

[Sample Document](#) [Database Fields](#) [Search Tips](#) [Login/Registration](#)

TEMotive Electric Mobility

This database contains references with abstracts, keywords and descriptors on electric mobility. It is essentially an extract from the WTI-produced database TEMA® Technology and Management.

TEMotive provides information from German and international scientific and practical technical literature like journals, conference proceedings, reports, dissertations, as well as non-conventional literature. The abstracts are in German and/or English. The search may be conducted with German or English terms.

Scope

- Electric vehicles, hybrid electric vehicles, plug-in-hybrids
- Drives for electric vehicles, hybrid drives
- Light weight construction and electric mobility, innovative materials
- Electronics for electric mobility and assistance systems, control systems
- Fuel cells for electric mobility, rechargeable batteries, lithium-ion-batteries, nickel-cadmium-batteries, nickel-metal-hydride-batteries, supercapacitors, battery management
- Power service stations, charging infrastructure for electric vehicles, battery charging time, integration of electric vehicles into the electricity grid, smart grids

Language

German, English

File Data

Number of records: 400k
Years covered: from 2012
Update: weekly

Producer

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Sample Document[TOP](#)**Database**

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Title

Virtuelle Entwicklung von Elektromotoren. Auslegung einer Asynchronmaschine für Fahrtriebe mittels numerischer Optimierung und Softwareautomatisierung.

Virtual Product development for electric motors. Design of an induction machine traction drive using numerical optimisation and software automation.

Descriptors

Asynchronmaschine; elektrischer Antrieb; Elektrofahrzeug; Fahrzeugantrieb; numerische Simulation; Optimierungssimulation; Produktentwicklung; Simulationsmodell; Simulationsmodellbildung

Abstract

Die Konkurrenzfähigkeit eines produzierenden Unternehmens hängt zu einem nicht unerheblichen Teil von einer kurzen Markteinführungszeit ab. Daher lohnt es sich, bereits in der Entwicklung zeiteffizient zu arbeiten. Aus diesem Grund hat SEW-Eurodrive ein Verfahren entwickelt, das durch intelligente Verknüpfung bekannter Motorenentwicklungssoftware und numerischer Rechenprogramme in kurzer Zeit ein hinsichtlich Wirkungsgrad und Leistungsfähigkeit optimiertes, hochgenaues Motorenmodell einer Asynchronmaschine berechnet, noch bevor ein erster Prototyp gebaut werden muss. Besonders bei der Entwicklung von Fahrtrieben für Elektrofahrzeuge ist dieser Ansatz effektiv einsetzbar, da hier kundenspezifische Anforderungen für verschiedene Betriebspunkte betrachtet werden müssen.

The competitive position of a company is dependent on a short time to market. Therefore, time efficient work in early-stage research and development pays off. Using a sophisticated combination of motor development tools and numerical computing environments, engineers at SEW-Eurodrive are able to optimize a virtual prototype of an induction machine regarding efficiency and performance within a short span of time, even before a physical prototype has to be built. This computational approach is especially useful in the development of motors for electric vehicles, where criteria depending on customer preferences have to be met for different operating points.

Author

Reinhardt, Volkmar; Kimmich, Rainer; Winzer, Patrick

Institution

SEW-Eurodrive, Bruchsal, DE; Karlsruher Institut für Technologie (KIT), Karlsruhe, DE

Conference Details

Antriebssysteme, VDI/VDE-Tagung mit Fachausstellung, 2011, Nürtingen, DE, 2011-09-13 - 2011-09-14

publiziert als: Antriebssysteme 2011, VDI/VDE-Tagung mit Fachausstellung, Elektrik, Mechanik und Hydraulik in der Anwendung, Nürtingen, DE, 13.-14. Sep, 2011

Source

Elektrik, Mechanik und Hydraulik in der Anwendung, Antriebssysteme, VDI/VDE-Tagung mit Fachausstellung, 2011, in: VDI-Berichte * Band 2138 (2011) Seite 35-44 (10 Seiten, 6 Bilder, 7 Quellen)

Düsseldorf: VDI-Verlag

Serial Codes

ISSN: 0083-5560

ISBN: 978-3-18-092138-9

Zeitschriftencode: 1308 = VDI-Berichte

Konferenznummer: 22145 = Elektrisch-mechanische Antriebssysteme

Classification

3EU Electrical machines and drives

3BAS Simulation methods, simulation models

3AEN New product development

3NRB Special drives for vehicles

Language

DE German

Document Number

20120203704

Treatment Codes

T Theoretical

Publication Type

CA Conference Paper

Publication Year

2011

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2012-03-05

Database Fields [TOP](#)

