7th IET-SCS-2023

TECHNICAL SPONSOR AND SUPPORT

7TH IET SMART CITIES SYMPOSIUM 2023

3-5 DECEMBER 2023

HYBRID -WITH VIRTUAL ACCESS SYMPOSIUM – UNIVERSITY OF BAHRAIN

TECHNICAL SUPPORT:

THE INSTITUTION OF ENGINEERING AND TECHNOLOGY

To create awareness about the prospects of Smart Cities. The symposium is a platform to exchange ideas and thoughts in international prospects.

The symposium is a platform for emphasizing the role of academia in promoting Smart Cities, Digital Twins of Cities, Projects, Smarter Ideas, and Consultancies.

The symposium is a platform for research community in forms of publications and creating innovative solutions.

Fully Reviewed Manuscripts Submissions.

Symposium Proceedings will be submitted to the IET Inspec, IEEE Xplore, and Scopus Elsevier's.

Distinguished Contents will also be submitted to the IET SMART CITIES JOURNAL for possible selections and extensions.

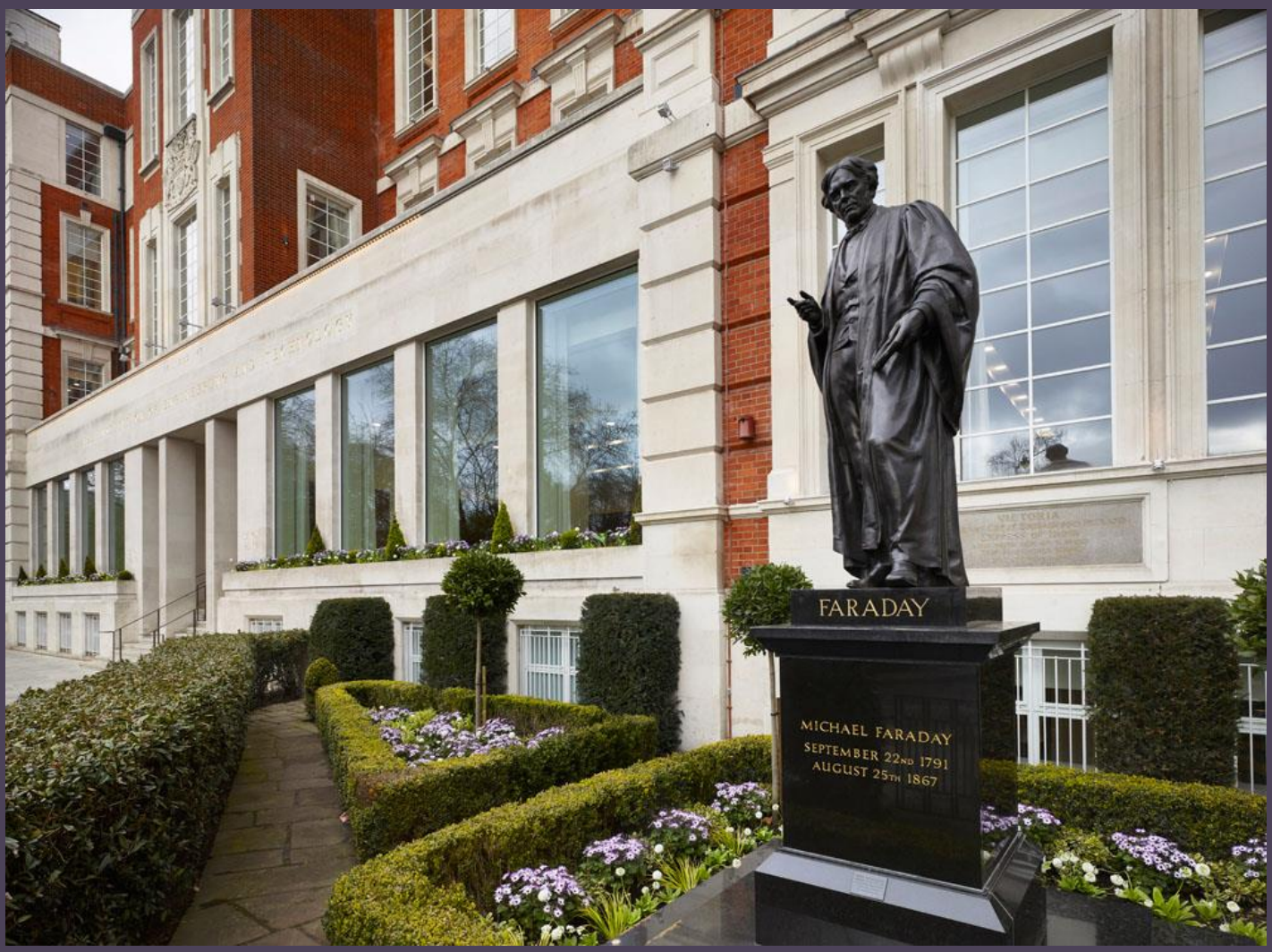
TECHNICAL PROGRAM:

Details are found at:

https://www.iet-smartcities-symposium.com/

SYMPOSIUM KEYNOTE, PAPERS, AND PROCEEDING VOLUME SUMMARY

THE 7TH IET SCS-2023 SYMPOSIUM SETUP AND PURPOSE


FARADAY
MICHAEL FARADAY
SEPTEMBER 22ND 1791
AUGUST 25TH 1867


100 engineering ideas
that changed the world
LED

15 Years … Way Forward and A Purpose:

The first IET forum at the University of Bahrain has started since 2008. The first IET Smart Systems International Conference was also during 2008. Since the year 2008, we have been organizing the local IET forums, and then indexed Symposiums in an annual basis at University of Bahrain.

As annually planned, also this year of 2023, the University of Bahrain; 7th Smart Cities Symposium (3-5 December 2023) is also organized with collaboration of the IET, (The Institution of Engineering and Technology), UK.

Smart Cities is a new and emerging concept that have received a substantial attention for a while. This is because of the fast development of Engineering Concepts, IT and ICT sectors. Smart cities is a used term used to define employment of smart technologies and data as the means to solve cities' sustainability challenges and prosper. In this sense, many cities are in the process of transforming themselves to be smart. This can be achieved while relying on and using data and technology to improve several sectors. Sectors that are applicable for such transformations are:

{Transport, Energy use, Health issues, Health care, and Air quality, or to Drive economic growth}. Others are being built to be smart from the start. This is a term that relates to the present and to the future. Nevertheless, in general notion, cities world-wide consume substantial resources and global energy supply, which make them much under demand to be transformed to smart. Reports are also showing that, there are growing numbers of the world's natural resources, global energy supply, healthcare issues, the need of fast and easy transports, and easy health care. In addition, over the coming twenty years, it is expected that cities worldwide will generate not less than 60 per cent of global GDP. In this sense there are potentials that, Engineering and High Technologies will help and participate to resolve several issues and demands of current cities.

The regional infrastructure, and the ICT backbone, are developing very fast, that makes the concept of smart cities are very applicable concepts locally. Therefore, the event will be an excellent platform and a site for energetic and dynamic discussions between locally demanding parties, possible international experts, and the community of academics, decision makers, researchers, practitioners, real estate developers in Bahrain, investors, and policy makers from the urban spheres. This is all with the aim to explore such emerging trends and innovative solutions to green and smart cities within the region.

