



# IAC Patent Portfolio

**Last Updated November 2023**

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	Family No.	Country	Link	Title	Grant Date	Main Market
1	Honeywell Family 1	United States	<a href="#">7567844</a>	Building Management System	28-Jul-09	Building Management Systems
2	Honeywell Family 2	United States	<a href="#">8983670</a>	Energy consumption disaggregation system	17-Mar-15	Smart Metering
3	Honeywell Family 3	United States	<a href="#">8819018</a>	Virtual sub-metering using combined classifier	26-Aug-14	Smart Metering
4	Honeywell Family 4	United States	<a href="#">9454137</a>	System and method of large area microgrid stability	27-Sep-16	Distributed Energy Resource Management
5	Honeywell Family 5	United States	<a href="#">9836802</a>	System to Make Consumers Aware of Electricity Usage	05-Dec-17	Smart Metering
6	Honeywell Family 5	United States	<a href="#">11227345</a>	System to Make Consumers Aware of Electricity Usage	18-Jan-22	Smart Metering
7	Honeywell Family 5	United States	<a href="#">20220101457</a>	System to Make Consumers Aware of Electricity Usage	n/a	Smart Metering
8	Honeywell Family 6	United States	<a href="#">10340731</a>	System and Method for Preserving Back-up Battery for	02-Jul-19	Battery Management Systems
9	Honeywell Family 6	Europe	<a href="#">3214715</a>	System and Method for Preserving Back-up Battery for Improved Back-Up Availability	n/a	Battery Management Systems
10	Tandent Family 1	Germany	<a href="#">1977371</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	11-Dec-13	Image Processing / Computer Vision
11	Tandent Family 1	France	<a href="#">1977371</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	11-Dec-13	Image Processing / Computer Vision
12	Tandent Family 1	Great Britain	<a href="#">1977371</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	11-Dec-13	Image Processing / Computer Vision
13	Tandent Family 1	Germany	<a href="#">2546781</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	09-Nov-16	Image Processing / Computer Vision
14	Tandent Family 1	France	<a href="#">2546781</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	09-Nov-16	Image Processing / Computer Vision
15	Tandent Family 1	Great Britain	<a href="#">2546781</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	09-Nov-16	Image Processing / Computer Vision
16	Tandent Family 1	Germany	<a href="#">2752791</a>	METHOD FOR IDENTIFYING LINEAR TOKENS IN AN IMAGE	07-Aug-19	Image Processing / Computer Vision
17	Tandent Family 1	France	<a href="#">2752791</a>	METHOD FOR IDENTIFYING LINEAR TOKENS IN AN IMAGE	07-Aug-19	Image Processing / Computer Vision
18	Tandent Family 1	Great Britain	<a href="#">2752791</a>	METHOD FOR IDENTIFYING LINEAR TOKENS IN AN IMAGE	07-Aug-19	Image Processing / Computer Vision
19	Tandent Family 1	United States	<a href="#">7995058</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	09-Aug-11	Image Processing / Computer Vision
20	Tandent Family 1	Japan	<a href="#">4997252</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FIELDS IN AN IMAGE	18-May-12	Image Processing / Computer Vision
21	Tandent Family 2	Germany	<a href="#">2074557</a>	METHOD AND SYSTEM FOR LEARNING SPATIO- SPECTRAL FEATURES IN AN IMAGE	12-Nov-14	Image Processing / Computer Vision
22	Tandent Family 2	France	<a href="#">2074557</a>	METHOD AND SYSTEM FOR LEARNING SPATIO- SPECTRAL FEATURES IN AN IMAGE	12-Nov-14	Image Processing / Computer Vision
