

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 October 2006 (19.10.2006)

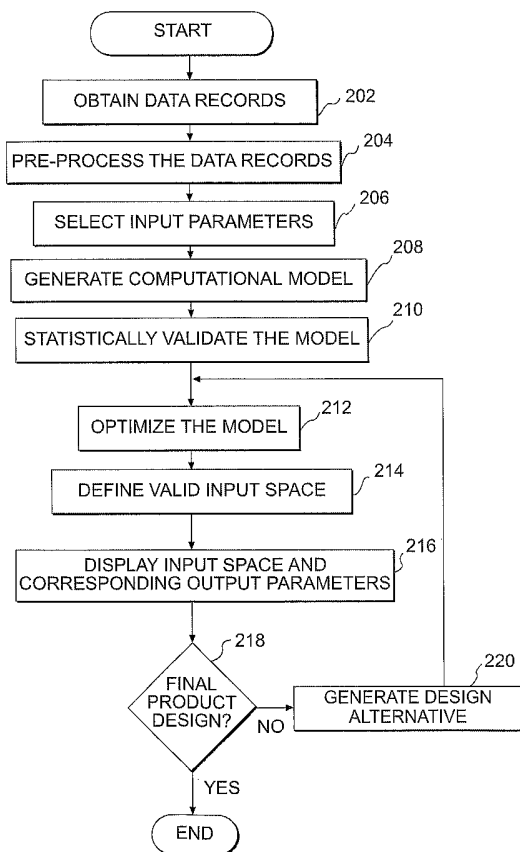
PCT

(10) International Publication Number
WO 2006/110247 A3

- (51) International Patent Classification:
G06F 17/50 (2006.01)
- (21) International Application Number:
PCT/US2006/008850
- (22) International Filing Date: 13 March 2006 (13.03.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/101,498 8 April 2005 (08.04.2005) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR PRODUCT DESIGN



(57) Abstract: A method for designing a product includes obtaining data records relating to one or more input variables and one or more output parameters associated with the product. One or more input parameters may be selected from the one or more input variables, and a computational model indicative of interrelationships between the one or more input parameters and the one or more output parameters based on the data records may be generated. The method further includes providing a set of constraints to the computational model representative of a compliance state for the product and using the computational model to generate statistical distributions for the one or more input parameters and the one or more output parameters, based on the set of constraints, that represent a design for the product. Any appropriate type of neural network may be used to build the computational model.

WO 2006/110247 A3



Published:

— *with international search report*

(88) Date of publication of the international search report:

18 January 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/008850

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F17/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DAE-CHEOL KO ET AL: "Application of artificial neural network and Taguchi method to preform design in metal forming considering workability" INTERNATIONAL JOURNAL OF MACHINE TOOLS & MANUFACTURE ELSEVIER UK, vol. 39, no. 5, May 1999 (1999-05), pages 771-785, XP002402391 ISSN: 0890-6955 see in particular figure 2 and corresponding text the whole document</p> <p style="text-align: center;">----- -/--</p>	1-10

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- *Z* document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

10 October 2006

26/10/2006

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/008850

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>SIMPSON T W ET AL: "Metamodels for computer-based engineering design: survey and recommendations" ENGINEERING WITH COMPUTERS SPRINGER-VERLAG UK, vol. 17, no. 2, 2001, pages 129-150, XP002402392 ISSN: 0177-0667 see in particular: abstract; sections 2.2. Model Choice and Model Fitting, 2.2.2. Neural Networks; Fig. 6 the whole document</p>	1-10
A	<p>BERKE L ET AL: "Optimum design of aerospace structural components using neural networks" COMPUTERS AND STRUCTURES UK, vol. 48, no. 6, 17 September 1993 (1993-09-17), pages 1001-1010, XP002402393 ISSN: 0045-7949 see in particular fig. 3 the whole document</p>	1-10
A	<p>US 6 086 617 A (WALDON ET AL) 11 July 2000 (2000-07-11) cited in the application the whole document</p>	1-10
A	<p>APRIL J ET AL INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "Practical introduction to simulation optimization" PROCEEDINGS OF THE 2003 WINTER SIMULATION CONFERENCE. WSC'03. NEW ORLEANS, LA, DEC. 7 - 10, 2003, WINTER SIMULATION CONFERENCE, NEW YORK, NY : IEEE, US, vol. VOL. 2 OF 2. CONF. 36, 7 December 2003 (2003-12-07), pages 71-78, XP010679766 ISBN: 0-7803-8131-9 the whole document</p>	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2006/008850

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		AU 8494598 A	10-02-1999
		CA 2296527 A1	28-01-1999
		EP 0995149 A2	26-04-2000
		WO 9904323 A2	28-01-1999
