



# IEEE World AI IoT Congress 2021

**2021 World AI IoT Congress (AllIoT)**

**VIRTUAL CONFERENCE**

**10<sup>th</sup> – 13<sup>th</sup> MAY 2021**

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

# TECHNICAL SCHEDULE

## CONTENTS

DAY	EVENT DETAILS	TIMING	PAGE NUMBER
<b>DAY 1</b> (10 <sup>th</sup> May 2021)	<b>INAUGURAL SESSION</b>	8.30 AM - 9:15 AM	5
	<b>KEYNOTE 1: MARS LANDING AND RELATED TECHNICAL CHALLENGES</b>	9:15 AM - 10.00 AM	5
	<b>KEYNOTE 2: ADINA WILLIAMS ( RESEARCH SCIENTIST, FACEBOOK AI RESEARCH)</b>	10.00 AM - 10.45 AM	5
	-----BREAK-----	10.45 AM - 11.15 AM	5
	<b>SESSION 1: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>	11.15 AM - 12.45 PM	6
	<b>SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>	11.15 AM - 12.45 PM	7
	<b>SESSION 3: BIG DATA, DATA MANAGEMENT AND ANALYTICS</b>	11.15 AM - 12.30 PM	8
	<b>SESSION 4: BIG DATA, DATA MANAGEMENT AND ANALYTICS</b>	11.15 AM - 12.45 PM	9

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

DAY	EVENT DETAILS	TIMING	PAGE NUMBER
<b>DAY 2</b> <b>(11<sup>th</sup> May 2021)</b>	<b>KEYNOTE 3: INTERNET OF THINGS – BUILT FOR THE FUTURE</b>	<b>8.30 AM - 9:15 AM</b>	<b>10</b>
	<b>KEYNOTE 4: PARALLEL ALGORITHMS FOR PROBLEMS ON MASSIVE GRAPHS</b>	<b>9:15 AM - 10.00 AM</b>	<b>10</b>
	<b>KEYNOTE 5: IOT SECURITY</b>	<b>10.00 AM - 10.45 AM</b>	<b>10</b>
	<b>-----BREAK-----</b>	<b>10.45 AM - 11.15 AM</b>	<b>10</b>
	<b>SESSION 5: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>	<b>11.15 AM - 12.45 PM</b>	<b>11</b>
	<b>SESSION 6: AI ALGORITHMS</b>	<b>11.15 AM - 12.15 PM</b>	<b>12</b>
	<b>SESSION 7: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>	<b>11.15 AM - 12.15 PM</b>	<b>13</b>
	<b>SESSION 8: CLOUD COMPUTING, CAD DESIGN AND COMPUTATIONAL INTELLIGENCE</b>	<b>11.15 AM - 12.45 PM</b>	<b>14</b>

<b>DAY 3</b> <b>(12<sup>th</sup> May 2021)</b>	<b>KEYNOTE 6: PARALLEL ALGORITHMS FOR PROBLEMS ON MASSIVE GRAPHS</b>	<b>8.30 AM - 9:15 AM</b>	<b>15</b>
	<b>KEYNOTE 7: REAL APPLICATION OF MACHINE LEARNING (REALM): SITUATION KNOWLEDGE ON DEMAND (SKOD)</b>	<b>9:15 AM - 10.00 AM</b>	<b>15</b>
	<b>KEYNOTE 8: MACHINE LEARNING CHALLENGES IN IOT APPLICATIONS</b>	<b>10.00 AM – 10.45 AM</b>	<b>15</b>
	<b>-----BREAK-----</b>	<b>10.45 AM – 11.15 AM</b>	<b>15</b>
	<b>SESSION 9: WORKSHOP</b>	<b>11 AM – 2 PM</b>	<b>15</b>
	<b>SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING</b>	<b>11.15 AM - 12.45 PM</b>	<b>16</b>
	<b>SESSION 11: PATTERN RECOGNITION, IoT SECURITY AND COMPUTATIONAL INTELLIGENCE</b>	<b>11.15 AM - 12.30 PM</b>	<b>17</b>
	<b>SESSION 12: CRYPTOGRAPHY, IoT PROTOCOLS AND ROBOTICS</b>	<b>11.15 AM - 12.30 PM</b>	<b>18</b>
	<b>SESSION 13: ROBOTICS AND SECURITY FOR IoT</b>	<b>11.15 AM - 12.45 PM</b>	<b>19</b>