23	Tandent Family 2	Great Britain	<a href="#">2074557</a>	METHOD AND SYSTEM FOR LEARNING SPATIO- SPECTRAL FEATURES IN AN IMAGE	12-Nov-14	Image Processing / Computer Vision
24	Tandent Family 2	United States	<a href="#">7747079</a>	METHOD AND SYSTEM FOR LEARNING SPATIO- SPECTRAL FEATURES IN AN IMAGE	29-Jun-10	Image Processing / Computer Vision

	Family No.	Country	Link	Title	Grant Date	Main Market
25	Tandent Family 3	Japan	<a href="#">4857287</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FLUX IN AN IMAGE	18-Jan-12	Image Processing / Computer Vision
26	Tandent Family 3	Germany	<a href="#">1842153</a>	DIFFERENTIATION OF ILLUMINATION AND REFLECTION BOUNDARIES	01-Aug-12	Image Processing / Computer Vision
27	Tandent Family 3	France	<a href="#">1842153</a>	DIFFERENTIATION OF ILLUMINATION AND REFLECTION BOUNDARIES	01-Aug-12	Image Processing / Computer Vision
28	Tandent Family 3	Great Britain	<a href="#">1842153</a>	DIFFERENTIATION OF ILLUMINATION AND REFLECTION BOUNDARIES	01-Aug-12	Image Processing / Computer Vision
29	Tandent Family 3	Germany	<a href="#">1842154</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FLUX IN AN IMAGE	01-Aug-12	Image Processing / Computer Vision
30	Tandent Family 3	France	<a href="#">1842154</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FLUX IN AN IMAGE	01-Aug-12	Image Processing / Computer Vision
31	Tandent Family 3	Great Britain	<a href="#">1842154</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FLUX IN AN IMAGE	01-Aug-12	Image Processing / Computer Vision
32	Tandent Family 3	United States	<a href="#">7672530</a>	METHOD AND SYSTEM FOR IDENTIFYING ILLUMINATION FLUX IN AN IMAGE	02-Mar-10	Image Processing / Computer Vision
33	Tandent Family 3	United States	<a href="#">7873219</a>	DIFFERENTIATION OF ILLUMINATION AND REFLECTION BOUNDARIES	18-Jan-11	Image Processing / Computer Vision
34	Tandent Family 4	United States	<a href="#">7894662</a>	METHOD FOR USING IMAGE DEPTH INFORMATION IN IDENTIFYING ILLUMINATION FIELDS	22-Feb-11	Image Processing / Computer Vision
35	Tandent Family 4	Germany	<a href="#">2400459</a>	AUTOMATED, COMPUTERIZED IMAGE PROCESSING	27-Apr-16	Image Processing / Computer Vision
36	Tandent Family 4	France	<a href="#">2400459</a>	AUTOMATED, COMPUTERIZED IMAGE PROCESSING	27-Apr-16	Image Processing / Computer Vision
37	Tandent Family 4	Great Britain	<a href="#">2400459</a>	AUTOMATED, COMPUTERIZED IMAGE PROCESSING	27-Apr-16	Image Processing / Computer Vision
38	Tandent Family 4	United States	<a href="#">8144975</a>	METHOD FOR USING IMAGE DEPTH INFORMATION	27-Mar-12	Image Processing / Computer Vision
39	Tandent Family 4	Germany	<a href="#">2104907</a>	METHOD AND SYSTEM FOR USING IMAGE DEPTH INFORMATION	10-Jan-18	Image Processing / Computer Vision
40	Tandent Family 4	France	<a href="#">2104907</a>	METHOD AND SYSTEM FOR USING IMAGE DEPTH	10-Jan-18	Image Processing / Computer Vision
41	Tandent Family 4	Great Britain	<a href="#">2104907</a>	METHOD AND SYSTEM FOR USING IMAGE DEPTH INFORMATION	10-Jan-18	Image Processing / Computer Vision
42	Tandent Family 5	United States	<a href="#">7936377</a>	METHOD AND SYSTEM FOR OPTIMIZING AN IMAGE FOR IMPROVED ANALYSIS OF MATERIAL AND ILLUMINATION IMAGE FEATURES	03-May-11	Image Processing / Computer Vision
43	Tandent Family 6	United States	<a href="#">8319821</a>	POLARIZATION-BASED SHADOW DETECTION	27-Nov-12	Image Processing / Computer Vision
