

## ICMR'20 Main Conference

Tuesday 27th October

### Welcome to ICMR'20

Time: Tuesday, 27/Oct/2020: 08:00 - 08:30

Cathal Gurrin & Bjorn Jonsson & Noriko Kando

**Keynote: Beyond relevance feedback for searching and exploring large multimedia collections (Marcel Worring - University of Amsterdam)**

Time: Tuesday, 27/Oct/2020: 08:30-09:30

### Social Session

Time: Tuesday, 27/Oct/2020: 09:30 - 10:00

### Best Paper Session

Time: Tuesday, 27/Oct/2020: 10:00am - 11:30am

Session Chair: Klaus Schoeffmann

**10:00 Visual Relations Augmented Cross-modal Retrieval. Yutian Guo<sup>1</sup>, Jingjing Chen<sup>1</sup>, Hao Zhang<sup>2</sup>, Yu-Gang Jiang<sup>1</sup>**

<sup>1</sup>Fudan University, China; <sup>2</sup>City University of Hong Kong, China;

**10:20 Multimodal Analytics for Real-world News using Measures of Cross-modal Entity Consistency. Eric Müller-Budack<sup>1</sup>, Jonas Theiner<sup>2</sup>, Sebastian Diering<sup>2</sup>, Maximilian Idahl<sup>3</sup>, Ralph Ewerth<sup>1,3</sup>**

<sup>1</sup>TIB - Leibniz Information Centre of Science and Technology; <sup>2</sup>Leibniz Universität Hannover; <sup>3</sup>L3S Research Center, Leibniz Universität Hannover;

**10:40 Human Object Interaction Detection via Multi-level Conditioned Network. Xu Sun<sup>1,2</sup>, Xinwen Hu<sup>1</sup>, Tongwei Ren<sup>1</sup>, Gangshan Wu<sup>1</sup>**

<sup>1</sup>State Key Laboratory for Novel Software Technology, Nanjing University, China; <sup>2</sup>Shenzhen Research Institute of Nanjing University, Shenzhen, China;

**11:00 Explaining with Counter Visual Attributes and Examples. Sadaf Gulshad, Arnold Smeulders**

UvA-Bosch Delta Lab, University of Amsterdam, Netherlands, The;

## Social Session

Time: Tuesday, 27/Oct/2020: 11:30 - 12:00

## Regular Session: Cross Modal Analysis

Time: Tuesday, 27/Oct/2020: 12:00pm - 1:30pm

### 12:00 Deep Semantic-Alignment Hashing for Unsupervised Cross-Modal Retrieval.

Dejie Yang<sup>1,2</sup>, Dayan Wu<sup>1</sup>, Wanqian Zhang<sup>1,2</sup>, Haisu Zhang<sup>3</sup>, Bo Li<sup>1</sup>, Weiping Wang<sup>1</sup>

<sup>1</sup>Institute of Information Engineering, Chinese Academy of Sciences; <sup>2</sup>School of Cyber Security, University of Chinese Academy of Sciences; <sup>3</sup>National University of Defense Technology;

### 12:20 Forward and Backward Multimodal NMT for Improved Monolingual and Multilingual Cross-Modal Retrieval

Po-Yao Huang<sup>1</sup>, Xiaojun Chang<sup>2</sup>, Alexander Hauptmann<sup>1</sup>, Eduard Hovy<sup>1</sup>

<sup>1</sup>Carnegie Mellon University, United States of America; <sup>2</sup>Monash University, Australia;

### 12:40 Heterogeneous Non-Local Fusion for Multimodal Activity Recognition

Petr Byvshev<sup>1</sup>, Pascal Mettes<sup>2</sup>, Yu Xiao<sup>1</sup>

<sup>1</sup>Aalto University, Finland; <sup>2</sup>University of Amsterdam, Netherlands;

### 13:00 Trajectory Prediction Network for Future Anticipation of Ships

Pim F. Dijt, Pascal S. M. Mettes

University of Amsterdam, Netherlands, The;

## Special Session: Human-Centric Cross-modal Retrieval

Time: Tuesday, 27/Oct/2020: 12:00pm - 1:30pm

### 12:00 Visible-infrared Person Re-identification via Colorization-based Siamese Generative Adversarial Network

Xian Zhong<sup>1</sup>, Tianyou Lu<sup>1</sup>, Wenxin Huang<sup>2</sup>, Jingling Yuan<sup>1</sup>, Wenxuan Liu<sup>1</sup>, Chia-Wen Lin<sup>3</sup>

<sup>1</sup>Wuhan University of Technology; <sup>2</sup>Wuhan University; <sup>3</sup>National Tsing Hua University;

### 12:20 iCap: Interactive Image Captioning with Predictive Text

Zhengxiong Jia, Xirong Li

Renmin University of China, China, People's Republic of;