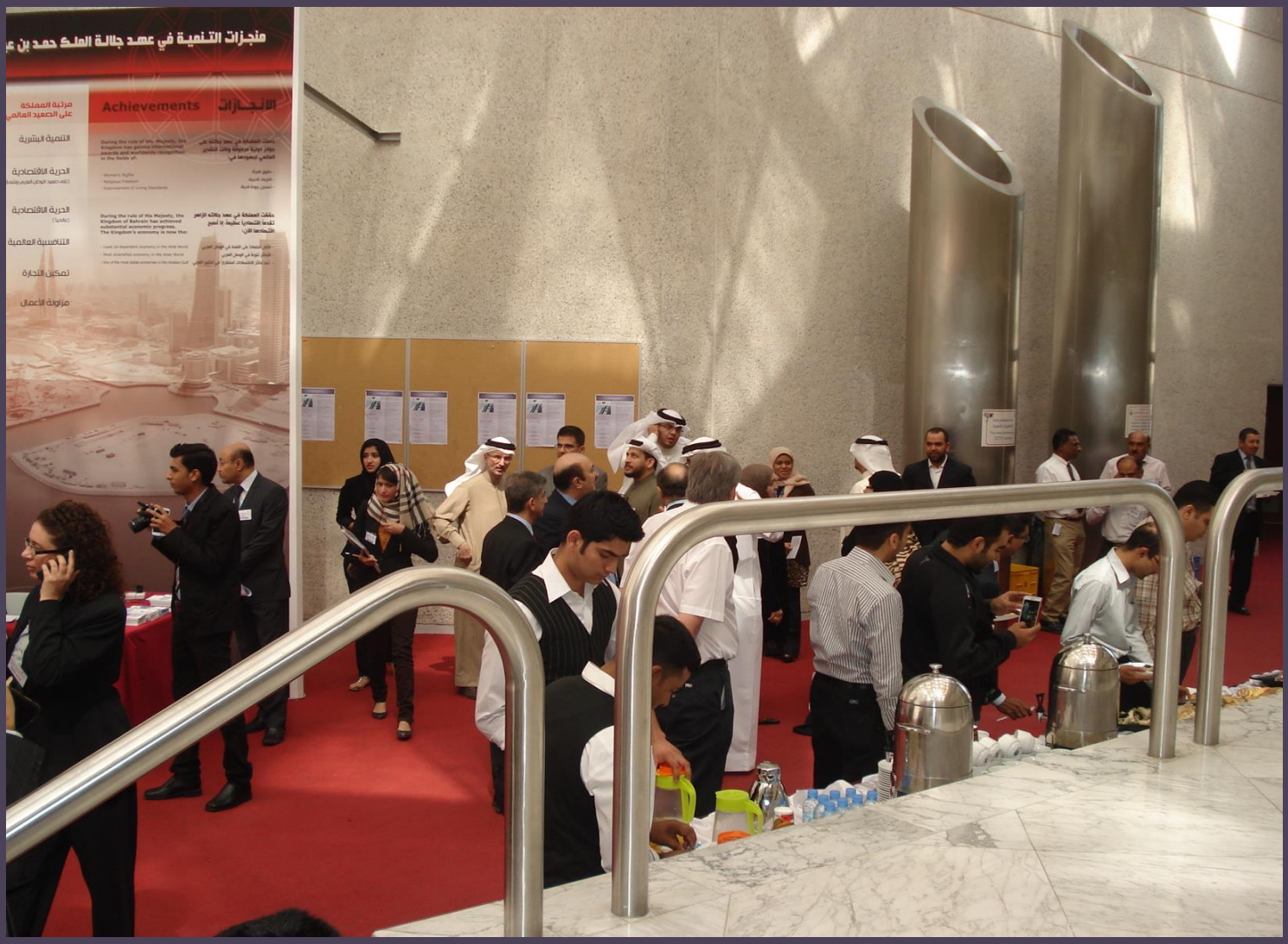
The main purpose of the event is to create awareness about the prospects of Smart Cities. The event will serve as a platform to exchange ideas and throughout in an international prospect. The event objectives are also in emphasizing the role of academic institutions in promoting a smarter kingdom via its consultancy, building smarter ideas or continuity in the form of publications, and creating innovative solutions. In addition, such organization of the event, will also focus on networking opportunities, and that the event is a good starting point and could help in making networking opportunities for smart cities.

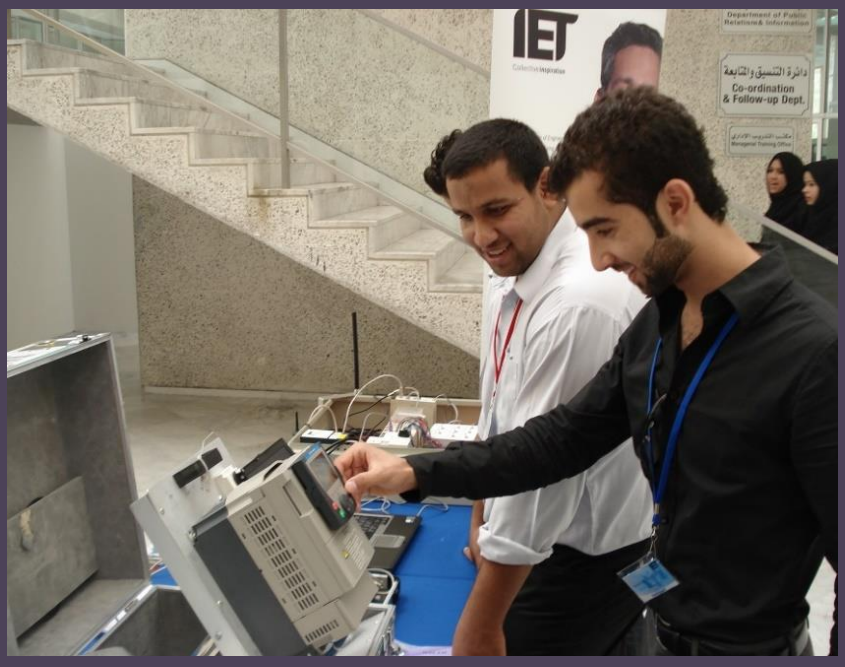
The event venue (the symposium) will be at University of Bahrain, and will run for three days, 3-5 December 2023. The symposium will involve both invited speakers (talking about load needs for smart cities), in addition to academic submitted papers (with review), as they will be published afterward within the IET (once satisfying the needed technical standards of the IET).

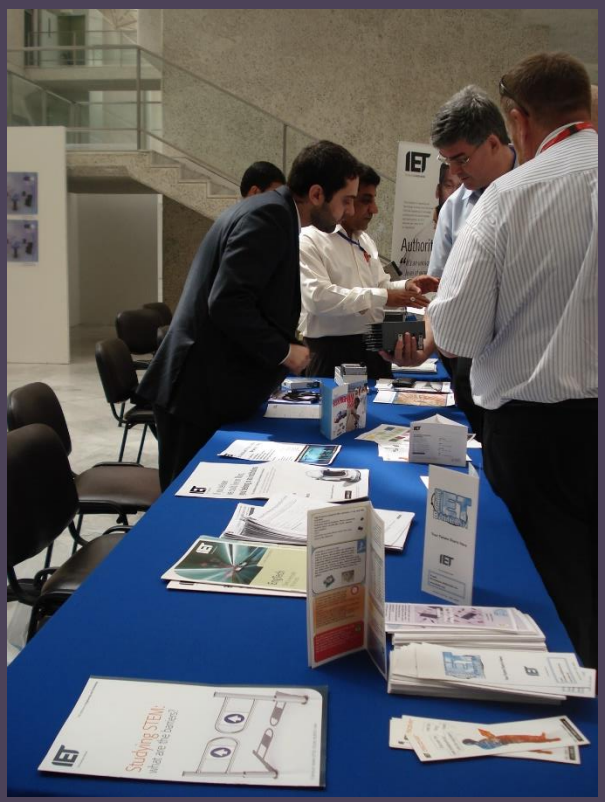
The event is also to create awareness about the prospects of Smart Cities. The symposium is a platform to exchange ideas and thoughts in international prospects. The symposium is a platform for emphasizing the role of academia in promoting Smart Cities, Digital Twins of Cities, Projects, Smarter Ideas, and Consultancies. The symposium is a platform for research community in forms of publications and creating innovative solutions.

