



# IEMTRONICS

International Conference



# IEEE IEMTRONICS 2022

## Virtual Conference

International IOT, Electronics and Mechatronics Conference 2022  
Toronto, Canada  
1<sup>st</sup>-4<sup>th</sup> June, 2022

*\*All the timings are given in Eastern Daylight Time (EDT)*

## TECHNICAL SCHEDULE: CONTENT

	EVENT DETAILS	TIMING*
<b>DAY 1 (1<sup>st</sup> June, 2022)</b>	<b>INAUGURATION</b>	<b>8:30 A.M-9:00 A.M</b>
	<b>Address by Guest of Honour : Prof. Konstantin Novoselov, Honourable Nobel Laureate, Director at the Institute for Functional Intelligent Materials, National University of Singapore, Langworthy Professor in the School of Physics and Astronomy, University of Manchester, Manchester, United Kingdom</b>	<b>9:00 A.M – 9:20 A.M</b>
	<b>KEYNOTE ADDRESS 1: (Dr. M. Jamal Deen, Distinguished University Professor , McMaster University, Canada)</b>	<b>9:30 A.M – 10:15 A.M</b>
	<b>Parallel Technical Paper Presentation Sessions 1:</b>	<b>SESSION 1/ SESSION 2/ SESSION 3/ SESSION 4</b>
	<b>Parallel Technical Paper Presentation Sessions 2:</b>	<b>SESSION 5/ SESSION 6/ SESSION 7/ SESSION 8</b>
<b>DAY 2 (2<sup>nd</sup> June, 2022)</b>	<b>KEYNOTE ADDRESS 2: (Dr. Kenneth Paterson, Professor, ETH Zürich, Switzerland)</b>	<b>9:00 A.M – 9:45 A.M</b>
	<b>KEYNOTE ADDRESS 3: (Dr. Gil Zussman, Professor, Columbia University, New York)</b>	<b>9:50 A.M – 10:35 A.M</b>
	<b>Parallel Technical Paper Presentation Sessions 1:</b>	<b>SESSION 9 /SESSION 10 / SESSION 11 /SESSION 12</b>
	<b>Parallel Technical Paper Presentation Sessions 2:</b>	<b>SESSION 13 / SESSION 14 / SESSION 15 / SESSION 16</b>

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## TECHNICAL SCHEDULE: CONTENT (Contd..)

	EVENT DETAILS	TIMING*	
<b>DAY 3</b> (3 <sup>rd</sup> June, 2022)	<b>Address by Chief Guest: Prof. Takaaki Kajita</b> Honourable Nobel Laureate, Distinguished University Professor, Institute for Cosmic Ray Research, The University of Tokyo, Japan	9:00 A.M – 9:20 A.M	
	<b>KEYNOTE ADDRESS 4:</b> (Dr. Kin K. Leung, Professor, Imperial College, London, United Kingdom)	9:30 A.M –10:15 A.M	
	<b>KEYNOTE ADDRESS 5:</b> (Dr. Torsten Hoeffler, Professor, ETH Zürich,Switzerland)	10:20 A.M-11:05 A.M	
	<b>Parallel Technical Paper Presentation</b> Sessions 1:	SESSION 17 / SESSION 18 / SESSION 19 / SESSION 20	11:10 A.M-12:40 P.M
	<b>Parallel Technical Paper Presentation</b> Sessions 2:	SESSION 21 /SESSION 22 /SESSION 23 /SESSION 24	12:45 P.M- 2:15 P.M
<b>DAY 4</b> (4 <sup>th</sup> June, 2022)	<b>KEYNOTE ADDRESS 6:</b> (Dr. Dayan Ban, Professor, University of Waterloo, Canada)	9:00 A.M – 9:45 A.M	
	<b>KEYNOTE ADDRESS 7:</b> (Dr. Xiaodong Wang, Professor, Columbia University, New York)	9:55 A.M –10:40 A.M	
	<b>Parallel Technical Paper Presentation</b> Sessions 1:	SESSION 25 / SESSION 26 / SESSION 27	10:45 A.M-12:15 P.M
	<b>Valedictory Session</b>		12: 30 P.M -1:00 P.M

*\* All the timings are given in Eastern Daylight Time (EDT)*

**DAY 1: 1<sup>st</sup> June, 2022**

<b>TIME</b>	<b>NAME OF THE EVENT</b>	<b>PARTICIPATION LINK</b>
<b>8:30 A.M-9:00 A.M</b>	<b>INAUGURATION</b>	
<b>9:00 A.M – 9:20 A.M</b>	<b>Address by Guest of Honour : Prof. Konstantin Novoselov, Honourable Nobel Laureate, Director at the Institute for Functional Intelligent Materials, National University of Singapore, Langworthy Professor in the School of Physics and Astronomy, University of Manchester, Manchester, United Kingdom</b>	
<b>9:30 A.M –10:15 A.M</b>	<b>KEYNOTE ADDRESS 1: (Dr. M. Jamal Deen, Distinguished University Professor , McMaster University, Canada)</b>	

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## PARALLEL SESSIONS : 1

### SESSION 1 : Cognitive Systems

**SESSION CHAIR: Dr. S. Andrew Gadsden, McMaster University ( Rapporteur: Prof. Sutanu Ghosh, Prof. Indranil Maity)**

**SESSION TIME: 10:30 A.M- 12:00 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:30 A.M- 10:45 A.M	1570801946	Provision of Information and Detection Systems on Two-Wheeled Motorcycle Accidents	Andi Nur Faisal and Amil Ahmad Ilham (Hasanuddin University, Indonesia); Syafaruddin Syafaruddin (Universitas Hasanuddin Makassar, Indonesia)
10:45 A.M- 11:00 A.M	1570808746	A Data-Centric Machine Learning Approach for Controlling Exploration in Estimation of Distribution Algorithms	Antonio Jose Bolufe-Rohler and Jordan Luke (University of Prince Edward Island, Canada)
11:00 A.M- 11:15 A.M	1570807248	Artificial Intelligence Applied in Human Medicine With the Implementation of Prostheses	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Ismael Alvarado Landeo, Erick Surichaqui Montalvo and Kener Velasquez Colorado (Universidad Continental, Peru)
11:15 A.M- 11:30 A.M	1570810959	Employee Turnover Prediction Model for Garments Organizations of Bangladesh Using Machine Learning Technique	Lutfun Nahar, Farzana Tasnim, Zinnia Sultana and Farjana Akter Tuli (International Islamic University Chittagong, Bangladesh)
11:30 A.M- 11:45 A.M	1570806938	Machine Learning Models to Predict COVID-19 Cases in the DC Metro Area	Maryam Heidari, Michael Thompson, Thao Tran, Ghadah Alshabana and Ashritha Chitimalla (George Mason University, USA)
11:45 A.M- 12:00 P.M	1570804846	Server-Side Distinction of User Mobility Using Machine Learning on Incoming Data Traffic	Hosam Alamleh (University of North Carolina Wilmington & Louisiana Tech University, USA); Ali Abdullah S. AlQahtani (North Carolina A&T State University, USA); Baker Al Smadi (Grambling State University, USA)

## PARALLEL SESSIONS : 1

### SESSION 2 : Electronics

**SESSION CHAIR: Dr. Hosam Alamleh, University of North Carolina Wilmington & Louisiana Tech University, USA  
(Rapporteur: Prof.Samit Karmakar ,Prof. Soumik Kundu)**

