

FLUIDEX (Fluid Engineering Abstracts)

FILE DESCRIPTION

FLUIDEX provides current coverage of more than 300 international journals (indexed on a cover-to-cover basis) as well as archival coverage of several hundred additional titles, including refereed scientific papers, trade journals and magazine articles, product reviews, directories and any other relevant material.

SUBJECT COVERAGE

Coverage includes all aspects of civil and process engineering:

- Aerodynamics
- Atmospheric Flow
- Coastal Engineering
- Corrosion
- Fluid Mechanics
- Heat Exchange
- Hydraulics
- Hydraulics and Pneumatics
- Instrumentation and Control
- Lubrication
- Mixers and Mixing
- Offshore Engineering
- Pipes and Pipelines
- Process Equipment
- Ports and Harbours
- Pumps
- Seals and Sealing
- Separators and Separation
- Water Treatment and Supply

SOURCES

FLUIDEX provides current coverage of more than 300 periodicals (indexed on a cover-to-cover basis) and archival coverage of several hundred additional titles, including refereed scientific papers, trade journals and magazine articles, product reviews, directories and any other relevant material. More than 35,000 records are added annually.

TIPS

USE FILE 96

to find the global literature in the use, control, and management of fluids for engineering applications.

EXPAND THE REPORT NUMBER

to explore all possible formats.

EXPAND RP=NASA CR 13795

USE RANK CS

to see which companies or universities are conducting work in an area of interest.

SELECT CREVICE CORROSION

RANK CS

SEARCH CLASSIFICATION DESCRIPTIONS

to establish a broad background area, then use title and descriptor words for specifics.

SELECT SH=THE ATMOSPHERE

SELECT COASTAL(W)ZONES/TI,DE

SELECT S1 AND S2

DIALOG FILE DATA

Inclusive Dates: 1974 to the present

Update Frequency: Monthly

File Size: More than 650,000 records as of July 2009

CONTACT

FLUIDEX (Fluid Engineering Abstracts) is produced by Elsevier. Questions concerning file content should be directed to:

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SAMPLE RECORD

DIALOG(R)File 96:FLUIDEX
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AA= 0020273495 Supplier Number: 734794
/TI Estimation of variability and predictability of large-scale wind energy in the netherlands
AU= Gibescu M.; Brand A.J.; Kling W.L.
 Author Email: m.gibescu@tudelft.nl
CS=,CN= Corresp. Author/Affil: Gibescu M., Department of Electrical Power Engineering, Delft University
 of Technology , Netherlands
EL Corresp. Author Email: m.gibescu@tudelft.nl
JN=,CP= Journal : Wind Energy (Wind Energy) , v12, n3, (241-260) , 2009 , United Kingdom
PD=,PY= Publication Date: April 1, 2009 (20090401)
SN= ISSN: 1095-4244 eISSN: 1099-1824
II DOI: <http://dx.doi.org/10.1002/we.291>
PU= Publisher: John Wiley and Sons Ltd
UR URL: <http://www3.interscience.wiley.com/cgi-bin/fulltext/121425790/PDFSTART>
RT= Record Type: Abstract; New
DT= Document Type: Article
LA=,SL= Languages: English Summary Languages: English
RF No. of References: 18

/AB This paper presents a data-driven approach for estimating the degree of variability and predictability associated with large-scale wind energy production for a planned integration in a given geographical area, with an application to The Netherlands. A new method is presented for generating realistic time series of aggregated wind power realizations and forecasts. To this end, simultaneous wind speed time series-both actual and predicted-at planned wind farm locations are needed, but not always available. A 1-year data set of 10-min averaged wind speeds measured at several weather stations is used. The measurements are first transformed from sensor height to hub height, then spatially interpolated using multivariate normal theory, and finally averaged over the market resolution time interval. Day-ahead wind speed forecast time series are created from the atmospheric model HiRLAM (High Resolution Limited Area Model). Actual and forecasted wind speeds are passed through multi-turbine power curves and summed up to create time series of actual and forecasted wind power. Two insights are derived from the developed data set: the degree of long-term variability and the degree of predictability when Dutch wind energy production is aggregated at the national or at the market participant level. For a 7.8 GW installed wind power scenario, at the system level, the imbalance energy requirements due to wind variations across 15-min intervals are +/-14% of the total installed capacity, while the imbalance due to forecast errors vary between 53% for down- and 56% for up-regulation. When aggregating at the market participant level, the balancing energy requirements are 2-3% higher. (c) 2008 John Wiley & Sons, Ltd.

