Index	Name	Meaning	Туре
0	label	Label for classification e.g. of fire and not fire, defined for frame $i^{th}$ , label( $i$ )	nominal
1	iVecCount	Amount of vector found in frame $i^{th}$ , iVecCount( $i$ )	int
2	dRadius	Average radius (length/velocity) of vectors found in frame <i>i</i> <sup>th</sup> , denoted as dRadius( <i>i</i> )	double
3	dCohIndex	Motion coherence index found in frame $i^{th}$ , dCohIndex(i)	double
4	vardRadius	Absolute difference of two average radius in two consecutive frames, calculated by abs( dRadius( $i^{th}$ -1) - dRadius( $i^{th}$ ))	double
5	vardCohIndex	Absolute difference of two coherence indices in two consecutive frames, calculated by abs( dCohIndex( <i>i</i> <sup>th</sup> -1) - dCohIndex( <i>i</i> <sup>th</sup> ))	double
6	d_varRad	The standardization of vector radius $(Z_r(i^{th}))$ $Z = \frac{x - \mu}{\sigma}$ is calculated by $d_{\text{varRad}}(i^{th}) = (d\text{Radius}(i^{th}) - d_{\text{AvgRadius}_N}) / d_{\text{StdRad}_N}$ , where the $d_{\text{AvgRadius}_N}$ was calculated from the prior 30 frames $(N=30)$ found before 360 recorded frames in a series of dataset, and $d_{\text{StdRad}_N}$ is standard deviation $(\sigma)$ of radius of samples $(N=30)$ samples) $\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^{N} (x_i - \mu)^2}, \text{ where } \mu = \frac{1}{N} \sum_{i=1}^{N} x_i.$	double

7		The standardization of motion coherence $(Z_c(i^{th}))$ $Z=rac{x-\mu}{\sigma}$	
		is calculated by $d_{var}Coh(i^{th}) = (dCohIndex(i^{th}) - d_{Avg}Coh_N) / d_{Std}Coh_N$ , where the $d_{Avg}Coh_N$ was calculated from the prior 30 frames ( $N$ =30) found before 360 recorded frames in a series of dataset, and $d_{Std}Coh_N$ is standard deviation ( $\sigma$ ) of motion coherence index of samples ( $N$ = 30 samples)	
	d_varCoh	$\sigma = \sqrt{rac{1}{N}\sum_{i=1}^{N}(x_i-\mu)^2},  ext{ where } \mu = rac{1}{N}\sum_{i=1}^{N}x_i.$	double
8	dCos	Average of Cosine value of vectors found in frame $i^{th}$	double
9	dSin	Average of Sine value of vectors found in frame $i^{th}$	double
10	ia5Radius_v0	1 <sup>st</sup> highest radius value frequently max(ROI(Vr)) found in frame <i>i</i> <sup>th</sup>	int
11	ia5Radius_v1	$2^{\text{nd}}$ highest radius value frequently max(ROI(Vr)) found in frame $i^{th}$	int
12	ia5Radius_v2	$3^{rd}$ highest radius value frequently max(ROI(Vr)) found in frame $i^{th}$	int
13	ia5Radius_v3	$4^{th}$ highest radius value frequently $max(ROI(Vr))$ found in frame $i^{th}$	int
14	ia5Radius_v4	5 <sup>th</sup> highest radius value frequently max(ROI(Vr)) found in frame <i>i</i> <sup>th</sup>	int
15	ia5Radius_f0	frequency of 1 <sup>st</sup> high radius value frequently mode(ROI(Vr)) found in frame $i^{th}$	int
16	ia5Radius_f1	frequency of $2^{nd}$ high radius value frequently mode(ROI(Vr)) found in frame $i^{th}$	int

17	ia5Radius_f2	frequency of $3^{rd}$ high radius value frequently mode(ROI(Vr)) found in frame $i^{th}$	int
18	ia5Radius_f3	frequency of 4 <sup>th</sup> high radius value frequently mode(ROI(Vr)) found in frame <i>i</i> <sup>th</sup>	int
19	ia5Radius_f4	frequency of 5 <sup>th</sup> high radius value frequently mode(ROI(Vr)) found in frame <i>i</i> <sup>th</sup>	int
20	da5Radius_%0	% frequency of $1^{st}$ radius value in top 5 found in frame $i^{th}$	double
21	da5Radius_%1	% frequency of $2^{nd}$ radius value in top 5 found in frame $i^{th}$	double
22	da5Radius_%2	% frequency of $3^{rd}$ radius value in top 5 found in frame $i^{th}$	double
23	da5Radius_%3	% frequency of $4^{th}$ radius value in top 5 found in frame $i^{th}$	double
24	da5Radius_%4	% frequency of 5 <sup>th</sup> radius value in top 5, where sum of da5Radius_% $j$ , $j$ = 0, 1, 2, 3, 4, is equal to 100, found in frame $i$ <sup>th</sup>	double
25	da5Degree_v0	1 <sup>st</sup> high degree of angle of vectors, frequently max(ROI(Va)) found in frame <i>i</i> <sup>th</sup>	double
26	da5Degree_v1	$2^{\text{nd}}$ high degree of angle of vectors, frequently max(ROI(Va)) found in frame $i^{th}$	double
27	da5Degree_v2	$3^{rd}$ high degree of angle of vectors, frequently max(ROI(Va)) found in frame $i^{th}$	double
28	da5Degree_v3	$4^{th}$ high degree of angle of vectors, frequently max(ROI(Va)) found in frame $i^{th}$	double
29	da5Degree_v4	5 <sup>th</sup> high degree of angle of vectors, frequently max(ROI(Va)) found in frame <i>i</i> <sup>th</sup>	double
30	da5Degree_f0	frequency of 1 <sup>st</sup> high degree value mode(ROI(Va)) found in frame <i>i</i> <sup>th</sup>	double

31	da5Degree_f1	frequency of $2^{nd}$ high degree value mode(ROI(Va)) found in frame $i^{th}$	double
32	da5Degree_f2	frequency of $3^{rd}$ high degree value mode(ROI(Va)) found in frame $i^{th}$	double
33	da5Degree_f3	frequency of 4 <sup>th</sup> high degree value mode(ROI(Va)) found in frame $i^{th}$	double
34	da5Degree_f4	frequency of 5 <sup>th</sup> high degree value mode(ROI(Va)) found in frame <i>i</i> <sup>th</sup>	double
35	da5Degree_%0	% frequency of $1^{st}$ high degree in top 5 found in frame $i^{th}$	double
36	da5Degree_%1	% frequency of $2^{nd}$ high degree in top 5 found in frame $i^{th}$	double
37	da5Degree_%2	% frequency of $3^{rd}$ high degree in top 5 found in frame $i^{th}$	double
38	da5Degree_%3	% frequency of $4^{th}$ high degree in top 5 found in frame $i^{th}$	double
39	da5Degree_%4	% frequency of 5 <sup>th</sup> high degree in top 5, where sum of da5Degree_% $j$ , $j$ = 0, 1, 2, 3, 4, is equal to 100 found in frame $i$ <sup>th</sup>	double
40	iRGBTotal	Amount of pursued pixels (collected from SBs) found in frame $i^{th}$	int
41	iRMean	Average of red amount calculated from pursued pixels found in frame <i>i</i> <sup>th</sup>	int
42	iGMean	Average of green amount calculated from pursued pixels found in frame $i^{th}$	int
43	iBMean	Average of blue amount calculated from pursued pixels found in frame $i^{th}$	int
44	d_luminance	Average of luminance d_luminance = 0.299*iRMean + 0.587*iGMean + 0.114*iBMean found in frame <i>i</i> <sup>th</sup>	double

45	ia5R_v0	$1^{st}$ high value of red max(ROI(R)) found in frame $i^{th}$	int
46	ia5R_v1	$2^{\text{nd}}$ high value of red max(ROI(R)) found in frame $i^{th}$	int
47	ia5R_v2	$3^{rd}$ high value of red max(ROI(R)) found in frame $i^{th}$	int
48	ia5R_v3	$4^{th}$ high value of red max(ROI(R)) found in frame $i^{th}$	int
49	ia5R_v4	$5^{th}$ high value of red max(ROI(R)) found in frame $i^{th}$	int
50	ia5R_f0	frequency of 1 <sup>st</sup> high value of red mode(ROI(R)) found in frame <i>i</i> <sup>th</sup>	int
51	ia5R_f1	frequency of 2 <sup>nd</sup> high value of red mode(ROI(R)) found in frame <i>i</i> <sup>th</sup>	int
52	ia5R_f2	frequency of $3^{rd}$ high value of red mode(ROI(R)) found in frame $i^{th}$	int
53	ia5R_f3	frequency of 4 <sup>th</sup> high value of red mode(ROI(R)) found in frame <i>i</i> <sup>th</sup>	int
54	ia5R_f4	frequency of 5 <sup>th</sup> high value of red mode(ROI(R)) found in frame <i>i</i> <sup>th</sup>	int
55	ia5R_%0	% frequency of $1^{st}$ high value of red found in frame $i^{th}$	int
56	ia5R_%1	% frequency of $2^{nd}$ high value of red found in frame $i^{th}$	int
57	ia5R_%2	% frequency of $3^{rd}$ high value of red found in frame $i^{th}$	int
58	ia5R_%3	% frequency of $4^{th}$ high value of red found in frame $i^{th}$	int
59	ia5R_%4	% frequency of 5 <sup>th</sup> high value of red found in frame $i^{th}$	int

