# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2991999

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
DAVID LINDEGREN	10/12/2011
MARTIN PETTERSSON	10/11/2011
SAVVAS ARGYROPOULOS	04/17/2014
PETER LIST	04/10/2014

### **RECEIVING PARTY DATA**

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State/Country:	GERMANY
Postal Code:	53113

# **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	14351483	

# **CORRESPONDENCE DATA**

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**Correspondent Name:** ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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ATTORNEY DOCKET NUMBER:	3602-861
NAME OF SUBMITTER:	MARTIN M. ZOLTICK, REG. NO. 35,745
	PATENT

**REEL: 033585 FRAME: 0785** 502945401

SIGNATURE:	/Martin M. Zoltick/	
DATE SIGNED:	08/21/2014	
Total Attachments: 9		
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PATENT REEL: 033585 FRAME: 0786

This Assignment is made by:

LINDEGREN, David Professorsvägen 214B

977 51 Luleå Sweden

PETTERSSON, Martin Stenvallavägen 10

186 34 Vallentuna

Sweden

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Telefonaktiebolaget L M Ericsson (publ), a corporation duly organized under and pursuant to the laws of Sweden and having its principal place of business at SE-164 83 Stockholm, Sweden (hereinafter referred to as "Assignee").

For good, sufficient and adequate consideration, the receipt of which is hereby acknowledged, the Assignor(s) have, as of the Effective Date, sold, assigned, transferred, and set over, and by these presents, and to the extent any transferable or assignable rights still remain with the inventor, do hereby sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the following inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in all countries and pursuant to all multilateral treaty organizations, including Sweden, the United States of America, the Patent Cooperation Treaty and European Patent Convention, that may be granted therefor and thereon, and in and to any and all divisions, continuations, continuations-in-part, conversions and utility models of said application(s), and reissues and extensions of said Letters Patent or Patents, the same to be held and enjoyed by the Assignee, for its use and behoof and the use and the behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent, Patents and Utility Models may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor(s) had this sale and assignment not been made:

# Scene Change Detection For Perceptual Quality Evaluation In Video Sequences

including, but not limited to, the application(s) for Letters Patent and Utility Model filed in:

Country Code	Priority Application(s)	Filing Date(s)
WO	PCT/EP2011/067741	2011-10-11
US	14/351,483	2014-04-11

The Effective date is the earliest date of the above listed Filing Date(s).

Assignor(s) hereby authorize and request Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letter Patent or Utility Model, when known. The assignment of the above mentioned rights includes a transfer of the whole right to use a priority (including priority according to any convention, multilateral agreement, bilateral agreement and national law) of the above mentioned application(s) for Letter Patent and Utility Model in all countries and multilateral treaty organizations wherein no residual rights shall remain with the Assignor(s). Assignor(s) hereby request that said Letters Patent, Patent or Utility Model be issued to Assignee as the Assignee of

said inventions, the Letters Patent, Patent or Utility Model to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns. Assignee alone hereinafter has the entire disposal of the invention and possesses entire ownership to any domestic and foreign patents or utility models granted thereinafter. The rights granted hereunder shall include all rights to institute legal actions, obtain remedies and recover and retain damages in respect to said Letters Patent, Patent or Utility Model.

The Assignor(s) and Assignee hereby understand and agree that with the execution of this Assignment, to the extent necessary or appropriate, national and/or regional applications may be filed by the Assignee as the applicant and on behalf of the assignor.

To the extent Assignee is entitled to receive the rights hereunder pursuant to this Assignment, each of the Assignor(s) hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of the Effective Date, the Assignor(s) were the sole and lawful owners of the entire right, title, and interest in and to the inventions and application(s) for Letters Patent or Utility Models above-mentioned, and that the same are unencumbered, and that the Assignor(s) have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

Further, and for the same consideration, the Assignor(s) hereby covenant(s) and agree(s) to and with the Assignee, its successors, legal representatives, and assigns that the Assignor(s) will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said application(s) for Letters Patent, or any proceeding in connection with Letters Patent or Utility Model for said inventions, in any country and any multilateral treaty organization, including interference proceedings, is lawful and desirable, or that any division, continuation, continuation-in-part, conversion or Utility Model of any application(s) for Letters Patent or Utility Model, or any reissue or extension of any Letters Patent to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Utility Model for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns. If any of the Assignor(s) is prevented by any obstacles from signing said documents in person, this Assignment shall be valid as a Power of Attorney for the Assignee to sign these documents on behalf of any such Assignor(s) or, in the event of the death of the latter, the estate thereof.

This Assignment shall be governed by and construed under, and any dispute, controversy or claim related hereto shall be decided in accordance with, the laws of:

Sweden

without regard to the conflicts of laws provisions thereof. Any dispute, controversy or claim arising under, out of or relating to this Assignment and any subsequent amendments of this Assignment, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of a sole arbitrator. The place of

Page 2 of 5

arbitration shall be in the country of the inventor's residence. The language to be used in the arbitral proceedings shall be English.

