

Energy Science and Technology

Date revised: 22 March 2021

Description

Energy Science and Technology (formerly DOE ENERGY) is a multidisciplinary database containing worldwide references to basic and applied scientific and technical research literature. The information is collected for use by government managers, researchers at the national laboratories, and other research efforts sponsored by the U.S. Department of Energy, and the results of this research are transferred to the public. Abstracts are included for records from 1976 to the present.

The information is provided by the U.S. Department of Energy, its contractors, other government agencies, professional societies, and through the International Energy Agency's (IEA) multilateral information program (Energy Technology Data Exchange, ETDE), the International Atomic Energy Agency's International Nuclear Information System (INIS), and IEA Coal Research. The database includes references to journal literature, conferences, patents, books, monographs, theses, and engineering and software materials. Approximately 50% of these references are from non-U.S. sources.

From May 2015, Energy Science and Technology will no longer be available outside the United States. And for US-based customers it will be available as a subscriber-only product.

Date Coverage

1974 – 2016

Geographic Coverage

International

Publisher

Energy Science and Technology is produced by the Office of Scientific and Technical Information, U.S. Department of Energy. Questions concerning file content should be directed to:

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831
USA

Subject Coverage

- Biology
- Biomedicine
- Chemistry
- Coal, Gas, Oil, Hydroelectricity
- Conservation Technology
- Direct Energy Conversion
- Energy Policy
- Engineering
- Environmental Science
- Geosciences, Geothermal Energy
- Hazardous Waste Management
- Human Genome Project Methodology
- Isotope/Radiation Technology
- Materials Handling
- Metals and Ceramics
- Nuclear and Thermonuclear Power
- Renewable Energy Sources (Solar, Wind, Biomass, Tidal Energy)
- Physics
- Synthetic Fuels

Update Frequency

Closed

Document Types

- Reports
- Books and Monographs
- Conferences, Symposia, Meetings
- Journal Articles
- Theses and Dissertations
- Patents
- Standards

Sample document



Energy Science and Technology

Basic Search | Advanced ▼ | Command Line

Citation/Abstract < Back to results

Add to selected items Save to My Research Email

Active Power Controls from Wind Power: Bridging the Gaps

National Renewable Energy Laboratory (NREL), Golden, CO.; Ela, E; Gevorgian, V ; Fleming, P; Zhang, Y C ; et al. **Active Power Controls from Wind Power: Bridging the Gaps.** (Jan 1, 2014).

Highlighting: Off | Single | Multi

Abstract (summary) Translate

This paper details a comprehensive study undertaken by the National Renewable Energy Laboratory, Electric Power Research Institute, and the University of Colorado to understand how the contribution of wind power providing active power control (APC) can benefit the total power system economics, increase revenue streams, improve the reliability and security of the power system, and provide superior and efficient response while reducing any structural and loading impacts that may reduce the life of the wind turbine or its components. The study includes power system simulations, control simulations, and actual field tests using turbines at NREL's National Wind Technology Center (NWTCT). The study focuses on synthetic inertial control, primary frequency control, and automatic generation control, and analyzes timeframes ranging from milliseconds to minutes to the lifetime of wind turbines, locational scope ranging from components of turbines to large wind plants to entire synchronous interconnections, and additional topics ranging from economics to power system engineering to control design.

Indexing (details) Cite

Subject

ACTIVE POWER CONTROL;
SYNTHETIC INERTIAL CONTROL;
PRIMARY FREQUENCY CONTROL;
AUTOMATIC GENERATION CONTROL;
NATIONAL RENEWABLE ENERGY LABORATORY;
NREL;
NATIONAL WIND TECHNOLOGY CENTER;
NWTCT;
Wind Energy

Classification

17: WIND ENERGY

Title

Active Power Controls from Wind Power: Bridging the Gaps

Author

Ela, E; Gevorgian, V; Fleming, P; Zhang, Y C; Singh, M; Muljadi, E; Scholbrook, A; Aho, J; Bucksman, A; Pao, L; Singhvi, V; Tuohy, A; Pourbeik, P; Brooks, D; Bhatt, N

Corporate/institutional author

National Renewable Energy Laboratory (NREL), Golden, CO.

