RECORD



PA....J03059366

To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Andreas F. Molisch Jianxuan Du Name: Mitsubishi Electric Research Daging Gu Laboratories, Inc. Additional name(s) of conveying party(ies) Street Address: 201 Broadway attached? []Yes [X]No
3. Nature of Conveyance: City: Cambridge State: MA Zip: 02139 [X] Assignment []Merger Additional name(s) and address(es) attached? []Yes [X]No []Security Agreement []Change of Name Execution Dates: August 2, 2005 August 3, 2005 August 5, 2005 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) 11/127,006 Additional numbers attached? []Yes [X]No 5. Name and address of party to whom 6. Total number of applications and correspondence concerning document patents involved: should be mailed: 7.Total fee (37CFR 3.41): \$40.00 Name: Mitsubishi Electric Research Laboratories, Inc. [] Enclosed Authorized to be charged to Street Address: 201 Broadway deposit account City: Cambridge State: MA Zip: 02139 Deposit account number: 50-0749 08/10/2005 STON11 00000117 500749 DO NOT USE THIS SPACE 11127006 01 FC:8021 40.00 DA Statement and signature. To the best of my knowledge and belief correct and any attached copy is a true do the foregoing information is true and **tr**e original document. 5-2005 Andrew J. Curtin

Signatur

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Name of Person Signing

Total number of pages comprising cover sheet:

Date

ASSIGNMENT

WHEREAS, I, have made certain inventions or discoveries (or both) set forth in an Application for Letters Patent of the United States of America entitled TRAINING FRAMES FOR MIMO SYSTEMS, the specification of which:

	was	executed by us on the date indic	cated below;
<u>X</u>		filed on <u>May 11, 2005</u> as Appl: <u>11/127,006</u> ;	ication Serial
	was	patented under U.S. Patent No.	on;

WHEREAS, Mitsubishi Electric Research Laboratories, Inc., a corporation of the State of Delaware, whose address is 201 Broadway, Cambridge, Massachusetts 02139, and who, together with its successors and assigns is hereinafter called "Assignee", is desirous of acquiring the entire right, title, and interest together with the benefits and privileges hereinafter recited;

NOW, THEREFORE, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservation;

- Assign, transfer and convey to Assignee the entire right, title and interest together with the benefits and privileges in and to said inventions and discoveries, said Application for Letters Patent or similar forms of protection of the United States of America, and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation and convention applications based in whole or in part upon said inventions or discoveries, or upon said application, and any and all Letters Patent, reissues and extensions of Letters Patent or similar forms of protection granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent:
- 2. Authorize Assignee to file patent applications in any or all countries or groups of countries on any or all of said inventions and discoveries in my name or in the name of

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Assignee or otherwise as Assignee may deem advisable, under the International Convention or any other relevant convention or treaty or otherwise;

- 3. Authorize and request the Assistant Commissioner for Patents of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as Assignee of the entire right, title and interest therein or otherwise as Assignee may direct;
- 4. Warrant that I have not knowingly conveyed to others any rights in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;
- Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonable serving to assure that said inventions and discoveries, said patent applications and said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing any facts of my conceptions, disclosures, and reduction to practice of said inventions or discoveries.

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IN WITNESS WHEREOF:

Inventor	Signatu	ıre	Andreas F. Molisch		
			Andreas F. Mólisch		
_		_	100/00/05		

Today's Date: 08/02/05

Date Inventor Signed Declaration : 08 /02 /05

On this 2 day of August	_, 20 <u>OS</u> , before me, the
undersigned notary public, personal	ly appeared
Andreas F. Molisch (name of	document signer), proved
to me through satisfactory evidence	
were promal browledge to be the	person whose name is
signed on the preceding or attached	document in my presence.

(official) signature and seal of notary)

Inventor Signature: https://doi.org/lines.com/
Today's Date: 8/3/2005

Date Inventor Signed Declaration: 8/3/2005

Witnessed: GUOCONG SONG
Print Witness Name

Obligation Obligation

Signature of Wiftness

Date

Witnessed: ZHENYLLN ZHUANG

Witnessed:

Print Witness Name

1111

Signature of Witness

Aug. 03. 2005

Inventor	Signature	: _	Wa	gulu
		Da	aging	Gu

Today's Date: 8/5/2005

Date Inventor Signed Declaration : 8/5/2005

On this 5th day of August , 2005, before me, the undersigned notary public, personally appeared

Daging Gu (name of document signer), proved to me through satisfactory evidence of identification, which were <u>personal knowledge</u>, to be the person whose name is signed on the preceding or attached document in my presence.

(official signature and seal of notary)

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RECORDED: 08/08/2005

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PATENT REEL: 016864 FRAME: 0498