**SESSION TIME: 10:30 A.M- 11:45 A.M**

### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>10:30 A.M- 10:45 A.M</b>	1570809064	Dynamic Modeling of a Micro Solar Electric Vehicle for Pakistan Using Simulink	Ali Husnain and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)
<b>10:45 A.M- 11:00 A.M</b>	1570805456	An Optimum Sizing for a Hybrid Storage System in Solar Water Pumping Using ICA	Amirhossein Jahanfar and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)
<b>11:00 A.M- 11:15 A.M</b>	1570807814	Aggregated Modeling of Synchronous Generators Using Transfer Matrices	Arash Safavizadeh and Erfan Mostajeran (The University of British Columbia, Canada); Seyyedmilad Ebrahimi (University of British Columbia, Canada); Taleb Vahabzadeh (The University of British Columbia, Canada); Juri Jatskevich (University of British Columbia, Canada)
<b>11:15 A.M- 11:30 A.M</b>	1570801864	Systematic Analysis and Proposed AI-Based Technique for Attenuating Inductive and Capacitive Parasitics in Low and Very Low Frequency Antennas	Kate G Francisco, R-jay Relano, Mike Louie Enriquez, Ronnie Concepcion II, Jonah Jahara Baun, Adrian Genevie G. Janairo, Ryan Rhay P. Vicerra and Argel Bandala (De La Salle University, Philippines); Elmer P. Dadios (Philippines, Philippines); Jonathan Dungca (De La Salle University, Philippines)
<b>11:30 A.M- 11:45 A.M</b>	1570804678	Nursery With Automation and Control Systems for the Production of White Chuño (Tunta)	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Alem Huayta Uribe, Jalber Macuri Vasquez and Hitan Cordova Sanchez (Universidad Continental, Peru)

## PARALLEL SESSIONS : 1

### SESSION 3 : Mobile Communication

**SESSION CHAIR: Dr.Tri Minh Tran (Gunma University & Japan, Japan) ( Rapporteur: Prof. Subhabrata Banerjee, Amit Kumar Das)**

**SESSION TIME: 10:30 A.M- 11:45 A.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:30 A.M- 10:45 A.M	1570808279	Input Fuzzing for Network-Based Attack Vector on Smartphones	Hosam Alamleh (University of North Carolina Wilmington & Louisiana Tech University, USA); Micah Noyes (University of North Carolina Wilmington, USA)
10:45 A.M- 11:00 A.M	1570799223	Intelligent Reflecting Surfaces in UAV-Assisted 6G Networks: An Approach for Enhanced Propagation and Spectral Characteristics	Mobasshir Mahbub (Ahsanullah University of Science and Technology, Bangladesh); Raed Shubair (New York University (NYU) Abu Dhabi, United Arab Emirates)
11:00 A.M- 11:15 A.M	1570799297	Intelligent Reflecting Surfaces for Multi-Access Edge Computing in 6G Wireless Networks	Mobasshir Mahbub (Ahsanullah University of Science and Technology, Bangladesh); Raed Shubair (New York University (NYU) Abu Dhabi, United Arab Emirates)
11:15 A.M- 11:30 A.M	1570799804	Research on Ambient Backscatter Communication Signal Detection Algorithm Based on Digital Terrestrial Multimedia Broadcast	Chen Ruan and Hongyi Wang (National University of Defense Technology, China); Zheng Liming (National University of Defence Technology, China); Jianfei Wu (National University of Defense Technology, China); Fengxian Ma (Tianjin Institute of Advanced Technology, China)
11:30 A.M- 11:45 A.M	1570804309	Use of Drones (UAVs) for Pollutant Identification in the Industrial Sector: A Technological Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Julio Huamanchahua and Fabiola Flores (Universidad San Ignacio de Loyola, Peru)

## PARALLEL SESSIONS : 1

### SESSION 4 : Mobile Communication & IOT

**SESSION CHAIR: Dr.Shahriar Khan (Independent University, Bangladesh) ( Rapporteur: Prof. Sayantani Chowdhury, Prof. Arunava Mukhopadhyay)**

**SESSION TIME: 10:30 A.M- 11:45 A.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:30 A.M- 10:45 A.M	1570812621	Image Captioning- Bangladesh's Heritage Perspective Using Deep Learning	Sarowar Alam, Khalidul Islam, Nishat Sharmila, Ziaur Rahman Sovon and Rashedur M Rahman (North South University, Bangladesh)
10:45 A.M- 11:00 A.M	1570804062	Design and Implementation of a Very-Low-Power Wireless Network of Sensors in an Underground Utility Tunnel for Medium and High Voltage Transmission Lines	Adil Rachid (Polytechnic University of Catalonia, Spain); Antonio Miguel Lopez Martinez (Polytechnic University of Catalonia (UPC), Spain); Sebastian Moreno Garcia ( & Infisat, Spain)
11:00 A.M- 11:15 A.M	1570810547	Design of 24 GHz ISM Band Microstrip Patch Antenna for 5G Communication	Debalina Mollik, Rima Islam, Afrin Binte Anwar and Prodip Kumar Saha Purnendu (American International University Bangladesh Address Including Country Name, Bangladesh)
11:15 A.M- 11:30 A.M	1570801236	A Practical Approach to the Development of a Decision-Supporting System Based on Fuzzy Neural Network in Information and Telecommunication Systems	Avaz Ergashevich Kuvnakov (TUIT, Uzbekistan)
11:30 A.M- 11:45 A.M	1570807706	Bangla Handwritten Character Recognition Method	Lutfun Nahar (International Islamic University Chittagong, Bangladesh)



## PARALLEL SESSIONS : 2

### SESSION 5 : IoT & Data Science

**SESSION CHAIR: Dr.Vilas H Gaidhane (Birla Institute of Technology and Science Pilani, Dubai Campus, India),  
(Rapporteur: Prof.Manas Midya, Prof. Amitava Ghosh)**

**SESSION TIME: 12:15 P.M- 1:45 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:15 P.M- 12:30 P.M</b>	1570803532	IoT Enabled Smart Solar Panel Monitoring System Based on Boltuino Platform	Pallav Dutta, Ashim Mondal and Md Jishan Ali (Aliah University, India)
<b>12:30 P.M- 12:45 P.M</b>	1570807788	Predictive Maintenance and Condition Monitoring in Machine Tools: An IoT Approach	Brett Sicard and Naseem Alsadi (McMaster University, Canada); Petros Spachos (University of Guelph, Canada); Youssef Ziada (Ford Motor Company, Canada); Stephen Andrew Gadsden (McMaster University, Canada)
<b>12:45 P.M- 01:00 P.M</b>	1570807438	Dynamic Analysis of Demographic Sentiment	Joshua Weston, Brenden Bickert and Caleb Stasiuk (Thompson Rivers University, Canada); Fadi Alzhouri (Trent University, Canada); Dariush Ebrahimi (Thompson Rivers University, Canada)
<b>01:00 P.M- 1:15 P.M</b>	1570811283	Data Centric DAO: When Blockchain Reigns Over the Cloud	Kamal Azghiou (Mohammed First University & EI team, Morocco); Ibrahim Mehdi (University Mohammed 1, Morocco); Moussaab Sbai (Mohammed First University (UMP), Morocco); Mohamed Mazlin (Université Mohammed Premier & ENSAO, Morocco)
<b>1:15 P.M- 1:30 P.M</b>	1570803687	Feature Selection Algorithm Characterization for NIDS Using Machine and Deep Learning	Jyoti Verma (Punjabi University Patiala & Punjab Institute of Technology, India); Abhinav Bhandari (Punjabi University, India); Gurpreet Singh (Maharaja Ranjit Singh Punjab Technical University, India)
<b>1:30 P.M- 1:45 P.M</b>	1570804881	Deep Learning: An Empirical Study on Kimia Path24	Shaikh Rahman and Hayden Wimmer (Georgia Southern University, USA); Loreen Powell (Bloomsburg University of Pennsylvania, USA)

## PARALLEL SESSIONS : 2

### SESSION 6 : Electronics

**SESSION CHAIR: Dr. Rashedur M Rahman, North South University, Bangladesh ( Rapporteur: Prof.Samit Karmakar ,Prof. Soumik Kundu)**

