

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2679922

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
NEC LABORATORIES AMERICA, INC.	01/13/2014
RECEIVING PARTY DATA	
Name:	NEC CORPORATION
Street Address:	7-1 SHIBA, 5-CHOME
Internal Address:	MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	108-8001
PROPERTY NUMBERS Total: 147	
Property Type	Number
Patent Number:	8391925
Patent Number:	8452334
Patent Number:	8351986
Patent Number:	8504098
Patent Number:	8488580
Patent Number:	8467475
Patent Number:	8379618
Patent Number:	8467368
Patent Number:	8391409
Patent Number:	8380483
Patent Number:	8374562
Patent Number:	8346193
Patent Number:	8379753
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Patent Number:	8386879
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Patent Number:	8612600
Patent Number:	8538161
Patent Number:	8611743
Patent Number:	8615047
Patent Number:	8537737
Patent Number:	8611917

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ATTORNEY DOCKET NUMBER: END OF YEAR 2013

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Date: 01/14/2014

Total Attachments: 13

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PATENT ASSIGNMENT

WHEREAS, NEC Laboratories America, Inc., a New York corporation, having a place of business at 4 Independence Way, Suite 200, Princeton, New Jersey 08540, is an owner and assignee of record of the patents listed;

WHEREAS, NEC Corporation, a Japanese corporation, having its principal place of business at 7-1, Shiba 5-chome, Minatu-ku, Tokyo, Japan 108-8001 is desirous of obtaining a title to the patents listed in Table 1 below;

NOW, THEREFORE, for valuable consideration, receipt of which is hereby acknowledged, NEC Laboratories America, Inc., hereby sells, assigns and transfers to NEC Corporation, its successors and assigns, its entire right, title and interest in each of the following United States patents in the following list:

Docket #	Title	Patent #	Issue Date	Application #	Filing Date	Inventor(s)
05055B	Method of Precoding with a Codebook for a Wireless System with Multiple Transmission Ranks and a Quantized Beamforming Matrix	8,391,925	03/05/2013	13/029,561	02/17/2011	Mohammad Khojastepour
05055BA	Method of Precoding with a Codebook for a Wireless System	8,452,334	05/28/2013	13/547,521	07/12/2012	Mohammad Khojastepour
05055UA	METHOD OF PRECODING WITH A CODEBOOK FOR A WIRELESS SYSTEM	8,351,986	01/08/2013	13/524,077	06/15/2012	Mohammad Khojastepour
05055UB	Method of Precoding with a Codebook for a Wireless System	8,504,098	08/06/2013	13/547,544	07/12/2012	Mohammad Khojastepour
06036A	Closed Loop Precoding over a set of Parallel Channels	8,488,580	07/16/2013	12951855	11/22/2010	Mohammad Khojastepour
06036B	Transmission with M Antennas Using Precoding	8,467,475	06/18/2013	13/025,836	02/11/2011	Mohammad Khojastepour
06036BH	Precoded Data Receiver	8,379,618	02/19/2013	13/267,279	10/06/2011	Mohammad Khojastepour
06036CA	Beamforming Methods in Closed-Loop MIMI	8,467,368	06/18/2013	13/112,757	05/20/2011	Mohammad Khojastepour
06036D	Method for Transmitting an Information Sequence	8,391,409	03/05/2013	13/297,615	11/15/2011	Mohammad Khojastepour
06071	Inter-Procedural Dataflow Analysis of Parameterized Concurrent Software	8,380,483	02/19/2013	11/867,178	10/04/2007	Ting Wang ; Junqiang Hu ; Milorad Cvijetic ; LEI XU ; YUANQIU LUO
06081UA	Codebook with Nested Structure	8,374,562	02/12/2013	13/524,269	06/15/2012	Narayan Prasad
06081UB	Codebook with Nested Structure	8,346,193	01/01/2013	13/547,617	07/12/2012	Narayan Prasad
06093A	Precoding for Time or Frequency Correlated MIMO Channels	8,379,753	02/19/2013	12/952,195	11/22/2010	Mohammad Khojastepour
07016UA	A Codebook Method for Multiple Input Multiple Output Wireless System	8,467,470	06/18/2013	13/524,286	06/15/2012	MOHAMMAD MADIHAN ; Xiaodong Wang ; Mohammad Khojastepour
07026	GLDPC Encoding with Reed-Muller Component Codes for Optical Communications	8,386,879	02/26/2013	12/189,759	08/11/2008	LEI XU ; Milorad Cvijetic ; Ting Wang

07041	Receiver with Prefiltering for Discrete Fourier Transform-Spread-Orthogonal Frequency Division Multiplexing (DFT-S-OFDM) Based Systems	8,576,959	11/05/2013	12/425,080	04/16/2009	MOHAMMAD MADIHIAN ; Xiaodong Wang
07044	Methods and Systems for Efficient Analysis of Hybrid Systems Using Template Polyhedra	8,352,222	01/08/2013	12/236,071	09/23/2008	SRIRAM SANKARANARAYANAN ; Franjo Ivancic
07060	System and Method for Generating Error Traces for Concurrency Bugs	8,527,976	09/03/2013	12/241,340	09/30/2008	VINEET KAHLON ; Aarti Gupta ; SRIRAM SANKARANARAYANAN
07074	Transfer Learning Methods and Systems for Feed-Forward Visual Recognition Systems	8,345,962	01/01/2013	12/277,504	11/25/2008	KAI YU ; WEI XU ; Yihong Gong
07082	Path-Sensitive Analysis Through Infeasible-Path Detection and Syntactic Language Refinement	8,365,152	01/29/2013	12/183,416	07/31/2008	SRIRAM SANKARANARAYANAN ; Gogul Balakrishnan ; Franjo Ivancic ; Aarti Gupta
07090	System and Method for Monotonic Partial Order Reduction	8,381,226	02/19/2013	12/367,140	02/06/2009	VINEET KAHLON ; Aarti Gupta
07091	Semantic Search via Role Labeling	8,392,436	03/05/2013	12/364,041	02/02/2009	RONAN COLLOBERT ; JASON WESTON ; Bing Bai
07095	A Unified Architecture for Natural Language Processing: Deep Neural Networks with Multi-task Learning	8,504,361	08/06/2013	12/367,788	02/09/2009	JASON WESTON ; RONAN COLLOBERT
07100	Optical Signal Sideband Millimeter-Wave Signal Generation for Super-Broadband Optical Wireless Network	8,358,933	01/22/2013	12/562,353	09/18/2009	Ting Wang ; Jianjun Yu
07109	Systems and Methods for Adaptive Hybrid Automatic Retransmission Requests	8,359,507	01/22/2013	12/481,359	06/09/2009	Xiaodong Wang ; Guosen Yue
07110	System and Method for Model Checking by Interleaving Stateless and State-Based Methods	8,589,126	11/19/2013	12/752,329	04/02/2010	Malay Ganai

08009B	Multi-Resolution Precoding Codebook	8,537,914	09/17/2013	13/439,308	04/04/2012	Mohammad Khojastepour
08013	Cognitive Radio Anti-Jamming Coding Retransmission Methods and Systems	8,347,162	01/01/2013	12/251,713	10/15/2008	Guosen Yue ; Xiaodong Wang
08020	Polarization Mode Dispersion Compensation in Multilevel Coded-Modulation Schemes Using BLAST Algorithm and Iterative Polarization Cancellation	8,385,439	02/26/2013	12/392,294	02/25/2009	Ting Wang ; LEI XU
08021	Multi-Document Summarization Utilizing Document Clustering	8,402,369	03/19/2013	12/199,104	08/27/2008	Yihong Gong ; Yun Chi ; Shenghuo Zhu
08024A	Coordinated Linear Beamforming in Downlink Multi-Cell Wireless Networks	8,488,440	07/16/2013	13/414,202	03/07/2012	Luca Venturino ; Narayan Prasad ; Xiaodong Wang
08024B	Coordinated Linear Beamforming in Downlink Multi-Cell Wireless Networks	8,488,441	07/16/2013	13/414,244	03/07/2012	Xiaodong Wang ; Luca Venturino ; Narayan Prasad
08026	System and Method for Parallelizing and Accelerating Learning Machine Training and Classification Using a Massively Parallel Accelerator	8,359,281	01/22/2013	12/478,073	06/04/2009	VENKATA JAKKULA ; Murugan Sankaradas ; Eric Cosatto ; Srihari Cadambi ; Igor Durdanovic
08031	Mitotic Figure Detector and Counter System and Method for Detecting and Counting Mitotic Figures	8,379,961	02/19/2013	12/496,785	07/02/2009	MATTHEW MILLER ; Eric Cosatto
08032	Signet Ring Cell Detector and Related Methods	8,582,860	11/12/2013	12/496,795	07/02/2009	MATTHEW MILLER ; Eric Cosatto ; Christopher Malon
08034	Enhancing Symbolic Execution with Infeasible Cores	8,402,440	03/19/2013	12/393,500	02/26/2009	SRIRAM SANKARANARAYANAN ; William R. Harris ; Aarti Gupta ; Franjo Ivancic ; Gogul Balakrishnan
08036	Parallelizing Bounded Model Checking Using Tunnels Over a Distributed Framework	8,504,330	08/06/2013	12/236,684	09/24/2008	Malay Ganai
08046	All Optical Up-Conversion System	8,380,083	02/19/2013	12/546,250	08/24/2009	Jianjun Yu

08051	Sparse Channel Estimation for MIMO OFDM Systems	8,619,918	12/31/2013	12/395,679	03/01/2009	KRISHNA GOMADAM ; Mohammad Khojastepour
08052	Methods and Systems for Reducing Verification Conditions for Concurrent Systems Using Mutually Atomic Transactions	8,448,145	05/21/2013	12/569,557	09/29/2009	Malay Ganai
08054	Distributed Message-Passing Based Resource Allocation in Wireless Systems	8,385,364	02/26/2013	12/549,546	08/28/2009	Narayan Prasad ; Xiaodong Wang
08055	Symbolic Reduction of Dynamic Executions of Concurrent Programs	8,359,578	01/22/2013	12/571,476	10/01/2009	Aarti Gupta
08059	Method and Apparatus for an Optical Duty Cycle for an Optical Digital Coherent System	8,358,936	01/22/2013	12/562,251	09/18/2009	Jianjun Yu ; Dayou Qian ; LEI XU ; Ting Wang
08064	System and Method for Feedback-Guided Test Generation for Cyber-Physical Systems Using Monte-Carlo	8,374,840	02/12/2013	12/578,855	10/14/2009	SRIRAM SANKARANARAYANAN ; Franjo Ivancic ; Aarti Gupta
08079	Systems and Methods for Resolution-Invariant Image Representation	8,538,200	09/17/2013	12/469,098	05/20/2009	Shenghuo Zhu ; JINJUN WANG ; Yihong Gong
08080	Methods and Systems for Location Based Allocation of Macro Cell Resources	8,374,135	02/12/2013	12/567,145	09/25/2009	Sampath Rangarajan ; Karthikeyan Sundaresan
08082	Linear Spatial Pyramid Matching Using Sparse Coding	8,374,442	02/12/2013	12/469,073	05/20/2009	Yihong Gong ; KAI YU
08084	Experience Transfer for the Configuration Tuning of Large Scale Computing Systems	8,374,514	02/12/2013	12/760,813	04/15/2010	Yue-Kai Huang ; Dayou Qian ; Ting Wang
08088	Superimposed Training and Digital Filtering Coherent Optical Receivers	8,538,278	09/17/2013	12/702,895	02/09/2010	Ivan Djordjevic ; HUSSAM BATSHON ; Ting Wang ; LEI XU
08090A	Method and Systems for Conveying Scheduling Information of Overlapping Co-Scheduled Users in an OFDMA-MU-MIMO System	8,532,051	09/10/2013	13/296,387	11/15/2011	Xiaodong Wang ; Sampath Rangarajan ; MEILONG JIANG ; Narayan Prasad

08091	Max-Log Stack Decoder	8,432,989	04/30/2013	12/549,574	08/28/2009	Sampath Rangarajan ; Xiaodong Wang ; Narayan Prasad
08095B	Supervised Semantic Indexing and Its Extensions	8,359,282	01/22/2013	12/562,840	09/18/2009	Bing Bai ; RONAN COLLOBERT ; JASON WESTON
08103	Social Network Analysis with Prior Knowledge and Non-Negative Tensor Factorization	8,346,708	01/01/2013	12/469,043	05/20/2009	Yun Chi ; Yihong Gong ; Shenghuo Zhu
08108	Control Structure Refinement of Loops Using Static Analysis	8,522,226	08/27/2013	12/701,962	02/08/2010	Gogul Balakrishnan ; SRIRAM SANKARANARAYANAN ; Aarti Gupta
08108A	CONTROL STRUCTURE REFINEMENT OF LOOPS USING STATIC ANALYSIS	8,601,459	12/03/2013	13/859,010	04/09/2013	SRIRAM SANKARANARAYANAN ; Gogul Balakrishnan ; Aarti Gupta
08117	Fast and Accurate Data Race Detection for Concurrent Programs with Asynchronous Calls	8,539,450	09/17/2013	12/702,023	02/08/2010	VINEET KAHLON ; NISHANT SINHA ; YUN ZHANG ; Erik Kruus
08118	Flow-Subcarrier Mapping in Optical Orthogonal Frequency Division Multiplexing	8,503,878	08/06/2013	12/700,979	02/05/2010	Ting Wang ; CHONGGANG WANG ; WEI WEI
08122	System and Methods for Database Distribution and Querying Over Key-Based Scalable Storage	8,380,738	02/19/2013	12/642,812	12/20/2009	Vahit Hacigumus ; Arsany Sawires ; Oliver Po ; Junichi Tatemura ; Wang-Pin Hsiung
08123	Sequential Sensing Scheme for Cognitive Radio	8,346,176	01/01/2013	12/718,422	03/05/2010	YAN XIN ; Sampath Rangarajan ; HONGHAI ZHANG
08124	Systems and Methods for Constructing the Base Matrix of Quasi-Cyclic Low-Density Parity-Check Codes	8,433,972	04/30/2013	12/695,315	01/28/2010	Guosen Yue ; Xiaodong Wang
09004A	Integrated Sensor Networks with Optical and Wireless Links	8,380,072	02/19/2013	12/716,442	03/03/2010	CHONGGANG WANG ; Ting Wang
09004B	Integrated Sensor Networks with Optical and Wireless Links	8,588,135	11/19/2013	12/716,462	03/03/2010	CHONGGANG WANG ; Ting Wang
09010	Constellation Re-Arrangement and Bit Grouping	8,446,811	05/21/2013	12/762,065	04/16/2010	Guosen Yue ; Xiaodong Wang

09013	EFFICIENT DECISION METHOD FOR REAL NON- LINEAR ARITHMETIC CONSTRAINTS	8,539,013	09/17/2013	12/709,947	02/22/2010	Malay Ganai ; Franjo Ivancic
09014	Systems and Methods for Model Checking the Precision of Programs Employing Floating-Point Operations	8,539,451	09/17/2013	12/761,575	04/16/2010	SRIRAM SANKARANARAYANAN ; Franjo Ivancic ; Malay Ganai ; Aarti Gupta
09015	Beamforming Methods and Systems Employing Measured Power at a Receiver to Perform Channel Estimation	8,380,133	02/19/2013	12/724,513	03/16/2010	Karthikeyan Sundaresan
09019	Methods and Systems for Dynamic and Configuration Based Fractional Frequency Reuse for Uneven Load Distributions	8,521,173	08/27/2013	12/722,761	03/12/2010	Sampath Rangarajan ; Narayan Prasad ; HONGHAI ZHANG
09020	LDPC Hard Decision Decoder for High Speed Wireless Data Communications	8,352,827	01/08/2013	12/823,400	06/25/2010	Xiaodong Wang ; Guosen Yue
09021	System and Method for Verification of Programs Using Threads Having Bounded Lock Chains	8,543,985	09/24/2013	12/753,219	04/02/2010	VINEET KAHLON
09024	Deterministic Rotational Coding	8,467,416	06/18/2013	12/719,445	03/08/2010	Mohammad Khojastepour ; Alireza Keshavarz-Haddad
09025	Full-Range Frequency Offset Correction Technique for Coherent Optical OFDM Systems	8,385,494	02/26/2013	12/841,458	07/22/2010	
09026	Multicast with Joint Layer Resource Allocation in Broadband Wireless Networks	8,374,101	02/12/2013	12/846,158	07/29/2010	Peilong Li ; HONGHAI ZHANG ; Sampath Rangarajan
09027	Dynamically Configurable, Multi- ported Co-processor for Convulational Neural Networks	8,442,927	05/14/2013	12/697,823	02/01/2010	VENKATA JAKKULA ; Srihari Cadambi
09030	Methods and Systems for Rate Matching and Rate Shaping in a Wireless Network	8,345,545	01/01/2013	12/685,342	01/11/2010	Sampath Rangarajan ; Rajesh Mahindra ; RAVINDRANATH KOKKU ; HONGHAI ZHANG

