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### **Professor Eric Granger**

Correspondence language: English Sex: Male

### **Contact Information**

The primary information is denoted by (\*)

#### Address

Primary Affiliation (\*)

Dept. génie de la production automatisée École de technologie supérieure 1100, rue Notre-Dame Ouest Montréal Quebec H3C 1K3 Canada

### Telephone

Home	1-514-903-6243
Mobile	1-514-591-6825
Work (*)	1-514-396-8650

### Email

Personal	ericg.granger@gmail.com
Work (*)	eric.granger@etsmtl.ca



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# Professor Eric Granger

### Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes	Yes	Yes

### **Degrees**

- 2002/5	Doctorate, Génie électrique, École Polytechnique de Montréal
	Supervisors: Yvon Savaria, 1995/1 - 2002/5
- 1995/3	Bachelor's, Microélectronique, Université du Québec à Montréal

# **User Profile**

Research Specialization Keywords: Adaptive Systems, Biometrics, Computer Vision, Evolutionnary Computation, Face Recognition, Microelectronic Systems, Multi-Classifier Systems, Neural and Statistical Classifiers, On-line and Incremental Learning, Pattern Recognition, Security and Surveillance, Video Surveillance

Research Disciplines: Computer Engineering and Software Engineering, Electrical Engineering and Electronic Engineering

Areas of Research: Shape Recognition and Computer Graphics, Neuronal Systems, Imagery, Distributed and Simultaneous Processing, Algorithms

Fields of Application: Communication and Information Technologies

### Employment

2014/6	Professor Génie de la production automatisée, École de technologie supérieure Full-time, Professor Tenure Status: Tenure
2014/6	Director, Laboratoire d'imagerie, de vision et d'intelligence artificielle Génie de la production automatisée, École de technologie supérieure Full-time Tenure Status: Tenure
2008/7	Director, Master's Program Génie de la production automatisée, École de technologie supérieure Full-time Tenure Status: Tenure
2007/6 - 2014/6	Associate Professor Génie de la production automatisée, École de technologie supérieure Full-time, Associate Professor Tenure Status: Tenure

2010/6 - 2011/6	Research Scientist Science and Engineering Directorate, Canadian Border Services Agency
2004/1 - 2007/6	Assistant Professor Génie de la production automatisée, École de technologie supérieure Full-time, Associate Professor Tenure Status: Tenure Track
2001/2 - 2003/10	ASIC Research Engineer Research and Development, Integrated Systems Design Section, Mitel Networks Inc.
1999/1 - 2001/2	Defence Scientists Electronic Support Measure Section, Defence Research and Development Canada (DRDC) - Ottawa, DND
1998/1 - 1998/5	Visiting Scholar Cognitive and Neural Systems, Graduate School of Arts & Sciences, Boston University Full-time Tenure Status: Non Tenure Track
1994/4 - 1994/9	Research Assistant Informatique, Faculté des sciences, Université du Québec à Montréal Full-time, Term Tenure Status: Non Tenure Track

### Leaves of Absence and Impact on Research

- 2011-06-01 Sabbatical, University of Cagliari
- 2012-05-31 Worked with Profs. Roli, Marcialis and Fumera of the Pattern Recognition and Applications group. Our joint research activities sought to investigate adaptive and multi-classifier systems that can provide high performance in changing environments. The had lead to a successful grant application with the MDEIE-SIIRI program, and a longer term research collaboration.

# **Research Funding History**

#### Awarded [n=6]

2013/4 - 2019/4Regroupement stratégique sur l'Étude des Environnements PARTagés IntelligentsCo-investigatorrépartis (REPARTI), Grant

#### **Funding Sources:**

2019/4 - 2013/4	Fonds de recherche du Québec - Nature et technologies (FRQNT)
	Programme de regroupements stratégiques
	Total Funding - 2,160,000
	Portion of Funding Received - 90,000
	Funding Competitive?: Yes

Co-investigator : 26 others;

Principal Investigator : Laurendeau, Denis

2015/8 - 2017/5 Visualization of Facial Trajectories for Fast Adjudication in Watchlist Screening, Grant