/DE Descriptors:
 Energy markets; Power system balancing; Programmeresponsible parties; Wind energy; Wind fl uctuations; Wind predictability

/DE CONTROLLED DESCRIPTORS:
 Electric load forecasting; Electric power transmission networks; Electric utilities; Hurricane effects; Laws and legislation; Marketing; Power transmission; Speed; Time series; Weather forecasting; Wind effects; Wind power

SC=,SH= CLASSIFICATION CODE AND DESCRIPTION:
 79 (FLUID ABSTRACTS:CIVIL ENGINEERING)
 79.28 (POWER GENERATION AND POWER PLANTS)

RECORD HISTORY: New; Created: May 4, 2009 (20090504); Delivered: May 7, 2009 (20090507)
 DIALOG UPDATE DATE: 20090507; 03:17:37 EST

SEARCH OPTIONS

BASIC INDEX

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
—	—	All Basic Index Fields	Word	S ENERGY(W)PRODUCTION
/AB	AB	Abstract	Word	S WIND(W)POWER/AB
/DE	DE	Descriptor ¹	Word & Phrase	S ENERGY(W)MARKETS/DE S WIND PREDICTABILITY/DE
/TI	TI	Title	Word	S LARGE(W)SCALE(F)ENERGY/TI

¹ Also /DF.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	Fluidex Accession Number	Phrase	S AA=734794
AU=	AU	Author ²	Phrase	S AU=GIBESCU M.?
—	AV	Document Availability		
—	AZ	DIALOG Accession Number		
BN=	BN	International Standard Book Number (ISBN)	Phrase	S BN=9781843391883
CN=	CN	Country Name	Phrase	S CN=NETHERLANDS
CP=	CP	Country of Publication	Phrase	S CP=UNITED KINGDOM
CS=	CS	Corporate Source	Word & Phrase	S CS=(DEPARTMENT(1W)ELECTRICAL) S CS=DEPARTMENT OF ELECTRICAL?
DT=	DT	Document Type	Phrase	S DT=ARTICLE
—	EL	Author E-mail ³		
—	II	Publisher Item Identifier		
JN=	JN	Journal Name	Phrase	S JN=WIND ENERGY
LA=	LA	Language	Phrase	S LA=ENGLISH
PD=	PD	Publication Date	Phrase	S PD=20090401
—	PR	Price		
PU=	PU	Publisher	Word	S PU=(JOHN(W)WILEY)
PY=	PY	Publication Year	Phrase	S PY=2009
—	RF	Number of References ⁵		
RP=	RP	Report Number	Phrase	S RP="NSF/ENG-74-1039"
RT=	RT	Record Type	Phrase	S RT=ABSTRACT
SC=	SC	Classification Code	Phrase	S SC=79.28
SH=	SH	Classification Description ⁵	Phrase	S SH=POWER GENERATION?
SL=	SL	Summary Language	Phrase	S SL=ENGLISH
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=1095-4244 S SN=10954244
SO=	SO	Source Information ⁴	Word	S SO=(WIND AND V12)
UD=	—	Update	Phrase	S UD=9999
—	UR	Uniform Resource Locator		

² Prior to 1997 only up to six author names; if a document has more than six authors, then only the first author is given, followed by et al. After 1997 all author names are given.

³ For records from 1995 forward.

⁴ Search and Display include journal names, volume, issue, pagination, and publication date.

⁵ For records from 1996 forward.

SPECIAL FEATURES

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP DUP, HELP CURRENT online.

LIMIT	/ABS -- Abstract Present /ENG -- English Language Records /NOABS -- No Abstract Present /NONENG -- Non-English Language Records /YYYY -- Publication Year	S TIME SERIES/ABS S ELECTRIC UTILITIES/ENG S UD=?/NOABS S S1/NONENG S CS=(DELFT(F)TECHNOLOGY)/2009
SORT	AU, CS, JN, PD, PY, TI	SORT S3/ALL/TI SORT S4/ALL/PY/D
RANK	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked. Other RANK codes include: DE	RANK DE RANK AU S4
RD, ID	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5
CURRENT	Search only the most recent year plus one (CURRENT1) to five (CURRENT5) years.	B 96 CURRENT2

PREDEFINED FORMAT OPTIONS

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	Medium	Bibliographic Citation
4	--	Full Record with Tagged Fields
5	--	Full Record
6	Short	Title and Source Information
7	Long	Bibliographic Citation and Abstract
8	Free	Title, Indexing, and Source Information
9	Full	Full Record
K	--	KWIC (Key Word In Context) displays a window of text; may be used alone or with other formats

OTHER OUTPUT OPTIONS

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

USER DEFINED FORMATS	Display codes listed in the Search Options tables can be used to customize output.	TYPE S3/TI, AU/1-5 PRINT S1/TI, AB/ALL
TAG	Output can be displayed with tags identifying each display field.	TYPE S2/3/1-5 TAG PRINT S1/9/ALL TAG
DIRECT RECORD ACCESS	If the accession number of a specific record is known, it can be used to display the record directly.	TYPE 0020280011/5 DISPLAY 0020279970/TI,SO PRINT 0020260981/9

FOR ONLINE HELP:

See HELP FIELDS 96 for searchable fields; HELP FORMAT 96 for output formats; HELP LIMIT 96 for limits; HELP RATES 96 for cost information; HELP SORT 96 for sorts.