44	Tandent Family 7	Japan	<a href="#">5409627</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	05-Feb-14	Image Processing / Computer Vision
45	Tandent Family 7	Germany	<a href="#">2171645</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	24-Feb-16	Image Processing / Computer Vision
46	Tandent Family 7	France	<a href="#">2171645</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	24-Feb-16	Image Processing / Computer Vision
47	Tandent Family 7	Great Britain	<a href="#">2171645</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	24-Feb-16	Image Processing / Computer Vision

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48	Tandent Family 7	China	<a href="#">101802842</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	24-Sep-14	Image Processing / Computer Vision
49	Tandent Family 7	United States	<a href="#">8144978</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	27-Mar-12	Image Processing / Computer Vision
50	Tandent Family 8	United States	<a href="#">7760912</a>	IMAGE SEGREGATION SYSTEM WITH METHOD FOR HANDLING TEXTURES	20-Jul-10	Image Processing / Computer Vision
51	Tandent Family 9	United States	<a href="#">7995854</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	09-Aug-11	Image Processing / Computer Vision
52	Tandent Family 9	Germany	<a href="#">2263191</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	17-Jan-18	Image Processing / Computer Vision
53	Tandent Family 9	France	<a href="#">2263191</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	17-Jan-18	Image Processing / Computer Vision
54	Tandent Family 9	Great Britain	<a href="#">2263191</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	17-Jan-18	Image Processing / Computer Vision
55	Tandent Family 10	United States	<a href="#">8175390</a>	SYSTEM AND METHOD FOR ILLUMINATION INVARIANT IMAGE SEGMENTATION	08-May-12	Image Processing / Computer Vision
56	Tandent Family 11	Germany	<a href="#">2356614</a>	A CONSTRAINT GENERATOR FOR USE IN IMAGE SEGREGATION	25-Jul-18	Image Processing / Computer Vision
57	Tandent Family 11	France	<a href="#">2356614</a>	A CONSTRAINT GENERATOR FOR USE IN IMAGE SEGREGATION	25-Jul-18	Image Processing / Computer Vision
58	Tandent Family 11	Great Britain	<a href="#">2356614</a>	A CONSTRAINT GENERATOR FOR USE IN IMAGE SEGREGATION	25-Jul-18	Image Processing / Computer Vision
59	Tandent Family 11	China	<a href="#">102308306</a>	A CONSTRAINT GENERATOR FOR USE IN IMAGE SEGREGATION	03-Dec-14	Image Processing / Computer Vision
60	Tandent Family 11	Japan	<a href="#">5487212</a>	CONSTRAINT GENERATION FOR USE IN IMAGE SEGREGATION	28-Feb-14	Image Processing / Computer Vision
61	Tandent Family 11	United States	<a href="#">8139850</a>	CONSTRAINT GENERATION FOR USE IN IMAGE SEGREGATION	20-Mar-12	Image Processing / Computer Vision
62	Tandent Family 12	United States	<a href="#">8059898</a>	METHOD AND SYSTEM FOR LEARNING OBJECT RECOGNITION IN IMAGES	15-Nov-11	Image Processing / Computer Vision
63	Tandent Family 12	United States	<a href="#">7853071</a>	METHOD AND SYSTEM FOR LEARNING OBJECT RECOGNITION IN IMAGES	14-Dec-10	Image Processing / Computer Vision
64	Tandent Family 13	Republic of Korea	<a href="#">10-1913612</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	25-Oct-18	Image Processing / Computer Vision
65	Tandent Family 13	Germany	<a href="#">2638508</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	07-Jul-21	Image Processing / Computer Vision