No modifications shall be made to this Assignment unless in writing and signed by each of the Assignor(s) and Assignee. If any of the provisions of this Assignment shall be deemed invalid or unenforceable, then the entire Assignment shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of Assignee and Assignor(s) shall be construed and enforced accordingly. Assignee's failure to exercise any option made available as a result hereof, shall not be construed as a waiver of such provisions, rights, or options, or affect the validity of this Assignment, Assignor covenants and agrees that it will not take any actions in violation of this Assignment.

Subsequent assignment from any of the assignors to the assignee purporting to convey the subject matter specified herein for a particular country, patent office, or jurisdiction shall not invalidate any provision of this assignment and any such subsequent assignment shall act as a further confirmation of the assignment herein.

Signature on behalf of . Assignee

Date 8 0c8 2011

Title: Scene Change Detection	For Perceptual Quality Ev	valuation In Vîdeo Sequences
Date 2011-10-12	Signature of Assignor	ANDEGREN, David
Date 2011-10-12	Witnessed by	Tus Lully
	Name:	Tomas Lundberg
	Address:	Fänriksgatan 10
		SE-976 31 LULEĂ
		SWEDEN
Date 2011 - 10 - 12	Witnessed by	Josa Janolbug
	Name:	Sara Sandberg
	Address:	Vallinsvägen 27
		975 96 Luleo
		SWEDEN

Title: Scene Change Detection For Perceptual Quality Evaluation In Video Sequences

PETTERSSON, Martin	Date October 11, 2011	Signature of Assignor	Meh Rum
Name:  Address:  Name:  DSTERVAGEN 40  169 5 5 SOLNA  Date October 11, 2011 Witnessed by  Name:  Patrik Sandsnen  Address:  Address:  Jakob Westinsg. 6		- ig. i.i.i., i i i i i i i i i i i i i i i i i	PETTERSSON, Martin
Address:  DSTERVAGEN 40  16955 SOLNA  Date October 11, 2011 Witnessed by  Name:  Patrik Sandynen  Address:  Address:  7akob Westinsg-6	Date October U, 2011	Witnessed by	W/L/D2
Address:  DSTERVAGEN 40  16955 SOLNA  Date October 11, 2011 Witnessed by Pateth Suf  Name: Patrik Sandynen  Address: Jakob Westinsg-6		Name:	KRISTORER DOVETAR
Date October 11, 2011 Witnessed by Pateth Sufference Name: Patrik Sandignen Address: Jakob Westing, 6			DSTERVAGEN 40
Name: Patrik Sandiguen  Address: Jakob Wes Wes 6 19-6			16955 SOLNA
Name: Patrik Sandiguen  Address: Jakob Wes Wes 6 19-6			
Name: Patrik Sandiguen  Address: Jakob Wes Wes 6 19-6			
Name: Patrik Sandiques  Address: Jakob Wes Was Ginsg. 6	Date October 11, 2011	Witnessed by	Patett Juf
Address: Jakob Wesansg. 6			/
/			′
		Address.	

- Savvas Argyropoulos, a citizen of Greece, residing at Pothou, Ekso Panagitsa; 34100
   Chalkida; Greece and
- 2. Peter List, a citicen of Germany, residing at Beethoveenstraße 15; 64859 Eppertshausen; Germany

and each of us, if more than one person is identified above, have invented and own a certain invention entitled:

Scene change detection for perceptual quality evaluation in video sequences

for which invention International Application No. PCT/EP2011/067741 was filed on October 10. 2011, designating the U.S. and

WHEREAS, Deutsche Telekom AG, having an address at Friedrich-Ebert-Allee 140; 53113 Bonn; Germany,

hereinafter referred to as Assignee, is desirous of acquiring the entire domestic and foreign right, title, and interest in and under the invention described in the above patent application.

Now, Therefore, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, I/we assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns my/our full and exclusive rights in and to the invention in the U.S. and every foreign country and my/our entire right, title, and interest in and to the patent application and other such applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, reexaminations, National phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every foreign country on the invention, and the patents, extensions, or derivations thereof, both foreign and domestic, that may issue thereon, and I/we do hereby authorize and request the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignce agreeably with the terms of this assignment document.

REEL: 033585 FRAME: 0792

UPON SAID CONSIDERATION, I/we convey to the Assignee the right to make application in its own behalf for protection of the invention in the U.S. and countries foreign to the U.S. and to claim under the Patent Cooperation Treaty, the International Convention and/or other international arrangement for any such application the date of the U.S. application (or any other application on the invention) to gain priority with respect to other applications.

I/WE DO HEREBY COVENANT and agree with the Assignee that I/we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that I/we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this assignment, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

Date 17/04/20	14
Dato	Savvas Argyropoulos, Inventor
	•
Date	
	Peter List, Inventor

- Savvas Argyropoulos, a citizen of Greece, residing at Pothou, Ekso Panagitsa; 34100
   Chalkida; Greece and
- Peter List, a citicen of Germany, residing at Beethoveenstraße 15; 64859Eppertshausen; Germany

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	÷.			Savvas Argyropoul	os, Inventor	Ņ
Date	10-Apr	2014	er naar	Hole	KiA	
				Peter I let Inventor	,	

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