Title	TI
Author	AU
Institution	CO
Thesaurus	TH
Descriptors	DE
Classification	CC
Source	SO
Serial Codes	SC
Conference Details	CF

Language	LG
Publication Type	PT
Publication Form	PF
Abstract	TX
Material Terms	MT
Material Index	MI
Chemical Index	CI
Free Terms	FT
Treatment Codes	TC
Fulltext	AV
Document Number	NO
Publication Year	YR
Update	UP
Country of Institution	COC
Conference Series No = Konferenzseriennummer	CSN
Country of Conference	CFC
WTI Journal Code = WTI-Zeitschriftencode	FJC

Search Tips [TOP](#)

Thesaurus

The search with descriptors from the "Thesaurus Engineering and Management" in the search field "General Search" automatically includes any available German terms and narrower terms, as well as German and English synonyms.

*Attention: The Thesaurus Search Engine is available in every single database. But as not all general data bases have a Thesaurus search function available, we are not able to provide this option when **OneSearch** is used for interdisciplinary data base research.*

Search in specific fields

The "General Search" includes the following fields: Title, Abstract, Author, Institution, Source, Serial Codes (ISSN and ISBN), Conference Details, Thesaurus, Free Terms and Publication Year. In all other cases the respective field has to be selected. In the "Expert Search" every field can be selected from the dropdown-list, or you can directly enter the field tag (in capital letters, tags see above: Database Fields) followed by colon and the search term, e.g. the classification CC:3NRB.

The direct search with field tag is possible in all search types (Quick Search, Advanced Search and Expert Search).

Field Author (AU)

In the database TEMotive it is sufficient to enter the first letters of first or last name of an author into the Author Field (in "Advanced Search" or "Expert Search"). You will then be given a list of matching entries, from which you can select the appropriate name.

Alternatively names may be searched with truncation (*), e.g. `hoyer*` returns `hoyer-ina`, `hoyer-n-j`, `hoyer-norbert`, `hoyerberg`, `hoyermann` etc.

For a more precise search, please truncate at the initial of the first name, e.g. `"hoyer n*"` returns only authors with last name Hoyer, whose first names start with "N", as `Hoyer`, `Niklas` or `Hoyer`,

`Norbert`. or `Hoyer, N`. Search names within quotation marks, e.g. `"hoyer norbert"` OR `"hoyer n*"` (last name - first name) and always use the Author Field. This way of searching is possible in all databases. Truncation is recommended, since first names are often abbreviated in the literature quoted.

Field Institution (CO)

This field supplies the author affiliation. Wherever possible, these institutions have been standardised and can be used for refining the search result. Changes in company names should be taken into account (e.g. `DaimlerChrysler` -> `Daimler`). The country of the institution is searchable with the tag `COC` (in capital letters) and the two-character ISO-Country-Code, e.g. `COC:cn` finds institutions from China.

Classification Field (CC)

In "Advanced Search" and "Expert Search" the subjects can be selected from a list (see link below search fields) giving the top level of the WTI-classification. Several selected items are combined with the operator `OR`. The selection of an item also includes the more precise subclasses into the search. If you enter the code directly, e.g. `CC:3BFB`, only the specified class is found, unless you truncate the class: `CC:BF*` includes the subclasses.

In the "General Search" the field tag `CC` has to be used. Instead you can select the field from the dropdown-list in the "Expert Search".

For a list of the codes see [WTI Classification](#)

Additionally you can refine your search result after a search in other search fields with the link "Classification" on the right hand side of the titlelist. Several selected subjects are combined with the operator `AND`, that is: all must apply. This list is sortable either by number of hits or alphabetically by codes.

Field Source (SO)

Publication titles may be searched as phrases (strings), e.g. `"international journal of hydrogen energy"`.

Field Serial Codes (SC)

ISSN and ISBN are searched with hyphens without text, e.g. `978-3-18-092009-2`.

The WTI-Journal-Code is searchable e.g. as `FJC:770` (see [WTI Journal List](#) [in German]).

Field Conference Details (CF)

Since 1993 the conference details have been standardised. Since then conference series numbers have been assigned to conferences regularly scanned. These numbers may be searched e.g. as `CSN:14` or `CSN:12349` (Numbers see [Conferences](#) [in German]). The Conference Series Numbers are to be searched without the leading zeros. `CSN` has to be entered in capital letters. The conference number is displayed in field Serial Codes. Conferences published before 1993 may be searched as usual with phrases or with operators.

Field Treatment Codes (TC)

This field is available since 1993, which means that selecting a code from this list excludes older records from the search result.

Field Document Number (NO)

The document number is a permanent identifier for a specific record. Search e.g. NO:20090101598.

Update

February 2019