Grant

AC36-08GO28308. USDOE Office of Energy Efficiency and Renewable Energy Wind and Water Power Technologies Office.

Language

English

Language of abstract

ENG

Document type

Technical Report

Publication title

Active Power Controls from Wind Power: Bridging the Gaps

Pageination

154 pp

Publication type

Technical Report

Report number

NREL/TP-5D00-60574

Publisher location

UNITED STATES

Notes

Medium: ED; Size: 154 pp.

Publication date

Jan 1, 2014

Date revised

2014-02-06

Source attribution

Energy Science and Technology, © Publisher specific

Accession number

1117060

Document URL

http://search.proquest.com/professional/docview/1498359337?accountid=137296

First available

2014-02-17

Updates

2014-02-17

Database

Energy Science and Technology (1974 - current)

TI
CA, AU

AB

SU

CC
TI
AU

CA
GI

LA
SL

DTYPE

PUB

PG

PSTYPE

RP

PBLOC

NT

PD, YR

DREV

AN

FAV

UD

Search fields

Field name	Field code	Example	Description and Notes
Abstract	AB	ab("wind power")	Use adjacency and/or Boolean operators to narrow search results.
Abstract present	ABANY	su("wind energy") AND abany(yes)	Add: <i>AND ABANY(YES)</i> to a query to limit retrieval to records with abstracts.
Accession number	AN	an(1117060)	A unique document identification number assigned by the information provider, OSTI.
All fields	ALL	all("active power control")	Searches all fields in bibliographic files. Use adjacency and/or Boolean operators to narrow search results.
All fields + text	--	"active power control"	Same as ALL field code: searches all fields in bibliographic files.
Author ¹	AU	au(zhang y c)	Includes all authors
First author	FAU	fau(ela, e)	First name listed in Author field. It is included in Author browse, but its position cannot be specified in the Author browse.
Availability	AV	av("dep. ntis")	
Inventor	INV	inv(Choulis, stelios)	In patent documents only.
Corporate/institutional author	CA	ca("national renewable energy")	
Author affiliation	AF	af(ETH Zuerich (Switzerland))	Displays in Author field. Not available in all documents.
Availability	NT	nt(medium: ed) nt(available in full text)	
Classification ¹	CC	cc(wind energy) cc(17: wind energy)	Terms from multiple classification schemes may occur.
CODEN	CODEN	coden(apamfc)	
Conference information	CF	cf(nrel N/4 2013)	Includes conference title and conference number if available
Conference title	CFTI	cfti(offshore wind power conference)	Searches conference title only
Conference number/type	CT	ct(conf-911182)	
Date revised	DREV	drev(2014-02-06)	This is the date OSTI created or revised a record
Document title	TI	ti("active power controls from wind power")	Includes alternate title (OTI) and subtitle, but not Publication Title (PUB).
Title only	TIO	tio("active power controls from wind power")	Searches only the Title, not subtitle or alternate title.
Alternate title	OTI	oti("wind power forecast**")	Includes title, alternate title, subtitle and original language of document title, if available. Field code TI also searches the Alternate title.
Document type	DTYPE	dtype(technical report)	
First available	FAV	fav(2014-02-17)	Indicates the first time a document was loaded in a specific database on PQD. It will not change regardless how many times the record is subsequently reloaded, as long as the accession number does not change.
From database ²	FDB	eprotriome and fdb(energyscitech) eprotriome and fdb(1008438)	Useful in multi-file searches to isolate records from a single file. FDB cannot be searched on its own; specify at least one search term then AND it with FDB.
Grant number	GI	gi(AC36-08GO28308)	Standard and non-standard DOE contract numbers
Sponsoring organization	GI	gi(usdoe pre/1 "office of energy efficiency")	
ISBN	ISBN	isbn(3-923704-32-1)	
ISSN	ISSN	issn(1867-8998) issn(18678998)	Also searchable via the Look Up Citation tool
Issue	ISS	iss(4)	Also searchable via the Look Up Citation tool