7th Smart Cities Symposium -2023: IET Partner and Technical Support

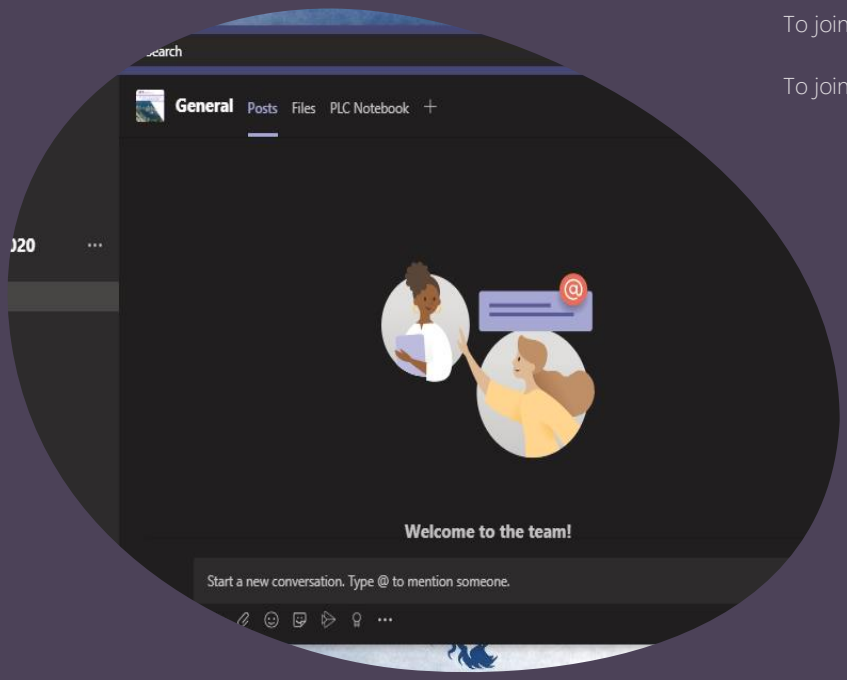
15 YEARS OF CONTINUOUS ANNUAL IET FORUMS AND SYMPOSIUMS AT UOB







ACCESSING
7TH SCS-2023 - HALLS
3-5 DECEMBER 2023



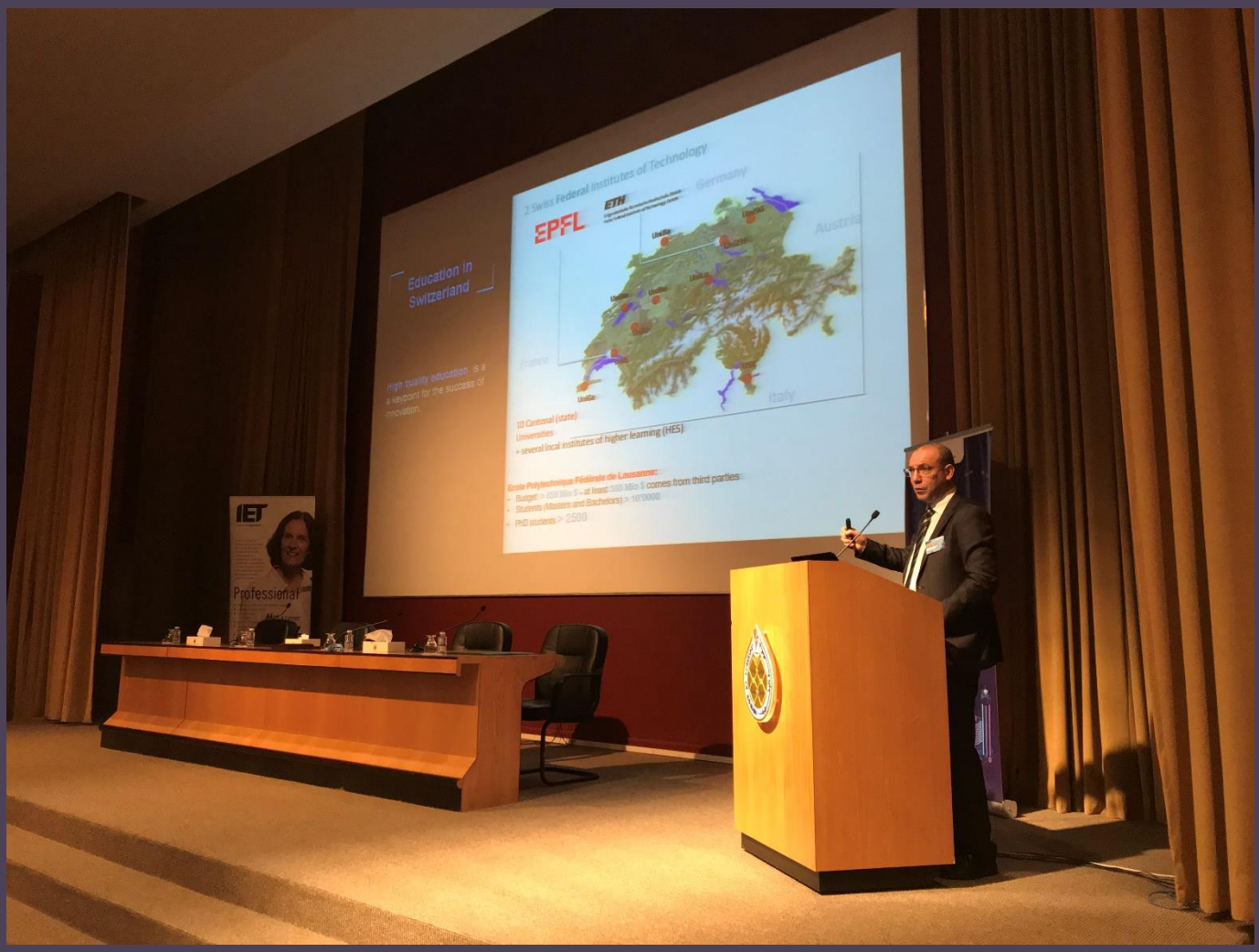
Sessions Access:

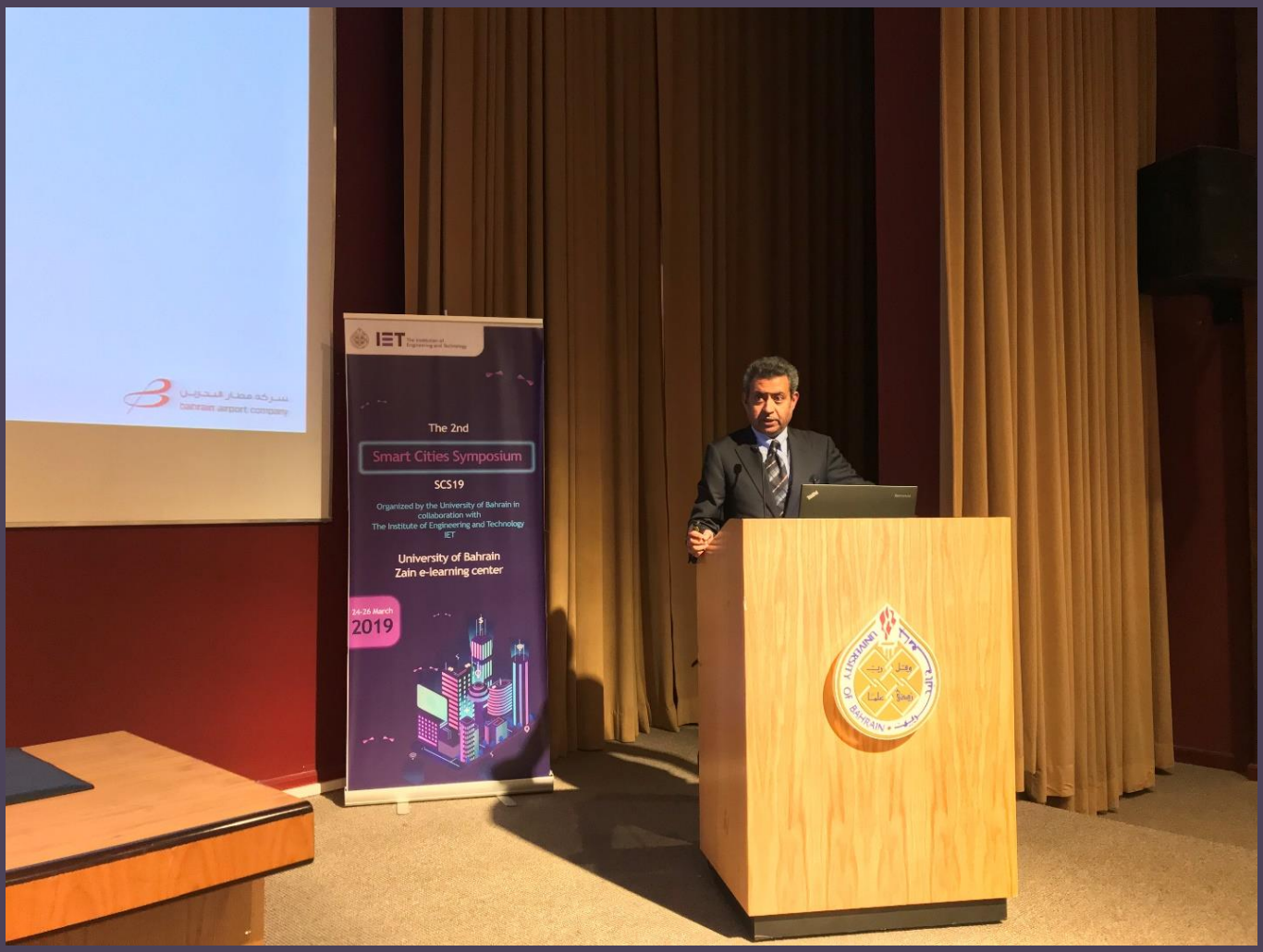
To join sessions in Main-Hall

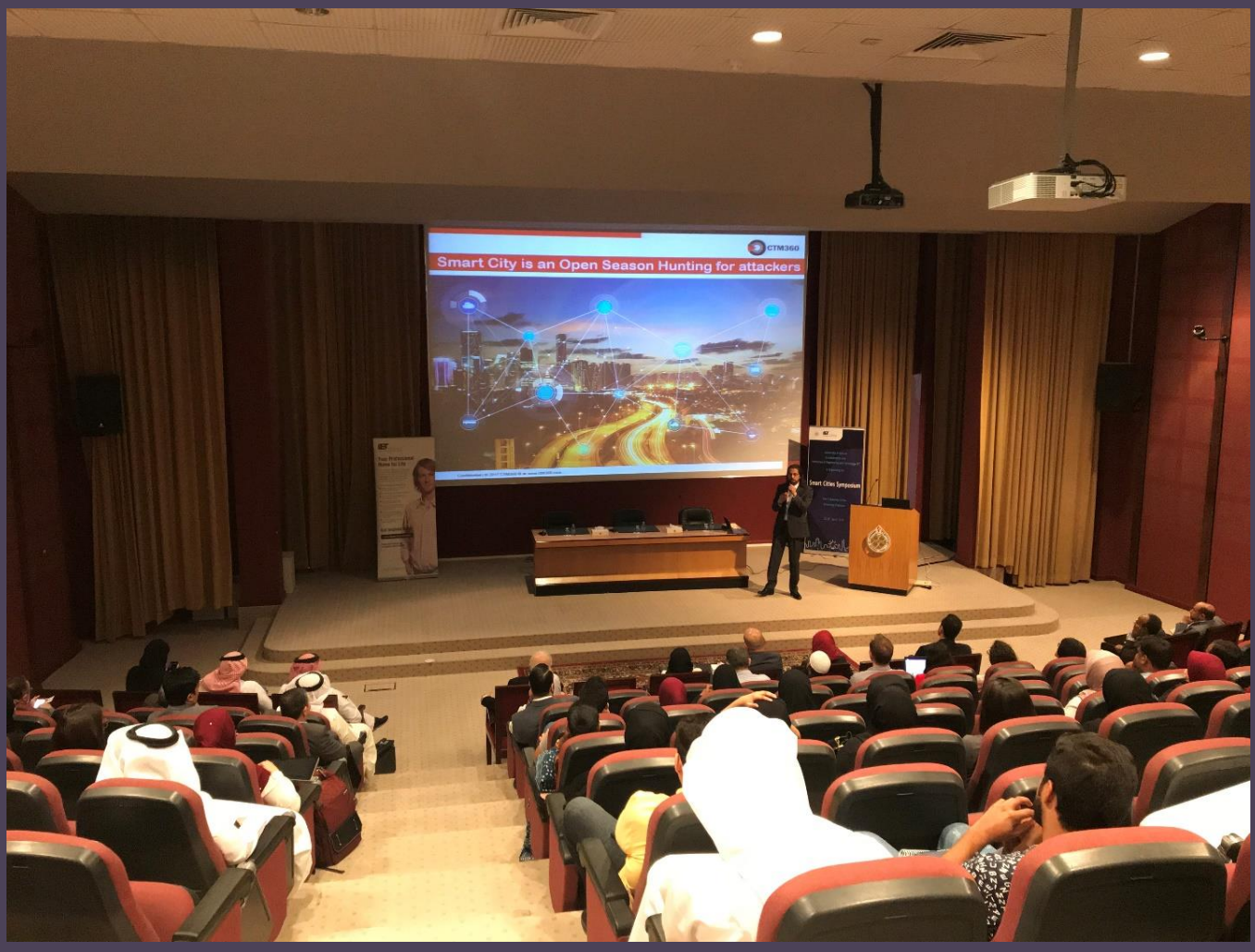
To join sessions in Room-01

To join sessions in Room-02

To join sessions in Room-03




IET
The 2nd
Smart Cities Symposium
SCS19
Organized by the University of Bahrain in collaboration with
The Institute of Engineering and Technology
IET
University of Bahrain
Zain e-learning center
24-26 March
2019


CTM360
Smart City is an Open Season Hunting for attackers

DETAILED TECHNICAL PROGRAM AND PARALLEL SESSIONS

DAY -I

SUNDAY, DECEMBER 03, 2023

Sunday, December 3rd 2023, 8:30 - 9:00 (Asia/Bahrain)

DAY1 - GETTING READY, REGISTRATION AND PLATFORM TECHNICAL SETTING

DAY -I

Sunday, 3rd December 2023 9:05 - 9:10 (Asia/Bahrain)