**SESSION TIME: 12:15 P.M- 1:45 P.M**

### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:15 P.M- 12:30 P.M</b>	1570805038	Biological Signals for the Control of Robotic Devices in Rehabilitation: An Innovative Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Luis Alberto Huamán Lévano (Universidad Continental, Peru); Jose Asencios Chávez (Universidad Tecnológica del Perú, Peru); Nicole Caballero Canchanya (Universidad Nacional Mayor de San Marcos, Peru)
<b>12:30 P.M- 12:45 P.M</b>	1570805039	Human Cinematic Capture and Movement System Through Kinect: A Detailed and Innovative Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Jhon Rodrigo Ortiz Zacarias, Yerson Taza Aquino and Jhon Quispe Quispe (Universidad Continental, Peru)
<b>12:45 P.M- 01:00 P.M</b>	1570805041	Transtibial Electromechanical Prosthesis Based on a Parallel Robot: A Innovate Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Diego Osoreo Aguilar and Victor André León Sales (Universidad Nacional Mayor de San Marcos, Peru); Yadhira Samhira Valenzuela Lino (Universidad Continental, Peru); Harold Huallanca Escalera (Universidad Peruana de Ciencias Aplicadas, Peru)
<b>01:00 P.M- 1:15 P.M</b>	1570805042	Knee and Ankle Exoskeletons for Motor Rehabilitation: A Technology Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Elvis J. de la Torre Velarde (Universidad Peruana de Ciencias Aplicadas, Peru); Ana Quispe Piña (Universidad Tecnológica del Perú, Peru); Cesar Luciano Otarola Ruiz (Universidad de Ingeniería y Tecnología UTEC, Peru)
<b>1:15 P.M- 1:30 P.M</b>	1570805701	Hand Exoskeletons for Rehabilitation: A Systematic Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Sayda Huacre (Universidad Nacional Mayor de San Marcos, Peru); Pedro Toledo Garcia (Universidad de Ingeniería y Tecnología - UTEC, Peru); Jack Aguirre (Universidad Nacional de Trujillo - UNT, Peru)
<b>1:30 P.M- 1:45 P.M</b>	1570807781	Land-Mobile Robots for Rescue and Search: A Technological and Systematic Review	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Kevin Aubert, Mirella Rivas, Eduardo Guerreo, Laura Kodaka and Diego Guevara (Universidad de Ingeniería y Tecnología UTEC, Peru)

<b>PARALLEL SESSIONS : 2</b>			
<b>SESSION 7 : IOT &amp; Information Theory</b>			
<b>SESSION CHAIR: Dr. Md Liakat Ali (Rider University, USA) ( Rapporteur: Prof. Monalisa Dey, Prof. Darothi Sarkar)</b>			
<b>SESSION TIME: 12:15 P.M- 1:45 P.M</b>			
<b>PARTICIPATION LINK:</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>12:15 P.M- 12:30 P.M</b>	1570803191	A Novel Multifaceted Deep Learning-Based Mobile Application for Accurate and Efficient Waste Classification and Increased Composting Engagement in Communities	Samyak Shrimali (Jesuit High School, USA)
<b>12:30 P.M- 12:45 P.M</b>	1570803935	Detection and Quantitative Prediction of Diplocarpon Earlianum Infection Rate in Strawberry Leaves Using Population-Based Recurrent Neural Network	Oliver John Alajas, Ronnie Concepcion II, Argel Bandala, Edwin Sybingco and Ryan Rhay P. Vicerra (De La Salle University, Philippines); Elmer P. Dadios (Philippines, Philippines); Christan Mendigoria, Heinrick Aquino and Leonard Ambata (De La Salle University, Philippines); Bernardo Duarte (University of Lisbon, Portugal)
<b>12:45 P.M- 01:00 P.M</b>	1570811552	Connected and Autonomous Vehicles Against a Malware Spread: A Stochastic Modeling Approach	Manal El Mouhib (EI Research Team, Morocco); Kamal Azghiou (Mohammed First University & EI team, Morocco); Abdelhamid Benali (EI Research Team, Morocco)
<b>01:00 P.M- 1:15 P.M</b>	1570807783	A Review of Cognitive Dynamic Systems and Cognitive IoT	Alessandro Giuliano, Waleed Hilal, Naseem Alsadi and Stephen Andrew Gadsden (McMaster University, Canada); John Yawney (Adastra Corporation, Canada)
<b>1:15 P.M- 1:30 P.M</b>	1570803803	IoT Devices Proximity Authentication in Ad Hoc Network Environment	Ali Abdullah S. AlQahtani (North Carolina A&T State University, USA); Hosam Alamleh (University of North Carolina Wilmington & Louisiana Tech University, USA); Baker Al Smadi (Grambling State University, USA)
<b>1:30 P.M- 1:45 P.M</b>	1570812647	A Real-Time Parking Space Occupancy Detection Using Deep Learning Model	Raktim Raihan Prova, Title Shinha, Anamika Basak Pew and Rashedur M Rahman (North South University, Bangladesh)

## PARALLEL SESSIONS : 2

### SESSION 8 : Information Theory

**SESSION CHAIR: Dr. Hosam Alamleh, University of North Carolina Wilmington & Louisiana Tech University, USA ( Rapporteur: Prof.Manas Midya, Prof. Sayantani Chowdhury)**

**SESSION TIME: 12:15 P.M- 1:45 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:15 P.M- 12:30 P.M</b>	1570810960	Design of a Computer Stereo Vision Based Road Marking System	Surya Kant (National Institute of Technical Teachers Training and Research, India); Amod Kumar (CSIR-Central Scientific Instruments Organisation, India); Garima Saini (NITTTR, India)
<b>12:30 P.M- 12:45 P.M</b>	1570803978	Terminal Sliding Mode Control(TSMC) Based Cooperative Load Transportation Using Multiple Drones	Subhojit Das (Institute of Engineering & Management, India); Madhumita Pal (Institute of Engineering & Management, Kolkata, India); Sagnik Banerjee, Souhardya Das, Rishav Kumar, Sudhanshu Shekhar and Shreyan Ghosh (Institute of Engineering & Management, India)
<b>12:45 P.M- 01:00 P.M</b>	1570802927	Identifying Functional and Non-Functional Software Requirements From User App Reviews	Dev Dave and Vaibhav Anu (Montclair State University, USA)
<b>01:00 P.M- 1:15 P.M</b>	1570802955	Studying-Alive: A Holistic Wellness Application for College Students	Natasia Fernandez and Vaibhav Anu (Montclair State University, USA)
<b>1:15 P.M- 1:30 P.M</b>	1570807416	Ontology Construction of City Hotline Service for Urban Grassroots Governance	Zuohai Chen (Qilu University of Technology, China)
<b>1:30 P.M- 1:45 P.M</b>	1570801806	A Sliding Mode Based Finite Time Consensus Protocol for Heterogeneous Multi Agent UAS	Madhumita Pal (Institute of Engineering & Management, Kolkata, India);

**DAY 2: 2<sup>nd</sup> June, 2022**

<b>TIME</b>	<b>NAME OF THE EVENT</b>	<b>PARTICIPATION LINK</b>
9:00 A.M – 9:45 A.M	<b>KEYNOTE ADDRESS 2:</b> (Dr. Kenneth Paterson, Professor, ETH Zürich, Switzerland)	
9:50 A.M – 10:35 A.M	<b>KEYNOTE ADDRESS 3:</b> (Dr. Gil Zussman, Professor, Columbia University, New York)	

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## PARALLEL SESSIONS : 1

### SESSION 9 : Cognitive Systems

**SESSION CHAIR: Dr. Ashiq Sakib, Florida Polytechnic University ( Rapporteur: Prof. Arunava Mukhopadhyay, Prof. Sayantani Chowdhury)**

**SESSION TIME: 10:45 A.M- 12:15 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:45 A.M- 11:00 A.M	1570806963	Sensory Data Fusion Using Machine Learning Methods for In-Situ Defect Registration in Additive Manufacturing: A Review	J Akhavan (Stevens Institute of Technology, USA); Souran Manoochchri (Chair of Dept ME, Stevens Institute of Technology)
11:00 A.M- 11:15 A.M	1570803173	SQL ChatBot - Using Context Free Grammar	Rajvardhan Patil, Sorio Boit and Nathaniel Bowman (Grand Valley State University, USA)
11:15 A.M- 11:30 A.M	1570803438	Intelligent Feature Selection on Multivariate Dataset Using Advanced Data Profiling	Ritu Chaturvedi (University of Guelph, Canada); Vandana Patnaik (Mass General Brigham, Boston, MA, Canada)
11:30 A.M- 11:45 A.M	1570807571	Comparative Analysis of Deep Learning and Machine Learning Techniques for Power System Fault Type Classification and Location Prediction	Sivaramarao Bodda and Anjali Thawait (IIT Bhilai, India); Prashant Agnihotri (Indian Institute of Technology Bhilai, India)
11:45A.M- 12:00 P.M	1570807724	A Machine Learning Approach for the Early Detection of Dementia	Sven Broman, Elizabeth O'Hara and Md L Ali (Rider University, USA)

