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PATEN	TS ONLY ARL 04-75		
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	Internal Address: Secretary of the Army		
Additional name(s) of conveying party(ies) attached? Yes 🗸 No			
3. Nature of conveyance/Execution Date(s):	Street Address:		
Execution Date(s) July 11, 2005			
Assignment Merger			
Security Agreement Change of Name	City: Washington		
Joint Research Agreement	State: DC		
Government Interest Assignment	Country: USA Zip:20310		
Executive Order 9424, Confirmatory License	2.p. <u>2001</u>		
Other	Additional name(s) & address(es) attached? Yes V		
A. Patent Application No.(s) 11/166,077  Additional numbers att	B. Patent No.(s)		
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1		
Name: U.S. Army Research Laboratory	7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00		
Internal Address: AMSRD-ARL-O-CC-IP	Authorized to be charged by credit card		
<del></del>	✓ Authorized to be charged to deposit account		
Street Address: 2800 Powder Mill Road	Enclosed		
	None required (government interest not affecting title)		
City: Adelphi	8. Payment Information		
State: Maryland Zip:20783-1197	a. Credit Card Last 4 Numbers Expiration Date		
Phone Number:301-394-3791	•		
Fax Number: 301-394-3972	b. Deposit Account Number 19-2201		
Email Address: Guy.m.miller@arl.army.mil	Authorized User Name Guy M. Miller		
9. Signature: 4. 7 7 70	4-28-08		
Signature	Date		
Guy M. Miller, Reg. No. 32,333 Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:		

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

> **PATENT REEL: 020992 FRAME: 0680**

ASS	IGNMENT	OF INV	/FNTION	ı

For use of this form, see AR 27-60; the proponent agency is OTJAG

Title of Invention: Improved Training for Time-Selective Wireless Fading Channels Using Cutoff Rate
Inventor(s) Saswat Misra and Ananthram Swami
*Application Serial No.: 11/166,077 ARI, 04-75
*Date Oath Executed: July 11, 2005
(*Data not known at execution may be added for better identification.)
I (We), the undersigned inventor(s), in consideration of the rights of the Government of the United States acquired by virture of the circumstances under which the above-entitled invention was made, hereby:
<ol> <li>Assign to the Government of the United States, as represented by the Secretary of the Army, the entire right, title and interest throughout the United States, its Territories, Possessions, and Puerto Rico, in and to the above-entitled invention and application for patent and all Letters Patent issuing thereon, and any continuation, continuation-in-part or division of said application and any reissue or extension of said Letters Patent.</li> </ol>
2. Agree to assign to the Government upon its request, title and interest in the invention in those foreign countries in which the Government, within eight months of the filing of the United States application for patent, determines to cause an application to be filed; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me (us), subject to a nonexclusive, irrevocable, royalty-free license to the Government in any patent which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government.
<ol><li>Agree to provide any further information within my (our) knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention, the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon.</li></ol>
Signature of Inventor:  (First name) (Middle Initial)  (Middle Initial)
(Middle Illicial) / (Last name)
Duty Address: US ARL, AMSRD-ARL-CI-CN, Adelphi Montgomery Maryland 20783-1197
. (State)
Date: // JVLY 2005 Typed Name of Inventor: Saswat Misra
*** * * * * * * * * * * * * * * * * * *
State of: Maryland
County of: Montgomery
On the above date Saswat Misra known to me to be the individual described in and who executed the foregoing instrument duly appeared before me and acknowledged to me that the same as his own free act and deed.
Jaroly L. Burget
(SEAL) (Signature of notary public)
My Commission expires on December 1, 2007
FOLM 2874-R, APR 93 REPLACES DA FORM 2874-R, MAR 74, WHICH IS OBSOLETE. Page 1 of 2 Page

DA

Pages

USAPPC V2.00

REEL: 020992 FRAME: 0681

office of chief counsel

SUPPLEMENTAL SIG For use of this form, see AR 27-60;	
Use this form with DA Forms 2873-R and 2874-R	
1. ASSIGNOR/s/ OR LICENSOR/s/ NAME/s/	2. APPLICATION SERIAL NUMBER
Saswat Misra and Ananthram Swami	ARL 04-75 11/166,077
	3. FILING DATE June 27, 2005
4. TITLE OF INVENTION Improved Training for Time-Selective Wireless Fading Cha	nnels Using Cutoff Rate
SIGNATURE OF INVENTOR: Anallism	Svami
(First name)	(Middle initial) (Last name)
DUTY ADDRESS: US ARL, AMSRD-ARL-CI, Adelphi	Montgomery Maryland 20783-1197
DATE SIGNED: 11 J4LY 2005 INVENTOR'S	TYPED NAME: Ananthram Swami
* * * * * * * * * * * * * * * * * * *	* * * * * *
COUNTY OF Montgomery ) SS.	
free act and deedn	County December 1, 2007
SIGNATORE OF INVENTOR:	
15.	(Middle initial) (Last name)
DUTY ADDRESS:	
DATE SIGNED: INVENTOR'S	TYPED NAME:
* * * * * *	* * * * *
STATE OF	
COUNTY OF	
On the above date executed the foregoing instrument duly appeared before me and act free act and deed.	known to me to be the individual described in and who knowledged to me that he executed the same as his own
(SEAL)	
(SEAL)	(Signature of notary public)
My Com	mission expires on
A FORM 4230-R, APR 93 REPLACES DA FORM 4230-R, MAR	R 74,WHICH IS OBSOLETE Page 2 of 2 Pages

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