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Washington, D.C. 20231 and to the Office of Information and Regulatory Affice, Office of Management and Budget, Paperwork Reduction Project (0551-0027), Washington, D.C. 20503.

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FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and Address	Area Code and Telephone Number	202-586-2805 (FAX)
Name Brenda K. Banks		
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Number of Properties Enter the total	number of properties involved. #	1
Fee Amount Fee Amount	for Properties Listed (37 CFR 3.41): \$	0.00
Method of Payment: Enclo Deposit Account		
(Enter for payment by deposit account or if add Σ	itional fees can be charged to the account.) Deposit Account Number: #	
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Statement and Signature		
To the best of my knowledge and be attached copy is a true copy of the olindicated herein.	lief, the foregoing information is true and riginal document. Charges to deposit acc	correct and any count are authorized, as
Brenda K. Banks	Brendakay Banks	42/06
Name of Person Signing	Signature	Date
		<u> </u>

PATENT

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11/247,424

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CONFIRMATORY LICENSE

(Nonprofit Organizations or Small Business Forms)

Title:

COMBINATORIAL EVALUATION OF SYSTEMS INCLUDING

DECOMPOSITION OF A SYSTEM REPRESENTATION INTO

FUNDAMENTAL CYCLES

Inventor(s): JS Oliveira, JB Jones-Oliveira, CG Bailey, DW Gull

Serial No.: 11/247,424

File Date (U.S.): 10/11/2005

Contractor: Battelle Memorial Institute, PNWD DOE Case No.: S-104,141

Docket No: 14321-E

DOE Contract No.: DE-AC05-76RL0 1830

Patent Right Clause No.: I-99

The Contractor, having the right to retain title to subject inventions as a result of Public Law 96-517, has reported the above-identified invention as a subject invention to DOE with its election to retain title thereto.

Accordingly, this document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States. Required by the Public Law and the above-identified contract, in this invention and of all other rights acquired by the Government by the above-identified contract, in this invention and of all other rights clause. It is understood and agreed that this license does not preclude the Government from asserting rights under the provisions of said contract or of any other agreement between the Government and the Contractor, or from asserting any other rights of the Government with respect to the above-identified invention.

The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

Signed this 4th day of January, 2006.

BATTELLE MEMORIAL INSTITUTE, PACIFIC NORTHWEST DIVISION

(Contractor)

Vincent A. Branton, Contracting Officer

P.O. Box 999, Richland, Washington 99352 Business Address

PATENT

REEL: 017231 FRAME: 0571

RECORDED: 02/02/2006