66	Tandent Family 13	France	<a href="#">2638508</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	07-Jul-21	Image Processing / Computer Vision
67	Tandent Family 13	Great Britain	<a href="#">2638508</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	07-Jul-21	Image Processing / Computer Vision
68	Tandent Family 13	United States	<a href="#">8542917</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	24-Sep-13	Image Processing / Computer Vision
69	Tandent Family 14	United States	<a href="#">8879836</a>	SYSTEM AND METHOD FOR IDENTIFYING COMPLEX TOKENS IN AN IMAGE	04-Nov-14	Image Processing / Computer Vision
70	Tandent Family 15	United States	<a href="#">8976173</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR	10-Mar-15	Image Processing / Computer Vision
71	Tandent Family 16	United States	<a href="#">8976174</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION	10-Mar-15	Image Processing / Computer Vision

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72	Tandent Family 16	Japan	<a href="#">4910001</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION	20-Jan-12	Image Processing / Computer Vision
73	Tandent Family 16	Germany	<a href="#">1977414</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION	26-Dec-18	Image Processing / Computer Vision
74	Tandent Family 16	France	<a href="#">1977414</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION	26-Dec-18	Image Processing / Computer Vision
75	Tandent Family 16	Great Britain	<a href="#">1977414</a>	BI-ILLUMINANT DICHROMATIC REFLECTION MODEL FOR IMAGE MANIPULATION	26-Dec-18	Image Processing / Computer Vision
76	Tandent Family 17	Germany	<a href="#">2005365</a>	METHOD AND SYSTEM FOR SEPARATING ILLUMINATION AND REFLECTANCE USING A LOG COLOR SPACE	13-Jun-12	Image Processing / Computer Vision
77	Tandent Family 17	France	<a href="#">2005365</a>	METHOD AND SYSTEM FOR SEPARATING ILLUMINATION AND REFLECTANCE USING A LOG COLOR SPACE	13-Jun-12	Image Processing / Computer Vision
78	Tandent Family 17	Great Britain	<a href="#">2005365</a>	METHOD AND SYSTEM FOR SEPARATING ILLUMINATION AND REFLECTANCE USING A LOG COLOR SPACE	13-Jun-12	Image Processing / Computer Vision
79	Tandent Family 17	United States	<a href="#">7596266</a>	METHOD AND SYSTEM FOR SEPARATING ILLUMINATION AND REFLECTANCE USING A LOG COLOR SPACE	29-Sep-09	Image Processing / Computer Vision
80	Tandent Family 18	United States	<a href="#">7865031</a>	METHOD AND SYSTEM FOR AUTOMATIC CORRECTION	04-Jan-11	Image Processing / Computer Vision
81	Tandent Family 19	United States	<a href="#">7672537</a>	METHOD AND SYSTEM FOR IMPROVED DETECTION OF MATERIAL REFLECTANCES IN AN IMAGE	02-Mar-10	Image Processing / Computer Vision
82	Tandent Family 20	Germany	<a href="#">2425377</a>	IMPROVED METHOD FOR IMAGE MODIFICATION	17-Aug-16	Image Processing / Computer Vision
83	Tandent Family 20	France	<a href="#">2425377</a>	IMPROVED METHOD FOR IMAGE MODIFICATION	17-Aug-16	Image Processing / Computer Vision
84	Tandent Family 20	Great Britain	<a href="#">2425377</a>	IMPROVED METHOD FOR IMAGE MODIFICATION	17-Aug-16	Image Processing / Computer Vision
85	Tandent Family 20	Japan	<a href="#">5998049</a>	AUTOMATED, COMPUTERIZED METHOD FOR PROCESSING AN IMAGE, AND COMPUTER PROGRAM FOR IMPLEMENTING SUCH A METHOD	02-Sep-16	Image Processing / Computer Vision
