CONDUÇÃO DA REVISÃO SISTEMÁTICA

Fonte: Portal ACM (http://dl.acm.org/)

Data de busca: 12/05/2015

Palavras-chave utilizadas: face recognition, face detection, face tracking, low resolution, surveillance camera, illumination invariance, pose invariant, person recognition.

String utilizada: ((face recognition OR face detection OR face tracking OR person recognition) AND (low resolution OR surveillance camera) AND (illumination invariance OR pose invariant))

Total de artigos encontrados: 77

Total de artigos incluídos: 9

Organização dos artigos encontrados: Os artigos encontrados foram catalogados com o auxilio do software *Zotero*, e a utilização do padrão bibliográfico "*ACM SIGCHI Proceedings*" (2016)".

Lista de artigos encontrados:

[1] Abdelkader, M.F., Roy-Chowdhury, A.K., Chellappa, R. and Akdemir, U. 2008. Activity Representation Using 3D Shape Models. *J. Image Video Process.* 2008, (Jan. 2008), 5:1–5:16.

[2] Aggarwal, J.K. and Ryoo, M.S. 2011. Human Activity Analysis: A Review. *ACM Comput. Surv.* 43, 3 (Apr. 2011), 16:1–16:43.

[3] Arandjelović, O. and Cipolla, R. 2013. Achieving Robust Face Recognition from Video by Combining a Weak Photometric Model and a Learnt Generic Face Invariant. *Pattern Recogn.* 46, 1 (Jan. 2013), 9–23.

[4] Arandjelović, O. and Cipolla, R. 2009. A Pose-wise Linear Illumination Manifold Model for Face Recognition Using Video. *Comput. Vis. Image Underst.* 113, 1 (Jan. 2009), 113–125.

[5] Arandjelović, O. and Cipolla, R. 2006. Face Recognition from Video Using the Generic Shape-illumination Manifold. *Proceedings of the 9th European Conference on Computer Vision - Volume Part IV* (Berlin, Heidelberg, 2006), 27–40.

[6] Arandjelović, O., Hammoud, R. and Cipolla, R. 2010. Thermal and Reflectance Based Personal Identification Methodology Under Variable Illumination. *Pattern Recogn.* 43, 5 (May 2010), 1801–1813.

- [7] B\$#261;k, S., Charpiat, G., Corvée, E., Brémond, F. and Thonnat, M. 2012. Learning to Match Appearances by Correlations in a Covariance Metric Space. *Proceedings of the 12th European Conference on Computer Vision Volume Part III* (Berlin, Heidelberg, 2012), 806–820.
- [8] Baltieri, D., Vezzani, R. and Cucchiara, R. 2015. Mapping Appearance Descriptors on 3D Body Models for People Re-identification. *Int. J. Comput. Vision.* 111, 3 (Feb. 2015), 345–364.
- [9] Bazzani, L., Cristani, M. and Murino, V. 2013. Symmetry-driven Accumulation of Local Features for Human Characterization and Re-identification. *Comput. Vis. Image Underst.* 117, 2 (Feb. 2013), 130–144.
- [10] Bedagkar-Gala, A. and Shah, S.K. 2012. Part-based Spatio-temporal Model for Multiperson Re-identification. *Pattern Recogn. Lett.* 33, 14 (Oct. 2012), 1908–1915.
- [11] Bicego, M., Grosso, E., Lagorio, A., Brelstaff, G., Brodo, L. and Tistarelli, M. 2008. Distinctiveness of Faces: A Computational Approach. *ACM Trans. Appl. Percept.* 5, 2 (May 2008), 11:1–11:18.
- [12] Bk, S., CorvéE, E., BréMond, F. and Thonnat, M. 2012. Boosted Human Re-identification Using Riemannian Manifolds. *Image Vision Comput.* 30, 6-7 (Jun. 2012), 443–452.
- [13] Bregonzio, M., Xiang, T. and Gong, S. 2012. Fusing Appearance and Distribution Information of Interest Points for Action Recognition. *Pattern Recogn.* 45, 3 (Mar. 2012), 1220–1234.
- [14] Cantoni, V., Levialdi, S. and Zavidovique, B. 2011. *3C Vision: Cues, Context and Channels*. Elsevier Science Publishers B. V.
- [15] Celik, H., Hanjalic, A. and Hendriks, E.A. 2009. Unsupervised and Simultaneous Training of Multiple Object Detectors from Unlabeled Surveillance Video. *Comput. Vis. Image Underst.* 113, 10 (Oct. 2009), 1076–1094.
- [16] Cheddad, A., Mohamad, D. and Manaf, A.A. 2008. Exploiting Voronoi Diagram Properties in Face Segmentation and Feature Extraction. *Pattern Recogn.* 41, 12 (Dec. 2008), 3842–3859.
- [17] Chellappa, R., Sankaranarayanan, A.C., Veeraraghavan, A. and Turaga, P. 2010.