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

DAY	EVENT DETAILS	TIMING	PAGE NUMBER
Day 4 (13 <sup>th</sup> May 2021)	KEYNOTE 8: CREATING REACTIVE ROBOT BEHAVIORS FOR REAL-WORLD APPLICATIONS	8.30 AM - 9:15 AM	20
	KEYNOTE 9: INFORMATION SURGERY	9:15 AM - 10.00 AM	20
	-----BREAK-----	10.00 AM - 10.30 AM	20
	SESSION 14: IoT ENABLING TECHNOLOGIES	10.30 AM - 11:45 AM	21
	SESSION 15: ARTIFICIAL INTELLIGENCE TOOLS & APPLICATIONS AND AUTOMATIC CONTROL	10.30 AM - 11:45 AM	22
	SESSION 16: IoT ENABLING TECHNOLOGIES, SECURITY AND DATA MINING	10.30 AM - 11:45 AM	23
	SESSION 17: IoT, DATA MINING AND CLOUD COMPUTING	10.30 AM - 11:15 AM	24
	VALEDICTORY SESSION	11.45 AM - 12.00 PM	24

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## DAY 1: 10<sup>th</sup> MAY 2021

TIME	NAME OF THE EVENT	PARTICIPATION LINK
8.30 AM - 9.15 AM	INAUGURATION	(IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)
9.15 AM - 10.00 AM	KEYNOTE ADDRESS BY GOUTAM CHATTOPADHYAY (SENIOR RESEARCH SCIENTIST, NASA -JET PROPULSION LABORATORY, CALIFORNIA)  TITLE OF TALK: MARS LANDING AND RELATED TECHNICAL CHALLENGES	
10.00 AM - 10.45 AM	KEYNOTE ADDRESS BY ADINA WILLIAMS (RESEARCH SCIENTIST, FACEBOOK AI RESEARCH)  TITLE OF TALK:	