86	Tandent Family 20	United States	<a href="#">8391601</a>	METHOD FOR IMAGE MODIFICATION	05-Mar-13	Image Processing / Computer Vision
87	Tandent Family 20	United States	<a href="#">10043249</a>	METHOD FOR IMAGE MODIFICATION	07-Aug-18	Image Processing / Computer Vision
88	Tandent Family 20	United States	<a href="#">8805066</a>	METHOD, SYSTEM AND COMPUTER PROGRAM PRODUCT FOR IMAGE MODIFICATION AND MANIPULATION OF A SCENE	12-Aug-14	Image Processing / Computer Vision
89	Tandent Family 21	United States	<a href="#">8787662</a>	METHOD AND SYSTEM FOR IDENTIFYING TOKENS IN AN IMAGE	22-Jul-14	Image Processing / Computer Vision
90	Tandent Family 22	United States	<a href="#">8577150</a>	SYSTEM AND METHOD FOR REMOVING SPECULARITY	05-Nov-13	Image Processing / Computer Vision
91	Tandent Family 23	United States	<a href="#">8655102</a>	METHOD AND SYSTEM FOR IDENTIFYING TOKENS IN AN IMAGE	18-Feb-14	Image Processing / Computer Vision
92	Tandent Family 24	United States	<a href="#">9053537</a>	CLASSIFIER FOR USE IN GENERATING A DIFFUSE IMAGE	09-Jun-15	Image Processing / Computer Vision

	Family No.	Country	Link	Title	Grant Date	Main Market
93	Tandent Family 25	United States	<a href="#">7639874</a>	METHODS FOR DISCRIMINATING MOVING OBJECTS IN MOTION IMAGE SEQUENCES	29-Dec-09	Image Processing / Computer Vision
94	Tandent Family 25	United States	<a href="#">7760942</a>	METHODS FOR DISCRIMINATING MOVING OBJECTS IN MOTION IMAGE SEQUENCES	20-Jul-10	Image Processing / Computer Vision
95	Tandent Family 26	United States	<a href="#">8260050</a>	TEST BED FOR OPTIMIZING AN IMAGE SEGREGATION	04-Sep-12	Image Processing / Computer Vision
96	Tandent Family 27	United States	<a href="#">8139867</a>	IMAGE SEGREGATION SYSTEM ARCHITECTURE	20-Mar-12	Image Processing / Computer Vision
97	Tandent Family 28	Germany	<a href="#">2435956</a>	MULTI-RESOLUTION ANALYSIS IN AN IMAGE SEGREGATION	06-Mar-19	Image Processing / Computer Vision
98	Tandent Family 28	France	<a href="#">2435956</a>	MULTI-RESOLUTION ANALYSIS IN AN IMAGE SEGREGATION	06-Mar-19	Image Processing / Computer Vision
99	Tandent Family 28	Great Britain	<a href="#">2435956</a>	MULTI-RESOLUTION ANALYSIS IN AN IMAGE SEGREGATION	06-Mar-19	Image Processing / Computer Vision
100	Tandent Family 28	United States	<a href="#">8478029</a>	MULTI-RESOLUTION ANALYSIS IN IMAGE SEGREGATION	02-Jul-13	Image Processing / Computer Vision
101	Tandent Family 29	United States	<a href="#">8346022</a>	SYSTEM AND METHOD FOR GENERATING AN INTRINSIC IMAGE USING TONE MAPPING AND LOG CHROMATICITY	01-Jan-13	Image Processing / Computer Vision
102	Tandent Family 30	United States	<a href="#">9563815</a>	METHOD AND SYSTEM FOR PROCESSING AN IMAGE RECEIVED FROM A REMOTE SOURCE	07-Feb-17	Image Processing / Computer Vision
103	Tandent Family 31	United States	<a href="#">8311338</a>	METHOD AND SYSTEM FOR LEARNING A SAME- MATERIAL CONSTRAINT IN AN IMAGE	13-Nov-12	Image Processing / Computer Vision
104	Tandent Family 31	United States	<a href="#">8600169</a>	METHOD AND SYSTEM FOR LEARNING A SAME-	03-Dec-13	Image Processing / Computer Vision
105	Tandent Family 32	Germany	<a href="#">2333720</a>	SYSTEM AND METHOD FOR DETECTION OF SPECULARITY IN AN IMAGE	05-Mar-14	Image Processing / Computer Vision
106	Tandent Family 32	France	<a href="#">2333720</a>	SYSTEM AND METHOD FOR DETECTION OF SPECULARITY IN AN IMAGE	05-Mar-14	Image Processing / Computer Vision