- Statistical Methods and Models for Video-Based Tracking, Modeling, and Recognition. *Found. Trends Signal Process.* 3, 1–2 (Jan. 2010), 1–151.
- [18] Chen, C., Zhuang, Y. and Xiao, J. 2010. Silhouette Representation and Matching for 3D Pose Discrimination A Comparative Study. *Image Vision Comput.* 28, 4 (Apr. 2010), 654–667.
- [19] Chen, L., Wei, H. and Ferryman, J. 2013. A Survey of Human Motion Analysis Using Depth Imagery. *Pattern Recogn. Lett.* 34, 15 (Nov. 2013), 1995–2006.
- [20] Connolly, J.-F., Granger, E. and Sabourin, R. 2012. An Adaptive Classification System for Video-based Face Recognition. *Inf. Sci.* 192, (Jun. 2012), 50–70.
- [21] Connolly, J.-F., Granger, E. and Sabourin, R. 2013. Dynamic Multi-objective Evolution of Classifier Ensembles for Video Face Recognition. *Appl. Soft Comput.* 13, 6 (Jun. 2013), 3149–3166.
- [22] Connolly, J.-F., Granger, E. and Sabourin, R. 2012. Evolution of Heterogeneous Ensembles Through Dynamic Particle Swarm Optimization for Video-based Face Recognition. *Pattern Recogn.* 45, 7 (Jul. 2012), 2460–2477.
- [23] Diraco, G., Leone, A. and Siciliano, P. 2010. An Active Vision System for Fall Detection and Posture Recognition in Elderly Healthcare. *Proceedings of the Conference on Design, Automation and Test in Europe* (3001 Leuven, Belgium, Belgium, 2010), 1536–1541.
- [24] Dragon, R., Fenzi, M., Siberski, W., Rosenhahn, B. and Ostermann, J. 2012. Towards Feature-based Situation Assessment for Airport Apron Video Surveillance. *Proceedings of the 15th International Conference on Theoretical Foundations of Computer Vision: Outdoor and Large-scale Real-world Scene Analysis* (Berlin, Heidelberg, 2012), 110–130.
- [25] Eichner, M., Marin-Jimenez, M., Zisserman, A. and Ferrari, V. 2012. 2D Articulated Human Pose Estimation and Retrieval in (Almost) Unconstrained Still Images. *Int. J. Comput. Vision*. 99, 2 (Sep. 2012), 190–214.
- [26] Elguebaly, T. and Bouguila, N. 2013. Simultaneous Bayesian Clustering and Feature Selection Using RJMCMC-based Learning of Finite Generalized Dirichlet Mixture Models. *Signal Process.* 93, 6 (Jun. 2013), 1531–1546.
- [27] Fuentes-Pacheco, J., Ruiz-Ascencio, J. and Rendón-Mancha, J.M. 2015. Visual

- Simultaneous Localization and Mapping: A Survey. Artif. Intell. Rev. 43, 1 (Jan. 2015), 55–81.
- [28] Gade, L., Krishna, S. and Panchanathan, S. 2009. Person Localization Using a Wearable Camera Towards Enhancing Social Interactions for Individuals with Visual Impairment. *Proceedings of the 1st ACM SIGMM International Workshop on Media Studies and Implementations That Help Improving Access to Disabled Users* (New York, NY, USA, 2009), 53–62.
- [29] Girisha, R. and Murali, S. 2011. Tracking Humans Using Novel Optical Flow Algorithm for Surveillance Videos. *Proceedings of the Fourth Annual ACM Bangalore Conference* (New York, NY, USA, 2011), 7:1–7:8.
- [30] Goffredo, M., Bouchrika, I., Carter, J.N. and Nixon, M.S. 2010. Performance Analysis for Automated Gait Extraction and Recognition in Multi-camera Surveillance. *Multimedia Tools Appl.* 50, 1 (Oct. 2010), 75–94.
- [31] Goffredo, M., Bouchrika, I., Carter, J.N. and Nixon, M.S. 2008. Performance Analysis for Gait in Camera Networks. *Proceedings of the 1st ACM Workshop on Analysis and Retrieval of Events/Actions and Workflows in Video Streams* (New York, NY, USA, 2008), 73–80.
- [32] Goudelis, G., Karpouzis, K. and Kollias, S. 2013. Exploring Trace Transform for Robust Human Action Recognition. *Pattern Recogn.* 46, 12 (Dec. 2013), 3238–3248.
- [33] Gouet-Brunet, V. and Lameyre, B. 2008. Object Recognition and Segmentation in Videos by Connecting Heterogeneous Visual Features. *Comput. Vis. Image Underst.* 111, 1 (Jul. 2008), 86–109.
- [34] Grgic, M., Nappi, M. and Wechsler, H. 2012. Editorial: Novel Pattern Recognition-based Methods for Re-identification in Biometric Context. *Pattern Recogn. Lett.* 33, 14 (Oct. 2012), 1817–1819.
- [35] Hwu, W.W. 2011. *GPU Computing Gems Emerald Edition*. Morgan Kaufmann Publishers Inc.
- [36] Islam, S.M.S., Bennamoun, M., Owens, R.A. and Davies, R. 2012. A Review of Recent Advances in 3D Ear- and Expression-invariant Face Biometrics. *ACM Comput. Surv.* 44, 3 (Jun. 2012), 14:1–14:34.
- [37] Jaiswal, S., Bhadauria, S.S., Jadon, R.S. and Divakar, T.K. 2010. Brief Description of

- Image Based 3D Face Recognition Methods. 3D Res. 1, 4 (Dec. 2010), 17:1–17:14.
- [38] Ji, X.-F., Wu, Q.-Q., Ju, Z.-J. and Wang, Y.-Y. 2014. Study of Human Action Recognition Based on Improved Spatio-temporal Features. *Int. J. Autom. Comput.* 11, 5 (Oct. 2014), 500–509.
- [39] Kortum, P. 2008. HCl Beyond the GUI: Design for Haptic, Speech, Olfactory, and Other Nontraditional Interfaces. Morgan Kaufmann Publishers Inc.
- [40] Kotsia, I., Guo, W. and Patras, I. 2012. Higher Rank Support Tensor Machines for Visual Recognition. *Pattern Recogn.* 45, 12 (Dec. 2012), 4192–4203.
- [41] Kragic, D. and Vincze, M. 2009. Vision for Robotics. *Found. Trends Robot.* 1, 1 (Jan. 2009), 1–78.
- [42] Layne, R., Hospedales, T.M. and Gong, S. 2012. Towards Person Identification and Reidentification with Attributes. *Proceedings of the 12th International Conference on Computer Vision Volume Part I* (Berlin, Heidelberg, 2012), 402–412.
- [43] Leo, M., Mazzeo, P.L., Nitti, M. and Spagnolo, P. 2013. Accurate Ball Detection in Soccer Images Using Probabilistic Analysis of Salient Regions. *Mach. Vision Appl.* 24, 8 (Nov. 2013), 1561–1574.
- [44] Liu, C. and Yuen, P.C. 2010. Human Action Recognition Using Boosted EigenActions. *Image Vision Comput.* 28, 5 (May 2010), 825–835.
- [45] Liwicki, S., Tzimiropoulos, G., Zafeiriou, S. and Pantic, M. 2013. Euler Principal Component Analysis. *Int. J. Comput. Vision.* 101, 3 (Feb. 2013), 498–518.
- [46] Lu, W.-L., Okuma, K. and Little, J.J. 2009. Tracking and Recognizing Actions of Multiple Hockey Players Using the Boosted Particle Filter. *Image Vision Comput.* 27, 1-2 (Jan. 2009), 189–205.
- [47] Moeslund, T.B., Hilton, A. and Krüger, V. 2006. A Survey of Advances in Vision-based Human Motion Capture and Analysis. *Comput. Vis. Image Underst.* 104, 2 (Nov. 2006), 90–126.
- [48] Moore, S. and Bowden, R. 2011. Local Binary Patterns for Multi-view Facial Expression Recognition. *Comput. Vis. Image Underst.* 115, 4 (Apr. 2011), 541–558.

