

CONFERENCE AGENDA

CVC 2019

25-26 April, Las Vegas

DAY 1 (25th April)

- 8:00 am – 8:30 am **Delegates Check-in**
- 8:30 am – 10:30 am **KEYNOTE TALKS**
Marina L. Gavrilova, University of Calgary
Jon G Peddie, JPR
- 10:30 am – 11:00 am **NETWORKING BREAK**
- 11:00 am - 12:30 pm **PAPER PRESENTATIONS**
Session 1 - Deep Learning for Vision
Session 2 - Image Processing
Session 3 - Machine Vision and Learning
- 12:30 pm – 1:30 pm **LUNCH**
- 1:30 pm – 3:30 pm **PAPER PRESENTATIONS**
Session 4 - Deep Learning for Vision
Session 5 - Image Processing
Session 6 - Machine Vision and Learning
- 3:30 pm - 4:30 pm **POSTER PRESENTATIONS**
- 4:30 pm - 7:30 pm **EVENING LAS VEGAS BUS TOUR**
Capture the sights of Las Vegas at their glittering best during the 3-hour panoramic city tour.

DAY 2 (26th April)

- 8:00 am – 8:30 am **Delegates Arrive**
- 8:30 am – 10:15 am **KEYNOTE TALKS**
Nasseh Tabrizi, East Carolina University
Juan Pablo Wachs, Purdue University
- 10:15 am - 10:30 am **NETWORKING BREAK**
- 10:30 am – 12:30 pm **PAPER PRESENTATIONS**
Session 7 - Computer Vision Applications
Session 8 - Image Processing
Session 9 - Data Science
- 12:30 pm – 1:30 pm **LUNCH**
- 1:30 pm – 3:30 pm **PAPER PRESENTATIONS**
Session 10 - Computer Vision Applications
Session 11 - Image Processing
Session 12 - Data Science
- 3:30 pm – 3:45 pm **NETWORKING BREAK**
- 3:45 pm – 5:30 pm **PAPER PRESENTATIONS**
Session 13 - Computer Vision Applications
Session 14 - Image Processing
Session 15 - Machine Vision and Learning
- 5:30 pm – 6:00 pm **Closing Ceremony**

25th April 2019 (11:00 am - 12:30 pm)

PAPER PRESENTATIONS

Session 1 - Deep Learning for Vision Session Chair: Sotirios Diamantas (Room: Vinoly)	Session 2 - Image Processing Session Chair: Xianping Li (Room: Rafael 1)	Session 3 - Machine Vision and Learning Session Chair: Ali Alouani (Room: Rafael 2)
<p>34 - Deep Learning for Detection of Railway Signs and Signals (Presenter: Georgios Karagiannis)</p> <p>66 - 3D Conceptual Design using Deep Learning (Presenter: Lan Zou)</p> <p>87 - Weakly Supervised Deep Metric Learning for Template Matching (Presenter: Davit Buniatyan)</p> <p>73 - The Effect of Color Channel Representations on the Transferability of Convolutional Neural Networks (Presenter: Javier Diaz-Cely)</p> <p>136 - Transfer Probability Prediction for Traffic Flow with Bike Sharing Data: A Deep Learning Approach (Presenter: Wenwen Tu)</p>	<p>32 - MAP Interpolation of an Ising Image Block (Presenter: Matt Reyes)</p> <p>42 - Volumetric Data Exploration with Machine Learning- Aided Visualization in Neutron Science (Presenter: Yaohua Liu)</p> <p>51 - License Plate Character Recognition using Binarization and Convolutional Neural Networks (Presenter: Melvin Robinson)</p> <p>64 - 3D-Holograms in Real Time for Representing Virtual Scenarios (Presenter: Jesus-Jaime Moreno-Escobar)</p> <p>22 - Robust Pedestrian Detection based on Parallel Channel Cascade Network (Presenter: JiaoJiao He)</p> <p>25 - Novel Scheme for Image Encryption and Decryption based on a Hermite-Gaussian Matrix (Presenter: Mohammed Alsaedi)</p>	<p>76 - Ursa: A Neural Network for Unordered Point Clouds using Constellations (Presenter: Mark Skouson)</p> <p>83 - Context-Based Object Recognition: Indoor Versus Outdoor Environments (Presenter: Ali Alameer)</p> <p>1 - Automatic Nucleus Segmentation with Mask-RCNN (Presenter: Jeremiah Johnson)</p> <p>2 - Stereo Vision based Object Detection using V-Disparity and 3D Density-Based Clustering (Presenter: Shubham Shrivastava)</p> <p>166 - Constrained Loss Function for Classification Problems (Presenter: Haozhi Huang)</p> <p>40 - Performance Evaluation of Autoencoders for One-shot Classification of Infectious Chlamyospore (Presenter: Raphael Alampay)</p>