10.45 AM - 11.15 AM	BREAK
---------------------	-------

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## PARALLEL SESSIONS

### SESSION 1:ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

**SESSION CHAIR:GUANG GONG (UNIVERSITY OF WATERLOO, CANADA)**

**SESSION TIME: 11.15 AM - 12.45 PM (DAY 1: 10th MAY 2021)**

**PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11.15 AM - 11.30 AM	1570715113	Differentially-Private Federated Learning With Long-Term Budget Constraints Using Online Lagrangian Descent	Olusola Tolulope Odeyomi (Wichita State University, USA & Obafemi Awolowo University, Nigeria); Gergely Zaruba (Wichita State University, USA)
11.30 AM - 11.45 AM	1570715664	Automatic Detection Using Deep Convolutional Neural Networks for 11 Abnormal Positioning of Tubes and Catheters in Chest X-Ray Images	Elaanba Abdelfettah (Higher School of Technology, Hassan II University of Casablanca, Morocco); Mohammed Ridouani (Hassan 2 University Casablanca - ESTC, Morocco); Larbi Hassouni (CED-ENSEM HASSANII University & Estc, Morocco)
11.45 AM - 12.00 PM	1570712763	Integrated Energy Monitoring and Control IoT System and Validation Results From Neural Network Control Demonstration	Douglas Ellman, Pratiksha Shukla and Yuanzhang Xiao (University of Hawaii at Manoa, USA); Magdy Iskander (University of Hawaii, USA); Kevin Davies (University of Hawaii at Manoa, USA)
12.00 AM - 12.15 PM	1570716165	Forecasting Vaccination Drive in India for Herd Immunity Using SIR and Prophet Model	Narayana Darapaneni (Great Learning, India & Northwestern University, USA); Kumar Ayush, Abhishek Rajput, Shyamal Dhua, Karthikeyan N, Saswat P Beurik, Nikita Khare, Supriya Ghodke and Anwesh Reddy Paduri (Great Learning, India)
12.15 PM -12.30 PM	1570715920	Multi-Modal Multi-Stream UNET Model for Liver Segmentation	Hagar Louye (Arab Academy for Science and Technology, Egypt); Mohamed Waleed Fakhri (Arab Academy for Science and Technology & AAST, Egypt)
12.30 PM - 12.45 PM	1570715852	Adversarial Black-Box Attacks Against Network Intrusion Detection Systems: A Survey	Huda Ali Alatwi (Newcastle University & Tabuk University, United Kingdom (Great Britain)); Amjad Aldweesh (Shaqra University, Saudi Arabia)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING****SESSION CHAIR: ZHENGXIN CHEN (UNIVERSITY OF NEBRASKA AT OMAHA, USA)****SESSION TIME: 11.15 AM - 12.45 PM (DAY 1: 10th MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570711828	Early Prediction of Electronics Engineering Licensure Examination Performance Using Random Forest	Renato R. Maaliw III (Southern Luzon State University, Philippines)
11.30 AM - 11.45 AM	1570712922	Remote Crop Sensing With IoT and AI on the Edge	Panagiotis Savvidis and George A Papakostas (International Hellenic University, Greece)
11.45 AM - 12.00 PM	1570712927	An Audio Processing With Ensemble Learning Approach for Speech-Emotion Recognition for Children With ASD	Damian Valles and Rezwan Matin (Texas State University, USA)
12.00 AM - 12.15 PM	1570715491	Knife Detection Using Indoor Surveillance Camera	Yoshemart Amador-Salgado (Daifuku, Mexico); Jose A. Padilla-Medina and Francisco J. Perez-Pinal (TecNM Celaya, Mexico); Martín Rodríguez-Licea and Alejandro I. Barranco-Gutierrez (Cátedras CONACyT - TecNM Celaya, Mexico); Juan Martínez-Nolasco (TecNM Celaya, Mexico)
12.15 PM - 12.30 PM	1570716162	Expert System in Micropower Grid Planning	Ahmed Essam Abdel Aziz, Nada Adel Hendawy, Rania Magdy Ahmed, Hesham Ayman Nasr, Mohamed Adel Shalaby and Sahar A. Moussa (Pharos University, Egypt)
12.30 PM - 12.45 PM	1570712117	OCTAI: Smartphone-Based Optical Coherence Tomography Image Analysis System	Adrit Rao (AI/Medical Research, USA); Harvey Fishman (Stanford University, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 3: BIG DATA, DATA MANAGEMENT AND ANALYTICS****SESSION CHAIR: SHAHAB TAYEB (CALIFORNIA STATE UNIVERSITY, FRESNO, USA)****SESSION TIME: 11.15 AM - 12.30 PM (DAY 1: 10th MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570710554	Understanding the Association of Personal Outlook in Free Speech Regulation and the Risk of Being Mis/Disinformed	Kevin Matthe Caramancion (University at Albany, USA)
11.30 AM - 11.45 AM	1570712901	Development of A Mobile Application for Patient's Medical Record and History	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.45 AM - 12.00 PM	1570711844	Collaborative Fog Computing Architecture for Privacy-Preserving Data Aggregation	Hani H Qusa and Jumana Tarazi (Higher Colleges of Technology, United Arab Emirates)
12.00 AM - 12.15 PM	1570712897	GERAM BAZAR, A Mobile Application and Website Interface E-Commerce	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.15 PM - 12.30 PM	1570716126	Epidemiological Spatiotemporal Data Exploration and Prediction	Sudarshan S Chawathe (University of Maine, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**



**SESSION 4: BIG DATA AND ARTIFICIAL INTELLIGENCE****SESSION CHAIR : MEHDI ROOPAEI (UNIVERSITY OF WISCONSIN - PLATTEVILLE, USA)****SESSION TIME: 11.15 AM - 12.45 PM (DAY 1: 10th MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570712907	RentBd-An Exclusive Fashion Rental Service	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.30 AM - 11.45 AM	1570716182	HACS: Access Control for Streaming Data Across Heterogeneous Communication Models	Atul Anand Gopalakrishnan, Ashish C Victor, Deepika Karanji and Umashankar Sivakumar (PES University, India); Seema Nambiar (PES University, Bengaluru, India); Subramaniam Kalambur (PES University, India)
11.45 AM - 12.00 PM	1570712908	An Interactive Android Application to Share Rides With NSUsers	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.00 AM - 12.15 PM	1570712235	A Survey on Machine Learning and Internet of Things for COVID-19	Ersin Elbasi, Shinu Mathew, Ahmet E Topcu and Wiem Abdelbaki (American University of the Middle East, Kuwait)
12.15 PM - 12.30 PM	1570712914	An Interactive Web Platform and Android Application Based on Room Sharing Service for Students	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.30 PM - 12.45 PM	1570712562	Hardware Deployment of HBONext Using NXP Bluebox 2.0	Sanket Joshi and Mohamed El-Sharkawy (Purdue School of Engineering and Technology, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## DAY 2: 11<sup>TH</sup> MAY 2021

TIME	NAME OF THE EVENT	PARTICIPATION LINK
8.30 AM - 9.15 AM	KEYNOTE ADDRESS BY <b>DEBJIT MOOKHERJEE</b> (HEAD OF IOT IN ADVANCED INDUSTRIES GROUP IT, ERICSSON)  TITLE OF TALK: <b>INTERNET OF THINGS – BUILT FOR THE FUTURE</b>	(IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)
9.15 AM - 10.00 AM	KEYNOTE ADDRESS BY <b>CLIFFORD S STEIN</b> (PROFESSOR, COLUMBIA UNIVERSITY, USA) TITLE OF TALK: <b>PARALLEL ALGORITHMS FOR PROBLEMS ON MASSIVE GRAPHS</b>	
10.00 AM - 10.45 AM	KEYNOTE ADDRESS BY <b>ELISA BERTINO</b> (PROFESSOR, PURDUE UNIVERSITY, USA)  TITLE OF TALK: <b>IOT SECURITY</b>	

