED WORK | OUTPUT RESULT  |
| Lithium-ion batteries are being implemented in electric vehicles, to improve battery cells with a great life cycle. To avoid disconnection among battery pack ingredients and deformity during cycling, compacting force is exerted to battery packs in electric vehicles. This investigation exhibits a comprehensive description of the experimental setup that can be used for battery testing under pressure to consider lithium-ion batteries’ safety, which could be employed in electrified transportation. Fuel cells have been applied to DC/DC converters where the reliability and lifetime are of high importance. In this work, a lifetime prediction model is applied for the power semiconductors, which are used in a Boost, Z-source and Y-source fuel cell DC/DC converter, in a fuel cell hybrid electric vehicle application. The lifetime estimation results shows for this study that the Z-source converter has a longer lifetime compared to the conventional boost and Y-source converter.Lifetime Prediction of Converters in a Fuel Cell Hybrid Electric Vehicle Application , eVolution2G - V2G: Innovative Vehicle to Grid model for electric mobility deployment in Europe | Diagram, line chart  Description automatically generated |

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| PUBLICATION PROOF & SCOPUS AUTHOR PAGE LINK |
| <https://vbn.aau.dk/en/persons/113152/publications/>  |
| <https://www.scopus.com/authid/detail.uri?authorId=25927513700>  |