09032	Retransmission Protocol and Coding Scheme for Multicast Broadcast Service	8,488,498	07/16/2013	12/859,453	08/19/2010	Guosen Yue ; Xiaodong Wang
09033	High-Speed Multi-Level Electronic Signal Generation for Optical Communication	8,380,085	02/19/2013	12/694,483	01/27/2010	Yue-Kai Huang
09035	Robust Linear Precoder Designs for Multi-Cell Downlink Transmission	8,385,454	02/26/2013	12/878,258	09/09/2010	Xiaodong Wang ; Sampath Rangarajan ; Narayan Prasad
09035A	Robust Linear Precoder Designs for Multi-Cell Downlink Transmission	8,520,762	08/27/2013	13/414,110	03/07/2012	Narayan Prasad ; Xiaodong Wang ; Sampath Rangarajan
09035B	Robust Linear Precoder Designs for Multi-Cell Downlink Transmission	8,520,763	08/27/2013	13/650,477	10/12/2012	Xiaodong Wang ; Sampath Rangarajan ; Narayan Prasad
09037	Precise Thread-Modular Summarization for Concurrent Programs	8,561,029	10/15/2013	12/894,710	09/30/2010	CHAO WANG ; NISHANT SINHA
09039	Secure Communication Over Passive Optical Network (PON) with Quantum Encryption	8,582,769	11/12/2013	12/846,915	07/30/2010	Ting Wang ; YI ZHAO ; LEI XU ; Martin Roetteler
09041	Ultra Wide-Range Frequency Offset Estimation for Coherent Optical Receivers	8,463,121	06/11/2013	12/902,801	10/12/2010	Ting Wang ; Jianjun Yu ; LEI XU ; Shaoliang Zhang
09043	Coded Polarization-Multiplexed Iterative Polar Modulation	8,588,623	11/19/2013	12/860,659	08/20/2010	LEI XU ; Ivan Djorjdevic ; Ting Wang
09044	Message-wise Unequal Error Protection	8,539,301	09/17/2013	12/908,196	10/20/2010	Guosen Yue ; CHEN GONG ; Xiaodong Wang
09045	Computationally-Efficient MIMO Equalization Algorithm for High-Speed, Real-Time, Adaptive Polarization Multiplexed (POLMUX) OFDM Transmission with Direct Detection	8,472,813	06/25/2013	12/818,154	06/18/2010	Ting Wang ; Neda Cvijetic ; Narayan Prasad ; Dayou Qian
09046	Database Distribution System and Methods for Scale-Out Applications	8,620,903	12/31/2013	12/873,269	09/01/2010	Junichi Tatemura ; Vahit Hacigumus ; Arsany Sawires ; Oliver Po
09047AA	Subband Indexing Methods and Systems	8,385,462	02/26/2013	13/467,629	05/09/2012	Sampath Rangarajan