Field name	Field code	Example	Description and Notes
Journal title	JN	jn(comptes rendus physique) jn(applied physics letters)	Includes periodical title; Look-Up list available under Publication title
Language	LA	la(french)	The language in which the document was originally published
Summary language	SL	sl(german)	Language of abstract
Notes	NT	nt(medium: ed)	
Pagination	PG	pg(154)	
Patent Information	PAT	pat(us)	Includes patent number, patent country, application number , application country and patent assignee.
Patent publication country	PBC	pbc(wo)	
Patent number	PN	pn(901298712987)	
Patent assignee	AP	ap(dow chemical) ap(us dept energy) or ap(usdoe) or ap(doe)	
Application country	PA	pa(us)	
Application number	PA	pa(8496843)	
Publication date	PD	pd(20140101) pd(>=20130405) pd(20080901-20080930)	Date range searching supported. Also searchable via the Look Up Citation tool.
Publication year	YR	yr(2012-2014)	
Publication title ¹	PUB	pub(toxic air pollutants)	Title of publication where document originally appeared. Also searchable via the Look Up Citation tool.
Publication type	PSTYP E	Pstype(technical report)	
Publisher	PB	pb(national renewable energy laboratory)	Records may contain the publisher name and/or the publisher country.
Publisher location	PBLOC	Pbloc(united states)	
Report number	RP	rp(NREL/TP-5D00-60574)	Primary or secondary report numbers
Source details	SRC	src(Conference Fossil Energy Materials)	Source details
Subject ¹	SU	su(automatic generation) su.exact("national wind technology center")	Contains descriptors from controlled vocabulary
Updates	UD	ud(2014-02-17)	The date(s) the record was loaded as a result of an update provided by the supplier.
Volume of publication	VO	vo(2)	Also searchable via the Look Up Citation tool

¹ A Lookup/Browse feature is available for this field in the Advanced Search dropdown or in Browse Fields.

² Click the "Field codes" hyperlink at the top right of the Advanced Search page. Click "Search syntax and field codes", then click on "FDB command" to get a list of database names and codes that can be searched with FDB.

In addition to [Search Fields](#), other tools available for searching are [Limit Options](#), [Browse Fields](#), ["Narrow Results By" Limiters](#) and [Look Up Citation](#). Each is listed separately below. Some data can be searched using more than one tool.

Limit options

Limit options are quick and easy ways of searching certain common concepts. Check boxes are available for:

Abstract included

Short lists of choices are available for:

Source type, Document type, Language

Date limiters are available in which you can select single dates or ranges for **date of publication** and **updated**.

Browse fields

You can browse the contents of certain fields by using Look Up lists. These are particularly useful to validate spellings or the presence of specific data. Terms found in the course of browsing may be selected and automatically added to the Advanced Search form. Look Up lists are available in the fields drop-down for:

Author, Publication title, Subject, Classification

“Narrow Results by” limiters

When results of a search are presented, the results display is accompanied by a list of “Narrow results by” options shown on the right-hand panel. Click on any of these options and you will see a ranked list showing the most frequently occurring terms in your results. Click on the term to apply it to (“narrow”) your search results. Narrow Results by Limiters in Energy Science and Technology include:

Source type, Publication title, Document type, Subject, Classification, Author, Language, Publication date

Look up citation

If you need to trace a particular bibliographic reference, use the Look Up Citation feature. Find a link to this toward the top left of the Advanced Search page, or in the drop list under Advanced on any search form; click this and you will go to a page where you can enter any known details of the citation, including: Document title, Author, Publication title, ISSN, ISBN, Volume, Issue, Page, Publication date, DOI.

Terms & Conditions

ENERGY SCIENCE AND TECHNOLOGY: Compiled by USDOE/OSTI, in coordination with IAEA/ETDE, IEA/INIS, and IEA Coal Research. Contains copyrighted material. All rights reserved. (2013)

Use of this database is restricted to users located within the United States.

[Dialog Standard Terms & Conditions](#) apply.

Contact: **Dialog Global Customer Support**

Email: Customer@dialog.com

Within North America **1 800 334 2564**

Outside North America **00 800 33 34 2564**