OC1: Opening Ceremony: Welcoming to the 7th SMART CITIES SYMPOSIUM

MAIN-THEATRE HALL
(Availability of Virtual Access)

Welcoming to the 7th SMART CITIES SYMPOSIUM

OPENING SPEECH

TOWARDS SMART CITIES AND DIGITAL TWIN CITIES: A NOVEL PARADIGM

HIS EXCELLENCY DR. FUAD MOHAMMED AL-ANSARI
UNIVERSITY OF BAHRAIN PRESIDENT

MAIN-THEATRE HALL
(Availability of Virtual Access)

December 3rd - 2023, 09:00+03 - 09:10+03

UNIVERSITY OF BAHRAIN - SUKHAIR - KINGDOM OF BAHRAIN

DAY -I

Sunday, 3rd December 2023 9:10 - 9:15 (Asia/Bahrain)

OC1: Opening Ceremony: Welcoming to the 7th SMART CITIES SYMPOSIUM

MAIN-THEATRE HALL
(Availability of Virtual Access)

Opening Ceremony Welcome Speeches: Welcoming to the 7th SMART CITIES SYMPOSIUM

WELCOME SPEECH

UNIVERSITY OF BAHRAIN SMART CITIES EVENT

WELCOME SPEECH BY
THE ORGANIZATION COMMITTEE

MAIN-THEATRE HALL
(Availability of Virtual Access)

3rd December 2023, 09:10+03 - 09:15+03

University of Bahrain - Sukhair - Kingdom of Bahrain

Sunday, 3rd December 2023 9:15 - 9:20 (Asia/Bahrain)

CP: IET Smart cities Symposiums, Projection from the Past, and the Future: Thanks, and Appreciations.

Thanks, and Appreciation
MAIN-THEATRE HALL
(Availability of Virtual Access)

DAY -I

KEYNOTE SPEECH: 01

Sunday, 3rd December 2023, 09:20+03 - 10:00+03 (Asia/Bahrain)

POWER ELECTRONICS
THE KEY TECHNOLOGY FOR GRID INTEGRATION

Professor Frede Blaabjerg
Electric Power Systems and Microgrids, Aalborg University
Denmark

Session Chair: Dr. Raja Mohamed M. Sumsudeen, University of Bahrain

MAIN-THEATRE HALL
(Availability of Virtual Access)

TALK ABSTRACT

The energy paradigms in many countries (e.g., Germany and Denmark) have experienced a significant change from fossil-based resources to clean renewables (e.g., wind turbines and photovoltaics) in the past few decades. The scenario of highly penetrated renewables is going to be further enhanced– Denmark expects to be 100 percent fossil-free by 2050. Consequently, it is required that the production, distribution, and use of the energy should be as technologically efficient as possible and incentives to save energy at the end-user should also be strengthened. In order to realize the transition smoothly and effectively, energy conversion systems, currently based on power electronics technology, will again play an essential role in this energy paradigm shift. Using highly efficient power electronics in power generation, power transmission/distribution and end-user application, together with advanced control solutions, can pave the way for renewable energies. In light of this, some of the most emerging renewable energies — , e.g., wind energy and photovoltaic, which by means of power electronics are changing character as a major part in the electricity generation —, are discussed. Issues like technology development, implementation, power converter technologies, control of the systems, and synchronization are addressed. Special focuses are paid on the future trends in power electronics for those systems like how to lower the cost of energy and to develop emerging power devices and better reliability tool.

SPEAKER DETAILS: PROFESSOR FREDE BLAABJERG

Frede Blaabjerg (S' 86–M' 88–SM' 97–F' 03) was with ABB-Scandia, Randers, Denmark, from 1987 to 1988. From 1988 to 1992, he got the PhD degree in Electrical Engineering at Aalborg University in 1995. He became an Assistant Professor in 1992, an Associate Professor in 1996, and a Full Professor of power electronics and drives in 1998 at AAU Energy. From 2017 he became a Villum Investigator. He is honoris causa at University Politehnica Timisoara (UPT), Romania in 2017 and Tallinn Technical University (TTU), Estonia in 2018.His current research interests include power electronics and its applications such as in wind turbines, PV systems, reliability, Power-2-X, power quality and adjustable speed drives. He has published more than 600 journal papers in the fields of power electronics and its applications. He is the co-author of eight monographs and editor of fourteen books in power electronics and its applications.He has received 38 IEEE Prize Paper Awards, the IEEE PELS Distinguished Service Award in 2009, the EPE-PEMC Council Award in 2010, the IEEE William E. Newell Power Electronics Award 2014, the Villum Kann Rasmussen Research Award 2014, the Global Energy Prize in 2019 and the 2020 IEEE Edison Medal. He was the Editor-in-Chief of the IEEE TRANSACTIONS ON POWER ELECTRONICS from 2006 to 2012. He has been Distinguished Lecturer for the IEEE Power Electronics Society from 2005 to 2007 and for the IEEE Industry Applications Society from 2010 to 2011 as well as 2017 to 2018. In 2019-2020 he served as a President of IEEE Power Electronics Society. He has been Vice-President of the Danish Academy of Technical Sciences. He is nominated in 2014-2021 by Thomson Reuters to be between the most 250 cited researchers in Engineering in the world.

DAY -I

KEYNOTE SPEECH: 02

Sunday, 3rd December 2023, 10:00+03 - 10:30+03 (Asia/Bahrain)

SATELLITE IMAGERY AND BIG DATA FOR SMART CITIES

Dr. Michael Kio
FIET, Fellow of the Institution of Engineering and Technology
James Clarke School of Engineering, University of Maryland College Park
USA

Session Chair: Dr. Tagore Ramlal, Assistant Professor (Utilities Engineering), University of Trinidad and Tobago; Chair IET Trinidad & Tobago LN

MAIN-THEATRE HALL
(Availability of Virtual Access)

TALK ABSTRACT

Satellite technology provides images for every location on planet earth with onboard computers processing large amounts of data, producing insightful information and analysis. This is an application of big data, going above and beyond not only reading images obtained from space but also improving lives here on earth. Satellites implementing artificial intelligence (AI) are beginning to be utilized for real time images and analysis on how smart cities are transforming. One example is real time changes of when green areas are converted to build areas. By training computers on what to spot in images processed or produced by satellites, machine learning algorithms are implemented on large and expanding data sources which reveals how city development aligns with zoning and planning of communities exposed to flooding and climate change. From this big data, the machine learning algorithms predicts the temporal and spatial distribution of land use and land cover which are analysed and utilized for the management of smart cities.

SPEAKER DETAILS: DR MICHAEL KIO

Dr Michael Kio a fellow of the institution of engineering and technology IET has his PhD in Aerospace Engineering from Cranfield University in the United Kingdom and was a chief engineer in a national space agency and a consultant in satellite and communication technology, energy systems and project management. Dr Kio worked as a postdoctoral associate in the University of Maryland College Park and is currently an assistant research professor in the faculty of engineering University of Maryland. Dr Kio is a project management professional (PMP) in the United States of America and a senior member of the American Institute of Aeronautics and Astronautics (AIAA), where he chaired several technical sessions and reviewed manuscripts in the institution' s journals and conference proceedings.