**PARALLEL SESSIONS : 1****SESSION 10 : Electronics****SESSION CHAIR: Dr.Sudarshan S Chawathe (University of Maine, USA) ( Rapporteur: Dr. Bikash Choudhuri, Prof. Sahitya Roy)****SESSION TIME: 10:45 A.M- 12:15 P.M****PARTICIPATION LINK:**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>10:45 A.M- 11:00 A.M</b>	1570807800	Efficient Simulation of Variable-Speed Diesel-Engine Generators Using Constant-Parameter Voltage-Behind-Reactance Formulation	Erfan Mostajeran and Arash Safavizadeh (The University of British Columbia, Canada); Seyyedmilad Ebrahimi and Juri Jatskevich (University of British Columbia, Canada)
<b>11:00 A.M- 11:15 A.M</b>	1570805034	Design of Monitoring System for Respiratory Diagnosis	Kamran Hameed (Imam AbdulRahman Bin Faisal UNiversity, Saudi Arabia); Sana Ijlal Shahrukh and Ijlal Shahrukh Ateeq (Imam Abdulrahman Bin Faisal University, Saudi Arabia)
<b>11:15 A.M- 11:30 A.M</b>	1570805043	Biomechanical Prosthesis With EMG Signal Acquisition for Patients With Transradial Amputation	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Luis Alberto Huamán Lévano (Universidad Continental, Peru)
<b>11:30 A.M- 11:45 A.M</b>	1570805036	Detecting Various Chemical Samples and Cancer Cells With a Bio-Chemical Sensor by Using LNOI Based Optical Micro Ring Resonator (OMRR)	Md Ashif Uddin (Khulna University, Bangladesh); Uzzwal Kumar Dey (Khulna University of Engineering & Technology, Bangladesh); Moriom Akter (Khulna University, Bangladesh)
<b>11:45A.M- 12:00 P.M</b>	1570809051	A High Gain Cascaded DC-DC Boost Converter for Electric Vehicle Motor Controller and Other Renewable Energy Applications	Md. Rezanul Haque (Independent University, Bangladesh); K. M. A. Salam (North South University, Bangladesh); Md. Abdur Razzak (Independent University, Bangladesh)
<b>12:00 P.M- 12:15 P.M</b>	1570807366	Design and Development of a Smart Garage Door System	Mohamed Imran Mohamed Ariff and Farah Diyana Mohamad Fadzir (UiTM Cawangan Perak, Kampus Tapah, Malaysia); Noreen Izza Arshad (Universiti Teknologi Petronas, Malaysia)

## PARALLEL SESSIONS : 1

### SESSION 11 : Electronics & Mechantronics

**SESSION CHAIR: Dr.Tri Minh Tran (Gunma University & Japan, Japan) ( Rapporteur: Prof. Sutanu Ghosh, Prof. Indranil Maity)**

**SESSION TIME: 10:45 A.M- 12:15 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:45 A.M- 11:00 A.M	1570812650	Solar PV System for Self-Consumption	Ananna Khan, Abdul Kahar Siddiki and Rashedur M Rahman (North South University, Bangladesh)
11:00 A.M- 11:15 A.M	1570810998	A Universal Method for Solving the Problem of Bending of Plates of Any Shape	Azamatjon Yusupov (Andijan Machine Building Institute, Uzbekistan)
11:15 A.M- 11:30 A.M	1570804753	Unmanned Aerial Vehicle Control Using Hand Gestures and Neural Networks	Rocio Alba-Flores and Jack Nemec (Georgia Southern University, USA)
11:30 A.M- 11:45 A.M	1570811371	Employing Nonlinear Model Based PI Like Controller for the Time Varying System	Atanu Panda (IEM, India); Samrat Banerjee and Indrajit Pandey (Techno International New Town, India); Parijat Bhowmick (IIT Guwahati, India)
11:45A.M- 12:00 P.M	1570807389	Dynamic Modelling and Analysis of Solar Powered Reverse Osmosis Desalination System for Pakistan Using the Bond Graph Model	Sheikh Usman Uddin and Rideout Geoff (Memorial University of Newfoundland, Canada)



## PARALLEL SESSIONS : 1

### SESSION 12 : Electronics

**SESSION CHAIR: Dr.Vilas H Gaidhane (Birla Institute of Technology and Science Pilani, Dubai Campus, India), ( Rapporteur: Prof. Rintu Kumar Gayen ,Prof. Murari Shaw)**

**SESSION TIME: 10:45 A.M- 12:15 P.M**

### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:45 A.M- 11:00 A.M	1570807791	The Improved Three-Wheeler Electric Vehicle Solutions in Bangladesh: Equipment and Experimental Waveforms	Shahriar Khan (Independent University, Bangladesh)
11:00 A.M- 11:15 A.M	1570810901	The Small 3-Wheeler Electric Vehicle Solutions in Bangladesh; Survey, Progress and Documentation	Shahriar Khan (Independent University, Bangladesh)
11:15 A.M- 11:30 A.M	1570804763	Analog Front-End CMOS Temperature Sensor Interface for Optogenetic Devices	Shahrzad Mohammad Ghasemi and Soliman Mahmoud (University of Sharjah, United Arab Emirates)
11:30 A.M- 11:45 A.M	1570794767	A High-Order Temperature-Compensated Bandgap Voltage Reference With Low Temperature Coefficient	Shalin Huang, Mingdong Li, Peng Yin and Fang Tang (Chongqing University, China)
11:45A.M- 12:00 P.M	1570807486	FPGA Implementation of Artificial Neural Network(ANN) for ECG Signal Classification	Shatharajupally Vinaykumar (NIT, Trichy, India); Thilagavathy R (NIT Trichy, India)

## PARALLEL SESSIONS : 2

### SESSION 13 : Electronics

**SESSION CHAIR: Dr Sukomal Dey, Indian Institute of Technology, Palakkad ( Rapporteur: Prof. Madhumita Pal, Prof. Naveen Kumar Garika)**

**SESSION TIME: 12:30 P.M- 2:00 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:30 P.M- 12:45 P.M</b>	1570807690	Low-Power and High Speed SRAM for Ultra Low Power Applications	Neha Meshram and Govind Prasad (IIIT Naya Raipur, India); Divaker Sharma (Jamia Millia Islamia- A Central University, India); Bipin Chandra Mandi (DSPM IIIT Naya Raipur, India)
<b>12:45 P.M- 01:00 P.M</b>	1570808428	Audio Band Analog Signal Measurement Instrument for Vocational School Practicum Aids	Nyoman Karna, Ridha Negara, Bagus Aditya and Adinda Fatkhah Gifary (Telkom University, Indonesia); Dewa Rahyuni (Universitas Padjajaran, Indonesia)
<b>01:00 P.M- 1:15 P.M</b>	1570805875	FPGA Implementation of Phase Recovery Technique for Complex Transforms	Poorvi Bhaskar (SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, INDIA, India); Yuvaraj S (SRMIST, India); Palanisamy P (National Institute of Technology, Tiruchirappalli & NIT, Trichy, India); Thilagavathy R (NIT Trichy, India)
<b>1:15 P.M- 1:30 P.M</b>	1570807704	VLSI Implementation of a Real-Time Modified Decision-Based Algorithm for Impulse Noise Removal	Pradyut Kumar Sanki (SRM University-AP, India); Bevara Vasudeva (SRMAP, AMARAVATI, India); Medarametla Depthi Supriya, Devireddy Vignesh, Peram Bhanu Sai Harshath and Sravya Kuchina (SRM University AP, India)
<b>1:30 P.M- 1:45 P.M</b>	1570802408	Envisioning A Light-Based Quantum-Computational Nano-Cyborg	Pravir Malik (Deep Order Technologies, USA)
<b>1:45 P.M- 2:00 P.M</b>	1570807315	Smart Irrigation Systems: Soil Monitoring and Disease Detection for Precision Agriculture	Premsai Peddi and Anuragh Dasgupta (Birla Institute of Technology and Science Pilani, Dubai Campus, UAE, United Arab Emirates); Vilas H Gaidhane (Birla Institute of Technology and Science Pilani, Dubai Campus, UAE, India)