- [49] Nasrollahi, K. and Moeslund, T.B. 2014. Super-resolution: A Comprehensive Survey. *Mach. Vision Appl.* 25, 6 (Aug. 2014), 1423–1468.
- [50] Padam Priyal, S. and Bora, P.K. 2013. A Robust Static Hand Gesture Recognition System Using Geometry Based Normalizations and Krawtchouk Moments. *Pattern Recogn.* 46, 8 (Aug. 2013), 2202–2219.
- [51] Pinz, A. 2005. Object Categorization. Found. Trends. Comput. Graph. Vis. 1, 4 (Dec. 2005), 255–353.
- [52] Preim, B. and Botha, C.P. 2013. *Visual Computing for Medicine: Theory, Algorithms, and Applications*. Morgan Kaufmann Publishers Inc.
- [53] Razzaghi, P., Palhang, M. and Gheissari, N. 2013. A New Invariant Descriptor for Action Recognition Based on Spherical Harmonics. *Pattern Anal. Appl.* 16, 4 (Nov. 2013), 507–518.
- [54] Ren, W., Singh, S., Singh, M. and Zhu, Y.S. 2009. State-of-the-art on Spatio-temporal Information-based Video Retrieval. *Pattern Recogn.* 42, 2 (Feb. 2009), 267–282.
- [55] Shan, C., Gong, S. and McOwan, P.W. 2009. Facial Expression Recognition Based on Local Binary Patterns: A Comprehensive Study. *Image Vision Comput.* 27, 6 (May 2009), 803–816.
- [56] Shojaeilangari, S., Yau, W.-Y., Li, J. and Teoh, E.-K. 2014. Dynamic Facial Expression Analysis Based on Extended Spatio-temporal Histogram of Oriented Gradients. *Int. J. Biometrics*. 6, 1 (Mar. 2014), 33–52.
- [57] Thacker, N.A., Clark, A.F., Barron, J.L., Ross Beveridge, J., Courtney, P., Crum, W.R., Ramesh, V. and Clark, C. 2008. Performance Characterization in Computer Vision: A Guide to Best Practices. *Comput. Vis. Image Underst.* 109, 3 (Mar. 2008), 305–334.
- [58] Thome, N., Merad, D. and Miguet, S. 2008. Learning Articulated Appearance Models for Tracking Humans: A Spectral Graph Matching Approach. *Image Commun.* 23, 10 (Nov. 2008), 769–787.
- [59] Trémeau, A., Tominaga, S. and Plataniotis, K.N. 2008. Color in Image and Video Processing: Most Recent Trends and Future Research Directions. *J. Image Video Process*. 2008, (Jan. 2008), 7:1–7:26.

- [60] Turaga, P., Veeraraghavan, A. and Chellappa, R. 2009. Unsupervised View and Rate Invariant Clustering of Video Sequences. *Comput. Vis. Image Underst.* 113, 3 (Mar. 2009), 353–371.
- [61] Vacca, J.R. and Vacca, J.R. 2013. *Computer and Information Security Handbook, Second Edition*. Morgan Kaufmann Publishers Inc.
- [62] Vezzani, R., Baltieri, D. and Cucchiara, R. 2013. People Reidentification in Surveillance and Forensics: A Survey. *ACM Comput. Surv.* 46, 2 (Dec. 2013), 29:1–29:37.
- [63] Vrigkas, M., Karavasilis, V., Nikou, C. and Kakadiaris, I.A. 2014. Matching Mixtures of Curves for Human Action Recognition. *Comput. Vis. Image Underst.* 119, (Feb. 2014), 27–40.
- [64] Walk, S., Schindler, K. and Schiele, B. 2010. Disparity Statistics for Pedestrian Detection: Combining Appearance, Motion and Stereo. *Proceedings of the 11th European Conference on Computer Vision: Part VI* (Berlin, Heidelberg, 2010), 182–195.
- [65] Wang, C. and Li, Y. 2010. Combine Image Quality Fusion and Illumination Compensation for Video-based Face Recognition. *Neurocomput.* 73, 7-9 (Mar. 2010), 1478–1490.
- [66] Wang, C., Wang, Y., Zhang, Z. and Wang, Y. 2014. Incremental Learning Patch-based Bag of Facial Words Representation for Face Recognition in Videos. *Multimedia Tools Appl.* 72, 3 (Oct. 2014), 2439–2467.
- [67] Wang, X. 2013. Intelligent Multi-camera Video Surveillance: A Review. *Pattern Recogn. Lett.* 34, 1 (Jan. 2013), 3–19.
- [68] Wolf, C., Lombardi, E., Mille, J., Celiktutan, O., Jiu, M., Dogan, E., Eren, G., Baccouche, M., Dellandréa, E., Bichot, C.-E., Garcia, C. and Sankur, B. 2014. Evaluation of Video Activity Localizations Integrating Quality and Quantity Measurements. *Comput. Vis. Image Underst.* 127, (Oct. 2014), 14–30.
- [69] Wu, J., Hu, S. and Wang, Y. 2013. Adaptive Multifeature Visual Tracking in a Probability-hypothesis-density Filtering Framework. *Signal Process.* 93, 11 (Nov. 2013), 2915–2926.
- [70] Yilmaz, A., Javed, O. and Shah, M. 2006. Object Tracking: A Survey. *ACM Comput. Surv.* 38, 4 (Dec. 2006).

- [71] Zhang, Z., Huang, K., Wang, Y. and Li, M. 2013. View Independent Object Classification by Exploring Scene Consistency Information for Traffic Scene Surveillance. *Neurocomput.* 99, (Jan. 2013), 250–260.
- [72] Zhao, G., Huang, X., Taini, M., Li, S.Z. and Pietikälnen, M. 2011. Facial Expression Recognition from Near-infrared Videos. *Image Vision Comput.* 29, 9 (Aug. 2011), 607–619.
- [73] Zhao, W., Chellappa, R., Phillips, P.J. and Rosenfeld, A. 2003. Face Recognition: A Literature Survey. *ACM Comput. Surv.* 35, 4 (Dec. 2003), 399–458.
- [74] Zheng, J., Ramírez, G.A. and Fuentes, O. 2010. Face Detection in Low-resolution Color Images. *Proceedings of the 7th International Conference on Image Analysis and Recognition Volume Part I* (Berlin, Heidelberg, 2010), 454–463.
- [75] Zhou, H., Fei, M., Sadka, A., Zhang, Y. and Li, X. 2014. Adaptive Fusion of Particle Filtering and Spatio-temporal Motion Energy for Human Tracking. *Pattern Recogn.* 47, 11 (Nov. 2014), 3552–3567.
- [76] 2006. Author Index of Volume 27. Pattern Recogn. Lett. 27, 16 (Dec. 2006), 2013–2019.
- [77] 2006. Cumulative Contents of Volume 27. *Pattern Recogn. Lett.* 27, 16 (Dec. 2006), 2020–2027.