# Principal Investigator Funding Sources:

2015/8 - 2017/5 MITACS Accelerate Internship Program (with Face4 Systems Inc) Total Funding - 106,667 Portion of Funding Received - 106,667 Funding Competitive?: Yes

Co-investigator : Bell, Robert; Arnon, ilan

2012/5 - 2017/5	LIVIA - Laboratoire d'imagerie, de vision et d'intelligence artificielle, Grant			
Co-applicant	Funding Sources:			
	2012/5 - 2017/5	École de Technologie Supérieure (ÉTS) PSIRE - Unité de Recherche Accrédité (URA) Total Funding - 121,000 Portion of Funding Received - 17,285 Funding Competitive?: Yes		
	Co-investigator : Ch Noumeir; Rita; Wong	eriet, Mohamed; Landry, Jacques-André; Lepage, Richard; g, Tony ;		
	Principal Investigato	r : Sabourin, Robert		
2014/9 - 2016/9	Faces on the Move:	Multi-Camera Watchlist Screening, Grant		
Co-investigator	Funding Sources:			
	2014/9 - 2016/9	National Defence (Canada) Public Security Technical Program Total Funding - 1,033,674 Portion of Funding Received - 48,000 Funding Competitive?: Yes		
	Co-investigator : Bis Smith, Mike;	sessar, David; Arnon, Ilan; Mungham, Tony; Detombe, John;		
	Principal Investigato	r : Bell, Robert		
2011/5 - 2016/5		sifier Systems for Biometric Recognition, Grant		
Principal Investigator	Funding Sources:			
	2011/5 - 2016/5	Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant Total Funding - 110,000 Portion of Funding Received - 110,000 Funding Competitive?: Yes		
2013/1 - 2016/1		pour la reconnaissance de visages en vidéosurveillance, Grant		
Principal Investigator	Funding Sources:			
	2013/1 - 2016/1	Fonds de recherche du Québec - Nature et technologies (FRQNT) Projet de recherche en équipe Total Funding - 135,000 Portion of Funding Received - 45,000 Funding Competitive?: Yes		
Completed [n=9]				
2014/5 - 2015/1		sion Techniques for Face Recognition in Video Surveillance, Grant		
Principal Investigator	Funding Sources:			
	2014/5 - 2015/1	Natural Sciences and Engineering Research Council of Canada (NSERC) Engage (with Nextgen ID inc.) Total Funding - 25,000 Portion of Funding Received - 25,000 Funding Competitive?: Yes		
2007/9 - 2014/9	Conception d'un système de biomarquage pour les images bitonales, Contract			

Co-investigator

	Funding Sources:	
	2007/9 - 2012/9	BancTec (USA) Research Contract Total Funding - 200,000 Portion of Funding Received - 100,000 Funding Competitive?: No
	Principal Investigato	r : Sabourin, Robert
2011/9 - 2013/9 Principal Investigator		on Operational Video-Based Evaluation of Infrastructure and ecognition in Video, Contract
	Funding Sources:	
	2011/9 - 2013/9	Canadian Border Services Agency Contract from National Defence (Canada), Public Security Technical Program Call 3 (Biometrics CoP), applc Total Funding - 91,500 Portion of Funding Received - 91,500 Funding Competitive?: Yes
	Principal Knowledge	e User : Dmitry O. Gorodnichy
2015/4 - 2012/4 Principal Investigator	-	s adaptatifs pour la reconnaissance de visages en Frant
	Funding Sources:	
	2012/4 - 2015/4	Ministère du développement économique, de l'innovation et de l'exportation (MDEIE) Programme de soutien à la recherche, volet 3 (PSR-SIIRI) Total Funding - 126,000 Portion of Funding Received - 63,000 Funding Competitive?: Yes
2008/10 - 2011/9 Co-investigator	Une approche évolu Grant	tive pour le bio-marquage rapide des documents numériques,
	Funding Sources:	
	2008/10 - 2011/9	Natural Sciences and Engineering Research Council of Canada (NSERC) Strategic Project Grants Program Total Funding - 354,950 Portion of Funding Received - 177,475 Funding Competitive?: Yes
	Principal Investigato	r : Sabourin, Robert
2006/5 - 2011/5	LIVIA - Laboratoire o	d'imagerie, de vision et d'intelligence artificielle, Grant
Co-investigator	Funding Sources:	
	2005/6 - 2009/5	École de Technologie Supérieure (ÉTS) PSIRE - Unité de Recherche Accrédité (URA) Total Funding - 112,000 Portion of Funding Received - 15,680 Funding Competitive?: Yes
	Co-investigator : Lar Robert; Wong, Tony	ndry, Jacques-André; Lepage, Richard; Noumeir; Rita; Sabourin, ;
	Principal Investigato	r : Cheriet, Mohamed
2010/5 - 2010/12	Comptage de foules	dans les espaces publiques, Contract