**PARALLEL SESSIONS : 2****SESSION 14 : Information Theory****SESSION CHAIR: Dr. Rohit Singh, University of Colorado Denver ( Rapporteur: Prof.Gobindo Sen, Prof.Amit Kumar Das)****SESSION TIME: 12:30 P.M- 2:00 P.M****PARTICIPATION LINK:**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>12:30 P.M- 12:45 P.M</b>	1570807592	Methods and Tools for Developing an Organization Development Strategy	Sergei Kurashkin, Vladislav Kukartsev, Elizaveta Shutkina, Kristina Moiseeva, Ekaterina Volneikina and Timofey Kireev (Reshetnev Siberian State University of Science and Technology, Russia)
<b>12:45 P.M- 01:00 P.M</b>	1570807595	Practical-Oriented Method of Development of Strategy of Development of a Production Enterprise	Sergei Kurashkin, Vladislav Dmitriev, Kristina Moiseeva, Alexander Korostelev and Alexander Stashkevich (Reshetnev Siberian State University of Science and Technology, Russia)
<b>01:00 P.M- 1:15 P.M</b>	1570808459	Road Map "TechNet" National Technological Platform	Sergei Kurashkin (Reshetnev Siberian State University of Science and Technology, Russia); Alena Stupina (Siberian Federal University, Russia); Natalia Fedorova, Yuriy Danilchenko, Dmitriy Ereemeev, Elena Vaitekunene and Yuriy Seregin (Reshetnev Siberian State University of Science and Technology, Russia)
<b>1:15 P.M- 1:30 P.M</b>	1570808600	Establishment of a Model for Managing Organizational Attendance Based on Data Analysis	Sergei Kurashkin and Viktor Suetin (Reshetnev Siberian State University of Science and Technology, Russia); Anton Mikhalev (Siberian Federal University, Russia); Alexander Korostelev (Reshetnev Siberian State University of Science and Technology, Russia); Vladimir Grishko (Siberian Federal University, Russia)
<b>1:30 P.M- 1:45 P.M</b>	1570808603	Using UML to Describe the Development of Software Products Using an Object Approach	Sergei Kurashkin and Evgeniya Semenova (Reshetnev Siberian State University of Science and Technology, Russia); Vadim Sergeevich Tynchenko (Reshetnev Siberian State University of Science and Technology & Siberian Federal University, Russia); Sofya Chashchina, Viktor Suetin and Alexander Stashkevich (Reshetnev Siberian State University of Science and Technology, Russia)
<b>1:45 P.M- 2:00 P.M</b>	1570800506	Dynamic Simulation of a Microgrid System for a University Community in Nigeria	Stephen Ogbikaya and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)

## PARALLEL SESSIONS : 2

### SESSION 15 : Electronics

**SESSION CHAIR: Dr. Md Liakat Ali (Rider University, USA) (Rapporteur: Prof.Subhabrata Banerjee, Prof. Aparna Biswas)**

**SESSION TIME: 12:30 P.M- 2:00 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:30 P.M- 12:45 P.M</b>	1570806534	Bimetals (Au-Pd, Au-Pt) Loaded WO <sub>3</sub> Hybridized Graphene Oxide FET Sensors for Selective Detection of Acetone	Radha Bhardwaj (BITS, Pilani, India)
<b>12:45 P.M- 01:00 P.M</b>	1570805253	Probing the States Around the Charge Neutrality Point of Reduced Graphene Oxide With Time-Resolved Gated Kelvin Probe Force Microscopy	Ragul S (Sardar Patel Road & IIT Madras, India); Soumya Dutta and Debdutta Ray (Indian Institute of Technology Madras, India)
<b>01:00 P.M- 1:15 P.M</b>	1570806171	The Million Improvised Electric Rickshaws in Bangladesh; Preliminary Survey and Analysis	Shahriar Khan (Independent University, Bangladesh)
<b>1:15 P.M- 1:30 P.M</b>	1570810939	Multiobjective Optimal Control of Power Electronic Loads in Small Scale Power Systems	Ramitha Kalhara Dissanayake (University of Peradeniya, Sri Lanka); Amal Wimalarathna (RMIT University, Australia); Anushka Dissanayake (Schweitzer Engineering Laboratories, USA)
<b>1:30 P.M- 1:45 P.M</b>	1570807523	Explicite Model of a Wheel-Soil Interaction Over a Rough Terrain Using Terramechanics Low	Rania Majdoubi (Mohammed V University in Rabat & LCS Laboratory, Faculty of Sciences, Mohammed V University in Rabat, Morocco)
<b>1:45 P.M- 2:00 P.M</b>	1570803105	Optimization of Subsurface Imaging Antenna Capacitance Through Geometry Modeling Using Archimedes, Lichtenberg and Henry Gas Solubility Metaheuristics	Adrian Genevie G. Janairo, Jonah Jahara Baun, Ronnie Concepcion II, R-jay Relano, Kate G Francisco, Mike Louie Enriquez, Argel Bandala, Ryan Rhay P. Vicerra and Melchizedek Alipio (De La Salle University, Philippines); Elmer P. Dadios (Philippines, Philippines)

**PARALLEL SESSIONS : 2****SESSION 16 : Information Theory****SESSION CHAIR: Dr. Md. Abdur Razzak (Independent University, Bangladesh), ( Rapporteur: Prof. Rintu Kumar Gayen ,Prof. Murari Shaw)****SESSION TIME: 12:30 P.M- 2:00 P.M****PARTICIPATION LINK:**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>12:30 P.M- 12:45 P.M</b>	1570808500	Enhancing SARS-CoV-2 Variants Research With Blockchain Architecture	Oluwaseyi Ajayi (Vaughns College of Aeronautics and Technology); Tarek Saadawi (The City University of New York/The City College, USA)
<b>12:45 P.M- 01:00 P.M</b>	1570803540	Convolutional Neural Network Structure to Detect and Localize CTC Using Image Processing	Shorouq Al-Eidi (Memorial University of Newfoundland, Canada); Omar Darwish (Eastern Michigan University, USA); Ghaith Husari (East Tennessee State University, USA); Yuanzhu Chen (Queen's University, Canada); Mahmoud Elkhodr (Central Queensland University, Australia)
<b>01:00 P.M- 1:15 P.M</b>	1570799833	Optimal Inventory Policy in Oil Transportation: A Case Study	Rasha Kashef (Ryerson University, Canada); Shuo Xu (Adastra North America, Canada)
<b>1:15 P.M- 1:30 P.M</b>	1570799914	Simulating Software Support Delays in a 24/7 Environment Using Discrete Event Simulation	Rasha Kashef (Ryerson University, Canada); Shabbir Mirza (TD Canada Trust, Canada)
<b>1:30 P.M- 1:45 P.M</b>	1570807472	Analysis of the Influence of Factors on Flight Delays in the United States Using the Construction of a Mathematical Model and Regression Analysis	Sergei Kurashkin, Timofey Kireev, Vladislav Kukartsev, Alesya Pilipenko, Anastasiya Rukosueva and Viktor Suetin (Reshetnev Siberian State University of Science and Technology, Russia)
<b>1:45 P.M- 2:00 P.M</b>	1570807591	Theoretical Foundations of the Development Strategy of the Organization for the Production of the Refrigeration Equipment	Sergei Kurashkin, Aleksander Myrugin, Elena Filushina, Yuriy Seregin, Natalia Fedorova, Elena Vaitekunene and Dmitriy Eremeev (Reshetnev Siberian State University of Science and Technology, Russia)