09047B	Reverse Indexing Methods and Systems	8,594,248	11/26/2013	12/940,761	11/05/2010	Sampath Rangarajan ; Mohammad Khojastepour
09048	Beam Combination Methods and Systems for Adapting Communication Links to Varying Channel Conditions	8,510,433	08/13/2013	12/941,546	11/08/2010	Sampath Rangarajan ; Narayan Prasad ; KISHORE RAMACHANDRAN
09053	Fast Image Parsing by Graph Adaptive Dynamic Programming	8,374,979	02/12/2013	12/814,449	06/12/2010	JINJUN WANG ; KAI YU ; FENGJUN LV
09054	Systems and Methods for Multi-Channel Sequential Detection in Cognitive Radio Systems	8,538,424	09/17/2013	12/842,500	07/23/2010	YAN XIN
09055	A Virtualization and Consolidation Analysis Engine for Enterprise Data Centers	8,589,555	11/19/2013	12/940,134	11/05/2010	AKHILESH SAXENA ; Guofei Jiang ; Haifeng Chen ; Kenji Yoshihira
09057	Integrating Interval Constraint Propagation with Nonlinear Real Arithmetic	8,538,900	09/17/2013	12/966,710	12/13/2010	SICUN GAO ; Aarti Gupta ; Malay Ganai ; Franjo Ivancic
09058	Transmission for Half-Duplex Relay in Fading Channel and Rateless Code Configuration	8,588,112	11/19/2013	13/004,060	01/11/2011	Guosen Yue ; Xiaodong Wang
09059	On Multicast Achievable Rate Region of Deterministic Broadcast Channel	8,537,929	09/17/2013	13/004,564	01/11/2011	Mohammad Khojastepour ; Alireza Keshavarz-Haddad
09062	Data-Aware Scheduling of Heterogeneous Platforms	8,375,392	02/12/2013	12/860,694	08/20/2010	Srihari Cadambi
09064	Methods and Apparatus for Coordinated Energy Management (EM) in Virtualized Data Centers	8,402,140	03/19/2013	13/004,063	01/11/2011	Hui Zhang ; Kenji Yoshihira ; Guofei Jiang
09065	DPLL-Based SAT Solver Using with Application-Aware Branching	8,532,971	09/10/2013	12/872,797	08/31/2010	Malay Ganai
09068	Multicast Scheduling Systems and Methods for Leveraging Cooperation Gains in Relay Networks	8,537,693	09/17/2013	12/906,527	10/18/2010	Karthikeyan Sundaresan ; Sampath Rangarajan

09069	3D Convolutional Neural Networks for Human Action Recognition	8,345,984	01/01/2013	12/814,328	06/11/2010	Ming Yang ; WEI XU ; KAI YU
09070	Method and System for Customizable Flow Management in a Cellular Basestation	8,351,948	01/08/2013	13/037,445	03/01/2011	HONGHAI ZHANG ; Rajesh Mahindra ; RAVINDRANATH KOKKU ; Sampath Rangarajan
09073	Computationally-Efficient Equalization in POLMUX OFDM Transmission with Direct-Detection via Joint Transmitter and Receiver Processing	8,615,171	12/24/2013	13/077,748	03/31/2011	Ting Wang ; Neda Cvijetic ; Narayan Prasad ; Dayou Qian
09076	Modified Progressive Edge-Growth LDPC Codes for Ultra-High Speed Serial Optical Transport	8,381,065	02/19/2013	12/896,524	10/01/2010	LEI XU ; Ting Wang
09077	MIMO Transmission with Rank Adaption for Multi-Gigabit 60 GHz Wireless	8,571,127	10/29/2013	13/046,196	03/11/2011	MEILONG JIANG ; Guosen Yue
09078	COORDINATED LINEAR BEAMFORMING IN DOWNLINK MULTI-CELL WIRELESS NETWORKS	8,488,652	07/16/2013	12911416	10/25/2010	Huy-Dung Han ; Dayou Qian ; Junqiang Hu
09080	Wireless Multicasting with Beamforming Antennas	8,519,888	08/27/2013	13/046,230	03/11/2011	Sampath Rangarajan ; HONGHAI ZHANG ; Karthikeyan Sundaresan ; Yuanxi Jiang
09081	Efficient Channel Search with Energy Detection	8,611,293	12/17/2013	13/029,726	02/17/2011	YAN XIN ; Guosen Yue
09083	Systems and Methods for Determining Personal Characteristics	8,582,807	11/12/2013	12/790,979	05/31/2010	Shenghuo Zhu ; KAI YU ; Ming Yang ; FENGJUN LV
09085	Method for Source Synchronous High-Speed Signal Synchronization	8,358,726	01/22/2013	12/814,371	06/11/2010	Tyrone Kwok ; Ting Wang ; Junqiang Hu
09086	METHOD AND SYSTEM FOR IMAGE CLASSIFICATION	8,447,119	05/21/2013	12/818,156	06/18/2010	KAI YU
09087	Systems and Methods for Performing-Parallel Digital Phase-Locked-Loop	8,379,788	02/19/2013	12/818,158	06/18/2010	Junqiang Hu ; Tyrone Kwok ; Ting Wang