Principal Investigator

#### **Funding Sources:**

2010/5 - 2010/12 Partenariat du Quartier des spectacles Total Funding - 11,592 Portion of Funding Received - 5,796 Funding Competitive?: Yes

2005/5 - 2010/5 Incremental Learning Techniques for Automatic Detection and Recognition from Principal Investigator Incomplete Data, Grant

#### **Funding Sources:**

2005/5 - 2010/5 Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant - Individual Total Funding - 100,000 Portion of Funding Received - 100,000 Funding Competitive?: Yes

2010/5 - 2010/5Calculateur rapide et spécialisé pour le traitement massivement parallèle des<br/>documents numériques, Grant

#### **Funding Sources:**

2010/5 - 2011/5 Natural Sciences and Engineering Research Council of Canada (NSERC) Outils et instruments de recherche - catégorie 1 Total Funding - 22,690 Portion of Funding Received - 11,345 Funding Competitive?: Yes

Principal Investigator : Sabourin, Robert

#### Under Review [n=2]

2016/5 - 2021/5 Adaptive Context-Based System for Face and Activity Recognition in Video Principal Investigator Surveillance, Grant

#### **Funding Sources:**

2021/5 - 2016/5 Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Total Funding - 175,000 Portion of Funding Received - 175,000 Funding Competitive?: Yes

2016/9 - 2017/3 Fusion of Face and Speech Characteristics for Real-Time Recognition of Behaviors in Principal Investigator Human-Centric E-Learning, Grant

#### **Funding Sources:**

2015/9 - 2016/3 Natural Sciences and Engineering Research Council of Canada (NSERC) Engage (with NVS Learning Inc) Total Funding - 25,000 Portion of Funding Received - 25,000 Funding Competitive?: Yes

# Student/Postdoctoral Supervision

# Bachelor's Honours [n=2]

2012/9 - 2012/12 Principal Supervisor	Tijami, Adil (Completed), ETS Thesis/Project Title: Analysis of Face Image Quality in Undergraduate Student, ÉTS Video Streams
2009/1 - 2009/8 Principal Supervisor	Naud, Richard (Completed) , ETS Thesis/Project Title: Détection de nouveauté avec réseaux Fuzzy ARTMAP Present Position: Doctoral student, ÉTS

# Master's Thesis [n=5]

2015/4 - 2017/4 Principal Supervisor	Salois, Patrick (In Progress) , ETS Thesis/Project Title: Image super-resolution using patch-based sparse representations
2013/9 - 2015/8 Principal Supervisor	Amara, Ibtihel (Completed), ETS Thesis/Project Title: Still-to-Video Face Recognition Systems Using Local Quality- Based Matching
2010/8 - 2010/5 Principal Supervisor	Tliba, Safa (Completed), ETS Thesis/Project Title: L'optimisation des systèmes de marquage numériques Present Position: Doctoral Student, ETS
2009/9 - 2012/3 Principal Supervisor	Prieur, Donavan (Completed), ETS Thesis/Project Title: Processeurs neuroniques pour reconnaissance de visages Present Position: Research Assistant, ETS and Vantrix Inc.
2009/5 - 2010/8 Principal Supervisor	Pagano, Christophe (Completed), ETS Thesis/Project Title: Systèmes spatio-temporels pour la reconnaissnce de visages Present Position: Doctoral student, ÉTS
Doctorate [n=14]	
2014/1 - 2018/1 Principal Supervisor	Mokhayeri, Faniya (In Progress), ETS Thesis/Project Title: Synthetic Generation of Faces in Still-to-Videi Face Recognition Present Position: Doctoral student, ÉTS
2013/9 - 2017/9 Principal Supervisor	Soleymani, Roghayeh (In Progress), ETS Thesis/Project Title: Ensemble of SVMs for Video-to-Video Face Recognition in Imbalanced Environment
2013/5 - 2017/5 Co-Supervisor	Carbonneau, Marc-André (In Progress), ETS Thesis/Project Title: Real-Time Recognition of Events for Video Analysis of Hockey Games Present Position: Doctoral student, ÉTS
2013/1 - 2017/1 Principal Supervisor	Bashbaghi, Saman (In Progress) , ETS Thesis/Project Title: Contextual Fusion of Experts for Face Screening Applications
2012/5 - 2014/5 Co-Supervisor	Dittrich, Fábio (Withdrawn) , ETS Thesis/Project Title: Adaptive Learning with Concept Drift in Biometrics
2010/9 - 2013/6 Principal Supervisor	Tliba, Safa (Withdrawn) , ETS Thesis/Project Title: Le bio-marquage par zone de documents numérisés
2010/9 - 2015/8 Principal Supervisor	Pagano, Christophe (Completed), ETS Thesis/Project Title: Adaptive Classifier Ensembles Face Recognition in Video Surveillance

2009/9 - 2015/3 Principal Supervisor	de la Torre Gómora, Miguel Ángel (Completed) , ETS Thesis/Project Title: Modular Neural Networks for Video Face Recogniton Present Position: Professor, Dept. of CS & Eng. CUValles, University of Guadalahara, Mexico
2009/5 - 2013/8 Co-Supervisor	Guerdy, Bassem (Completed), ETS Thesis/Project Title: Fast Intelligent Watermarking of Grey Scale Images Present Position: Senior SW Developer, Ericsson Canada
2009/5 - 2014/8 Co-Supervisor	Eskander, George (Completed) , ETS Thesis/Project Title: Bio-crypto Systems Based On the Offline Signature Images Present Position: Senior Data Scientist, United Technologies
2007/9 - 2013/4 Co-Supervisor	Vellasques, Eduardo (Completed) , ETS Thesis/Project Title: Bio-Watermarking of Digital Document Images Present Position: Principal Engineer (Voice Technologies), Nokia Inc.
2007/5 - 2012/8 Principal Supervisor	Connolly, Jean-François (Completed), ETS Thesis/Project Title: ADAPTING HETEROGENEOUS ENSEMBLES WITH PARTICLE SWARM OPTIMIZATION FOR VIDEO FACE RECOGNITION Present Position: Machine Learning Specialist, Datacratic Inc.
2006/9 - 2011/12 Co-Supervisor	Batista, Luana Bezerra (Completed), ETS Thesis/Project Title: Incremental Learning and Change Detection in Signature Verification Present Position: Senior NLU Engineer, Nuance Communications
2005/5 - 2010/8 Principal Supervisor	Khreich, Wael (Completed), ETS Thesis/Project Title: Incremental Learning of HMMs in Computer & Network Security Present Position: Lead Optimization Scientist, Exchange Solutions
Post-doctorate [n=6]	]
2015/5 - 2017/6	Nourbakhsh Farshad (In Progress) ETS

2015/5 - 2017/6 Principal Supervisor	Nourbakhsh, Farshad (In Progress), ETS Thesis/Project Title: Visualization of Facial Trajectories for Fast Adjudication in Watchlist Screening
2015/4 - 2016/7 Co-Supervisor	Ghiass, Reza Shoja (In Progress) , ETS Thesis/Project Title: Screen Gaze Estimation from Standard Video Hardware
2012/4 - 2014/6 Principal Supervisor	Dewan, Mohamed Ali (Completed), ETS Thesis/Project Title: Spatio-Temporal Recognition in Video Surveillance Present Position: School of Computing and Information Systems, Athabasca University, Edmonton
2011/9 - 2012/8 Co-Supervisor	Rattani, Ajita (Completed), University of Cagliari Thesis/Project Title: Biometric template updating using graph-based representation Present Position: Post Doctoral Fellow at Michigan State University, USA
2011/6 - 2013/1 Principal Supervisor	Radtke, Paulo Vinicius (Completed), ETS Thesis/Project Title: Evaluation of Technologies for Face Rec in Video Surveillance Present Position: Senior Software Developer, Nuance Inc., Montreal
2011/5 - 2013/5 Co-Supervisor	Ksantini, Riadh (Completed) , ETS Thesis/Project Title: Adaptive System Based on One-Class Classification Present Position: Reasearch Assistant, University of Windsor.

# Research Associate [n=1]

2009/5 - 2011/5	Thibodeau, Éric (Completed) , ETS
Co-Supervisor	Thesis/Project Title: Une approche évolutive pour le bio-marquage rapide des
	documents numériques (NSERC Strategic Grants Program)
	Present Position: Programmer-Analyst, Caisse Desjardins, Montreal

# **Event Administration**

2014-12-09 - 2014-12-12	Special session (Adaptive Biometric Systems: Recent Advances and Challenges), 2014 IEEE Symposium onComputational Intelligence in Biometrics and Identity Management, Conference, 2014-12-09 - 2014-12-12
2012-06-10 - 2012-06-15	Special session (Intelligent Computation on Biometrics), 2012 IEEE World Congress on Computational Intelligence, Conference, 2012-06-10 - 2012-06-15
2011-04-11 - 2011-04-15	Special session (Adaptive Biometric Systems), 2011 IEEE Workshop on Computational Intelligence in Biometrics and Identity Management , Conference, 2011-04-11 - 2011-04-15

# **Editorial Activities**

- 2012/9 2017/9 Editorial Board Member, International Journal on Biometric, Journal
- 2015/8 Reviewer, Elsevier's Information Fusion, Information Systems, Expert Systems with Applications, Pattern Recognition (Letters), Signal Processing, CV and Image Understanding, Engineering Applications of AI, Journal
- 2015/8 Reviewer, IEEE Trans. on Pattern Analysis and Machine Intelligence; Systems, Man and Cybernetics; Information Forensics & Security; Aerospace and Electronic Systems; Neural Networks and Leanring Systems;, Journal
- 2015/8 Session chair, program committee member and/or reviewer for various Int'l conferences, ANNPR, CCECE, CEC, CIBIM, CISDA, ICASSP, ICOSSIP, ICDAR, ICFHR, ICPRAM, IJCB, IJCNN, ISCAS, SCCI, WCCI, etc., Conference Abstract
- 2015/8 Reviewer, Neuro-computing, Computer; Vision and Image Understanding; Int'l Journal of Biometrics; Int'l Journal on Multi-Sensor and Multi-Source; IET Biometrics; Statistical Analysis and Data Mining, Journal
- 2015/6 Co-editor, Advances in Computer Vision and Pattern Recognition (Springer International Publishing), Book

# **Organizational Review Activities**

2014-05-01 -	Graduate Program Review (GPA), École de technologie supérieure
2015-09-01	CREPUQ evaluation of the depatemental Master's program.
2012-09-01 - 2013-09-01	Undergraduate Program Review (GPA), École de technologie supérieure Evaluation of the departmental undergraduate program. Report on strategic development of program.