**DAY 3: 3<sup>rd</sup> June, 2022**

<b>TIME</b>	<b>NAME OF THE EVENT</b>	<b>PARTICIPATION LINK</b>
<b>9:00 A.M – 9:20 A.M</b>	<b>Address by Chief Guest: Prof. Takaaki Kajita Honourable Nobel Laureate, Distinguished University Professor, Institute for Cosmic Ray Research, The University of Tokyo, Japan</b>	
<b>9:30 A.M –10:15 A.M</b>	<b>KEYNOTE ADDRESS 4:(Dr. Kin K. Leung, Professor, Imperial College, London, United Kingdom)</b>	
<b>10:20 A.M-11:05 A.M</b>	<b>KEYNOTE ADDRESS 5: (Dr. Torsten Hoefler, Professor, ETH Zürich,Switzerland)</b>	

*\* All the timings are given in Eastern Daylight Time (EDT)*

## PARALLEL SESSIONS : 1

### SESSION 17 : Cognitive Systems

**SESSION CHAIR: Dr. Ashiq Sakib, Florida Polytechnic University , ( Rapporteur: Dr. Indranil Maity, Prof Nirban Kumar Saha)**

**SESSION TIME: 11:10 A.M-12:25 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>11:10 A.M-11:25 A.M</b>	1570807784	A Review of Cognitive Dynamic Systems and Its Overarching Functions	Waleed Hilal, Alessandro Giuliano and Stephen Andrew Gadsden (McMaster University, Canada); John Yawney (Adastra Corporation, Canada)
<b>11:25 A.M-11:40 A.M</b>	1570810967	Enhanced Photon Detection Probability Model for Single-Photon Avalanche Diodes in TCAD With Machine Learning	Xuanyu Qian, Wei Jiang and M. Jamal Deen (McMaster University, Canada)
<b>11:40 A.M-11:55 A.M</b>	1570807459	Machine Learning Performances for Covid-19 Images Classification Based Histogram of Oriented Gradients Features	Yessi Jusman (Universitas Muhammadiyah Yogyakarta, Indonesia); Wikan Tyassari (University of Muhammadiyah Yogyakarta, Indonesia); Difa Nisrina, Fahrul Galih Santosa and Nugroho Abdi Prayitno (Universitas Muhammadiyah Yogyakarta, Indonesia)
<b>11:55 A.M-12:10 P.M</b>	1570811014	Use Machine Learning Technologies in E-Learning	Taslina Akter (IUB, Bangladesh)
<b>12:10 P.M - 12:25 P.M</b>	1570808226	A Survey on the Jamming and Spoofing UAV Network Attacks and How Machine Learning is an Effective Against Them	Faisal Alrefaei (Embry-Riddle Aeronautical University, USA); Abdullah Alzahrani (Oakland University, USA)

## PARALLEL SESSIONS : 1

### SESSION 18 : Electronics

**SESSION CHAIR: Dr Sukomal Dey, Indian Institute of Technology, Palakkad ( Rapporteur: Dr. Soumadip Ghosh , Prof. Shubhasri Roy)**

**SESSION TIME: 11:10 A.M-12:40 P.M**

### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:10 A.M-11:25 A.M	1570807184	Remote Elemental Analysis System for Liquid Using Sonoluminescence	Sardini Sayidatun Nisa Sailellah, Hideharu Takahashi and Hiroshige Kikura (Tokyo Institute of Technology, Japan)
11:25 A.M-11:40 A.M	1570810666	Detailed Bond Graph Modeling of PV-Battery System	Sayed Arash Omid, Rideout Geoff and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)
11:40 A.M-11:55 A.M	1570810981	Machine Learning Approach to Predict Road Accidents in the United States	Maryam Heidari, Sri Siddhartha Reddy, Yen Ling Chao and Lakshmi Praneetha Kotikalapudi (George Mason University, USA)
11:55 A.M-12:10 P.M	1570810878	Coordinated Motion and Force Control of Multi-Rover Robotics System With Mecanum Wheels	Serdar S Kalaycioglu (Toronto Metropolitan University & Canadian Space Research Inc., Canada)
12:10 P.M-12:25 P.M	1570806840	Broadband Printed Dipole Antennas	Rajendra Ghosh (Vidyasagar University, India)
12:25 P.M-12:40 P.M	1570807785	The USB Powered Miniature Tesla Coil, With the Filament Bulb, Fluorescent Lamp and Discharge to Body	Shahriar Khan (Independent University, Bangladesh); Simoom Rahman (Independent University, Bangladesh, Bangladesh)



## PARALLEL SESSIONS : 1

### SESSION 19 : Information Theory

**SESSION CHAIR: Dr. Shahriar Khan (Independent University, Bangladesh), ( Rapporteur: Dr. Prithwineel Paul, Prof. Sourav Ghosh)**

**SESSION TIME: 11:10 A.M-12:40 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
11:10 A.M-11:25 A.M	1570803669	Forecasting Model Comparison for Soil Moisture to Obtain Optimal Plant Growth	Sachintha Balasooriya (Kyoto University of Advance Sciences, Japan); Lasith Yasakethu (Sri Lanka Technological Campus, Sri Lanka)
11:25 A.M-11:40 A.M	1570802915	Lower-Limb Exoskeleton Systems for Rehabilitation And/Or Assistance: A Review	Dana Terrazas-Rodas, Lisbeth Rocca-Huaman, César Ramírez-Amaya and Angel E. Alvarez-Rodriguez (Universidad Tecnológica del Perú, Peru)
11:40 A.M-11:55 A.M	1570804066	The Iso-RSA Cryptographic Scheme	Mamadou I Wade (Howard University, USA)
11:55 A.M-12:10 P.M	1570804895	The Iso-ElGamal Cryptographic Scheme	Mamadou I Wade (Howard University, USA)
12:10 P.M-12:25 P.M	1570806520	Artificial Magnetic Conductor Unit Cell Design Using Machine Learning Algorithms	Tasfia Nuzhat (Chittagong Independent University, Bangladesh); Md Nazmul Hasan (The University of British Columbia, Canada)
12:25 P.M-12:40 P.M	1570812648	IronMan: An Android-Web Based Application for Laundry Services	Mohammad Moshfique Uddin, Rohit Roy, Saima Alam Miduri and Rashedur M Rahman (North South University, Bangladesh)

## PARALLEL SESSIONS : 1

### SESSION 20 : IOT & Data Science

**SESSION CHAIR: Dr.Vilas H Gaidhane (Birla Institute of Technology and Science Pilani, Dubai Campus, India),  
(Rapporteur: Prof.Sutapa Rayadhikary, Prof. Aparna Biswas)**

**SESSION TIME: 11:10 A.M-12:40 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>11:10 A.M-11:25 A.M</b>	1570806366	Brain Waves Pattern Recognition Using LSTM-RNN for Internet of Brain-Controlled Things (IoBCT) Applications	Mokhles Mawlood Abdulghani (University of North Dakota, Canada); Farah Fargo (Intel, USA); Haider Khaleel Raad (Xavier University, USA); Olivier Franza (Intel, USA)
<b>11:25 A.M-11:40 A.M</b>	1570800218	Smart Home Automation IoT System for Disabled and Elderly	Nesreen Alsbou (University of Central Oklahoma, USA); Naveen Thirunilath (UCO, USA); Imad Ali (University of Oklahoma Health Sciences Center, USA)
<b>11:40 A.M-11:55 A.M</b>	1570804898	IoT-Based Smart Hospital Using Cisco Packet Tracer Analysis	Nesreen Alsbou (University of Central Oklahoma, USA); Dakota Price (UCO, USA); Imad Ali (University of Oklahoma Health Sciences Center, USA)
<b>11:55 A.M-12:10 P.M</b>	1570807384	Simulators and Testbeds for IIoT Development and Validation	Nicholas J Jeffrey (University of Oviedo, Canada); Qing Tan (Athabasca University, Canada); Jose R. Villar (University of Oviedo, Spain)
<b>12:10 P.M-12:25 P.M</b>	1570807589	Construction of a Factor Model Focused on the Reduction of Difficulties in Road Traffic	Sergei Kurashkin, Natalia Fedorova, Aleksander Myrugin, Elena Filushina, Yuriy Seregin, Elena Vaitekunene and Yuriy Danilchenko (Reshetnev Siberian State University of Science and Technology, Russia)
<b>12:25 P.M-12:40 P.M</b>	1570808461	Analysis of Data in Solving the Problem of Reducing the Accident Rate Through the Use of Special Means on Public Roads	Sergei Kurashkin and Vladislav Kukartsev (Reshetnev Siberian State University of Science and Technology, Russia); Anton Mikhalev (Siberian Federal University, Russia); Alexander Stashkevich, Kristina Moiseeva and Igor Kauts (Reshetnev Siberian State University of Science and Technology, Russia)