Critérios de inclusão dos artigos:

- (a) Trabalhos que definirem técnicas de reconhecimento facial.
- (b) Trabalhos que definem conceitos de processamento de imagens e de reconhecimento facial.
- (c) Trabalhos que se relacionem com o reconhecimento facial em ambientes reais, não controlados e com variação de iluminação.
- (d) Trabalhos que envolvem o reconhecimento facial utilizando câmeras de baixa resolução.

Critérios de exclusão dos artigos:

- (a) Trabalhos que não tenham relação com o reconhecimento facial.
- (b) Possíveis trabalhos que utilizam técnicas de reconhecimento facial, porém em ambientes controlados, por exemplo, onde há boa iluminação e utilizam câmeras de alta resolução.
- (c) Trabalhos que apresentem avaliação superficial, sem apresentar os métodos e técnicas utilizadas.
- (d) Trabalhos que realizam o reconhecimento facial utilizando modelos 3D.
- (e) Trabalhos que não tenham sido avaliados por seus pares.
- (f) Trabalhos que não envolvam o problema da variação de iluminação.

Métodos de avaliação:

Os artigos encontrados serão avaliados primeiramente através de seus títulos e resumos, e se necessário através da leitura de algumas passagens especificas do artigo, como por exemplo os resultados e/ou a conclusão. Os artigos serão excluídos se atingirem pelo menos um dos critérios de exclusão preestabelecidos.

Lista de artigos com status de inclusão ou exclusão:

Artigo	Critérios de inclusão atendidos	Critérios de exclusão atendidos	Status
1.	(b)	(a)	Excluído
2.		(a)	Excluído
3.	(a)(c)		Incluído
4.	(a)(c)(d)		Incluído
5.	(a)(c)		Incluído
6.	(a)(c)(d)		Incluído
7.		(a)	Excluído
8.	(a)	(d)	Excluído
9.		(a)	Excluído
10.	(a)(c)		Incluído
11.	(a)		Incluído
12.	(b)		Incluído
13.		(a)	Excluído
14.		(a)	Excluído
15.		(a)	Excluído
16.		(a)	Excluído
17.		(a)	Excluído
18.		(a)	Excluído
19.		(a)	Excluído
20.	(b)(c)	(b)	Excluído
21.	(a)(b)	(f)	Excluído
22.		(a)	Excluído
23.		(a)	Excluído
24.	-	(a)	Excluído
25.		(a)	Excluído
26.	-	(a)	Excluído
27.		(a)	Excluído
28.	-	(a)	Excluído
29.		(a)	Excluído

30.	(a)(b)(c)	(f)	Excluíd
31.	(a)(b)(c)	(f)	Excluíd
32.		(a)	Excluíd
33.		(a)	Excluíd
34.		(a)	Excluíd
35.		(a)	Excluíd
36.	(c)	(c)(d)	Excluíd
37.	(b)	(d)	Excluíd
38.		(a)	Excluío
39.		(a)	Excluío
40.		(a)	Excluío
41.		(a)	Excluío
42.		(a)	Excluío
43.		(a)	Excluío
44.		(a)	Excluío
45.	(b)	(a)	Excluío
46.		(a)	Excluío
47.		(a)	Excluío
48.	(b)	(a)	Excluío
49.		(a)	Excluío
50.		(a)	Excluío
51.		(a)	Excluío
52.		(a)	Excluío
53.		(a)	Excluío
54.		(a)	Excluío
55.	(b)	(a)	Excluío
56.	(b)	(a)	Excluío
57.		(a)	Excluío
58.		(a)	Excluío
59.		(a)	Excluío
60.		(a)	Excluío
61.		(a)	Excluío
62.		(a)	Excluío
63.		(a)	Excluío
64.		(a)	Excluío
65.	(a)(b)(c)	. ,	Incluíd
66.	(a)		Incluíd

67.		(a)	Excluído
68.		(a)	Excluído
69.		(a)	Excluído
70.		(a)	Excluído
71.		(a)	Excluído
72.	(b)	(a)	Excluído
73.	(b)	Revisão da Literatura	Excluído
74.	(a)(b)(d)	(f)	Excluído
75.		(a)	Excluído
76.		(a)	Excluído
77.		(a)	Excluído