# **Knowledge and Technology Translation**

- 2014/6 2017/6 Academic Partner, R&D Collaboration with Industry Group/Organization/Business Serviced: Face 4 Systems Target Stakeholder: Industry/Business-Small (<100 employees) Outcome / Deliverable: Visualization of Facial Trajectories for Fast Adjudication in Watchlist Screening (with R. Bell and I. Arnon of Face 4 Systems)
   2015/6 - 2016/6 Academic Partner, R&D Collaboration with Industry Group/Organization/Business Serviced: NVS Learning Inc
  - Group/Organization/Business Serviced: NVS Learning Inc Target Stakeholder: Industry/Business-Small (<100 employees) Outcome / Deliverable: Fusion of Face and Speech Characteristics for Real-Time Recognition of Behaviors in Human-Centric E-Learning (with G Gagnon of ETS and P. Rivards of NVS)

2013/9 - 2015/6	Academic Partner, R&D Collaboration with Industry Group/Organization/Business Serviced: Quattriuum Inc. Target Stakeholder: Industry/Business-Small (<100 employees) Outcome / Deliverable: Indoor Localisation Based on Hybrid RF/Inertial Navigation for Real-Time Automatic Video Tracking of Athleates (with G. Gagnon of ETS and O. Munger of Quattriuum)
2014/1 - 2014/8	Academic Partner, R&D Collaboration with Industry Group/Organization/Business Serviced: Cofely Services Target Stakeholder: Industry/Business (>500 employees) Outcome / Deliverable: Investigation of alternatives for detectionindividual intrusions into airport luggage sorting systems. (with D. Casaubon from ETS and D. Riendeau of Cofely Services).
2010/9 - 2011/4	Academic Partner, Consulting for Industry Group/Organization/Business Serviced: Partenariat du Quartier des spectacles Target Stakeholder: Private Not-for-Profit Organization Outcome / Deliverable: A Study of Methods for Automated People Counting from Video in the Quartier des Spectacles (with R. Lepage of ETS and B. Lamothe of PQS)

# **International Collaboration Activities**

2014-06-01	Principal InvestigatorCanada Face Recognition from Videos using Variants of Spatiotemporal Local Binary Patterns (A. Hadid, University of Oulu, Finland)
2012-05-01	Principle Investigator, Canada Ensembles of SVMs for Video Face Recognition from Imbalanced Data (G. Fumera (University of Cagliari, Italy and U. Pal, Indian Statistical Institute, India)
2012-04-01	Co-Investigator, Canada Research Project: Adaptive Systems for Face Recognition in Video Surveillance (with Prof. Bilodeau with École Polytechnique de Montréal and Prof. Sabourin, ÉTS)
2011-09-01	Principal Investigator, Canada Adaptive Fusion in Video Surveillance (Prof. Roli with the University of Cagliari, Italy, and Prof. Sabourin with ÉTS). An official MOU has been concluded between ÉTS and the University of Cagliari in order to facilitate research collaboration and mobility between institutions.

# **Committee Memberships**

2014/9 - 2017/9	Committee Member, Comité de la recherche (GPA), École de technologie supérieure
2007/5 - 2017/5	Chair, Comité de programme (master's GPA), École de technologie supérieure
2014/4 - 2016/4	Committee Member, Comité de promotions, École de technologie supérieure
2014/5 - 2015/8	Committee Member, Departmental hiring comitte (GPA), École de technologie supérieure
2009/8 - 2015/8	Committee Member, PhD and M.Sc.A. jury, École de technologie supérieure Has served as a jury member on 20+ advisory Ph.D. or M.Ing. committees over the past 6 years.
2009/5 - 2015/8	Committee Member, ISO/IEC JTC1 SC37 Canadian Advisory Committee on Biometrics, École de technologie supérieure
2010/6 - 2015/7	Committee Member, Task Force on Biometrics, IEEE Computational Intelligence Society ISATC, École de technologie supérieure

### **Other Memberships**

2011-05-01 - 2015-08-01	Member, Regroupement pour l'étude desenvironnements partagés intelligents répartis (REPARTI)
2009-05-01 - 2015-08-01	Member, International Neural Network Society
2006-05-01 - 2015-08-01	Member, Regroupement stratégique en microsystèmes du Québec (ReSMIQ)
2004-01-04 - 2015-08-01	Director, Laboratoire d'imagerie, de vision et d'intelligence artificielle
2004-01-01 - 2015-08-01	Member, Ordre des Ingénieurs du Québec
2006-08-01 - 2015-01-01	Member, IEEE Computational Intelligence Society (CIS)