<b>PARALLEL SESSIONS : 2</b>			
<b>SESSION 21 : Electronics</b>			
<b>SESSION CHAIR: Dr. Rohit Singh, University of Colorado Denver ( Rapporteur: Prof. Bavrabhi Ghosh , Prof. Soma Das)</b>			
<b>SESSION TIME: 12:45 P.M- 2:15 P.M</b>			
<b>PARTICIPATION LINK:</b>			
<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>12:45 P.M- 01:00 P.M</b>	1570807397	Performance Analysis of a New Non-Contact, Potentiometric Angle Sensor	Utpol Tarafdar (National Institute of Technology, Calicut, Kerala, India); Mithun Sakthivel (National Institute of Technology Calicut, India)
<b>01:00 P.M- 1:15 P.M</b>	1570804182	Multilayer Aperture Coupled Single Band Second Order Bandpass Patch Resonator	Mohan K N (Vellore Institute of Technology, Vellore, India); Yogesh Kumar Choukiker (VIT University, India)
<b>1:15 P.M- 1:30 P.M</b>	1570807207	A Model of Classification of Consumers on the Retail Electricity Market	Aleksandr V. Belov and Maria Monina (National Research University Higher School of Economics, Russia); Zhenisgul Rakhmetullina (D. Serikbayev East Kazakhstan State Technical University, Kazakhstan)
<b>1:30 P.M- 1:45 P.M</b>	1570804061	Mechanical and Electronic Design of a Prototype of a Modular Exoskeleton for Lower-Limbs	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Yerson Taza Aquino (Universidad Continental, Peru)
<b>1:45 P.M- 2:00 P.M</b>	1570805040	Design of an Automated Feeding and Drinking System for Turkeys at Different Stages of Their Development	Deyby Huamanchahua (Universidad de Ingeniería y Tecnología - UTEC, Peru); Yadhira Samhira Valenzuela Lino, Jesus Eduardo Rosales Fierro, Jhon Rodrigo Ortiz Zacarias, Nabilt Moggiano and Carlos Coaquira Rojo (Universidad Continental, Peru)
<b>2:00 P.M-2:15 P.M</b>	1570801340	Leg Geometry Optimization of Thermoelectric Cooler to Maximize COP Through Gaussian Process Modelling	Ethan Robyn V. Ebuén, La Verne Certeza, Johannes Kurt Tecson, Jowen Louis Francisco, Carl Vincent Villanueva and Jomar Lord Cauton (University of Santo Tomas, Philippines)

## PARALLEL SESSIONS : 2

### SESSION 22 : Information Theory

**SESSION CHAIR: Dr. Md. Abdur Razzak (Independent University, Bangladesh), ( Rapporteur: Prof. Gobindo Sen, Prof.Amit Kumar Das)**

**SESSION TIME: 12:45 P.M- 2:15 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:45 P.M- 01:00 P.M</b>	1570804312	Using Algorithmic Modeling to Control User Access Based on Functioning Table	Islambek Saymanov and Inomjon Yarashov (National University of Uzbekistan, Uzbekistan)
<b>01:00 P.M- 1:15 P.M</b>	1570799603	An Approach to Design Keyboard and Mouse Assisting Device for Handicap Users	Kamran Hameed (Imam AbdulRahman Bin Faisal UNiversity, Saudi Arabia); Syed Mehmood Ali and Uzma Ali (Imam Abdulrahman Bin Faisal University, Saudi Arabia)
<b>1:15 P.M- 1:30 P.M</b>	1570810957	Enhanced DV-Hop Node Localization Algorithm Based on Nearest Neighbour Distance and Hop-Count Evaluation in WSNs	Kanika Sood (NITTTR, Chandigarh, India); Kanika Sharma (Punjab University, India); Amod Kumar (CSIR-Central Scientific Instruments Organisation, India)
<b>1:30 P.M- 1:45 P.M</b>	1570805379	An Exploration of Mis/Disinformation in Audio Format Disseminated in Podcasts: A Case Study of Spotify	Kevin Matthe Caramancion (University at Albany, SUNY, USA)
<b>1:45 P.M- 2:00 P.M</b>	1570806719	Same Form, Different Payloads: A Comparative Vector Assessment of DDoS and Disinformation Attacks	Kevin Matthe Caramancion (University at Albany, SUNY, USA)
<b>2:00 P.M-2:15 P.M</b>	1570801246	Mathematical Modeling of Credit Scoring System Based on the Monge-Kantorovich Problem	Kuvonchbek Rakhimberdiev (National University of Uzbekistan Named After Mirzo Ulugbek & Nuuz, Uzbekistan)

**PARALLEL SESSIONS : 2****SESSION 23 : IOT & Data Science****SESSION CHAIR: Dr.Shahab Tayeb (California State University, Fresno, USA)( Rapporteur: Prof.Sutapa Rayadhikary, Prof. Aparna Biswas)****SESSION TIME: 12:45 P.M- 2:15 P.M****PARTICIPATION LINK:**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>12:45 P.M- 01:00 P.M</b>	1570803710	IoT-Based DDoS on Cyber Physical Systems: Research Challenges, Datasets and Future Prospects	Manish Snehi and Abhinav Bhandari (Punjabi University, India)
<b>01:00 P.M- 1:15 P.M</b>	1570804888	Resilience Evaluation of Cyber Risks in Industrial Internet of Things	Mayer Fernandes Silva (Brazil); Herman Lepikson (CIMATEC, Brazil)
<b>1:15 P.M- 1:30 P.M</b>	1570805037	Proposing A Cloud and Edge Computing Based Decision Supportive Consolidated Farming System by Sensing Various Effective Parameters Using IoT	Md Ashif Uddin (Khulna University, Bangladesh); Uzzwal Kumar Dey (Khulna University of Engineering & Technology, Bangladesh); Moriom Akter (Khulna University, Bangladesh)
<b>1:30 P.M- 1:45 P.M</b>	1570807729	Development of an IoT-Based Low-Cost Multi-Sensor Buoy for Real-Time Monitoring of Dhaka Canal Water Condition	Ikbal Hasan, Malobika Mukherjee, Rumi Halder and Farzana Yeasmin Rubina (Independent University, Bangladesh, Bangladesh); Md. Abdur Razzak (Independent University, Bangladesh)
<b>1:45 P.M- 2:00 P.M</b>	1570808063	Performance Evaluation of Secured Blockchain-Based Patient Health Records Sharing Framework	Meryem Abouali (City College of New York, USA); Kartikeya Sharma (City University of New York, USA); Oluwaseyi Ajayi (Vaughns College of Aeronautics and Technology, USA & City College of New York, USA); Tarek Saadawi (The City University of New York/The City College, USA)
<b>2:00 P.M-2:15 P.M</b>	1570794844	A Brief Overview on Security Challenges and Protocols in Internet of Things Application	Gajjala Savithri (YSR Architecture and Fine Arts University, India); Bhabendu kumar Mohanta (GITAM Deemed to Be University, India); Mohan Kumar Dehury (Koneru Lakshmaiah Education Foundation, India)