107	Tandent Family 32	Great Britain	<a href="#">2333720</a>	SYSTEM AND METHOD FOR DETECTION OF SPECULARITY IN AN IMAGE	05-Mar-14	Image Processing / Computer Vision
108	Tandent Family 32	United States	<a href="#">8577135</a>	SYSTEM AND METHOD FOR DETECTION OF SPECULARITY IN AN IMAGE	05-Nov-13	Image Processing / Computer Vision
109	Tandent Family 33	United States	<a href="#">9396411</a>	METHOD AND SYSTEM FOR GENERATING INTRINSIC IMAGES USING A SINGLE REFLECTANCE TECHNIQUE	19-Jul-16	Image Processing / Computer Vision
110	Tandent Family 33	United States	<a href="#">8385655</a>	METHOD AND SYSTEM FOR GENERATING INTRINSIC IMAGES USING SINGLE REFLECTANCE TECHNIQUE	26-Feb-13	Image Processing / Computer Vision
111	Tandent Family 34	United States	<a href="#">8483480</a>	METHOD AND SYSTEM FOR FACTORING AN ILLUMINATION IMAGE	09-Jul-13	Image Processing / Computer Vision
112	Tandent Family 35	United States	<a href="#">8452109</a>	IMAGE SEGREGATION SYSTEM WITH METHOD FOR HANDLING TEXTURES	28-May-13	Image Processing / Computer Vision
113	Tandent Family 36	United States	<a href="#">9760799</a>	PIPELINE FOR GENERATING AN INTRINSIC IMAGE	12-Sep-17	Image Processing / Computer Vision
114	Tandent Family 37	United States	<a href="#">8798392</a>	METHOD AND SYSTEM FOR GENERATING INTRINSIC IMAGES USING A SMOOTH ILLUMINATION CONSTRAINT	05-Aug-14	Image Processing / Computer Vision

	Family No.	Country	Link	Title	Grant Date	Main Market
115	Tandent Family 38	Japan	<a href="#">5914688</a>	COLOR ANALYTICS FOR A DIGITAL IMAGE	08-Apr-16	Image Processing / Computer Vision
116	Tandent Family 38	United States	<a href="#">8249342</a>	COLOR ANALYTICS FOR A DIGITAL IMAGE	21-Aug-12	Image Processing / Computer Vision
117	Tandent Family 39	United States	<a href="#">8655099</a>	RELATIONSHIP MAINTENANCE IN AN IMAGE PROCESS	18-Feb-14	Image Processing / Computer Vision
118	Tandent Family 40	United States	<a href="#">8582873</a>	USE OF AN OBJECT DATABASE IN AN IMAGE PROCESS	12-Nov-13	Image Processing / Computer Vision
119	Tandent Family 41	Japan	<a href="#">6047561</a>	METHOD, COMPUTER SYSTEM AND COMPUTER PROGRAM FOR PROCESSING MULTIPLE IMAGES OF A SAME SCENE	25-Nov-16	Image Processing / Computer Vision
120	Tandent Family 41	United States	<a href="#">9230332</a>	METHOD FOR PROCESSING MULTIPLE IMAGES OF A SAME SCENE	05-Jan-16	Image Processing / Computer Vision
121	Tandent Family 41	United States	<a href="#">8606050</a>	METHOD FOR PROCESSING MULTIPLE IMAGES OF A SAME SCENE	10-Dec-13	Image Processing / Computer Vision
122	Tandent Family 42	United States	<a href="#">8693772</a>	SYSTEM AND METHOD FOR DIGITAL IMAGE SIGNAL COMPRESSION USING INTRINSIC IMAGES	08-Apr-14	Image Processing / Computer Vision
123	Tandent Family 42	United States	<a href="#">8879849</a>	SYSTEM AND METHOD FOR DIGITAL IMAGE SIGNAL COMPRESSION USING INTRINSIC IMAGES	04-Nov-14	Image Processing / Computer Vision
124	Tandent Family 43	United States	<a href="#">8428352</a>	POST PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	23-Apr-13	Image Processing / Computer Vision
125	Tandent Family 44	United States	<a href="#">8437545</a>	SYSTEM AND METHOD FOR DIGITAL IMAGE SIGNAL COMPRESSION USING INTRINSIC IMAGES	07-May-13	Image Processing / Computer Vision
126	Tandent Family 45	Germany	<a href="#">2776979</a>	POST PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	26-Dec-18	Image Processing / Computer Vision
127	Tandent Family 45	France	<a href="#">2776979</a>	POST PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	26-Dec-18	Image Processing / Computer Vision