### **Presentations**

 (2014). Adaptive Systems for Face Recognition in Video Surveillance. Center for Machine Vision Research -- Seminar Series (Department of Computer Science and Engineering, U of Oulu), Oulu, Finland Main Audience: Researcher

Invited?: Yes, Keynote?: No

 (2012). Adaptive Biometric Recognition. PRA group -- seminar series (Department of Electrical and Electronic Engineering, U of Cagliari), Cagliari, Italy Main Audience: Researcher Invited?: Yes, Keynote?: No

### **Text Interviews**

2015-02-14	Recherche en vidéosurveillance au LIVIA, Substance
2011-08-18	A visage ouvert, Québec Science
2009-04-29	Système biométrique vidéo en développement à Montréal, Agence QMI
2009-03-01	Systèmes biométriques adaptatifs, Découvrir, vol 30, no. 2,

# **Publications**

#### **Journal Articles**

- De-la-Torre, M., Granger, E., Sabourin, R., Gorodnichy, D.O.(2015). Adaptive skew-sensitive ensembles for face recognition in video surveillance. Pattern Recognition. 48(11): 3385–3406. Published Refereed?: Yes
- Pagano, C., Granger, E., Sabourin, R., Marcialis, G.-L., Roli, F.(2015). Dynamic Weighting of Classifier Ensembles from Trajectories in Video-to-Video Face Recognition. IEEE Trans. on Neural Networks and Learning Systems. Submitted Refereed?: Yes

- Saman Bashbaghi, Eric Granger, Robert Sabourin, Guillaume-Alexandre Bilodeau. (2015). Watch-List Screening Using Ensembles of Exemplar-SVMs Based on Multiple Face Representations. Pattern Recognition. Submitted Refereed?: Yes
- De-la-Torre, Miguel, Granger, Eric, Sabourin, Robert, Gorodnichy, Dmitry O. (2015). An adaptive ensemble-based system for face recognition in person re-identification. Machine Vision and Applications. 26(6): 741-773. Published Refereed?: Yes
- De la Torre, Miguel, Granger, Eric, Sabourin, Robert, Gorodnichy, Dmitry. (2015). Individual-specific management of reference data in adaptive ensembles for face re-identification. IET -- Computer Vision Journal. : 1-9. Published Refereed?: Yes
- De-la-Torre, Miguel, Granger, Eric, Radtke, Paulo VW, Sabourin, Robert, Gorodnichy, Dmitry O. (2015). Partially-supervised learning from facial trajectories for face recognition in video surveillance. Information Fusion. 24: 31-53. Published Refereed?: Yes
- Dewan, M., Granger, E., Marcialis, G.-L., Sabourin, R., Roli, F.(2015). Adaptive Appearance Model Tracking for Still-to-Video Face Recognition. Pattern Recognition. Revision Requested Refereed?: Yes
- Dewan, M., Granger, E., Roli, F., Sabourin, R., et Marcialis, G.-L.(2015). Survey of Tracking Methods for Spatiotemporal Face Recognition in Video Surveillance. ACM Computing Surveys. Submitted Refereed?: Yes
- Eskander, G.S., Sabourin R., Granger E.(2015). Optimized Dissimilarity Representations with Application to Signature Verification and Bio-Cryptography. IEEE Trans. on Neural Networks and Learning Systems. Submitted Refereed?: Yes
- Rabil, Bassem S, Sabourin, Robert, Granger, Eric. (2014). Rapid blockwise multi-resolution clustering of facial images for intelligent watermarking. Machine Vision and Applications. 25(2): 277-300. Published Refereed?: Yes
- Pagano, C, Granger, E, Sabourin, R, Marcialis, GL, Roli, F. (2014). Adaptive ensembles for face recognition in changing video surveillance environments. Information Sciences. 286: 75-101. Published Refereed?: Yes
- Chakravorty, Tanushri, Bilodeau, Guillaume-Alexandre, Granger, Eric. (2014). Automatic Image Registration in Infrared-Visible Videos using Polygon Vertices. arXiv preprint arXiv:1403.4232. Published Refereed?: No, Open Access?: Yes
- Eskander, George S, Sabourin, Robert, Granger, Eric. (2014). Offline signature-based fuzzy vault (OSFV): review and new results. arXiv preprint arXiv:1408.3985.
   Published Refereed?: No, Open Access?: Yes