## PARALLEL SESSIONS : 2

### SESSION 24 : Information Theory

**SESSION CHAIR: Dr. Parijat Bhowmick (Indian Institute of Technology, Guwahati) ( Rapporteur: Prof. Madhumita Pal, Prof. Naveen Kumar Garika)**

**SESSION TIME: 12:45 P.M- 2:15 P.M**

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
<b>12:45 P.M- 01:00 P.M</b>	1570807266	Developments Pertaining to the Characteristics of the Sites of HIV Integration Highlighting Its Role in Clinical Research and Its Future With AI: A Review	Minakshi Boruah and Ranjita Das (NIT Mizoram, India)
<b>01:00 P.M- 1:15 P.M</b>	1570801891	Integrating Mechanistic Information to Predict Drug-Drug Interactions and Associated Relevance for Decision Support	Adeeb Noor (King Abdulaziz University, Saudi Arabia)
<b>1:15 P.M- 1:30 P.M</b>	1570806841	Development of Stochastic Distribution Model of Contaminated Water Treatment Complex	Bakhadir Begilov (Nukus Branch of Tashkent University of Information Technologies Named After Muhammad-Al Khorezmi, Uzbekistan)
<b>1:30 P.M- 1:45 P.M</b>	1570804290	Detection and Analysis Types of DDoS Attack	Erkin Navruzov (National University of Uzbekistan, Uzbekistan)
<b>1:45 P.M- 2:00 P.M</b>	1570810764	Suicide Rate and Factors Analysis: Pre and Post COVID Pandemic	Maryam Heidari and EswaraChandraSai Pamidimukkala (George Mason University, USA)
<b>2:00 P.M-2:15 P.M</b>	1570804316	Algorithmic Analysis of the System Based on the Functioning Table and Information Security	Inomjon Yarashov (National University of Uzbekistan, Uzbekistan)

**DAY 4: 4<sup>th</sup> June, 2022**

TIME	NAME OF THE EVENT	PARTICIPATION LINK
9:00 A.M – 9:45 A.M	KEYNOTE ADDRESS 6: (Dr. Dayan Ban, Professor, University of Waterloo, Canada)	
9:55 A.M –10:40 A.M	KEYNOTE ADDRESS 7: (Dr. Xiaodong Wang, Professor, Columbia University, New York)	
12: 30 P.M -1:00 P.M	Valedictory Session	

*\* All the timings are given in Eastern Daylight Time (EDT)*

## PARALLEL SESSIONS : 1

### SESSION 25 : IOT & Data Science

**SESSION CHAIR:** Dr.Shahab Tayeb (California State University, Fresno, USA), ( **Rapporteur:** Prof. Amitava Ghosh, Prof. Manas Midya)

**SESSION TIME:** 10:45 A.M-12:15 P.M

#### PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:45 A.M- 11:00 A.M	1570799013	IoT-Based Cyber-Physical Distribution System Planning	Shaben Kayambo and Biplob Ray (Central Queensland University, Australia); Narottam K. Das (CQUniversity Australia, Australia); Mary Tom (Central Queensland University, Australia)
11:00 A.M- 11:15 A.M	1570802509	Balancing Sampling Frequencies for Multi-Modality IoT Systems: Smart Shoe as an Example	Wenwu Deng (University of Science and Technology of China, China); Kangyu Chen (The First Affiliated Hospital of USTC, China); Qijun Ying and Jingyuan Cheng (University of Science and Technology of China, China)
11:15 A.M- 11:30 A.M	1570805604	Intelligent Monitoring and Control of Wind Turbine Prototype Using Internet of Things (IoT)	Pallav Dutta, Md Jishan Ali and Ashim Mondal (Aliah University, India)
11:30 A.M- 11:45 A.M	1570807688	Detection of Corona Virus Infection Using Convolutional Neural Network	Al Sameera (Birla Institute of Technology and Science Pilani, Dubai Campus, UAE, United Arab Emirates); Vilas H Gaidhane (Birla Institute of Technology and Science Pilani, Dubai Campus, UAE, India)
11:45 A.M- 12:00 P.M	1570809126	Cassava Leaf Disease Detection Using Deep Learning	Manick Manick and Jyoti Srivastava (NIT Hamirpur, India)



## PARALLEL SESSIONS : 1

**SESSION 26 : Mechatronics**

**SESSION CHAIR: Dr. Parijat Bhowmick (Indian Institute of Technology, Guwahati) ( Rapporteur: Prof. Anupam Mandal, Prof. Sainik Mahata)**

**SESSION TIME: 10:45 A.M-12:15 P.M**

**PARTICIPATION LINK:**

<b>TIME ALLOTTED</b>	<b>PAPER ID</b>	<b>PAPER NAME</b>	<b>AUTHORS WITH AFFILIATION &amp; COUNTRY</b>
<b>10:45 A.M- 11:00 A.M</b>	1570807806	Reconfigurable Star-Delta VBR Induction Machine Model for Predicting Soft-Starting Transients	Sheraz Baig and Taleb Vahabzadeh (The University of British Columbia, Canada); Seyyedmilad Ebrahimi and Juri Jatskevich (University of British Columbia, Canada)
<b>11:00 A.M- 11:15 A.M</b>	1570805045	Analysis and Evaluation of A Eod Robot Prototype	Yuri L. Silva, Elvis Supo, Milton Amadeo Ccallata, Jesús Mamani, Mario Betancur, Brunno Pino, Pablo Pari and Erasmo Sullá (Universidad Nacional de San Agustín de Arequipa, Peru)
<b>11:15 A.M- 11:30 A.M</b>	1570803481	Improving Accessibility of Remote Drone Control With a Streamlined Computer Vision Approach	Evan Lowhorn (Georgia Southern University, USA)
<b>11:30 A.M- 11:45 A.M</b>	1570809583	Semantic Segmentation Using Modified U-Net for Autonomous Driving	T Sugirtha (National Institute of Technology Tiruchirappalli Tamilnadu India, India); M. Sridevi (National Institute of Technology, India)
<b>11:45 A.M- 12:00 P.M</b>	1570810775	Analyzing Credit Card Fraud Detection Based on ML Models	Maryam Heidari and Arthi Reddy Kotha (George Mason University, USA)

## PARALLEL SESSIONS : 1

SESSION 27 : Information Theory

SESSION CHAIR: Dr.Shahriar Khan (Independent University, Bangladesh) ( Rapporteur: Prof. Soumik Kundu, Prof. Prithwineel Paul)

SESSION TIME: 10:45 A.M-12:15 P.M

PARTICIPATION LINK:

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
10:45 A.M- 11:00 A.M	1570804773	Design of an Automated Manure Collection System for the Production of Biogas Through Biodigesters	Jhon Rodrigo Ortiz Zacarias, Iraiz Quintanilla Mosquera, Jesus Eduardo Rosales Fierro, Sliver Del Carpio Ramirez, Carlos Coaquira Rojo, Yadhira Samhira Valenzuela Lino and Nabilit Moggiano (Universidad Continental, Peru)
11:00 A.M- 11:15 A.M	1570808064	Automated Design of a Cleaning Machine and an Environmental Temperature Controller for Guinea Pig Houses	Jhon Rodrigo Ortiz Zacarias, Yadhira Samhira Valenzuela Lino, Yossef Rojas Tapara, Sliver Del Carpio Ramirez, Carlos Coaquira Rojo and Frank Zarate Peña (Universidad Continental, Peru)
11:15 A.M- 11:30 A.M	1570806967	Customer Relationship Analysis to Improve Satisfaction Rate in Banking	Maryam Heidari (George Mason University, USA)
11:30 A.M- 11:45 A.M	1570806951	Design and Simulate a 500 MW Grid-Connected PV Farm for Labrador	Sayed Arfat Alam Quadri, Mohamad Mahdi Baalbaki, Andrew Chacko and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)
11:45 A.M- 12:00 P.M	1570810771	Design and Analysis of a Solar Powered Water Filtration System for a Community in Black Tickle-Domino	Sheikh Usman Uddin, Onyinyechukwu Chidolue, Abdul Azeez and Mohammad Tariq Iqbal (Memorial University of Newfoundland, Canada)