### 12:40:Multi-Attention Multimodal Sentiment Analysis

Taeyong Kim<sup>1</sup>, Bowon Lee<sup>2</sup>

<sup>1</sup>Hyundai Robotics, Korea, Republic of (South Korea); <sup>2</sup>Inha University, Korea, Republic of (South Korea);

### 13:00 MAENet: Boosting Feature Representation for Cross-Modal Person Re-Identification with Pairwise Supervision

yongbiao chen, sheng zhang, zhengwei qi  
shanghai jiaotong university;

**Social Session: Traditional Music and Welcome Session**  
**Time: Tuesday, 27/Oct/2020: 13:30 - 14:30**

## Wednesday 28th October

### Brave New Ideas

Time: Wednesday, 28/Oct/2020: 8:00am - 9:00am

#### 08:00 Automatic Evaluation of Iconic Image Retrieval based on Colour, Shape, and Texture

Riku Togashi<sup>1,2,3</sup>, Sumio Fujita<sup>2</sup>, Tetsuya Sakai<sup>1</sup>

<sup>1</sup>Waseda University; <sup>2</sup>Yahoo Japan Corporation; <sup>3</sup>Mercari, Inc.;

#### 08:20 HLVU : A new challenge to test deep understanding of movies the way humans do

Keith Curtis, George Awad, Shahzad Rajput, Ian Soboroff

National Institute of Standards and Technology, United States of America;

#### 08:40 On visualizations in the role of universal data representation

Tomas Skopal

Charles University, Czech Republic;

### Social Session

Time: Tuesday, 27/Oct/2020: 09:00 - 09:30

### Regular Session: Applications

Time: Wednesday, 28/Oct/2020: 9:30am - 11:00am

#### 9:30 Knowledge Enhanced Neural Fashion Trend Forecasting

Yunshan Ma<sup>1</sup>, Yujuan Ding<sup>2</sup>, Lizi Liao<sup>1</sup>, Xun Yang<sup>1</sup>, Wai Keung Wong<sup>2</sup>, Tat-Seng Chua<sup>1</sup>

<sup>1</sup>National University of Singapore; <sup>2</sup>The Hong Kong Polytechnic University;

#### 9:50 Learning to Select Elements for Graphic Design

Guolong Wang<sup>1</sup>, Zheng Qin<sup>1</sup>, Junchi Yan<sup>2</sup>, Liu Jiang<sup>1</sup>

<sup>1</sup>Tsinghua University; <sup>2</sup>Shanghai Jiao Tong University;

#### 10:10 Actor-Critic Sequence Generation for Relative Difference Captioning

Zhengcong Fei

Chinese Academy of Sciences, China, People's Republic of;

#### 10:30 Interactivity Proposals for Surveillance Videos

Shuo Chen, Pascal Mettes, Tao Hu, Cees Snoek

University of Amsterdam;

### Special Session: Activities of Daily Living

**Time: Wednesday, 28/Oct/2020: 9:30am - 11:00am**

**9:30 Anomaly Detection in Traffic Surveillance Videos with GAN-based Future Frame Prediction**

Khac-Tuan Nguyen<sup>1,2</sup>, Dat-Thanh Dinh<sup>1,2</sup>, Minh Do<sup>3</sup>, Minh-Triet Tran<sup>1,2</sup>

<sup>1</sup>University of Science; <sup>2</sup>Vietnam National University Ho Chi Minh city; <sup>3</sup>University of Illinois at Urbana-Champaign;

**9:45 Incorporating Semantic Knowledge for Visual Lifelog Activity Recognition**

Min-Huan Fu<sup>1</sup>, An-Zi Yen<sup>1</sup>, Hen-Hsen Huang<sup>2,3</sup>, Hsin-Hsi Chen<sup>1,3</sup>

<sup>1</sup>Department of Computer Science and Information Engineering, National Taiwan University, Taipei, Taiwan; <sup>2</sup>Department of Computer Science, National Chengchi University, Taipei, Taiwan; <sup>3</sup>MOST Joint Research Center for AI Technology and All Vista Healthcare, Taiwan;

**10:00 Multi-level Recognition on Falls from Activities of Daily Living**

Jiawei Li<sup>1,3</sup>, Shu-Tao Xia<sup>2,3</sup>, Qianggang Ding<sup>1,3</sup>

<sup>1</sup>Department of Computer Science and Technology, Tsinghua University; <sup>2</sup>Center of Communications and Networks, PengCheng Laboratory; <sup>3</sup>Tsinghua Shenzhen International Graduate School, Tsinghua University;

**10:15 Intelligent Task Recognition: Towards Enabling Productivity Assistance in Daily Life**

Jonathan Liono<sup>1</sup>, Mohammad Saiedur Rahaman<sup>1</sup>, Flora D. Salim<sup>1</sup>, Yongli Ren<sup>1</sup>, Damiano Spina<sup>1</sup>, Falk Scholer<sup>1</sup>, Johanne R. Trippas<sup>1</sup>, Mark Sanderson<sup>1</sup>, Paul N. Bennett<sup>2</sup>, Ryen W. White<sup>2</sup>

<sup>1</sup>RMIT University, Melbourne, VIC, Australia; <sup>2</sup>Microsoft Research AI, Redmond, WA, USA;

**10:30 Flood Level Estimation from Social Media Images with Pose Estimation**

Khanh-An C. Quan<sup>1,4</sup>, Vinh-Tiep Nguyen<sup>1,4</sup>, Tam Nguyen<sup>3</sup>, Minh-Triet Tran<sup>2,4</sup>

<sup>1</sup>University of Information Technology; <sup>2</sup>University of Science; <sup>3</sup>Dayton University; <sup>4</sup>Vietnam National University Ho Chi Minh city;

**10:45 Continuous Health Interface Event Retrieval**

Vaibhav Pandey, Nitish Nag, Ramesh Jain

University of California, Irvine, United States of America;

**Poster & Demo Session**

**Time: Wednesday, 28/Oct/2020: 11:00am - 1:00pm**

**- Demos -**

**surgXplore: Interactive Video Exploration for Endoscopy**

Andreas Leibetseder, Klaus Schoeffmann

Klagenfurt University, Austria;

**A framework for paper submission recommendation system**

Binh Thanh Nguyen<sup>1,5,6</sup>, Cuong Viet Dinh<sup>1,5</sup>, Dac Huu Nguyen<sup>1,5</sup>, Son Thanh Huynh<sup>1,5</sup>, Phong Tan Huynh<sup>1,5</sup>, Cathal Gurrin<sup>2</sup>, Minh-Son Dao<sup>3</sup>, Duc Tien Dang Nguyen<sup>4</sup>

<sup>1</sup>University of Science, Ho Chi Minh City, Vietnam; <sup>2</sup>Dublin City University; <sup>3</sup>National Institute of Information and Communications Technology, Tokyo; <sup>4</sup>University of Bergen; <sup>5</sup>AISIA Research Lab; <sup>6</sup>Vietnam National University in Ho Chi Minh City;

### **An Interactive Multimodal Retrieval System for Memory Assistant and Life Organized Support**

Van-Luon Tran<sup>1</sup>, Anh-Vu Mai-Nguyen<sup>1</sup>, Trong-Dat Phan<sup>1</sup>, Anh-Khoa Vo<sup>1</sup>, Minh-Son Dao<sup>2</sup>, Koji Zettsu<sup>2</sup>

<sup>1</sup>University of Science, VNU-HCMC; <sup>2</sup>NICT;

### **An active learning framework for duplicate detection in SaaS platform**

Binh Thanh Nguyen<sup>1,2,3,7</sup>, Quy Hong Nguyen<sup>2</sup>, Dac Huu Nguyen<sup>2,3</sup>, Duc Tien Dang Nguyen<sup>5</sup>, Minh-Son Dao<sup>4</sup>, Cathal Gurrin<sup>6</sup>

<sup>1</sup>University of Science, Ho Chi Minh City, Vietnam; <sup>2</sup>Inspectorio Research Lab; <sup>3</sup>AISIA Research Lab; <sup>4</sup>National Institute of Information and Communications Technology; <sup>5</sup>University of Bergen; <sup>6</sup>Dublin City University; <sup>7</sup>Vietnam National University in Ho Chi Minh City;

### **Music Tower Blocks: Multi-Faceted Exploration Interface for Web-Scale Music Access**

Markus Schedl<sup>1,2</sup>, Michael Mayr<sup>1</sup>, Peter Knees<sup>3</sup>

<sup>1</sup>JKU Linz, Austria; <sup>2</sup>Linz Institute of Technology, AI Lab; <sup>3</sup>TU Wien, Austria;

### **SenseMood: Depression Detection on Social Media**

Chenhao Lin<sup>1</sup>, Pengwei Hu<sup>2</sup>, Hui Su<sup>3</sup>, Shaochun Li<sup>2</sup>, Jing Mei<sup>2</sup>, Jie Zhou<sup>3</sup>, Henry Leung<sup>4</sup>

<sup>1</sup>Xi'an JiaoTong University, China, People's Republic of; <sup>2</sup>IBM Research, China; <sup>3</sup>Pattern Recognition Center, Wechat AI, Tencent Inc, China; <sup>4</sup>Department of Electrical and Computer Engineering, University of Calgary, Canada;

### **Detection of semantic risk situations in lifelog data for improving life of frail people**

Thinhinane Yebda<sup>1</sup>, Marion Pech<sup>2</sup>, Jenny Benois-Pineau<sup>1</sup>, H el ene Ami eva<sup>2</sup>, Cathal Gurrin<sup>3</sup>

<sup>1</sup>LaBRI, Universit e de Bordeaux, France; <sup>2</sup>BPH, Universit e de Bordeaux, France; <sup>3</sup>Dublin City University;

### **Automatic Reminiscence Therapy for Dementia**

Mariona Car os Roca<sup>1</sup>, Xavier Gir o-i-Nieto<sup>1</sup>, Petia Radeva<sup>2</sup>, Maite Garolera<sup>3</sup>

<sup>1</sup>Universitat Polit cnica de Catalunya; <sup>2</sup>Universitat de Barcelona; <sup>3</sup>Consorci Sanitari de Terrassa;

## **- Short Papers/Posters -**

### **A Crowd Analysis Framework for Detecting Violence Scenes**

Konstantinos Gkountakos, Konstantinos Ioannidis, Theodora Tsirikla, Stefanos Vrochidis, Ioannis Kompatsiaris

Information Technologies Institute Centre for Research and Technology Hellas;

### **Towards evaluating and simulating keyword queries for development of interactive known-item search systems**

Ladislav Peska, Frantisek Mejzlik, Tomas Soucek, Jakub Lokoc  
Dept. of Software Engineering, Faculty of Mathematics and Physics, Charles University,  
Prague, Czech Republic;

### **Itinerary Planning via Deep Reinforcement Learning**

Shengxin Chen<sup>1,2</sup>, Bo-Hao Chen<sup>2</sup>, Zhaojiong Chen<sup>1</sup>, Yunbing Wu<sup>1</sup>  
<sup>1</sup>College of Mathematics and Computer Science, Fuzhou University, China; <sup>2</sup>Department of  
Computer Science and Engineering, Yuan Ze University, Taiwan;

### **Confidence-based Weighted Loss for Multi-label Classification with Missing Labels**

Karim M. Ibrahim<sup>1,2</sup>, Elena V. Epure<sup>2</sup>, Geoffroy Peeters<sup>1</sup>, Gaël Richard<sup>1</sup>  
<sup>1</sup>Telecom Paris; <sup>2</sup>Deezer;

### **Learning Fine-grained Similarity Matching Networks for Visual Tracking**

Dawei Zhang, Zhonglong Zheng, Xiaowei He, Liu Su, Liyuan Chen  
Zhejiang Normal University, China;

### **Semantic Gated Network for Efficient News Representation**

Xuxiao Bu<sup>1,2</sup>, Bingfeng Li<sup>2</sup>, Yaxiong Wang<sup>1</sup>, Jihua Zhu<sup>1</sup>, Xueming Qian<sup>1</sup>, Marco Zhao<sup>2</sup>  
<sup>1</sup>Xi'an Jiaotong University, China, People's Republic of; <sup>2</sup>Tencent Company, China, People's  
Republic of;

### **Reducing Response Time for Multimedia Event Processing using Domain Adaptation**

Asra Aslam, Edward Curry  
Insight Centre for Data Analytics, NUI Galway, Ireland;

### **Are You Watching Closely? Content-based Retrieval of Hand Gestures**

Mahnaz Amiri Parian<sup>1,3</sup>, Luca Rossetto<sup>2</sup>, Heiko Schuldt<sup>1</sup>, Stéphane Dupont<sup>3</sup>  
<sup>1</sup>University of Basel, Switzerland; <sup>2</sup>University of Zurich, Switzerland; <sup>3</sup>University of Mons,  
Belgium;

### **Query-controllable Video Summarization**

Jia-Hong Huang, Marcel Worring  
University of Amsterdam;

### **PredNet and Predictive Coding: A Critical Review**

Roshan Prakash Rane<sup>1</sup>, Edit Szügyi<sup>1</sup>, Vageesh Saxena<sup>1</sup>, André Ofner<sup>1</sup>, Sebastian Stober<sup>2</sup>  
<sup>1</sup>University of Potsdam, Germany; <sup>2</sup>Otto von Guericke University Magdeburg, Germany;

### **Super-Resolution Coding Defense against Adversarial Examples**

Yanjie Chen<sup>1,2,3</sup>, Likun Cai<sup>1,2,3</sup>, Wei Cheng<sup>4</sup>, Hao Wang<sup>1</sup>  
<sup>1</sup>School of Information Science and Technology, ShanghaiTech University; <sup>2</sup>Shanghai  
Institute of Microsystem and Information Technology, Chinese Academy of Sciences;  
<sup>3</sup>University of Chinese Academy of Sciences; <sup>4</sup>NEC Laboratories, America;

### **At the Speed of Sound: Efficient Audio Scene Classification**

Bo Dong<sup>2</sup>, Cristian Lumezanu<sup>1</sup>, Yuncong Chen<sup>1</sup>, Dongjin Song<sup>1</sup>, Takehiko Mizoguchi<sup>1</sup>,  
Haifeng Chen<sup>1</sup>, Latifur Khan<sup>2</sup>  
<sup>1</sup>NEC Laboratories America, United States of America; <sup>2</sup>University of Texas, Dallas;

### **Imageability Estimation using Visual and Language Features**

Chihaya Matsuhira<sup>1</sup>, Marc A. Kastner<sup>1</sup>, Ichiro Ide<sup>1</sup>, Yasutomo Kawanishi<sup>1</sup>, Takatsugu Hirayama<sup>1</sup>, Keisuke Doman<sup>2</sup>, Daisuke Deguchi<sup>1</sup>, Hiroshi Murase<sup>1</sup>

<sup>1</sup>Nagoya University, Japan; <sup>2</sup>Chukyo University, Japan;

### **Image Retrieval using Multi-scale CNN Features Pooling**

Federico Vaccaro, Marco Bertini, Tiberio Uricchio, Alberto Del Bimbo  
Universita di Firenze - MICC, Italy;

### **Analysis of the Effect of Dataset Construction Methodology on Transferability of Music Emotion Recognition Models**

Sabina Hult, Line Bay Kreiberg, Sami Sebastian Brandt, Björn Þór Jónsson  
IT-University of Copenhagen, Denmark;

### **Continuous ODE-defined Image Features for Adaptive Retrieval**

Fabio Carrara, Giuseppe Amato, Fabrizio Falchi, Claudio Gennaro  
ISTI CNR, Italy;

### **System Fusion with Deep Ensembles**

Liviu-Daniel Ștefan, Mihai Gabriel Constantin, Bogdan Ionescu  
University Politehnica of Bucharest, Romania;

### **One Shot Logo Recognition Based on Siamese Neural Networks**

Camilo Vargas, Qianni Zhang, Ebroul Izquierdo  
Queen Mary University of London, United Kingdom;

### **Visual Story Ordering with a Bidirectional Writer**

Wei-Rou Lin<sup>1</sup>, Hen-Hsen Huang<sup>2</sup>, Hsin-Hsi Chen<sup>1</sup>

<sup>1</sup>Department of Computer Science and Information Engineering, National Taiwan University, Taiwan; <sup>2</sup>Department of Computer Science, National Chengchi University, Taiwan;

### **SalientEye: Maintaining artistic style while maximizing engagement on Instagram using deep neural networks**

Lili Wang, Ruibo Liu, Soroush Vosoughi  
Dartmouth College;

### **Search Result Clustering in Collaborative Sound Collections**

Xavier Favory, Frederic Font, Xavier Serra  
Music Technology Group - Universitat Pompeu Fabra;

### **DAGC: Employing Dual Attention and Graph Convolution for Point Cloud based Place Recognition**

Qi Sun<sup>1</sup>, Hongyan Liu<sup>2</sup>, Jun He<sup>1</sup>, Zhaoxin Fan<sup>1</sup>, Xiaoyong Du<sup>1</sup>

<sup>1</sup>Renmin University of China; <sup>2</sup>Tsinghua University, China;

### **Attention Mechanisms, Signal Encodings and Fusion Strategies for Improved Ad-hoc Video Search with Dual Encoding Networks**

Damianos Galanopoulos, Vasileios Mezaris  
CERTH-ITI, Greece;



**EfficientFAN: Deep Knowledge Transfer for Face Alignment**

Pengcheng Gao, Ke Lu, Jian Xue

University of Chinese Academy of Sciences, China, People's Republic of;

**Efficient Base Class Selection Algorithms for Few-shot Classification**

Takumi Ohkuma, Hideki Nakayama

The University of Tokyo, Japan;

**Emotion Recognition from Galvanic Skin Response Signal Based on Deep Hybrid Neural Networks**

Imam Yogie Susanto<sup>1</sup>, Tse-Yu Pan<sup>1</sup>, Chien-Wen Chen<sup>2</sup>, Min-Chun Hu<sup>1</sup>, Wen-Huang Cheng<sup>3</sup>

<sup>1</sup>National Tsing Hua University, Taiwan; <sup>2</sup>National Cheng Kung University, Taiwan; <sup>3</sup>National Chiao Tung University, Taiwan;

**Social Session**

**Time: Tuesday, 27/Oct/2020: 13:00 - 13:30**

**Keynote: What Should I do? - Ramesh Jain (University of California, Irvine)**

**Time: Wednesday, 28/Oct/2020: 13:30-14:30**

**Social Session: Irish Food and Drink**

**Time: Wednesday, 28/Oct/2020: 14:30 - 16:30**

**Keynote: Medical image retrieval: applications and resources (Henning Müller - University Hospitals of Geneva)**  
**Time: Thursday, 29/Oct/2020: 08:00-09:00**

**Social Session**  
**Time: Thursday, 29/Oct/2020: 09:00 - 09:30**

**Regular Session: Retrieval**  
**Time: Thursday, 29/Oct/2020: 9:30am - 11:00am**

**9:30 Sentence-based and Noise-robust Cross-modal Retrieval on Cooking Recipes and Food Images**

Zichen Zan<sup>1</sup>, Lin Li<sup>2</sup>, Jianquan Liu<sup>3</sup>

<sup>1</sup>Wuhan University of Technology, China, People's Republic of; <sup>2</sup>Wuhan University of Technology, China, People's Republic of; <sup>3</sup>NEC Corporation;

**9:50 QIK: A System for Large-Scale Image Retrieval on Everyday Scenes With Common Objects**

Arun Zachariah, Mohamed Gharibi, Praveen Rao  
University of Missouri-Kansas City, United States of America;

**10:10 Deep Discrete Attention Guided Hashing for Face Image Retrieval**

Zhi Xiong<sup>1,2</sup>, Dayan Wu<sup>1</sup>, Wen Gu<sup>1,2</sup>, Haisu Zhang<sup>3</sup>, Bo Li<sup>1</sup>, Weiping Wang<sup>1</sup>

<sup>1</sup>Institute of Information Engineering, Chinese Academy of Science, Beijing, China; <sup>2</sup>School of Cyber Security, University of Chinese Academy of Sciences Beijing, China; <sup>3</sup>College of Information and Communication, National University of Defense Technology, Wuhan, China;

**10:30 Image Synthesis from Locally Related Texts**

Tianrui Niu, Fangxiang Feng, Lingxuan Li, Xiaojie Wang  
Beijing University of Posts and Telecommunications, China;

**Special Session: Knowledge-Driven Analysis and Retrieval on Multimedia**

**Time: Thursday, 29/Oct/2020: 9:30am - 11:30am**

**9:30 YOLO-mini-tiger: Amur Tiger Detection**

Runchen Wei<sup>1</sup>, Ning He<sup>2</sup>, Ke Lu<sup>3</sup>

<sup>1</sup>Beijing Union University, People's Republic of China; <sup>2</sup>Beijing Union University, People's Republic of China; <sup>3</sup>University of Chinese Academy of Sciences, People's Republic of China;

**09:45 Deep Adversarial Discrete Hashing for Cross-Modal Retrieval**

Cong Bai<sup>1</sup>, Chao Zeng<sup>1</sup>, Qing Ma<sup>1</sup>, Jinglin Zhang<sup>2</sup>, Shengyong Chen<sup>3</sup>

<sup>1</sup>Zhejiang University of Technology, China, People's Republic of; <sup>2</sup>Nanjing University of Information Science and Technology, China, People's Republic of; <sup>3</sup>Tianjin University of Technology, China, People's Republic of;

**10:00 A Lightweight Gated Global Module for Global Context Modeling in Neural Networks**

Li Hao, Liping Hou, Yuantao Song, Ke Lu, Jian Xue  
University of Chinese Academy of Sciences, China, People's Republic of;

**10:15 Knowledge-driven Multimodal Graph Convolutional Networks for Fake News Detection**

Youze Wang<sup>1</sup>, Shengsheng Qian<sup>2</sup>, Jun Hu<sup>1</sup>, Quan Fang<sup>2</sup>, Changsheng Xu<sup>1,2</sup>  
<sup>1</sup>HeFei University of Technology, Hefei, China; <sup>2</sup>National Lab of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China;

**10:30 A Lightweight High-resolution Representation Backbone for Real-time Keypoint-based Object Detection**

Jiansheng Dong, Jingling Yuan, Lin Li, Xian Zhong  
武汉大学, China, People's Republic of;

**10:45 Multi-Graph Group Collaborative Filtering**

Bo Jiang  
Nanjing University of Science and Technology, China, People's Republic of;

**11:00 Rank-embedded Hashing for Large-scale Image Retrieval**

Haiyan Fu<sup>1</sup>, Ying Li<sup>2</sup>, Hengheng Zhang<sup>3</sup>, Jinfeng Liu<sup>1</sup>, Tao Yao<sup>4</sup>  
<sup>1</sup>School of Information and Communication Engineering, Dalian University of Technology, Dalian, China; <sup>2</sup>School of Computer Science and Technology, Nanjing Normal University, Nanjing, China; <sup>3</sup>Department of Computer Science, University of Texas at San Antonio, Texas, USA; <sup>4</sup>Department of Information and Electrical Engineering, LuDong University, Yantai, China;

**11:15 A Coordinated Representation Learning Enhanced Multimodal Machine Translation Approach with Multi-Attention**

Yifeng Han<sup>1</sup>, Lin Li<sup>1</sup>, Jianwei Zhang<sup>2</sup>  
<sup>1</sup>Wuhan University of Technology; <sup>2</sup>Iwate University;

**Social Session**

**Time: Tuesday, 27/Oct/2020: 11:00 - 11:30**

**Social Session**

**Time: Tuesday, 27/Oct/2020: 11:30 - 12:00**

**Regular Session: Semantic Enrichment**

**Time: Thursday, 29/Oct/2020: 11:30am - 1:00pm**

**11:30 Automatic color scheme extraction from movies**

Suzi Kim, Sunghee Choi  
KAIST;

**11:50 Compact Network Training for Person ReID**

Hussam Lawen, Avi Ben-Cohen, Matan Protter, Itamar Friedman, Lihi Zelnik-Manor  
Machine Intelligence Technology, DAMO Academy, Alibaba Group;

**12:10 Google Helps YouTube: Learning Few-Shot Video Classification from Historic Tasks and Cross-Domain Sample Transfer**

Xinzhe Zhou, Yadong Mu  
Wangxuan Institute of Computer Technology, Peking University, Beijing, China;

**12:30 iSparse: Output Informed Sparsification of Neural Networks**

Yash Garg, K. Selcuk Candan  
Arizona State University, United States of America;

**Special Session: Multimedia Information Retrieval for Urban Data**

**Time: Thursday, 29/Oct/2020: 11:30am - 12:30pm**

**11:30 Detecting, Classifying, and Mapping Retail Storefronts Using Street-level Imagery**

Shahin Sharifi Noorian, Sihang Qiu, Achilleas Psyllidis, Alessandro Bozzon, Geert-Jan Houben  
Tu Delft, Netherlands, The;

**11:50 Urban Movie Map for Walkers : Route View Synthesis using 360° Videos**

Naoki Sugimoto<sup>1</sup>, Toru Okubo<sup>2</sup>, Kiyoharu Aizawa<sup>1</sup>  
<sup>1</sup>The University of Tokyo, Japan; <sup>2</sup>VTEC Laboratories Inc.;

**12:10 Urban Object Detection Kit: A System for Collection and Analysis of Street-Level Imagery**

Maarten Sukel<sup>1,2</sup>, Stevan Rudinac<sup>1</sup>, Marcel Worring<sup>1</sup>  
<sup>1</sup>University of Amsterdam; <sup>2</sup>City of Amsterdam;

**Doctoral Consortium**

**Time: Thursday, 29/Oct/2020: 1:00pm - 2:30pm**

**13:00 Enabling Relevance-based Exploration of Cataract Videos**

Negin Ghamsarian  
Klagenfurt University, Austria;

**13:30 An Interactive Learning System for Large Scale Multimedia Analytics**

Omar Shahbaz Khan

IT University of Copenhagen, Denmark;

**14:00 Object Detection for Unseen Domains while Reducing Response Time using Knowledge Transfer in Multimedia Event Processing**

Asra Aslam

**Closing ICMR'20, Welcome ICMR'21**

**Time: Thursday, 29/Oct/2020: 14:30 - 15:00**

**ICMR'20 Associated Workshops**

**Monday 26th October**

**MM ART & ACM Workshop**

**Time: Monday, 26/Oct/2020: 06:30 - 8:30**

**Session 1**

- **Style Image Retrieval for Improving Material Translation Using Neural Style Transfer.** Gibran Benitez-Garcia, Wataru Shimoda, Keiji Yanai
- **conify: Converting Photographs into Icons.** Takuro Karamatsu Gibran Benitez-Garcia Keiji Yanai Seiichi Uchida
- **BatikGAN: A Generative Adversarial Network for Batik Creation.** Wei-Ta Chu, Linyu Ko.

**Session 2**

- **Recommendations for Attractive Hairstyles.** Yuto Nakamae, Xueting Wang, Toshihiko Yamasaki
- **Automatic YouTube-Thumbnail Generation and Its Evaluation.** Akari Shimono, Yuki Kakui, Toshihiko Yamasaki

**Tutorial: One Perceptron to Rule Them All: Language, Vision, Audio and Speech**

**Time: Monday, 26/Oct/2020: 08:00 - 11:00**

**Tutor: Xavier Giro**

### CEA Workshop

Time: Monday, 26/Oct/2020: 08:30 - 11:00

- **Cooking Activity Recognition in Egocentric Videos with a Hand Mask Image Branch in the Multi-stream CNN.** Shinya Michibata, Michifumi Yoshioka, Yoshioka, Atsushi Hashimoto
- **Interactive Cake Decoration with Whipped Cream.** Mako Miyatake, Aoi Watanabe, Yoshihiro Kawahara
- **Cooking Recipe Analysis based on Sequences of Distributed Representation on Procedure Texts and Associated Images.** Akari Ninomiya, Tomonobu Ozaki

### Social Session

Time: Monday, 26/Oct/2020: 11:00 - 11:30

Chair: Hyowon Lee

### Tutorial: Automation of Deep Learning - Theory and Practice

Time: Monday, 26/Oct/2020: 11:30 - 14:00

Tutors: Martin Wistuba, Ambrish Rawat, Tejaswini Pedapati

### 11:30 - 14:30 ICDAR Workshop

- **From Data Collection Merit to Data Connection Merit for Smart Sustainable Cities.** Koji Zettsu
- **Microwave Doppler Radar Sensing System for Vital Sign Detection: From Evaluated Accuracy Models to the Intelligent System.** Thi Phuoc Nguyen , Thanh Tung Tran
- **Malware Detection Using System Logs.** Nhu T Nguyen, Thuy T Pham , Tien X Dang, Minhson Dao
- **Residence and Workplace Recovery: User Privacy Risk in Mobility Data.** Yuchen Qiu Yuanyuan Qiao, Aimin Zhang . Jie Yang
- **MNR-HCM Data: A Personal Lifelog and Surrounding Environment Dataset in Ho-Chi-Minh City, Viet Nam.** Tan Loc Nguyen-Tai, Dang Hieu Nguyen , Minh Tam Nguyen, Thanh Duong Nguyen +2
- **A Digital Insight Provider From Financial Documents In Banking.** Gokce Aydugan Baydar, Cisem Altan, Bilge Koroglu, Seçil Arslan
- **Duplicate Identification Algorithms in SaaS Platforms.** Dac H Nguyen, Quy H Nguyen, Minhson Dao, Duc Tien Dang-Nguyen + 2

### Social Session

Time: Monday, 26/Oct/2020: 14:30 - 15:00

## Friday 30th (DCU organization on Whova)

### LSC'20 Workshop (14 short talks)

Time: Monday, 30/Oct/2020: 08:00 - 14:00

#### Session One:

- **Interactive Lifelog Retrieval with vitivr.** Loris Sauter, Silvan Heller, Mahnaz Amiri Parian, Ralph Gasser, Heiko Schuldt
- **VRLE: Lifelog Interaction Prototype in Virtual Reality.** Aaron Duane, Björn Þór Jónsson, Cathal Gurrin
- **LifeGraph: a Knowledge Graph for Lifelogs.** Luca Rossetto, Matthias Baumgartner, Narges Ashena, Florian Ruosch, Romana Pernischova, Abraham Bernstein
- **Exquisitor at the Lifelog Search Challenge 2020.** Omar Shahbaz Khan, Mathias Dybkjær Larsen, Liam Alex Sonto Poulsen, Björn Þór Jónsson, Jan Zahálka, Stevan Rudinac, Dennis Koelma, Marcel Worrying
- **Myscéal - An Experimental Interactive Lifelog Retrieval System for LSC'20.** Ly Duyen Tran, Duy Nguyen, Binh Nguyen, Hyowon Lee, Cathal Gurrin
- **A Multi-level Interactive Lifelog Search Engine with User Feedback.** Jiayu Li, Min Zhang, Weizhi Ma, Yiqun Liu, Shaoping Ma
- **lifeXplore at the Lifelog Search Challenge 2020.** Andreas Leibetseder, Klaus Schoeffmann
- **BIDAL-HCMUS@LSC2020: An Interactive Multimodal Lifelog Retrieval with Query-to-Sample Attention-based Search Engine.** Anh-Vu Mai-Nguyen, Van-Luon Tran, Trong-Dat Phan, Anh-Khoa Vo, Minh-Son Dao, Koji Zettsu
- **Multimodal Retrieval through Relations between Subjects and Objects in Lifelog Images.** Tai-Te Chu, Chia-Chun Chang, An-Zi Yen, Hen-Hsen Huang, Hsin-Hsi Chen
- **LifeSeeker 2.0 - Interactive Lifelog Search Engine at LSC 2020.** Tu-Khiem Le, Van-Tu Ninh, Minh-Triet Tran, Thanh-An Nguyen, Hai-Dang Nguyen, Liting Zhou, Graham Healy, Cathal Gurrin
- **VIRET Tool with Advanced Visual Browsing and Feedback.** Gregor Kovalcik, Vit Skrhak, Tomas Soucek, Jakub Lokoc
- **FIRST - Flexible Interactive Retrieval SysTem for Visual Lifelog Exploration at LSC 2020.** Minh-Triet Tran, Thanh-An Nguyen, Quoc-Cuong Tran, Mai-Khiem Tran, Khanh Nguyen, Van-Tu Ninh, Tu-Khiem Le, Hai-Dang Nguyen, Trong-Le Do, Viet-Khoa Vo-Ho, Cathal Gurrin
- **SOMHunter for lifelog search.** Frantisek Mejzlik, Patrik Veselý, Miroslav Kratochvíl, Tomáš Souček, Jakub Lokoč
- **Voxento - An Prototype Voice-controlled Interactive Search Engine for Lifelogs.** Ahmed Alateeq, Mark Roantree, Cathal Gurrin

#### Session Two:

- Live Search Competition