25th April 2019 (01:30 pm – 3:30 pm)

PAPER PRESENTATIONS

Session 4 - Deep Learning for Vision Session Chair: Xianping Li (Room: Vinoly)	Session 5 - Image Processing Session Chair: Laura Inzerillo (Room: Rafael 1)	Session 6 - Machine Vision and Learning Session Chair: Ali Alouani (Room: Rafael 2)
<p>147 - CanvasGAN: A Simple Baseline for Text to Image Generation by Incrementally Patching a Canvas (Presenter: Sharan Agrawal)</p> <p>149 - Unsupervised Dimension Reduction for Image Classification using Regularized Convolutional Auto-Encoder (Presenter: Shiping Wang)</p> <p>171 - Deep Learning vs. Traditional Computer Vision (Presenter: Niall O Mahony)</p> <p>208 - Self-Localization from a 360-Degree Camera based on the Deep Neural Network (Presenter: Shintaro Hashimoto)</p> <p>253 - Deep Cross-Modal Age Estimation (Presenter: Ali Aminian)</p> <p>273 - Multi-Stage Reinforcement Learning for Object Detection (Presenter: Sebastian Niehaus)</p> <p>278 - Road Weather Condition Estimation using Fixed and Mobile based Cameras (Presenter: Koray Ozcan)</p>	<p>67 - A Probabilistic Superpixel-Based Method for Road Crack Network Detection (Presenter: Josiah Steckenrider)</p> <p>176 - Towards Resolving the Kidnapped Robot Problem: Topological Localization from Crowdsourcing and Georeferenced Images (Presenter: Sotirios Diamantas)</p> <p>88 - License Plate Detection and Recognition: An Empirical Study (Presenter: Steven Beauchemin)</p> <p>89 - Automatic Object Segmentation based on GrabCut (Presenter: Feng Jiang)</p> <p>97 - PZnet: Efficient 3D ConvNet Inference on Manycore CPUs (Presenter: Sergiy Popovych)</p> <p>99 - Evaluating Focal Stack with Compressive Sensing (Presenter: Mohammed Abuhussein)</p> <p>84 - Image Recognition Model over Augmented Reality based on Convolutional Neural Networks through Color-space Segmentation (Presenter: Daniel Casas)</p> <p>92 - Vertebral Body Compression Fracture Detection (Presenter: Serife Kaba)</p>	<p>238 - Minimizing the Worst Case Execution Time of Diagnostic Fault Queries in Real Time Systems using Genetic Algorithm (Presenter: Nadra Tabassam, Sarah Amin)</p> <p>251 - MNIST Dataset Classification Utilizing k-NN Classifier with Modified Sliding-Window Metric (Presenter: Divas Grover)</p> <p>297 - Specular Photometric Stereo for Surface Normal Estimation of Dark Surfaces (Presenter: Mengyu Song)</p> <p>131 - CapsGAN: Using Dynamic Routing for Generative Adversarial Networks (Presenter: Raeid Saqur, Salvatore Vivona)</p> <p>80 - Persistent Homology for Detection of Objects from Mobile LiDAR Point Cloud Data in Autonomous Vehicles (Presenter: Hassan Karimi)</p> <p>102 - Automatic Recognition System for Dysarthric Speech based on MFCC's, PNCC's, JITTER and SHIMMER Coefficients (Presenter: Brahim Fares Zaidi)</p> <p>178 - 3M2RNet: Multi-Modal Multi-Resolution Refinement Network for Semantic Segmentation (Presenter: Shohreh Kasaei)</p>

26th April 2019 (10:30 am – 12:30 pm)