DAY -I: Sunday, December 3 11:00 - 13:00 (Asia/Bahrain):

Parallel Session: SA01: Internet of Things and Smart Applications-PART-A

Hall Room-01: Session Joining: Room-01

Chair: DR. MUKESH KUMAR MISHRA

11:00 1570920039: Revolutionizing Waste Management: Harnessing the Power of IoT.
Shyam Bihari Goyal (City University, Malaysia); Ankita Karale (Computer Engineering, India); Anand Singh Rajawat (Sandip University, India)

11:20 1570920048: Exploring the Intersection of IoT and Aquatic Environments: A Study on IoT-Enabled Aquarium Systems.
Shyam Bihari Goyal (City University, Malaysia); Ankita Karale (Computer Engineering, India); Anand Singh Rajawat (Sandip University, India); ShiXiao Xiao (Jimei University, China)

11:40 1570939033: Smart Shoe for Health Fitness Using IoT.
Deekshita Keesara (BVRIT Hyderabad College of Engineering for Women, India); Katragadda Niraja (BVRITH, India)

12:00 1570939918: IoT Based Anti-Sleep Alarm for Drivers.
Mrunalini Pendyala (Jawaharlal Nehru Technological University Hyderabad, India); Katragadda Niraja (BVRITH, India)

12:20 1570951528: Design of IoT Based Smart Water Quality Monitoring System.
Ananth kumar Tamilarasan, Ramapraba J and P Kanimozhi (IFET College of Engineering, India); Sunday Adeola Ajagbe (First Technical University, Ibadan, Nigeria & Ladoke Akintola University of Technology, Ogbomoso, Nigeria)

12:40 1570955897: Sensing Metric-Based Hybrid Underlay/Overlay Transmission Framework for CR-IoT Networks for Smart City Applications.
Mostafa Abotaleb (South Ural State University, Russia); Indu Bala (Lovely Professional University, India); Maad M. Mijwil, Mmm (Baghdad College of Economic Sciences, Iraq); Sayed Kenawy (Delta Higher Institute for Engineering & Technology (DHIET), Mansoura, Egypt); Abdelhameed Ibrahim (Mansoura University, Egypt)

DAY -I: Sunday, December 3 11:00 - 13:00 (Asia/Bahrain):

Parallel Session: SA02: Artificial intelligence Computational Algorithms

Hall Room-02: Session Joining: Room-02

Chair: DR.AYMAN AL-KHAZRAJI

11:00 1570907444: Fuzzy-Based Performance Measurement of Building Construction Projects: A Case Study.
Kazi Masum and Bablu Marma (Shahjalal University of Science and Technology, Bangladesh); Muhammad Saiful Islam (CQUniversity Australia, Australia); Uneb Gazder (University of Bahrain, Bahrain)

11:20 1570921946: DeepGuard: Fortifying Intrusion Detection with LSTM and Walrus Optimization for Smart-Cities.
Ramya Chinnasamy (Anna University & Kongu Engineering College, India); Malliga. S Malliga (Kongu Engineering College, India); Nandita Sengupta (University College of Bahrain, Bahrain)

11:40 1570924637: Effective Selection of Completely Fair Scheduler Algorithm in RAID Kernel for Improved I/O Performance Using Machine Learning.
Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Arup Nandi (Amity University Kolkata (IT), India); SatyaVir Singh (Sharda University Uzbekistan, Uzbekistan)

12:00 1570927717: Comparative Study on Text Classification on a Small Dataset.
Ahmed Mkili (National School of Arts and Crafts Casablanca, Morocco); Ibrahim Guelzim (Hassan 2 University of Casablanca, Morocco & National High School of Arts and Crafts, Morocco)

12:20 1570928018: Prediction of Hotel Booking Cancellation Using Machine Learning Algorithms.
Simran Ayoub Qureshi (Majan University College, Oman); Jacintha Menezes (Majan University College, Oman & University of Bedforshire, United Kingdom (Great Britain))

12:40 1570928476: Prediction of Brucellosis Disease with Ensemble Machine Learning Application.
Mokammel Hossain Tito (Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh); Md. Siddiqur Rahman (Bangladesh Agricultural University (BAU), Bangladesh); Hoor E Jannat (Bangabandhu Sheikh Mujibur Rahman Science and Technology University Bangladesh, Bangladesh); Alifa Nasrin (Combined Military Hospital (CMH), Bangladesh); Md. Asaduzzaman (National Heart Foundation Hospital & Research Institute, Bangladesh); Sayra Tasnin Sharmy (Bangladesh Agricultural University (BAU), Bangladesh)

DAY -I: Sunday, December 3 11:00 - 13:00 (Asia/Bahrain)

Parallel Session: SA03: Smart Environments -PART-A

Hall Room-03: Session Joining: Room-03

Chair: DR. ANAMICA JIWANE

11:00 1570920748: Advanced Detection of Refrigerant Leakage Using Pressure Sensor Information in Variable Refrigerant Flow Systems.
Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Abhik Patra, Nirmalya Tripathi and Prasenjit Mukherjee (Amity University Kolkata, India)

11:20 1570928523: Application of Classification Models on a CDK Dataset Using WEKA 3.0.
Jasir Raid Al-Lawati (Majan University College, Oman); Jacintha Menezes (Majan University College, Oman & University of Bedforshire, United Kingdom (Great Britain))

11:40 1570928605: Enabling Big Data in Planning Solutions for Smart Cities.
Somi Sareen (National Institute of Technology Patna, India); Nazish Abid (University of Bahrain, Bahrain); Mazharul Haque (National Institute of Technology Patna, India)

12:00 1570928795: Human Experience in Smart Built Environment.
Fariel Khan and Anamika Jiwane (University of Bahrain, Bahrain)

12:20 1570929054: Smart Tracking System (STS) for Site Workers.
Salwa Baserrah and AbdulRahman Yusuf Al-Mahmood (University of Bahrain, Bahrain); Ahmed Althawadi and Khaled Husain (UOB, Bahrain); Sayed Alhashemi and Mohamed Sadeq (University of Bahrain, Bahrain)

12:40 1570932985: Interactive Architecture: Creating a More Livable Built Environment Within the Context of Bahrain.
Hawra Jaafar Shaikh Mansoor (University of Bahrain, Bahrain)

Sunday, December 3 13:00 - 13:30 (Asia/Bahrain)

ZB1: Day-1 - Mid-Day Break

DAY -I: Sunday, December 3 13:30 - 15:30 (Asia/Bahrain):

Parallel Session: SB01: Smart Environments -PART-B

Hall Room-01: Session Joining: Room-01

Chair: DR. MRINAL BACHUTE

13:30 1570946768: Assessing Social Sustainability Indicators in New Housing Development: Case of New East Al Hidd Bahrain
Hala Abushaqra (University of Bahrain, Bahrain)

13:50 1570948471: Urban Dialect - an Elderly Perspective on Age-Friendly City
Kavithasree Suvarna (University of Bahrain, Bahrain)

14:10 1570968532: Smart Cities and Economic Development in Bahrain
Ammar Jreisat and Mohamed Rajab Ayoob (University of Bahrain, Bahrain)

14:30 1570969577: A Success of Bulk Queueing Service of Expected Waiting Time with Regular Service, Repair, Idle and Single Server Vacation in Real-Life Data Analysis
Surendran R (Saveetha Institute of Medical and Technical Sciences, India); Rajasekar B (Sathyabama Institute of Science and Technology, India); Geetha Rani K (Jain Deemed to Be University, India); Shakila Devi G (Saveetha School of Engineering, India); Sathish kumar P. J (Vel Tech Multitech SRS Engineering College, India)

14:50 1570971678: Practical Based Examination Using the Arduino E-Kit for STEM Electronic and Mobile Learning
Omae Malack Oteri (Jomo Kenyatta University of Agriculture and Technology, Kenya)

15:10 1570972146: Colour Detection Using Python
Aditya Singh, Akash Kumar, Aman Sahil, Mrinal Bachute, Department of Electronics and Telecommunications, Symbiosis Institute of Technology, Pune (India)

