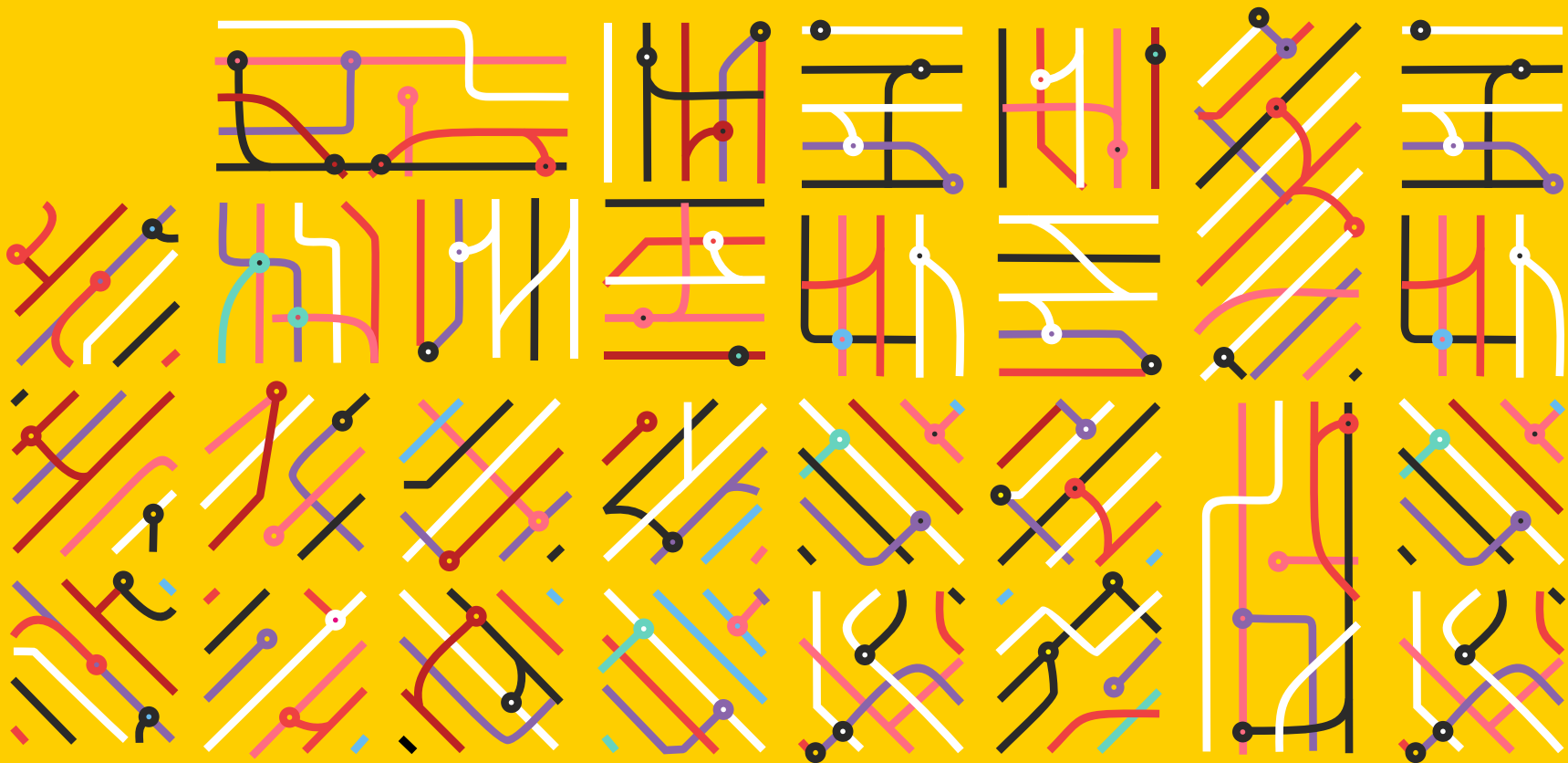


FUTURE OF INFORMATION AND COMMUNICATION CONFERENCE 2020

FICC 2020

5-6 March, San Francisco

5-6 MARCH 2020 | SAN FRANCISCO, UNITED STATES



CONFERENCE AGENDA

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DAY 1 (5th March)

- 8:00 am – 8:30 am **Delegates Check-in**
- 8:30 am – 11:00 am **KEYNOTE TALKS**
Victor Bahl, Microsoft Research
Rick L. Stevens, Argonne National Laboratory
Edo Liberty, HyperCube Inc.
- 11:00 am – 11:30 am **POSTER PRESENTATIONS**
- 11:30 am - 12:45 pm **PAPER PRESENTATIONS**
Session 1 - Blockchain
Session 2 - Smart Cities
Session 3 - Machine Learning
- 12:45 pm – 1:30 pm **LUNCH**
- 1:30 pm – 3:30 pm **PAPER PRESENTATIONS**
Session 4 - Ambient Intelligence
Session 5 - Communication
Session 6 - Data Science
- 3:30 pm - 3:45 pm **NETWORKING BREAK**
- 3:45 pm – 5:30 pm **PAPER PRESENTATIONS**
Session 7 - Internet of Things
Session 8 - Computing
Session 9 - Machine Learning
- 5:45 pm - 8:00 pm **EVENING SAN FRANCISCO CITY TOUR**

DAY 2 (6th March)

- 8:30 am **Delegates Arrive**
- 8:45 am – 10:30 am **KEYNOTE TALKS**
Kristin Lauter, Microsoft Research
John M. Cioffi, Stanford University
- 10:30 am – 11:00 am **POSTER PRESENTATIONS**
- 11:00 am – 12:30 pm **PAPER PRESENTATIONS**
Session 10 - Security and Privacy
Session 11 - Human-centric Computing
Session 12 - Machine Learning
- 12:30 pm – 1:30 pm **LUNCH**
- 1:30 pm – 3:30 pm **PAPER PRESENTATIONS**
Session 13 - Security and Privacy
Session 14 - Networking
Session 15 - Data Science
- 3:30 pm – 3:45 pm **NETWORKING BREAK**
- 3:45 pm – 5:30 pm **PAPER PRESENTATIONS**
Session 16 - Security and Privacy
Session 17 - Social Computing
Session 18 - Machine Learning
- 5:30 pm – 6:00 pm **Closing Ceremony**

5th March 2020 (11:30 am - 12:45 pm)

PAPER PRESENTATIONS

Session 1 - Blockchain Session Chair: Lei Li (Room: Franciscan)	Session 2 - Smart Cities Session Chair: Sudhanshu Semwal (Room: Commonwealth)	Session 3 - Machine Learning Session Chair: Jim Chen (Room: Cornell)
<p>354 - Using Blockchain in IoT: Is it a Smooth Road Ahead for Real? (Presenter: Song Zhang)</p> <p>356 - Developing a Blockchain-Enabled Collaborative Intrusion Detection System: An Exploratory Study (Presenter: Lei Li)</p> <p>110 - A Novel Approach to Blockchain-based Digital Identity System (Presenter: Mohammad Samir Uzzaman)</p> <p>192 - Towards Blockchain-based GDPR-Compliant Online Social Networks: Challenges, Opportunities and Way Forward (Presenter: Javed Ahmed)</p> <p>338 - Systematization of Knowledge on Scalability Aspect of Blockchain Systems (Presenter: Parth Shukla)</p>	<p>69 - Quality Assurance/Quality Control Engine for Power Outage Mitigation (Presenter: S Chan)</p> <p>180 - Urban Sensibilities, Sharing, and Interactive Public Spaces: In Search of a Good Correlation for Information and Communication in Smart Cities (Presenter: H. Patricia McKenna)</p> <p>254 - Visual Odometry from Omnidirectional Images for Intelligent Transportation (Presenter: Marco Marcon)</p> <p>85 - Midnight in Tokyo: Mobility Service for Bar-hopping (Presenter: Chihiro Sato)</p> <p>334 - Drivers and Barriers for Open Government Data Adoption: An Isomorphic Neo-Institutional Perspective (Presenter: Henry Roa)</p>	<p>33 - A Cost-reducing Partial Labeling Estimator in Text Classification Problem (Presenter: Juntao Duan)</p> <p>47 - Sidecar: Augmenting Word Embedding Models with Expert Knowledge (Presenter: Mathieu Lemay)</p> <p>49 - Performance Analysis of Support Vector Regression Machine Models in Day-ahead Load Forecasting (Presenter: Lemuel Clark Velasco)</p> <p>4 - A Two-Stage Machine Learning Approach to Forecast the Lifetime of Movies in a Multiplex (Presenter: Abhijith Ragav, Sai Vishwanath Venkatesh)</p> <p>393 - A Digital Diagnostic Aide for Skincare: The Role of Computer Vision and Machine Learning in Revealing Skin Texture Changes (Presenter: Chandrasekar Vuppalapati)</p>

5th March 2020 (1:30 pm – 3:30 pm)

PAPER PRESENTATIONS

Session 4 - Ambient Intelligence Session Chair: Kohei Arai (Room: Franciscan)	Session 5 - Communication Session Chair: Yoshiyuki Kido (Room: Commonwealth)	Session 6 - Data Science Session Chair: Pascal Lorenz (Room: Cornell)
<p>183 - AALADIN: Ambient Assisted Living Assistive Device for Internet (Presenter: Wilson Valdez, Irene Priscila Cedillo Orellana)</p> <p>54 - Conditional Convolutional Generative Adversarial Networks based Interactive Procedural Game Map Generation (Presenter: Ping Kuang)</p> <p>64 - Example of the Use of Artificial Neural Network in the Educational Process (Presenter: Akhat Bakirov)</p> <p>167 - Implementing Material Changes in Augmented Environments (Presenter: Sudhanshu Semwal)</p> <p>251 - A Minimal Social Weight Wearable Device for Thermal Regulation (Presenter: Sudhanshu Semwal)</p> <p>82 - Evaluation of RSSI as a Non-Visual Target Tracking Technique for Drone Applications (Presenter: Sudhanshu Semwal)</p> <p>275 - Virtual Teleportation of a Theatre Audience onto the Stage: VR as an Assistive Technology (Presenter: Sai Krishna Srinivasan)</p> <p>370 - Eliciting Evolving Topics, Trends and Foresight about Self-driving Cars using Dynamic Topic Modeling (Presenter: Workneh Yilma Ayele)</p>	<p>205 - Target Localization with Visible Light Communication in High Ambient Light Environments (Presenter: Kofi Nyarko)</p> <p>118 - Power Efficient Multi-Relay Cooperative Diversity in Wireless Network using Hybrid Relaying Protocol (Presenter: Malaykumar Bhakta)</p> <p>282 - Low Power BCH Decoder using Verification Algorithm and Two-Step Parallel Chien Search Architecture (Presenter: Khaled Shehata)</p> <p>291 - A Videogame Driven by the Mind: Are Motor Acts Necessary to Play? (Presenter: Luigi Bianchi)</p> <p>315 - Exploring the Evolutionary Bispectrum (Presenter: Abdullah Al-Shoshan)</p> <p>241 - Performance Evaluation of IPv6 and IPv4 for Future Technologies (Presenter: Augustus Ehiremen Ibhaze)</p> <p>80 - Smart Policing for a Smart World Opportunities, Challenges and Way Forward (Presenter: Muhammad Mudassar Yamin)</p>	<p>15 - New Metric based on SQuAD for Evaluating Accuracy of Enterprise Search Algorithms (Presenter: Praful Krishna)</p> <p>61 - Case-based Generation of Regulatory Documents and their Semantic Relatedness (Presenter: Andreas Korger)</p> <p>208 - A Novel Recommender System for Healthy Grocery Shopping (Presenter: Matin Pirouz)</p> <p>210 - Using Topic Modelling to Correlate a Research Institution's Outputs with its Goals (Presenter: Nicholas Chamansingh)</p> <p>238 - Long Period Re-Identification Approach to Improving the Quality of Education: A Preliminary Study (Presenter: Irina Arhipova)</p> <p>293 - A Quantum Annealing-based Approach to Extreme Clustering (Presenter: Tim Jaschek)</p> <p>184 - A Comparative Evaluation of Preprocessing Techniques for Short Texts in Spanish (Presenter: Marcos Orellana)</p>

5th March 2020 (3:45 pm – 5:30 pm)

PAPER PRESENTATIONS

<p>Session 7 - Internet of Things Session Chair: Kofi Nyarko (Room: Franciscan)</p>	<p>Session 8 - Computing Session Chair: Yoshiyuki Kido (Room: Commonwealth)</p>	<p>Session 9 - Machine Learning Session Chair: Jim Chen (Room: Cornell)</p>
<p>126 - Online Sports Activities Travel Guide (SATG) (Presenter: Ola Hegazy)</p> <p>221 - Ambient Intelligence Applications in Architecture: Factors Affecting Adoption Decisions (Presenter: Kaveh Abhari)</p> <p>342 - An IoT based e-Health Platform using Raspberry Pi (Presenter: El-Hadi Khoumeri)</p> <p>373 - Li-Fi Prospect in Internet of Things Network (Presenter: Augustus Ibhaze)</p> <p>189 - A Heterogeneous Scalable-Orchestration Architecture for Home Automation (Presenter: Jeferson Joel Apaza Condori)</p> <p>290 - Photovoltaic Mobile System Design for Non-Interconnected Zones of Meta's Department (Presenter: Obeth Hernan Romero Ocampo)</p> <p>320 - Smart Agriculture with Advanced IoT Communication and Sensing Unit (Presenter: Michal Petru)</p>	<p>76 - Naming Anonymous Processes using an Optimal Number of Test-and-Set Registers (Presenter: Layla Aldawsari)</p> <p>178 - Accelerating Block-Circulant Matrix-based Neural Network Layer on a General Purpose Computing Platform: A Design Guideline (Presenter: Krittaphat Pugdeethosapol)</p> <p>162 - Development Trends of Information Technology Industry in Armenia (Presenter: Ashot Davoyan)</p> <p>170 - A Study on the Inspection of Fundus Retinal Picture (Presenter: Sundaravadivu k)</p> <p>247 - Energy Aware Next Fit Allocation Approach for Placement of VMs in Cloud Computing Environment (Presenter: Jyotsna Sengupta)</p> <p>287 - Multi-User Expert System for Operation and Maintenance in Energized Lines (Presenter: Erika Moreno)</p> <p>209 - Using Activity Theory and Task Structure Charts to Model Patient-Introduced Online Health Information into the Family Physician/Patient Examination Process (Presenter: Beth Ellington)</p>	<p>92 - Ecommerce Fraud Detection through Fraud Islands and Multi-Layer Machine Learning Model (Presenter: Yuting Jia, Yung-Wen Liu)</p> <p>111 - Automated Drug Suggestion using Machine Learning (Presenter: Matin Pirouz)</p> <p>186 - Predicting the Risk Factor for Developing Chronic Kidney Disease using a 3-Stage Prediction Model (Presenter: Hossam Medhat)</p> <p>139 - Feature Selection using Flower Pollination Optimization to Diagnose Lung Cancer from CT Images (Presenter: Daphy Louis Lovenia J, Dhalia Sweetlin J)</p> <p>348 - Smart Dam: Upstream Sensing, Hydro-Blockchain, and Flood Feature Extractions for Dam Inflow Prediction (Presenter: Yasuno Takato)</p>

6th March 2020 (11:00 am – 12:30 pm)

PAPER PRESENTATIONS

<p>Session 10 - Security and Privacy Session Chair: Jim Chen</p> <p>(Room: Franciscan)</p>	<p>Session 11 - Human-centric Computing Session Chair: Kofi Nyarko</p> <p>(Room: Commonwealth)</p>	<p>Session 12 - Machine Learning Session Chair: Robert Pellerin</p> <p>(Room: Cornell)</p>
<p>307 - AI-Enabled Digital Forensic Evidence Examination (Presenter: Jim Chen)</p> <p>294 - Android Malware Detection in Large Dataset: Smart Approach (Presenter: Md Naseef-Ur-Rahman Chowdhury)</p> <p>296 - Design and Implementation of an e-Voting System based on Paillier Encryption (Presenter: Miaomiao Zhang)</p> <p>19 - "Seeking Privacy Makes Me Feel Bad?": An Exploratory Study Examining Emotional Impact on Use of Privacy-Enhancing Features (Presenter: Masooda Bashir)</p> <p>101 - Efficient Implementation and Computational Analysis of Privacy-Preserving Auction Protocols (Presenter: Ramiro Alvarez)</p> <p>106 - Dynamic Programming Approach in Conflict Resolution Algorithm of Access Control Module in Medical Information Systems (Presenter: Hiva Samadian)</p>	<p>328 - The Repeatability of Human Swarms (Presenter: Colin Domnauer)</p> <p>94 - Hybrid Recommendation System for Young Football Athletes Customized Training (Presenter: Paulo Matos)</p> <p>89 - Virtual Construction: Interactive Tools for Collaboration in Virtual Reality (Presenter: Timo Partala)</p> <p>14 - Conceptual Model for Challenges and Succession Opportunities for Virtual Project Teams in the GCC (Presenter: Rasha Abousamra)</p> <p>5 - UI Design Patterns for Flight Reservation Websites (Presenter: Zeeshan Haider Malik)</p>	<p>257 - CAMLPAD: Cybersecurity Autonomous Machine Learning Platform for Anomaly Detection (Presenter: Ankit Gupta, Ayush Hariharan, Trisha Pal)</p> <p>337 - Moving Towards Open Set Incremental Learning: Readily Discovering New Authors (Presenter: Justin Leo)</p> <p>359 - Automatic Modulation Classification using Induced Class Hierarchies and Deep Learning (Presenter: Birsen Sirkeci)</p> <p>362 - Using Digital Image Processing to Characterize Flocculation of Papermaking Wastewater (Presenter: Ming Li)</p> <p>230 - A Text Classification Model to Identify Performance Bonds Requirement in Public Bidding Notices (Presenter: Alexandre Zaghetto)</p> <p>88 - Deep-learned Artificial Intelligence for Semantic Communication and Data Co-processing (Presenter: Nicolay Vasilyev)</p>

6th March 2020 (1:30 pm – 3:30 pm)

PAPER PRESENTATIONS

<p>Session 13 - Security and Privacy Session Chair: Miaomiao Zhang (Room: Franciscan)</p>	<p>Session 14 - Networking Session Chair: Birsen Sirkeci (Room: Commonwealth)</p>	<p>Session 15 - Data Science Session Chair: Matin Pirouz (Room: Cornell)</p>
<p>163 - IT Security for Measuring Instruments: Confidential Checking of Software Functionality (Presenter: Daniel Peters)</p> <p>169 - Hardware Transactional Memory as Anti-Analysis Technique for Software Protectors (Presenter: Federico Palmaro)</p> <p>214 - Development of the Technique for the Identification, Assessment and Neutralization of Risks in Information Systems (Presenter: Askar Boranbayev)</p> <p>215 - Estimation of the Degree of Reliability and Safety of Software Systems (Presenter: Askar Boranbayev)</p> <p>216 - A Novel Image Steganography using Multiple LSB Substitution and Pixel Randomization using Stern-Brocot Sequence (Presenter: Mohammad Samir Uzzaman)</p> <p>248 - Detecting PE-Infection based Malware (Presenter: Chia-Mei Chen)</p> <p>280 - Network Security Monitoring in Automotive Domain (Presenter: Daniel Grimm)</p> <p>141 - Two-Factor Authentication using Mobile OTP and Multi-dimensional Infinite Hash Chains (Presenter: Uttam Kumar Roy)</p>	<p>65 - A Multidimensional Control Architecture for Combined Fog-to-Cloud Systems (Presenter: Xavi Masip)</p> <p>75 - Study of Polynomial Backoff for IEEE 802.11 DCF (Presenter: Bader Aldawsari)</p> <p>117 - Quality of Service Provision within IEEE 802.11 CSMA/CA Protocol (Presenter: Kamil Samara)</p> <p>179 - Efficient Cache Architecture for Packet Processing in Internet Routers (Presenter: Hayato Yamaki)</p> <p>244 - Optimization of Cultural Heritage Virtual Environments for Gaming Applications (Presenter: Laura Inzerillo)</p> <p>256 - Performance Evaluation of the Update Messages of Locator Identifier Split Protocols using an IP Paging Mechanism at the End Networks (Presenter: Avinash Mungur)</p> <p>147 - Realistic Cluster-based Energy-Efficient and Fault-Tolerant (RCEEFT) Routing Protocol for Wireless Sensor Networks (WSNs) (Presenter: Emmanuel Effah)</p>	<p>332 - Clustering and Classification to Evaluate Data Reduction via Johnson-Lindenstrauss Transform (Presenter: Julia Johnson)</p> <p>351 - Application of Statistical Learning in Ferro-Titanium Industry (Presenter: Robert Pellerin)</p> <p>357 - BeagleTM: An Adaptable Text Mining Method for Relationship Discovery in Literature (Presenter: Oliver Bonham-Carter)</p> <p>360 - Comparison of Imputation Methods for Missing Values in Air Pollution Data: Case Study on Sydney Air Quality Index (Presenter: Lakmini Wijesekara)</p> <p>361 - BERT Feature based Model for Predicting the Helpfulness Scores of Online Customers Reviews (Presenter: Shuzhe Xu)</p> <p>365 - Evaluating Taxonomic Relationships using Semantic Similarity Measures on Sensor Domain Ontologies (Presenter: Mireya Tovar Vidal)</p> <p>382 - Trained Synthetic Features in Boosted Decision Trees with an Application to Polish Bankruptcy Data (Presenter: Thomas Boucher)</p>

6th March 2020 (3:45 pm – 5:30 pm)

PAPER PRESENTATIONS

Session 16 - Security and Privacy Session Chair: Miaomiao Zhang (Room: Franciscan)	Session 17 - Social Computing Session Chair: Pascal Lorenz (Room: Commonwealth)	Session 18 - Machine Learning Session Chair: Matin Pirouz (Room: Cornell)
<p>355 - Mobile System for Determining Geographical Coordinates for Needs of Air Support in Cases of GPS Signals Loss (Presenter: Aleksander Nawrat)</p> <p>369 - Cyber Manhunt: Evaluation of Technologies and Practices for Effective Community Development and Maintenance (Presenter: Jiale Dai)</p> <p>331 - sD&D: Design and Implementation of Cybersecurity Educational Game with Highly Extensible Functionality (Presenter: Yoshiyuki Kido)</p> <p>66 - Runtime API Signature for Fileless Malware Detection (Presenter: Tarek Radah)</p>	<p>90 - Statistical Analysis of the Effects of Institutions on the Economic Growth of France in Recent Years (Presenter: Yaimara Céspedes-González)</p> <p>181 - A Taxonomy of Social Engineering Defense Mechanisms (Presenter: Dalal Alharthi)</p> <p>191 - Sentiment Analysis for University Students' Feedback (Presenter: Nguyen Thi-Phuong-Giang)</p> <p>225 - Development of Waste Collection Model using Mobile Phone Data: A Case Study in Latvia (Presenter: Gundars Berzins)</p> <p>324 - Artificial Social Intelligence: Hotel Rate Prediction (Presenter: James Lee)</p> <p>185 - A Trust Framework for the Collection of Reliable Crowd-Sourced Data (Presenter: Patrick Hosein)</p>	<p>366 - Detection of Anomalous Gait as Forensic Gait in Residential Units using Pre-Trained Convolution Neural Networks (Presenter: Nooritawati MD Tahir)</p> <p>233 - Estimating the Time-Lapse between Medical Insurance Reimbursement with Non-Parametric Regression Models (Presenter: Akwarandu Nwachuku)</p> <p>375 - Occluded Traffic Signs Recognition (Presenter: Shwu-Huey Yen)</p> <p>220 - Small Ship Detection on Optical Satellite Imagery with YOLO and YOLT (Presenter: Eveling Castro-Gutierrez)</p>