60	ia5G_v0	$1^{st}$ high value of green max(ROI(G)) found in frame $i^{th}$	int
61	ia5G_v1	$2^{\text{nd}}$ high value of green max(ROI(G)) found in frame $i^{th}$	int
62	ia5G_v2	$3^{rd}$ high value of green max(ROI(G)) found in frame $i^{th}$	int
63	ia5G_v3	$4^{th}$ high value of green max(ROI(G)) found in frame $i^{th}$	int
64	ia5G_v4	5 <sup>th</sup> high value of green max(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
65	ia5G_f0	frequency of 1 <sup>st</sup> high value of green mode(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
66	ia5G_f1	frequency of 2 <sup>nd</sup> high value of green mode(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
67	ia5G_f2	frequency of 3 <sup>rd</sup> high value of green mode(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
68	ia5G_f3	frequency of 4 <sup>th</sup> high value of green mode(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
69	ia5G_f4	frequency of 5 <sup>th</sup> high value of green mode(ROI(G)) found in frame <i>i</i> <sup>th</sup>	int
70	ia5G_%0	% frequency $1^{st}$ high value of green found in frame $i^{th}$	int
71	ia5G_%1	% frequency of $2^{nd}$ high value of green found in frame $i^{th}$	int
72	ia5G_%2	% frequency of $3^{rd}$ high value of green found in frame $i^{th}$	int
73	ia5G_%3	% frequency of $4^{th}$ high value of green found in frame $i^{th}$	int
74	ia5G_%4	% frequency of $5^{th}$ high value of green found in frame $i^{th}$	int

75	ia5B_v0	1 <sup>st</sup> high value of blue max(ROI(B)) found in frame $i^{th}$	int
76	ia5B_v1	$2^{\text{nd}}$ high value of blue max(ROI(B)) found in frame $i^{th}$	int
77	ia5B_v2	$3^{rd}$ high value of blue max(ROI(B)) found in frame $i^{th}$	int
78	ia5B_v3	$4^{th}$ high value of blue max(ROI(B)) found in frame $i^{th}$	int
79	ia5B_v4	$5^{th}$ high value of blue max(ROI(B)) found in frame $i^{th}$	int
80	ia5B_f0	frequency of 1 <sup>st</sup> high value of blue mode(ROI(B)) found in frame <i>i</i> <sup>th</sup>	int
81	ia5B_f1	frequency of 2 <sup>nd</sup> high value of blue mode(ROI(B)) found in frame <i>i</i> <sup>th</sup>	int
82	ia5B_f2	frequency of 3 <sup>rd</sup> high value of blue mode(ROI(B)) found in frame <i>i</i> <sup>th</sup>	int
83	ia5B_f3	frequency of 4 <sup>th</sup> high value of blue mode(ROI(B)) found in frame <i>i</i> <sup>th</sup>	int
84	ia5B_f4	frequency of 5 <sup>th</sup> high value of blue mode(ROI(B)) found in frame <i>i</i> <sup>th</sup>	int
85	ia5B_%0	% frequency of $1^{st}$ high value of blue found in frame $i^{th}$	int
86	ia5B_%1	% frequency of $2^{nd}$ high value of blue found in frame $i^{th}$	int
87	ia5B_%2	% frequency of $3^{rd}$ high value of blue found in frame $i^{th}$	int
88	ia5B_%3	% frequency of $4^{th}$ high value of blue found in frame $i^{th}$	int
89	ia5B_%4	% frequency of $5^{th}$ high value of blue found in frame $i^{th}$	int