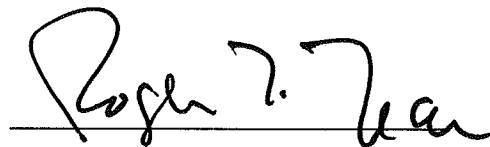
09089	ROADM Transponder Aggregator Assignment to Mitigate Crosstalk in DWDM System Without Optical Multiplexer	8,538,267	09/17/2013	12/814,904	06/14/2010	Ting Wang ; Yoshiaki Aono ; Philip Ji
09090	Systems and Methods for Blind Equalization in a Digital Receiver	8,379,785	02/19/2013	12/911,416	10/25/2010	
09092	Massively Parallel Smart Memory Based Accelerator	8,583,896	11/12/2013	12/843,579	07/26/2010	Srihari Cadambi ; ABHINANDAN MAJUMDAR
09093	Channel Estimation Methods and Systems Based on Power Measurement at Receivers	8,537,928	09/17/2013	12/901,076	10/08/2010	Sampath Rangarajan ; Karthikeyan Sundaresan ; Mohammad Khojastepour
09095	Hybrid Optical/Electrical Switching System for Data Center Networks	8,503,879	08/06/2013	12/911,491	10/25/2010	Atul Singh ; Ting Wang ; Guofei Jiang ; LEI XU ; YUEPING ZHANG
09096	System and Method for Frequency-Domain Chromatic Dispersion and Polarization Mode Dispersion Compensation with Time-Domain Channel Estimation	8,611,762	12/17/2013	12/943,574	11/10/2010	Junqiang Hu ; Ting Wang
09097	Content Addressable Storage with Reduced Latency	8,375,164	02/12/2013	12/905,223	10/15/2010	Cristian Ungureanu
09099	LT Decoding and Retransmission for Wireless Broadcast	8,539,299	09/17/2013	13/023,667	02/09/2011	Xiaodong Wang ; Guosen Yue ; MOMIN UPPAL
09100	Lock Removal in Concurrent Programs	8,612,940	12/17/2013	13/008,650	01/18/2011	CHAO WANG ; VINEET KAHLON
09102	Optimized Normalized Least Mean Square Phase Estimation	8,515,292	08/20/2013	12/938,738	11/03/2010	Shaoliang Zhang ; LEI XU ; Ting Wang
09106	Signaling of Mixture Combination Sets	8,472,554	06/25/2013	13/088,928	04/18/2011	Mohammad Khojastepour ; Sampath Rangarajan ; Narayan Prasad
09108	System and Method for Synthetic Commodity and Synthetic Legal Tender Creation	8,485,427	07/16/2013	12/904,234	10/14/2010	Martin Roetteler
10001	Power Optimization of Optical Receivers	8,600,242	12/03/2013	13/078,559	04/01/2011	Yoshiaki Aono ; Ezra Ip ; Kouichi Suzuki ; Ting Wang
10004	DISTRIBUTED ARTIFICIAL INTELLIGENCE SERVICES ON A CELL PHONE	8,463,025	06/11/2013	13/094,284	04/26/2011	Iain Melvin ; KORAY KAVUKCUOGLU ; Bing Bai ; Akshat Aranya