PAPER PRESENTATIONS

Session 7 - Computer Vision Applications Session Chair: Susan Taylor (Room: Vinoly)	Session 8 - Image Processing Session Chair: Xianping Li (Room: Rafael 1)	Session 9 - Data Science Session Chair: Kirk Atkinson (Room: Rafael 2)
<p>41 - Feature Map Transformation for Multi-Sensor Fusion in Object Detection Networks for Autonomous Driving (Presenter: Enrico Schroeder)</p> <p>279 - Near Real-Time Robotic Grasping of Novel Objects in Cluttered Scenes (Presenter: Aman Behal, Amirhossein Jabalameli)</p> <p>245 - On Image based Enhancement for 3D Dense Reconstruction of Low Light Aerial Visual Inspected Environments (Presenter: Christoforos Kanellakis)</p> <p>230 - Accident Recognition via 3D CNNs for Automated Traffic Monitoring in Smart Cities (Presenter: Adil Khan)</p> <p>85 - Design and Evaluation of a Virtual Reality-Based Car Configuration Concept (Presenter: Rüdiger Pryss)</p> <p>77 - AutoViDev: A Computer-vision Framework to Enhance and Accelerate Research in Human Development (Presenter: Ori Ossmy)</p> <p>156 - Seeking Optimum System Settings for Physical Activity Recognition on Smartwatches (Presenter: Muhammad Ahmad)</p> <p>227 - SURF based Copy Move Forgery Detection using kNN Mapping (Presenter: Kelvin Harrison Paul)</p>	<p>110 - SfM Techniques Applied in Bad Lighting and Reflection Conditions: The Case of a Museum Artwork (Presenter: Laura Inzerillo)</p> <p>113 - Fast Brain Volumetric Segmentation from T1 MRI Scans (Presenter: Ananya Anand)</p> <p>128 - No-Reference Image Denoising Quality Assessment (Presenter: Si Lu)</p> <p>138 - Fusion of CNN- and COSFIRE-Based Features with Application to Gender Recognition from Face Images (Presenter: George Azzopardi)</p> <p>284 - Comparative Feature-ranking Performance of Machine Learning: Model Classifiers in Skin Segmentation and Classification (Presenter: Enoch A-iyeh)</p> <p>155 - Non-Linear-Optimization using SQP for 3D Deformable Prostate Model Pose Estimation in Minimally Invasive Surgery (Presenter: Marco Gribaudo)</p> <p>160 - TLS-Point Clouding-3D Shape Deflection Monitoring (Presenter: Seunghee Park)</p>	<p>35 - Using Data Analytics to Predict Healthcare Facility Resource Demand and Utilization During a Crisis (Presenter: Kirk Atkinson)</p> <p>294 - Asymmetric Laplace Mixture Modelling of Incomplete Power-Law Distributions: Application to 'Seismicity Vision' (Presenter: Arnaud Mignan)</p> <p>281 - Data-Driven Multi-step Demand Prediction for Ride-hailing Services using Convolutional Neural Network (Presenter: Chao Wang, Yi Hou)</p> <p>236 - Building Adaptive Industry Cartridges using a Semi-supervised Machine Learning Method (Presenter: Lucia Stavarache)</p> <p>237 - Decision Making with Linguistic Information for the Development of New Products (Presenter: Santiago Zapata)</p> <p>241 - Selection of Personnel Based on Multicriteria Decision Making and Fuzzy Logic (Presenter: Santiago Zapata)</p> <p>144 - Systematic Mobile Device Usage Behavior and Successful Implementation of TPACK based on University Students Need (Presenter: Syed Hossain)</p>

26th April 2019 (01:30 pm – 3:30 pm)

PAPER PRESENTATIONS

Session 10 - Computer Vision Applications Session Chair: Sotirios Diamantas (Room: Vinoly)	Session 11 - Image Processing Session Chair: Feng Jiang (Room: Rafael 1)	Session 12 - Data Science Session Chair: Kirk Atkinson (Room: Rafael 2)
<p>248 - An Efficient Approach for Detecting Moving Objects and Deriving their Positions and Velocities (Presenter: Andreas Gustavsson)</p> <p>256 - Human Tracking for Facility Surveillance (Presenter: Shin-Yi Wen)</p> <p>26 - Cooperation of Virtual Reality and Real Objects with HoloLens (Presenter: Jindrich Cyrus)</p> <p>255 - Adaptive Fusion of Sub-band Particle Filters for Robust Tracking of Multiple Objects in Video (Presenter: Sherif Sherif)</p> <p>37 - Ontology of Ubiquitous Learning: WhatsApp Messenger Competes Successfully with Learning Management Systems (LMS) (Presenter: William Koomson)</p> <p>117 - Hybrid Navigation Information System for Minimally Invasive Surgery: Offline Sensors Registration (Presenter: Ali Alouani)</p> <p>298 - Identifying Emerging Trends and Temporal Patterns about Self-driving Cars in Scientific Literature (Presenter: Workneh Yilma Ayele)</p> <p>11 - Automatic Detection of Vibration Patterns During Production Test of Aircraft Engines (Presenter: Julien Griffaton)</p>	<p>164 - From Videos to URLs: A Multi-Browser Guide to Extract User's Behavior with Optical Character Recognition (Presenter: Mojtaba Heidarysafa)</p> <p>173 - 3D Reconstruction under Weak Illumination using Visibility-Enhanced LDR Imagery (Presenter: Nader Aldeeb)</p> <p>175 - DynFace: A Multi-Label, Dynamic-Margin-Softmax Face Recognition Model (Presenter: Dan Ionescu)</p> <p>181 - Using the Z-bellSM Test to Remediate Spatial Deficiencies in Non-Image-Forming Retinal Processing (Presenter: Clark Elliott)</p> <p>187 - Learning of Shape Models from Exemplars of Biological Objects in Images (Presenter: Petra Perner)</p> <p>210 - A New Technique for Laser Spot Detection and Tracking by using Optical Flow and Kalman Filter (Presenter: Xiuli Wang)</p> <p>226 - Historical Document Image Binarization based on Edge Contrast Information (Presenter: Zhenjiang Li)</p> <p>239 - Development and Laboratory Testing of a Multipoint Displacement Monitoring System (Presenter: Gerry Hamill, Susan Taylor, Myra Lydon)</p>	<p>240 - Researcher Profile Ontology for Academic Environment (Presenter: Maricela Bravo)</p> <p>304 - Proactive Management of Regulatory Policy Ripple Effects via Computational Hierarchical Change Management Structure (Presenter: Abdulrahman Alrabiah)</p> <p>308 - Iceberg Detection by CNN based on Incidence-Angle Confusion (Presenter: Yongli Zhu)</p> <p>310 - The Effectiveness of Distinctive Information for Cancer Cell Analysis through Big Data (Presenter: Babu Kaji Baniya)</p> <p>159 - Data Analysis of Tourists' Online Reviews on Restaurants in a Chinese Website (Presenter: Gee-Woo Bock)</p> <p>313 - Forecasting Food Sales in a Multiplex using Dynamic Artificial Neural Networks (Presenter: Adithya V Ganesan)</p>

26th April 2019 (03:45 pm – 5:30 pm)

PAPER PRESENTATIONS

Session 13 - Computer Vision Applications Session Chair: Laura Inzerillo (Room: Vinoly)	Session 14 - Image Processing Session Chair: Feng Jiang (Room: Rafael 1)	Session 15 - Machine Vision and Learning Session Chair: Susan Taylor (Room: Rafael 2)
<p>246 - Robots in Healthcare: A Survey (Presenter: Arshia Khan)</p> <p>65 - Cross-Safe: A Computer Vision-Based Approach to Make All Intersection-Related Pedestrian Signals Accessible for the Visually Impaired (Presenter: Hanzhang Cui)</p> <p>79 - Application of Remote Sensing for Automated Litter Detection and Management (Presenter: Mark J Hamill)</p> <p>103 - Using Computer Vision Techniques for Parking Space Detection in Aerial Imagery (Presenter: Vamsi Paruchuri)</p> <p>312 - Making a Simple Game in Unreal™ Engine: Survival Knight (Presenter: Sudhanshu Semwal)</p> <p>307 - Towards Approximate Sphere Packing Solutions using Distance Transformations and Dynamic Logic (Presenter: Sudhanshu Semwal)</p> <p>229 - A Preliminary Approach to using PRNU based Transfer Learning for Camera Identification (Presenter: Sharan Seshadri)</p>	<p>252 - Quantitative Comparison of White Matter Segmentation for Brain MR Images (Presenter: Xianping Li)</p> <p>258 - Evaluating the Implementation of Deep Learning in LibreHealth Radiology on Chest X-Rays (Presenter: Judy Gichoya)</p> <p>299 - Bayesian Estimation for Fast Sequential Diffeomorphic Image Variability (Presenter: Youshan Zhang)</p> <p>276 - An Attention-Based CNN for ECG Classification (Presenter: Alexander Kuvaev)</p> <p>296 - Reverse Engineering of Generic Shapes using Quadratic Spline and Genetic Algorithm (Presenter: Misbah Irshad)</p> <p>262 - Illumination-Invariant Face Recognition by Fusing Thermal and Visual Images via Gradient Transfer (Presenter: Sumit Agarwal)</p>	<p>3 - Building a Weighted Graph to Avoid Obstacles from an Image of the Environment (Presenter: Kevin Prehn, John Jeffrey)</p> <p>174 - Machine Learning and Education in the Human Age: A Review of Emerging Technologies (Presenter: Catherine Bacos)</p> <p>216 - Cognitive Consistency Routing Algorithm of Capsule-Network (Presenter: Huayu Li)</p> <p>288 - Using a 3D Computer Vision System for Inspection of Reinforced Concrete Structures (Presenter: Sameer Hamoush)</p> <p>197 - XMIAR: X-Ray Medical Image Annotation and Retrieval (Presenter: Mohammed Abdulrazzaq)</p> <p>285 - Visual Percepts Quality Recognition using Convolutional Neural Networks (Presenter: Laurence Gan Lim)</p> <p>91 - Comparison of Machine Learning Algorithms for Classification Problems (Presenter: Shakar Sherwan Hasan)</p>