10.45 AM - 11.15 AM	<b>BREAK</b>
---------------------	--------------

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## PARALLEL SESSIONS

### SESSION 5: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

**SESSION CHAIR :SUDARSHAN S CHAWATHE (UNIVERSITY OF MAINE, USA)**

**SESSION TIME: 11.15 AM - 12.45 PM (DAY 2: 11TH MAY 2021)**

**PARTICIPATION LINK:(IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11.15 AM - 11.30 AM	1570712909	Education System for Bangladesh Using Augmented Reality, Virtual Reality and Artificial Intelligence	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.30 AM - 11.45 AM	1570711653	Food Temperature Analysis and Forecasting	Narayana Darapaneni (Great Learning, India & Northwestern University, USA); Sulekha Dileep, Dinakar Komanduri, Nandan Garimella, Swaroop Manchala, Prajwal Shetty, Santosh Vadlamani and Anwesh Reddy Paduri (Great Learning, India)
11.45 AM - 12.00 PM	1570712555	Prediction of Link Quality for IoT Cloud Communications Supported by Machine Learning	Beatriz Dias (ISCTE-IUL, Portugal); André Glória (ISCTE - Instituto Universitário de Lisboa, Instituto de Telecomunicações, Portugal); Pedro Sebastião (ISCTE, Instituto de Telecomunicações, Portugal)
12.00 AM - 12.15 PM	1570706023	Efficient Early Prediction and Diagnosis of Diseases Using Machine Learning Algorithms for IoMT Data	Ersin Elbasi and Aymen Zreikat (American University of the Middle East, Kuwait)
12.15 PM - 12.30 PM	1570712905	Educational Web Application for Young People to Raise Awareness on Menstruation	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.30 PM - 12.45 PM	1570712717	Prediction of Weather Forecast for Smart Agriculture Supported by Machine Learning	Francisco Raimundo (ISCTE-IUL, Portugal); André Glória (ISCTE - Instituto Universitário de Lisboa, Instituto de Telecomunicações, Portugal); Pedro Sebastião (ISCTE, Instituto de Telecomunicações, Portugal)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 6: AI ALGORITHMS****SESSION CHAIR: ALI ABDULLAH S. ALQAHTANI (UNIVERSITY OF WISCONSIN-GREEN BAY, USA)****SESSION TIME: 11.15 AM - 12.15 PM (DAY 2: 11TH MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570715879	Hybrid Ant Based Clustering for Data Clustering	Md Ali Azam, Md Abir Hossen and Md Hafizur Rahman (South Dakota School of Mines and Technology, USA)
11.30 AM - 11.45 AM	1570716178	Improved Noise Filtering Technique for Wake Detection in SAR Image Under Rough Sea Condition	Subashini Parthasarathy (Avinashilingam Institute for Home Science and Higher Education for Women, India); Hareesh Kumar Pv and Lekshmi S (Naval Physical & Oceanographic Laboratory, India); Krishnaveni Marimuthu (Department of Computer Science, Avinashilingam University for Women & Avinashilingam University for Women, India); Dhivyaprabha Thoosi Thyagarajan (Avinashilingam Institute for Home Science and Higher Education for Women, India)
11.45 AM - 12.00 PM	1570716177	A Comparative Analysis of Lithium Ion Battery Input Profiles for Remaining Useful Life Prediction by Cascade Forward Neural Network	Shaheer Ansari (University Kebangsaan Malaysia, Malaysia); A Ayob and Molla Shahadat Hossain Lipu (The National University of Malaysia, Malaysia); Mohamad Hanif Md Saad and Aini Hussain (Universiti Kebangsaan Malaysia, Malaysia)
12.00 AM - 12.15 PM	1570715438	An Adaptive Deep-Ensemble Anomaly-Based Intrusion Detection System for the Internet of Things	Khalid Abdullah Albulayhi (University of Idaho & Technical and Vocational Training Corporation, USA); Frederick T Sheldon (University of Idaho, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 7: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING****SESSION CHAIR: EMAN ABDELFAH (RAMAPO COLLEGE OF NEW JERSEY, USA)****SESSION TIME: 11.15 AM - 12.15 PM (DAY 2: 11TH MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 PM	1570715507	Machine Biometrics - Towards Identifying Machines in a Smart City Environment	George Sidiropoulos and George A Papakostas (International Hellenic University, Greece)
11.30 AM - 11.45 AM	1570716010	Towards Machine Learning and Low Data Rate IoT for Fault Detection in DataDriven Predictive Maintenance	Wesley B Richardson, Sune von Solms and Johan Meyer (University of Johannesburg, South Africa)
11.45 AM - 12.00 PM	1570715699	Cataract Detection Using Convolutional Neural Network With VGG-19 Model	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.00 AM - 12.15 PM	1570715973	Class Insight: A Student Monitoring System With Real-Time Updates Using Face Detection and Eye Tracking	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 8: CLOUD COMPUTING, CAD DESIGN AND COMPUTATIONAL INTELLIGENCE****SESSION CHAIR: HONG YU (FITCHBURG STATE UNIVERSITY, USA)****SESSION TIME: 11.15 AM - 12.45 PM (DAY 2: 11TH MAY 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570712367	Development of a MATLAB Web-Based Application for Calculating Ionospheric Scintillation Proxy Indexes (S4p-1 and S4p-2) and the Rate of Total Electron Content Index)	Kyle Ezekiel S. Juadines (Mapúa University, Philippines); Alejandro H. Ballado, Jr. (Mapua University, Philippines); Ernest P Macalalad (Mapúa University, Philippines); Merlin Malonzo Mendoza (National Central University, Taiwan)
11.30 AM - 11.45 AM	1570716471	A Novel Biphasic Neuron Encoder Implementation	Madhuvanathi Srivatsav R and Binsu J Kailath (IIITDM Kancheepuram, India)
11.45 AM - 12.00 PM	1570716171	Mutually Private Verifiable Machine Learning As-a-Service: A Distributed Approach	Shadan Ghaffaripour and Ali Miri (Ryerson University, Canada)
12.00 AM - 12.15 PM	1570712601	Recent Challenges for Haptic Interface and Control for Robotic Assisted Surgical Training System: A Review	Santosh Kumar Singh, Liangjing Yang and Ma Hao (Zhejiang University, China)
12.15 PM - 12.30 PM	1570716105	Robustness Analysis of Cyber-Physical Systems Based on Discrete Timed Cyber-Physical Models	Fu-Shiung Hsieh (Chaoyang University of Technology, Taiwan)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## DAY 3: 12<sup>TH</sup> MAY, 2021