10006	Realtime Clothing Recognition in Surveillance Videos	8,379,920	02/19/2013	12/985,003	01/05/2011	KAI YU ; Ming Yang
10008	System and Method for Determining Application Dependency Paths in a Data Center	8,443,080	05/14/2013	13/100,805	05/04/2011	VISHAL SINGH ; Guofei Jiang ; Min Ding ; YUEPING ZHANG
10014	Method and System for Accountable Resource Allocation in Cellular and Broadband Wireless Networks	8,503,418	08/06/2013	13/152,427	06/03/2011	HONGHAI ZHANG ; Sampath Rangarajan ; Rajesh Mahindra ; RAVINDRANATH KOKKU
10016	System Positioning Services in Data Centers	8,539,060	09/17/2013	13/112,096	05/20/2011	Hui Zhang ; Guofei Jiang ; Kenji Yoshihira
10018	Reduced-Complexity LDPC Decoding	8,589,755	11/19/2013	13/114,793	05/24/2011	Ivan Djorjdevic ; Ting Wang ; LEI XU
10021	Systems and Methods for Concurrency Analysis	8,595,708	11/26/2013	13/109,998	05/18/2011	NISHANT SINHA ; CHAO WANG
10023	Intelligent Management of Virtualized Resources for Cloud Database Systems	8,359,223	01/22/2013	12/985,021	01/05/2011	Pengcheng Xiong ; Shenghuo Zhu ; Yun Chi ; Vahit Hacigumus
10027	Link Layer Multicasting Systems and Methods	8,520,764	08/27/2013	13/194,083	07/29/2011	Sampath Rangarajan ; Karthikeyan Sundaresan
10032	Reverse Concatenated Encoding and Decoding	8,595,585	11/26/2013	13/116,249	05/26/2011	Ting Wang ; Ivan Djorjdevic ; LEI XU
10033	Wideband Codebook Construction and Applications	8,494,459	07/23/2013	13/213,510	08/19/2011	Sampath Rangarajan ; Mohammad Khojastepour ; Narayan Prasad
10037	Multi-Tenant Database Management for SLA Profit Maximization	8,380,557	02/19/2013	12/985,057	01/05/2011	Junichi Tatemura ; Vahit Hacigumus ; Yun Chi
10039A	System and Methods for Finding Hidden Topics of Documents and Preference Ranking	8,521,662	08/27/2013	13/078,984	04/03/2011	XI CHEN ; Yanjun Qi ; Bing Bai
10039B	System and Methods for Finding Hidden Topics of Documents and Preference Ranking Documents	8,612,369	12/17/2013	13/083,402	04/08/2011	Yanjun Qi ; Bing Bai
10064	Selective Joint Demodulation	8,503,554	08/06/2013	12/859,453	08/19/2010	Guosen Yue ; Sampath Rangarajan ; Mohammad Khojastepour ; MEILONG JIANG ; Narayan Prasad
10069	Video Multicast Scheduling	8,537,738	09/17/2013	13/287,779	11/02/2011	Karthikeyan Sundaresan

10070	System and Method for Cloud Infrastructure Data Sharing Through a Uniform Communication Framework	8,613,004	12/17/2013	13/268,053	10/07/2011	Junichi Tatemura ; Jagan Sankaranarayanan ; Vahit Hacigumus
10072	Negotiation Tool and Method for Cloud Infrastructure Data Sharing	8,612,600	12/17/2013	13/268,074	10/07/2011	Junichi Tatemura ; Jagan Sankaranarayanan ; Vahit Hacigumus
10080	Dynamic Radial Contour Extraction by Splitting Homogeneous Areas	8,538,161	09/17/2013	13/315,487	12/09/2011	Christopher Malon ; Eric Cosatto
10097	Optical Layer Traffic Grooming in Flexible Optical Networks	8,611,743	12/17/2013	13/311,686	12/06/2011	Ting Wang ; Yoshiaki Aono ; Dayou Qian ; Ankitkumar Patel
10104	Beamforming Systems and Methods for Link Layer Multicasting	8,615,047	12/24/2013	13/194,132	07/29/2011	Sampath Rangarajan ; Mohammad Khojastepour
10109	Scalable Video Multicast with Non-Overlapping Beamforming Antennas	8,537,737	09/17/2013	13/046,258	03/11/2011	Yuanxi Jiang ; HONGHAI ZHANG ; Sampath Rangarajan
11035	LTE and LTE-Advanced UL Power Control	8,611,917	12/17/2013	13/617,766	09/14/2012	Sampath Rangarajan ; HONGHAI ZHANG ; Narayan Prasad

IN WITNESS WHEREOF, NEC Laboratories America, Inc. has executed this Assignment by a duly authorized person.

NEC Laboratories America, Inc.



Name: Roger Tran

Title: President

Date: 1/13/2014