15:30 1570975763: Crowd Detection and Behavior Analysis Using Deep Learning Techniques.
Maram Al Faraj (University of Bahrain, Bahrain); Ebrahim Abdulla Mattar (University of Bahrain & IET Bahrain Local Network, Bahrain)

DAY -I: Sunday, December 3 13:30 - 15:30 (Asia/Bahrain):

Parallel Session: SB02: Cybersecurity Solutions

Hall Room-02: Session Joining: Room-02
Chair: DR. UJWALA KSHIRSAGAR (BELORKAR)

13:30 1570908629: Detection and Classification of Malicious URLs Based on Machine Learning Models.
Juwairiyyah Juwairiyyah, G. Kiran Kumar and Anila Macharla (Chaitanya Bharathi Institute of Technology, India); Duggi Malathi Rani (Marri Laxman Reddy Institute of Technology and Management, India)

13:50 1570929996: Approach of an Advanced Autonomous Vehicle with Data Optimization and Cybersecurity for Enhancing Vehicle's Capabilities and Functionality for Smart Cities.
Vaibhav Saini, Ayushi Jain and Ayush Dodia (Verolt Engineering Pvt Ltd, India); MVV Prasad Kantipudi (Symbiosis Institute of Technology, Symbiosis International Deemed University, India)

14:10 1570955499: Data Poisoning: Issues, Challenges, and Needs.
Mohammad Aljanabi (Alsalam University College, Iraq); Maad M. Mijwil, Mmm (Baghdad College of Economic Sciences, Iraq); Mostafa Abotaleb (South Ural State University, Russia); Sayed Kenawy (Delta Higher Institute for Engineering & Technology (DHIET), Mansoura, Egypt); Sahar Yousif Mohammed (University of Anbar & Enjaz Company, Iraq); Abdelhameed Ibrahim (Mansoura University, Egypt)

14:30 1570961640: Analytical Study for Cyber Threat Intelligence (CTI).
Ibrahim Al-Khatib (Princess Sumaya University for Technology, Jordan); Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan); Saleh Mustafa Abdul Hadi Abu Soud princess sumaya university for technology (Jordan)

14:50 1570962271: DNS Cache Poisoning Attack Detection: A Systematic Review.
Osama Alsad (Princess Sumaya University for Technology, Jordan); Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan)

15:00 1570962276: On the Security Threats to UAV-Aided IoT.
Fatema Ali Aqel (Princess Sumaya University for Technology, Jordan); Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan)

15:20 1570963420: Analysis of the Impact of DDoS Attacks Against DNS Servers.
Ali Salem and Wael M El-Medany (University of Bahrain, Bahrain)

DAY -I: Sunday, December 3 13:30 - 16:00 (Asia/Bahrain):

Parallel Session: SB03: Smart Transportation System

Hall Room-03: Session Joining: Room-03
Chair: DR. U GAZDER

13:30 1570892429: SCRAMJET: A Supersonic Transport.
Mohamed Hamed Moustafa, Mehwish Mahek, Hood Salem Khashwain, Sharul Sham Dol and Mohammed Alavi (Abu Dhabi University, United Arab Emirates)

13:50 1570892433: Design Simulation of Solid Rocket Propulsion.
Ahmed Shahid, Abdallah Salam, Abdulsalam Ahmed, Sharul Sham Dol and Mohammed Alavi (Abu Dhabi University, United Arab Emirates)

14:10 1570904742: Estimation of Time Delay Functions for Design of Traffic Systems Nadine H. A. Mohammed (University of Bahrain, Bahrain); U Gazder (UoB, Bahrain); Maysa A. M. Alhashemi, Nujood S. M. Almurshad and Sara A. E. Abdulla (University of Bahrain, Bahrain)

14:30 1570923697: Machine Learning Based Vehicle Auto Cruise Control.
Ebrahim Abdulla Mattar (University of Bahrain & IET Bahrain Local Network, Bahrain)

14:50 1570933012: Using XgBoost and Multimodal Physiological Signals to Identify Flight Difficulty.
Mohamed Fekrouni (University of Abdelmalek Essâadi, Morocco); Saad Chakkor (LabTIC, ENSA of Tangier, University of Abdelmalek Essaadi, Morocco); Mostafa Baghouri (LCCPS, ENSAM of Casablanca & University Hassan2, Morocco); Abdelkader Jalil El Hangouche and Jawhar Laamech (FMPT, Morocco)

15:10 1570949951: Improved Intelligent Fleet Management System with Data Analytics and Internet of Things (IoT) for Smart Cities.
Ayushi Jain and Vaibhav Saini (Verolt Engineering Pvt Ltd, India); Chirag Choudhary and Muskan Yadav (Doon University, India)

15:30 1570954223: Smart Parking System Based on Image Processing.
Fatema Hasan Yusuf (University of Bahrain, Bahrain); Mohab A. Mangoud (UoB, Bahrain)

15:40 1570960071: A Framework Towards an Efficient Solution for the Transportation of University of Bahrain Students.
Abdulla Alasaadi, Abdulla Alqaddoumi, Abdul Fattah Salman and Youssef Harrath (University of Bahrain, Bahrain)

16:00 1570961485: Advanced Driver Assistance System (ADAS) Based on Sensor Fusion.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Akash Panicker (Symbiosis Institute of Technology, Symbiosis International Deemed University, Pune, India); Bharti Pareek (Symbiosis Institute of Technology Pune, India)

Sunday, December 3 15:25 - 15:30 (Asia/Bahrain)

CD-1: CLOSING OF DAY-1

DAY -II

MONDAY, DECEMBER 04, 2023

DAY -II

MONDAY, 4TH DECEMBER 2023, 8:30 – 9:00 (ASIA/BAHRAIN) - D2: DAY2 – GETTING READY, AND PLATFORM TECHNICAL HELP

KEYNOTE SPEECH: 03:

4th Monday, December 2023, 9:00 – 9:30 Asia/Bahrain)

SUSTAINABLE ENGINEERING PRACTICES FOR SMART CITIES INFRASTRUCTURE

Dr. Suresh Vishwakarma
Honorary Professor Amity University, Ex-Adjunct Professor University of Trinidad and Tobago, Senior Engineer-BC Hydro, Vancouver, Canada

MAIN-THEATRE HALL
(Availability of Virtual Access)

Session Chairing
Session Chair: Dr. Ruchi Tyagi, Asian Institute of Technology, Thailand

TALK ABSTRACT

Talk Abstract: Smart cities are a buzzword now in many countries worldwide. These cities involve efficient integration of physical, digital, and human systems in their built environment to ensure a sustainable, prosperous, and inclusive future for their residents. United Nations Economic Commission for Europe and International Telecommunication Union defines them as an innovative city that uses ICTs and other means to improve quality of life, efficiency of urban operation and services, and competitiveness while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects. While ensuring prosperity to the residents in the long term, it is equally important for the engineers and architects to respect the 17 UN sustainable development goals and the Paris 2016 climate change agreement. They need to adopt sustainable engineering practices to deliver what these goals aspire right from the construction to the operational phases of smart city infrastructure. There is therefore a need for best sustainable practices in engineering smart cities and discovering the benefits of leveraging innovative solutions to build more efficient, sustainable, and livable cities. These practices will not only reduce greenhouse gas (GHG) emissions but also a desperately needed sustainable future. Professional engineering bodies including IET, IEEE, and the associations regulating the engineering profession are also expected to contribute to a well-planned technology-powered smart city program that can help to drive smart cities of the future.