128	Tandent Family 45	Great Britain	<a href="#">2776979</a>	POST PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	26-Dec-18	Image Processing / Computer Vision
129	Tandent Family 45	Japan	<a href="#">5860970</a>	POST-PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	25-Dec-15	Image Processing / Computer Vision
130	Tandent Family 45	United States	<a href="#">8553979</a>	POST PROCESSING FOR IMPROVED GENERATION OF	08-Oct-13	Image Processing / Computer Vision
131	Tandent Family 46	United States	<a href="#">8559714</a>	POST PROCESSING FOR IMPROVED GENERATION OF INTRINSIC IMAGES	15-Oct-13	Image Processing / Computer Vision
132	Tandent Family 47	United States	<a href="#">9330337</a>	COLOR ANALYTICS FOR A DIGITAL IMAGE	03-May-16	Image Processing / Computer Vision
133	Tandent Family 47	United States	<a href="#">8787666</a>	COLOR ANALYTICS FOR A DIGITAL IMAGE	22-Jul-14	Image Processing / Computer Vision
134	Tandent Family 48	United States	<a href="#">8913829</a>	AUTOMATIC PROCESSING SCALE ESTIMATION FOR USE IN AN IMAGE PROCESS	16-Dec-14	Image Processing / Computer Vision
135	Tandent Family 49	United States	<a href="#">8842907</a>	METHOD FOR PERFORMING A MULTI-CLUSTERING MERGE FOR USE IN AN IMAGE PROCESS	23-Sep-14	Image Processing / Computer Vision
136	Tandent Family 50	United States	<a href="#">8811732</a>	WEIGHTED ENTROPY MINIMIZATION FOR OPTIMIZING A LOG-CHROMATICITY NORMAL FOR USE IN AN IMAGE PROCESS	19-Aug-14	Image Processing / Computer Vision

	Family No.	Country	Link	Title	Grant Date	Main Market
137	Tandent Family 51	United States	<a href="#">8983183</a>	SPATIALLY VARYING LOG-CHROMATICITY NORMALS FOR USE IN AN IMAGE PROCESS	17-Mar-15	Image Processing / Computer Vision
138	Tandent Family 51	United States	<a href="#">8842910</a>	SPATIALLY VARYING LOG-CHROMATICITY NORMALS FOR USE IN AN IMAGE PROCESS	23-Sep-14	Image Processing / Computer Vision
139	Tandent Family 52	United States	<a href="#">8849018</a>	LOG-CHROMATICITY CLUSTERING PIPELINE FOR USE IN AN IMAGE PROCESS	30-Sep-14	Image Processing / Computer Vision
140	Tandent Family 53	United States	<a href="#">8934735</a>	ORIENTED, SPATIO-SPECTRAL ILLUMINATION CONSTRAINTS FOR USE IN AN IMAGE PROCESS	13-Jan-15	Image Processing / Computer Vision
141	Tandent Family 54	United States	<a href="#">9158989</a>	COLOR PURE SCALE-SPACED PYRAMID ARRANGEMENT FOR USE IN AN IMAGE SEGREGATION	13-Oct-15	Image Processing / Computer Vision
142	Tandent Family 55	United States	<a href="#">9361700</a>	CONSTRAINT RELATIONSHIP FOR USE IN AN IMAGE SEGREGATION	07-Jun-16	Image Processing / Computer Vision
143	Tandent Family 55	United States	<a href="#">9542614</a>	CONSTRAINT RELATIONSHIP FOR USE IN AN IMAGE SEGREGATION	10-Jan-17	Image Processing / Computer Vision
144	Tandent Family 56	United States	<a href="#">8897378</a>	SELECTIVE PERCEPTUAL MASKING VIA SCALE SEPARATION IN THE SPATIAL AND TEMPORAL DOMAINS USING INTRINSIC IMAGES FOR USE IN DATA COMPRESSION	25-Nov-14	Image Processing / Computer Vision
145	Tandent Family 57	United States	<a href="#">9158973</a>	TEMPORAL CONSTRAINT RELATIONSHIP FOR USE IN AN IMAGE SEGREGATION FOR FRAMES OF A VIDEO	13-Oct-15	Image Processing / Computer Vision
146	Tandent Family 58	United States	<a href="#">9218534</a>	METHOD AND SYSTEM FOR CLASSIFYING PAINTED ROAD MARKINGS IN AN AUTOMOTIVE DRIVER-VEHICLE- ASSISTANCE DEVICE	22-Dec-15	Image Processing / Computer Vision
147	Tandent Family 58	United States	<a href="#">9466005</a>	METHOD AND SYSTEM FOR CLASSIFYING PAINTED ROAD MARKINGS IN AN AUTOMOTIVE DRIVER-VEHICLE- ASSISTANCE DEVICE	11-Oct-16	Image Processing / Computer Vision
148	Tandent Family 58	United States	<a href="#">10032088</a>	METHOD AND SYSTEM FOR CLASSIFYING PAINTED ROAD MARKINGS IN AN AUTOMOTIVE DRIVER-VEHICLE- ASSISTANCE DEVICE	24-Jul-18	Image Processing / Computer Vision
149	Tandent Family 59	United States	<a href="#">9361527</a>	METHOD AND SYSTEM FOR CLASSIFYING PAINTED ROAD MARKINGS IN AN AUTOMOTIVE DRIVER-VEHICLE- ASSISTANCE DEVICE	07-Jun-16	Image Processing / Computer Vision
150	Tandent Family 60	United States	<a href="#">9875415</a>	METHOD AND SYSTEM FOR CLASSIFYING PAINTED ROAD MARKINGS IN AN AUTOMOTIVE DRIVER-VEHICLE- ASSISTANCE DEVICE	23-Jan-18	Image Processing / Computer Vision
151	Tandent Family 61	United States	<a href="#">8194975</a>	USE OF AN INTRINSIC IMAGE IN FACE RECOGNITION	05-Jun-12	Image Processing / Computer Vision
152	Tandent Family 62	United States	<a href="#">9754155</a>	METHOD AND SYSTEM FOR GENERATING INTRINSIC IMAGES USING A SINGLE REFLECTANCE TECHNIQUE	05-Sep-17	Image Processing / Computer Vision
153	Bosch Family 1	United States	<a href="#">9831690</a>	Method and device for balancing electrical voltages in electrical accumulator units	28-Nov-17	EV and EV charging
154	Bosch Family 2	China	<a href="#">102812608</a>	Method and apparatus for recording electrical consumption and production	17-Jun-15	Distributed Energy Resource Management Systems (DERMS) and Microgrid
155	Bosch Family 2	Germany	<a href="#">2548276</a>	Method and apparatus for recording electrical consumption and production	13-Nov-13	DERMS and Microgrid

	Family No.	Country	Link	Title	Grant Date	Main Market
156	Bosch Family 2	Spain	<a href="#">2436653</a>	Procedure and device for recording consumption and electricity generation	03-Jan-14	DERMS and Microgrid
157	Bosch Family 2	France	<a href="#">2548276</a>	Method and apparatus for recording electrical consumption and production	13-Nov-13	DERMS and Microgrid
158	Bosch Family 2	India	n/a	Method and apparatus for recording electrical consumption and production	27-Feb-20	DERMS and Microgrid
159	Bosch Family 2	Italy	<a href="#">2548276</a>	Method and apparatus for recording electrical consumption and production	13-Nov-13	DERMS and Microgrid
160	Bosch Family 2	United States	<a href="#">9903893</a>	Method and device for registering electrical consumption and generation	27-Feb-18	DERMS and Microgrid
161	Bosch Family 3	United States	<a href="#">9937810</a>	Charging and discharging of dc microgrid energy storage outage	10-Apr-18	DERMS and Microgrid
162	Bosch Family 3	United States	<a href="#">10020656</a>	Emergency load management using a DC microgrid during grid outage	10-Jul-18	DERMS and Microgrid
163	Ciena Family 1	United States	<a href="#">8116308</a>	System and method for providing improved packet traceability	14-Feb-12	Data Networking: Routers & Switches
164	Ciena Family 2	United States	<a href="#">9628340</a>	Proactive operations, administration, and maintenance systems and methods in networks using data analytics	18-Apr-17	Data Networking: Network Analytics Tools
165	SAP Family 1	United States	<a href="#">9923893</a>	Simplified IoT services for cloud environments	20-Mar-18	IoT Device Management