PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4373152

SUBMISSION TYPE:	
	Corrective Assignment to correct the INCORRECT SERIAL NO 11/875925 TO CORRECT SERIAL NO 11/857925 (PATENT NO. 8,533,681) previously recorded on Reel 035338 Frame 0313. Assignor(s) hereby confirms the CONFIRMATORY LICENSE.

CONVEYING PARTY DATA

Name	Execution Date
THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS	03/23/2017

RECEIVING PARTY DATA

Name:	UNITED STATES DEPARTMENT OF ENERGY	
Street Address:	1000 INDEPENDENCE AVE. S.W.	
City:	WASHINGTON	
State/Country:	D.C.	
Postal Code:	20585	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11857925

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NAME OF SUBMITTER:	TIMOTHY L HARNEY
SIGNATURE:	/Timothy L Harney/
DATE SIGNED:	04/18/2017

Total Attachments: 3

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PATENT 504326467 REEL: 042280 FRAME: 0336

OMB No 0651-0027 (exp. 6/30/2008)

03/27/2015



U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

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ILLINOIS 352 HENRY ADMIN BLDG, 506 S. WRIGHT STREET		Internal Address:		
URBANA, IL 61801		***************************************		
Additional name(s) of conveying party(ies) attached? Yes V No		Street Address: 1000 Independence AveS.W		
3. Nature of conveyance/Execution Date(s): Execution Date(s) 09/29/2014				
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	t Interest Assignment			
Executive Order 9424, Confirmatory License		Country: USA Zip: 20585		
Other		Additional name(s) & address(es) attached?디 Yes ☑ No		
g		document is being filed together with a new application.		
A. Patent Application No.(5)		B. Patent No.(s)		
11/875,925		8,533,681		
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5. Name and address to whom correspondence concerning document should be mailed:		6. Total number of applications and patents involved: 1		
Name: Michael J. Dobbs		***************************************		
***************************************		7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged by credit card		
Internal Address: U. S. Dept. of Energy, IPLD		Authorized to be charged to deposit account		
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Street Address: 9800 S. Cass Ave		None required (government interest not affecting title)		
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Fax Number: <u>630-252-2779</u>		Authorized User Name		
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*************************************	John D. Cravero #71.245 Name of Person Signing		imber of pages including cover attachments, and documents:	2

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License to the United States Government

Sign and submit the executed document to the appropriate funding agency (e.g. upload in iEdison).
Invention Title: AVIO - Atomicity Violation Detection Using Access Interleaving Invariants
Inventor(s): Yuanyuan Zhou, Shan Lu, Joseph Tucek
U.S. Filing/Issue Date: 09/19/2007
Patent or Application Serial No.: 11/857,925
Grant/Contract Number(s): CCR0325603, CNS0347854, DE-FG02-05ER25688
Foreign Applications filed/intended in (countries):
The invention identified above is a Subject Invention under 35 U.S.C. 200, et seq., and the Standard Patent Rights clause at 37 CFR 401.14, FAR 52.227-11 or FAR 52.227-12 (if applicable) which are included among the terms of the above identified grant or contract award from the United States Government. This document is confirmatory of: 1. The nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the invention described in any patent application and in any and all divisions, continuations, and continuations in part, and in any and all patents and re-issues granted thereon throughout the world; and 2. All other rights acquired by the Government by reason of the above identified grant/contract award and the laws and regulations that are applicable to the award.
The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified pater application.
Signed this 23rd day of March , 20 17
By Walter K. Knorr (Institutional Business Official) (Signature)
Title VP & CFO, Comptroller
For The Board of Trustees of The University of Illinois (Grantee/Contractor Organization)
At 352 Henry Admin Bldg., 506 S. Wright Street, Urbana, IL 61801 (Business Address)



Department of Energy Office of Science science, energy, govilsci servicesilenali

CONFIRMATORY LICENSE

Title of Invention:

Atomicity Violation Detection Using Access Interleaving Invariants

Inventor(s):

Yuanyuan Zhou, Shan Lu, Joseph A. Tucek

Patent Application Serial No:

11/875,925

Filing Date 09/19/2007

Patent Number:

8,533,681

Issue Date: 09/10/2013

Name of Contractor (i.e. Contractor, Subcontractor, Grant, or Cooperative Agreement, as applicable):

Name of Contractor: The Board of Trustees of The University of Illinois DOE Contract No. (i.e. Contract, Subcontract, Grant, or Cooperative Agreement, as applicable):

DE-PG02-05ER25688, NSF Grants CCR0325603 and CNS0347854

DOE Case No.: S-

Contractor Docket No.:

The Contractor has reported the above-identified invention as a Subject Invention to DOE and has elected to retain title thereto.

Accordingly, this document is confirmatory of the nonexclusive, nontransferable, irrevocable, paid-up, worldwide license in this subject invention, patent application and any resulting patent, including any continuation, divisional, reissue, or supplemental application thereof, to practice or to have practiced for or on behalf of the United States throughout the world; and of all other rights acquired by the Government by the patent rights clause in the above-identified contract.

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 subject invention.

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

Contractor Name

The Board of Trustees of The University of Illinois

Official's Name

Walter K. Knorr

Official's Title

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PATENT REEL: 042280 FRAME: 0338

Signed on:Sep 29, 2014

RECORDED: 04/28/2018