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- Eskander, George S, Sabourin, Robert, Granger, Eric. (2014). A bio-cryptographic system based on offline signature images. Information Sciences. 259: 170-191. Published Refereed?: Yes
- Radtke, Paulo VW, Granger, Eric, Sabourin, Robert, Gorodnichy, Dmitry O. (2014). Skew-sensitive Boolean combination for adaptive ensembles - An application to face recognition in video surveillance. Information Fusion. 20: 31-48. Published Refereed?: Yes
- Eskander, George S, Sabourin, Robert, Granger, Eric. (2013). Hybrid writer-independent-writerdependent offline signature verification system. IET Biometrics (Special Issue on Handwriting Biometrics). 2(4): 169-181.
   Published Refereed?: Yes
- Samet, Saeed, Miri, Ali, Granger, Eric. (2013). Incremental learning of privacy-preserving Bayesian networks. Applied Soft Computing. 13(8): 3657-3667.
   Published Refereed?: Yes
- Connolly, Jean-François, Granger, Eric, Sabourin, Robert. (2013). Dynamic multi-objective evolution of classifier ensembles for video face recognition. Applied Soft Computing. 13(6): 3149-3166. Published Refereed?: Yes
- Rabil, Bassem S, Tliba, Safa, Granger, Eric, Sabourin, Robert. (2013). Securing high resolution grayscale facial captures using a blockwise coevolutionary GA. Expert Systems with Applications. 40(17): 6693-6706. Published Refereed?: Yes
- Vellasques, Eduardo, Sabourin, Robert, Granger, Eric. (2013). DS-DPSO: A dual surrogate approach for intelligent watermarking of bi-tonal document image streams. Expert Systems with Applications. 40(13): 5240-5259.
   Published Refereed?: Yes
- Vellasques, Eduardo, Sabourin, Robert, Granger, Eric. (2013). Fast intelligent watermarking of heterogeneous image streams through mixture modeling of PSO populations. Applied Soft Computing. 13(6): 3130-3148.
   Published Refereed?: Yes
- Rivard, Dominique, Granger, Eric, Sabourin, Robert. (2013). Multi-feature extraction and selection in writer-independent off-line signature verification. International Journal on Document Analysis and Recognition. 16(1): 83-103.
   Published Refereed?: Yes
- Connolly, Jean-François, Granger, Eric, Sabourin, Robert. (2012). An adaptive classification system for video-based face recognition. Information Sciences. 192: 50-70. Published Refereed?: Yes
- Khreich, Wael, Granger, Eric, Miri, Ali, Sabourin, Robert. (2012). A survey of techniques for incremental learning of HMM parameters. Information Sciences. 197: 105-130. Published Refereed?: Yes

- Batista, Luana, Granger, Eric, Sabourin, Robert. (2012). Dynamic selection of generative-discriminative ensembles for off-line signature verification. Pattern recognition. 45(4): 1326-1340.
   Published Refereed?: Yes
- Granger, Eric, Khreich, Wael, Sabourin, Robert, Gorodnichy, Dmitry O. (2012). Fusion of biometric systems using Boolean combination: an application to iris-based authentication. International Journal of Biometrics. 4(3): 291-315. Published Refereed?: Yes
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### **Intellectual Property**

#### Patents

 Intelligent system and method for detecting and diagnosing faults in heating, ventilating and air conditioning (hvac) equipment. Canada. US 20120072029 A1. 2010-09-20. Patent Status: Completed Date Issued: 2012-03-22