TIME	NAME OF THE EVENT	PARTICIPATION LINK
8.30 AM - 9.15 AM	KEYNOTE ADDRESS BY JONATHAN PROTZENKO (PRINCIPAL RESEARCHER, MICROSOFT RESEARCH)  TITLE OF TALK: PROGRAMMING LANGUAGES FOR THE LAW	(IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)
9.15 AM - 10.00 AM	KEYNOTE ADDRESS BY BHARAT K. BHARGAVA (PROFESSOR, PURDUE UNIVERSITY, USA)  TITLE OF TALK: REAL APPLICATION OF MACHINE LEARNING (REALM): SITUATION KNOWLEDGE ON DEMAND (SKOD)	
10.00 AM – 10.45 AM	KEYNOTE ADDRESS BY TAREK ABDELZAHER (PROFESSOR, UNIVERSITY OF ILLINOIS, USA)  TITLE OF TALK: MACHINE LEARNING CHALLENGES IN IOT APPLICATIONS	

10.45 AM - 11.15 AM	BREAK
---------------------	-------

SESSION 9: WORKSHOP	
INTERNET OF THINGS (IoT) USING RASPBERRY PI VIRTUAL MACHINES (VMS) BY DR. PHILLIP BRADFORD (UNIVERSITY OF CONNECTICUT, STAMFORD, USA)	11 AM - 2 PM
<b>Participation Link:</b> (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)	

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## PARALLEL SESSIONS

### SESSION 10: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

**SESSION CHAIR: MEHDI ROOPAEI (UNIVERSITY OF WISCONSIN - PLATTEVILLE, USA)**

**SESSION TIME: 11.15 AM - 12:45 PM (DAY 3: 12TH MAY, 2021)**

**PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11.15 AM - 11.30 AM	1570716127	Emotion Detection of Textual Data: An Interdisciplinary Survey	Samira Zad (Florida International University, USA); Maryam Heidari (George Mason University, USA)
11.30 AM - 11.45 AM	1570716215	Multi-Class Text Classification Using Machine Learning Models for Online Drug Reviews	Eman Abdelfattah and Shreehar Joshi (Ramapo College of New Jersey, USA)
11.45 AM - 12.00 PM	1570716175	Activity & Emotion Detection of Recognized Kids in CCTV Video for Day Care Using SlowFast & CNN	Narayana Darapaneni (Great Learning, India & Northwestern University, USA); Anwesh Reddy Paduri, Akash Shrivastava, Dharendra Singh, Neeraj Kilhore, Rashmi Tomer, Sharat Chandra and Shivangi Chopra (Great Learning, India); Sudarshan Sureshrao Deshmukh (University Of Pune & Pimpri Chinchwad College of Engineering, India)
12.00 AM - 12.15 PM	1570716183	A Distributed Reinforcement Learning Approach for Power Control in Wireless Networks	Antonio Ornatelli and Andrea Tortorelli (Sapienza University of Rome, Italy); Francesco Liberati (Sapienza - University of Rome, Italy)
12.15 PM -12.30 PM	1570716207	A Novel Browser-Based No-Code Machine Learning Application Development Tool	Erol Ozan (East Carolina University, USA)
12.30 PM - 12.45 PM	1570716133	A Survey on Concept-Level Sentiment Analysis Techniques of Textual Data	Samira Zad (Florida International University, USA); Maryam Heidari (George Mason University, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**



**SESSION 11: PATTERN RECOGNITION, IoT SECURITY AND COMPUTATIONAL INTELLIGENCE****SESSION CHAIR: GEORGE A PAPAKOSTAS (INTERNATIONAL HELLENIC UNIVERSITY, GREECE)****SESSION TIME: 11.15 AM - 12:30 PM (DAY 3: 12TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570715100	Development of an IoT Based Smart Baby Monitoring System With Face Recognition	Riasat Khan (North South University, Bangladesh & New Mexico State University, USA)
11.30 AM - 11.45 AM	1570712410	Bistable-Triplet STDP Circuit Without External Memory for Integrating With Silicon Neurons	Sathiya Jothi S and Binsu J Kailath (IIITDM Kancheepuram, India)
11.45 AM - 12.00 PM	1570712869	RiftNet Reconstruction Model for Radio Frequency Domain Waveform Representation and Synthesis	Joseph Carmack and Scott Kuzdeba (BAE Systems, USA)
12.00 AM - 12.15 PM	1570713262	Development of Web Based Tour Package System	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
12.15 PM -12.30 PM	1570715036	A Multiple Access Protocol for Multimedia Transmission Over 5G Wireless Asynchronous Transfer Mode Network	Hong Yu, Fanming Liu and Marcus Perrla (Fitchburg State University, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 12 : CRYPTOGRAPHY, IoT PROTOCOLS AND ROBOTICS****SESSION CHAIR: MUATH OBAIDAT (CITY UNIVERSITY OF NEW YORK, USA)****SESSION TIME: 11.15 AM - 12:30 PM (DAY 3: 12TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570712906	An Automatic Soil Testing Machine for Accurate Fertilization	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.30 AM - 11.45 AM	1570712465	Study of Behaviors of Motion Models in High-Order Systems	Tri Minh Tran (Gunma University & Japan, Japan); Anna Kuwana and Haruo Kobayashi (Gunma University, Japan)
11.45 AM - 12.00 PM	1570716181	Batching Anonymous and Non-Anonymous Membership Proofs for Blockchain Applications	Shihui Fu, Guiwen Luo and Guang Gong (University of Waterloo, Canada)
12.00 AM - 12.15 PM	1570716029	Automatic Detection of Vehicle Congestion by Using Roadside Unit	Zainab Abood (Altinbas University, Turkey)
12.15 PM -12.30 PM	1570715560	Improvement of Verbal and Non-Verbal Communication Skills of Children With Autism Spectrum Disorder Using Human Robot Interaction	SK Adif Farhan, Md. Nasfikur R. Khan, Mostafizur Rahman Swaron and Ramendra Narayan Saha Shukhon (Independent University, Bangladesh); Md. Mofijul Islam (Society for the Welfare of Autistic Children, Bangladesh); Md. Abdur Razzak (Independent University, Bangladesh)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 13: ROBOTICS AND SECURITY FOR IoT****SESSION CHAIR: MATIN PIROUZ (CALIFORNIA STATE UNIVERSITY, FRESNO)****SESSION TIME: 11.15 AM - 12:45 PM (DAY 3: 12TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
11.15 AM - 11.30 AM	1570716047	Image Classification With Knowledge-Based Systems on the Edge for Real-Time Danger Avoidance in Robots	Henri Hegemier and Jaimie Kelley (Denison University, USA)
11.30 AM - 11.45 AM	1570716091	Developing a Mobile Automated Medical Assistant for Hospitals in Bangladesh	Md Abir Hossen (South Dakota School of Mines and Technology, USA); Ebad Zahir (American International University - Bangladesh, Bangladesh); H M Ata-e Rabbi (University of Alberta, USA); Md Ali Azam and Md Hafizur Rahman (South Dakota School of Mines and Technology, USA)
11.45 AM - 12.00 PM	1570716198	A Cost Effective UV Robot for Disinfecting Hospital and Factory Spaces for Covid-19 and Other Communicable Diseases	Md. Abdur Razzak and Md. Mushfiqur Rahman Saad (Independent University, Bangladesh)
12.00 AM - 12.15 PM	1570712643	A LoRa Enabled IoT-Based Air Quality Monitoring System for Smart City	Kambombo Mtonga (University of Rwanda & African Center of Excellence in Internet of Things (ACEIoT), Rwanda); Evariste Twahirwa (University of Rwanda, Rwanda); Desire Ngabo (Hunan University, Rwanda & University of Rwanda, China); Santhi Kumaran (Copperbelt University, Zambia)
12.15 PM -12.30 PM	1570712864	Analysis of the Design Requirements for Remote Internet-Based E-Voting Systems	Hosam Alamlah (University of North Carolina Wilmington & Louisiana Tech University, USA); Ali Abdullah S. AlQahtani (University of Wisconsin-Green Bay, USA)
12.30 PM - 12.45 PM	1570715806	A Protecting Mechanism Against Double Spending Attack in Blockchain Systems	Zexi Xing and Zhengxin Chen (University of Nebraska at Omaha, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

## DAY 4: 13<sup>TH</sup> MAY, 2021

TIME	NAME OF THE EVENT	PARTICIPATION LINK
8.30 AM - 9.15 AM	KEYNOTE ADDRESS BY <b>CHRIS PAXTON</b> (SENIOR ROBOTICS RESEARCH SCIENTIST, NVIDIA)  TITLE OF TALK: <b>CREATING REACTIVE ROBOT BEHAVIORS FOR REAL-WORLD APPLICATIONS</b>	(IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)
9.15 AM - 10.00 AM	KEYNOTE ADDRESS BY <b>HENG JI</b> (PROFESSOR, UNIVERSITY OF ILLINOIS, USA)  TITLE OF TALK: <b>INFORMATION SURGERY</b>	

10.00 AM - 10.30 AM	<b>BREAK</b>
---------------------	--------------

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 14: IoT ENABLING TECHNOLOGIES****SESSION CHAIR: JAIMIE KELLEY (DENISON UNIVERSITY, USA)****SESSION TIME: 10:30 AM - 11:45 AM (DAY 4: 13TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
10.30 AM - 10.45 AM	1570712652	Analysis of Smart Contract Abstraction in Decentralized Blockchain Based Stock Exchange	Sashank Sridhar and Sowmya Sanagavarapu (Anna University, India)
10.45 AM - 11.00 AM	1570716148	A Systematic Approach for Scheduling IoT Devices for Effective Load Balancing Based on Deep Sleep	Lahiru J Ekanayake and Ruwan D Nawarathna (Faculty of Science, University of Peradeniya, Sri Lanka); Saluka Kodituwakku, Roshan Yapa and Amalka J. Piniidiyaarachchi (University of Peradeniya, Sri Lanka)
11.00 AM - 11.15 AM	1570712161	Predictive Maintenance - Bridging Artificial Intelligence and IoT	Gerasimos Samatas, Seraphim Moumgiakmas and George A Papakostas (International Hellenic University, Greece)
11.15 AM - 11.30 AM	1570710287	Intelligent Mirai Malware Detection in IoT Devices	Tarun Palla (California State University, USA); Shahab Tayeb (California State University, Fresno, USA)
11.30 AM - 11.45 AM	1570716210	A Survey in Localization Techniques Used in Location-Based Access Control	Maha Almutairi (Western Michigan University, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 15: ARTIFICIAL INTELLIGENCE TOOLS, APPLICATIONS AND AUTOMATIC CONTROL****SESSION CHAIR : GUANG GONG (UNIVERSITY OF WATERLOO, CANADA)****SESSION TIME: 10:30 AM - 11:45 AM (DAY 4: 13TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
10.30 AM - 10.45 AM	1570712874	Aggregation of Sentiment Analysis Index With Hesitant Fuzzy Sets for Financial Time Series Forecasting	Breno Costa Dias (Universidade Federal de Minas Gerais, Brazil); Hossein Sadaei (Prospectiva Group, Brazil); Petronio Silva (Instituto Federal do Norte de Minas Gerais, Brazil); Frederico G Guimaraes (Universidade Federal de Minas Gerais, Brazil)
10.45 AM - 11.00 AM	1570716247	Controller Design and Robustness Analysis for Multi-Phase Wireless Power Transfer System Using H-Infinity Mixed Sensitivity Approach	Vishnu Mohan and Dariusz Czarkowski (New York University, USA)
11.00 AM - 11.15 AM	1570712701	Multichannel Controller Synthesis for the Plant With Three Input and Two Output Channels Using Polynomial Matrix Decomposition	Aleksandr Voevoda, Victor Shipagin and Vladislav Filushov (NSTU, Russia)
11.15 AM - 11.30 AM	1570713073	Wireless Power Transfer by Highly Resonant Technique	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.30 AM - 11.45 AM	1570715873	Decentralized Multitarget Tracking for UAV Swarm Using Approximate Dynamic Programming	Md Ali Azam and Shawon Dey (South Dakota School of Mines and Technology, USA); Hans Mittelman (Arizona State University, USA); Shankarachary Ragi (South Dakota School of Mines and Technology, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 16: IOT ENABLING TECHNOLOGIES, SECURITY AND DATA MINING****SESSION CHAIR: EMAN ABDELFAH (RAMAPO COLLEGE OF NEW JERSEY, USA)****SESSION TIME: 10:30 AM - 11:45 AM (DAY 4: 13TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
10.30 AM - 10.45 AM	1570712878	Applicability of IoT for Smart Agriculture: Challenges & Future Research Direction	Ila Kaushik (GGSIPU Delhi, India); Nupur Prakash (GGS Indraprastha University Delhi, India)
10.45 AM - 11.00 AM	1570712903	First Enriched Legal Database in Bangladesh With Efficient Search Optimization and Data Visualization for Law Students and Lawyers	Mohammad Monirujjaman Khan (North South University & Queen Mary University of London, Bangladesh)
11.00 AM - 11.15 AM	1570712392	Regulatory Compliance Modelling Using Risk Management Techniques	Steve Taylor, Mike Surrudge and Brian Pickering (University of Southampton, United Kingdom (Great Britain))
11.15 AM - 11.30 AM	1570711104	Zero-Effort Indoor Continuous Social Distancing Monitoring System	Amber Honnef, Emily Sawall and Mohamed Mohamed (University of Wisconsin-Green Bay, USA); Ali Abdullah S. AlQahtani (University of Wisconsin-Green Bay, USA); Thamraa Alshayeb (University of Wisconsin Green Bay, USA)
11.30 AM - 11.45 AM	1570711725	Improving the Relevancy of a Web Navigation Recommender System Using Categorization of Users' Experience	Ilan Granot and Ching-Seh Wu (San Jose State University, USA); Zvi Or-Bach (MonolithIC 3D, USA)

**All the timings are given in Pacific Daylight Time (PDT (UTC-7))**

**SESSION 17: IoT, DATA MINING AND CLOUD COMPUTING****SESSION CHAIR: HONG YU (FITCHBURG STATE UNIVERSITY, USA)****SESSION TIME: 10:30 AM - 11:15 AM (DAY 4: 13TH MAY, 2021)****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
10:30 AM - 10:45 AM	1570715449	Blind Attack Flaws in Adaptive HoneyPot Strategies	Muath Obaidat (City University of New York, USA)
10:45 AM - 11:00 AM	1570712921	Women in AI: Barriers and Solutions	Mehdi Roopaei (University of Wisconsin-Platteville, USA); Justine Horst(University of Wisconsin-Platteville, USA); Emilee Klaas (1 University Plaza,Platteville, WI, USA); Gwen Foster (University of Wisconsin-Platteville,USA); Tammy J Salmon-Stephens (University of Wisconsin-Platteville,USA); Jodean E Grunow (University of Wisconsin-Platteville & University ofWisconsin-Madison, USA)
11:00 AM - 11:15 AM	1570713129	CR-LPWAN: Issues, Solutions and Research Directions	Koketso Keoagile Ntshabele (North West University, Mafikeng Campus, SouthAfrica); Bassey Isong (North-West University, South Africa); Adnan M. Abu-Mahfouz (CSIR NextGen Enterprises and Institutions, South Africa)

**VALEDICTORY SESSION****11.45 PM - 12.00 PM****PARTICIPATION LINK: (IT WILL BE EMAILED TO THE PARTICIPANTS DIRECTLY)****All the timings are given in Pacific Daylight Time (PDT (UTC-7))**