SPEAKER DETAILS: DR. SURESH VISHWAKARMA

Dr. Suresh Vishwakarma holds a degree in electrical engineering, MBA, and a Ph.D. in power management. He has a Certificate in Sustainability from Polytechnic Montreal, Canada. He undertook postdoctoral research in an energy conservation project at the University of West Indies in collaboration with the Ministry of Planning and Development, Government of Trinidad and Tobago. He is an Honorary Professor at Amity University, India. He was also an Adjunct Professor (Utilities Engineering) at the University of Trinidad and Tobago for one year. He is an External Evaluator for the Accreditation Council of Trinidad and Tobago. Dr. Suresh has held senior engineering and managerial positions in public utility companies since 1988 in Canada, Seychelles, and India. He is currently a Senior Engineer (Asset Performance Planning) at BC Hydro in Canada. He has more than 40 publications in conference proceedings, journals, and periodicals. His several research papers have been published in Emerald, Springer, and other leading journals. He is a reviewer for a few leading journals. He has been a recipient of IET-UK's International Travel Reward in the year 2020 for his postdoctoral work and National Travel Reward in the year 2023 for a conference presentation. He has evaluated two doctoral theses for a leading university in Punjab, India. Dr. Suresh is a member of the Communities Resources Committee of the IET-UK. He is the Past Chair of Chartered Engineers Pacific, a group representing five UK-based engineering institutions in Vancouver. He is on IET's Built Environment Panel. He organized IET's seminars in Vancouver on "Corporate Social Responsibility" in 2018, on "Artificial Intelligence" in 2020, and IET's 150-anniversary event on "Sustainable Practices in Engineering" in 2022. He has conducted several webinars for IET-UK, IE (India), and universities worldwide. Before moving abroad in 2000, Dr. Suresh worked for the erstwhile Madhya Pradesh State Electricity Board as a Junior Engineer and Assistant Engineer for 12 years. He undertook his first foreign assignment in Rep. of Seychelles in February 2000. After working for Public Utilities Corporation, Rep. of Seychelles in engineering and managerial positions for 13 years, Dr. Suresh immigrated to Canada in 2012. Even after working abroad for almost 24 years, he still has the same affection for his home state and is always keen to contribute in whatever way possible.

DAY -II

KEYNOTE SPEECH: 04:

4th Monday December 2023, 9:30 – 10:30 (Asia/Bahrain)

MACHINE LEARNING ALGORITHMS AND DEEP LEARNING NETWORKS FOR SMART GRID DATA ANALYTICS

Professor D. Devaraj
Senior Professor, Department of Electrical & Electronics Engineering, Kalasalingam Academy of Research and Education, Krishnankoil- India

MAIN-THEATRE HALL
(Availability of Virtual Access)

Session Chair: Dr. Mohammed Majid Mohammed Al-Khalidi, University of Bahrain

TALK ABSTRACT

Globally, the modernization of traditional power grid into smart grid is taking place. Smart Grid (SG) is a system of information and communication technologies integrated with electricity network, and customer end-use technologies. The establishment of smart grid enables the reduction in energy consumption, effective use of renewable energy and reduction in carbon emissions. Advanced Metering infrastructure (AMI) is an important component in the smart grid. The AMI contains smart meters installed at the customer premises, communication network and a meter data management system which collect information on thousands of users. Smart meters measure and communicate electrical consumption data from customer premises to the energy provider through the communication network. The smart meter data collected at a frequency of every 15 minutes to one hour provide utilities with detailed information about the energy consumption. The collected smart meter time series data can be analyzed further for efficient and sustainable operation of the Smart Grid. Moreover, end users can control their power usage and bills with this information. In recent years, Machine learning has proven to be a powerful tool for deriving insights from data. Machine learning is a form of data-driven programming that automatically learns based on data which can facilitate the analysis of large and heterogeneous data like the smart meter data. Also, the smart meter data can be combined with the other relevant variables like weather and demographic data to enrich the data analytics in smart grid operation. This talk will focus on leveraging the Machine learning tools like decision tree, support vector machine, clustering algorithms and Deep learning networks for various services like load profiling, energy consumption forecasting, electricity theft detection, demand response etc. using smart meter data. Case studies based on real time smart meter data will also be presented.

SPEAKER DETAILS: PROFESSOR D. DEVARAJ

Professor D. Devaraj completed his B.E and M.E in Electrical & Electronics Engineering and Power System Engineering in the year 1992 and 1994, respectively, from Thiagarajar College of Engineering, Madurai. From 1994 to 1997, he worked as a Lecturer in Arulmigu Kalasalingam College of Engineering, Krishnankoil. He obtained his Ph.D degree from IIT Madras, Chennai in the year 2001. Since 2001, he is working as a faculty in the Electrical & Electronics Engineering department of Kalasalingam Academy of Research and Academy. He has organized 4 International Conferences, 9 National Conferences, 6 seminars and conducted 25 workshops. He has authored 2 text books, Power system analysis and Power system control. He has also co-authored 3 text books. He has published more than 180 papers in Journals and presented 250 papers in conferences. He has chaired 20 technical sessions in various National and International Conferences. He is the reviewer of IEEE Transaction on Fuzzy System, IEEE Transaction on System, Man, Cybernetics, IET Proceedings on Generation, Transmission & Distribution, International Journal on Electric Power & Energy Systems, Electric Power Components and Systems, Neuro computing and Applied Soft computing Journal. He has Supervised 28 PhD, 2 M.S and 25 M.E theses. Presently, he is guiding 6 Ph.D scholars. He has undertaken 4 research projects sponsored by DST, Government of India. Currently, he is the principal investigator for the DST-FIST project on "Establishment of Real time Simulation Platform for Renewable energy technology and Micro grid System Research" . His research interest includes Artificial Intelligence, Evolutionary algorithms, IoT and Data Mining Power system optimization, Renewable Energy and Smart Grid. He was the Head of the Electrical & Electronics Engineering Department from 2001 to 2009, Deputy Director, R&D, from 2008 to 2009, Dean, R&D, from 2009 to 2012, Dean, Planning & Development from 2012 to 2014, Director, Academic from 2014 to 2019 and Dean, School of Electronics and Electrical Technology from 2016 to 2021. Presently, he is a Senior Professor in the Electrical and Electronics Engineering Department of Kalasalingam Academy of Research and Academy (KARE), Krishnankoil. Dr.D.Devaraj has been recognized in the field of Artificial Intelligence and Image analysis as one among the top 2 % scientists/researchers across the world by Stanford University researchers in 2020, 2021 and 2022. He is a senior member of IEEE, and a member of IEEE Power & Energy System Society. He acted as the Secretary of IEEE Madras Section during 2020-21 and Vice-Chair (Educational Activities) of IEEE India Council during 2020-22.

4th Monday, December 2023 10:30 – 11:20 (Asia/Bahrain)

SB-2: Short Break-2

DAY -II: 4th Monday, December 2023 11:20 – 13:00 (Asia/Bahrain)

Parallel Session: SC02: Smart Algorithms Applications-A

Hall Room-01: Session Joining: Room-01

Chair: DR. SHAHED AL-TAMIMI

11:20 1570921013: BanijyaPrayukti: E-Commerce Recommendation Engine for Sustainable Products.
Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Aditya Pradhan, Amartya Ghosh, Rintu Mandal, Kumar Abhi Saxena and Anirban Mitra (Amity University Kolkata, India)

11:40 1570925472: Scoria Powder: Revolutionizing Sustainable Concrete Construction.
Md. Arifuzzaman (King Faisal University, Saudi Arabia); A. B. M. