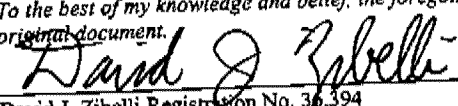


Mail Stop: Assignment Recordation Services Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450		RECORDATION FORM COVER SHEET PATENTS ONLY		U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
				Attorney Docket No. <u>145232</u>	
Please record the attached document.					
Total number of pages including cover sheet, attachments, and document: <u>4</u>					
1. A. Name of conveying party(ies): Seyhan NUYAN Calvin FU Tommi LOYTTYNIEMI B. Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No			2. A. Name and address of receiving party(ies): METSO AUTOMATION INC. VANHA PORVOONTIE 229 FI-01380 VANTAA, FINLAND B. Additional name(s) & address(es) attached? ☐ Yes ☒ No		
3. A. Nature of conveyance: ☒ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other _____ B. Execution Date: <u>December 11, 2012, December 12,</u> <u>2012 and December 13, 2012</u>					
4. A. Patent Application No.(s) <u>13/639,736</u> B. Patent No.(s) Additional numbers attached? ☐ Yes ☒ No C. Title of Application: <u>METHOD OF MODELING THE COLORING PROCESS IN MOVING WEB</u> <u>MANUFACTURING</u>					
5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>James A. Oliff</u> Address: OLIFF & BERRIDGE, PLC P.O. Box 320850 Alexandria, VA 22320-4850 Phone Number: 703-836-6400 Fax Number: 703-836-2787			6. Total number of applications and patents involved: <u>1</u> 7. Please charge Deposit Account No. 15-0461 the total fee (37 CFR 3.41) in the amount of <u>\$40.00</u> . 8. Credit any overpayment or charge any underpayment to deposit account number 15-0461.		
9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i>  David J. Zibelli Registration No. 36,394 James A. Oliff Registration No. 27,075 Date: <u>December 17, 2012</u>					

ASSIGNMENT

(1-8)	Insert Name(s) of Inventor(s)	(1)	Seylan NUYAN	(2)	Calvin FU
		(3)	Tommi LOYTTYNIEMI	(4)	
		(5)		(6)	
		(7)		(8)	

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9)	Insert Name of Assignee	(9)	METSO AUTOMATION INC.
(10)	Insert Address of Assignee	(10)	Vanha Porvoontie 229, FI-01380 Vantaa, FINLAND

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as

(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11)	Method of Modeling the Coloring Process in Moving Web Manufacturing
------	---	------	---

(Attorney Docket No. 145232)
for which the undersigned has (have) executed an application for patent in the United States of America on even date herewith or

(12)	Insert Date of Signing of Application	(12)	on _____
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(13)	Alternative Identification for filed applications	(13)	U.S. Application Number <u>13/639,736</u> filed <u>October 5, 2012</u>
------	---	------	---

1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.

2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or patents for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office and other issuing authorities to issue any and all patents resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of OLIFF & BERRIDGE, PLC the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	<u>Dec 11, 2012</u>	Inventor Signature	<u>Seylan Nuyan</u>	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)
Date	_____	Inventor Signature	_____	(SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date	_____	Witness	_____
Date	_____	Witness	_____

ASSIGNMENT

Insert (1-3) Name(s) of Inventor(s)	(1) <u>Sevhan NUZAN</u> (2) <u>Toumi LOUENIEMI</u> (3) _____ (4) _____ (5) _____ (6) _____ (7) _____	(2) <u>Calvin FU</u> (3) _____ (4) _____ (5) _____ (6) _____ (7) _____
In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and deliver over to		
(9) Insert Name of Assignee (10) Insert Address of Assignee	(9) <u>METSO AUTOMATION INC.</u> (10) <u>Vanhä Porvoonitie 229, FI-01380 Vantaa, FINLAND</u> (hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, intermediate, continuation-in-part and related application(s), and all Letters Patent, extensions, reissues and re-examinations, certificates that may be granted on the invention known as	
(11) Insert Identification such as Title, Case Number, or Foreign Application Number	(11) <u>Method of Modeling the Coloring Process in Moving Web Manufacturing</u> (Attorney Docket No. <u>145232</u>) for which the undersigned has (have) examined an application for patent in the United States of America on even date herewith or	
(12) Insert Date of Signing of Application	(12) on _____	
(13) Assignee Identification for filed application	(13) U.S. Application Number <u>13/639,736</u> Filed <u>October 5, 2012</u>	

1) Each undersigned agrees to execute all papers necessary in connection with any application and/or patent for the invention and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.

2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or patent for the invention and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office and other issuing authorities to issue any and all patents resulting from said application(s) to be said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement(s) in conflict herewith, and agrees that this assignment is binding on Assignor and Assignor's heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of OLIFF & BERRIDGE, PLLC the power to ink on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent And Trademark Office for recording of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____	Inventor Signature _____ (SEAL)
Date <u>Dec. 12th, 2012</u>	Inventor Signature <u>Calvin Fu</u> (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date <u>12 Dec 2012</u>	Witness <u>m. J...</u>
Date <u>12/Dec/2012</u>	Witness <u>...</u>

ASSIGNMENT

(1-5)	Insert Name(s) of Inventor(s)	(1) <u>Seyhan NUYAN</u> (3) <u>Tommi LOYTTYNIEMI</u> (5) _____ (7) _____	(2) <u>Calvin FU</u> (4) _____ (6) _____ (8) _____
In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, each undersigned agrees to assign, and hereby does assign, transfer and set over to			
(9)	Insert Name of Assignee	(9) <u>METSO AUTOMATION INC.</u>	
(10)	Insert Address of Assignee	(10) <u>Vanha Porvoontie 229, FI-01380 Vantaa, FINLAND</u>	
(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, confirmation, substitute and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as:			
(11)	Insert Identification such as Title, Case Number, or Foreign Application Number	(11) <u>Method of Modeling the Coloring Process in Moving Web Manufacturing</u>	
		(Attorney Docket No. <u>145232</u>)	
for which the undersigned has (have) executed an application for patent in the United States of America on even date herewith or			
(12)	Insert Date of Signing of Application	(12) on _____	
(13)	Alternative Identification for filed applications	(13) U.S. Application Number <u>13/639,736</u> filed <u>October 5, 2012</u>	

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date <u>13.12.2012</u>	Inventor Signature <u>[Signature]</u> (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)
Date _____	Inventor Signature _____ (SEAL)

This assignment should preferably be signed before: (a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date <u>December 13, 2012</u>	Witness <u>[Signature]</u>
Date <u>December 13, 2012</u>	Witness <u>[Signature]</u>

PATENT

RECORDED: 12/17/2012

REEL: 029582 FRAME: 0122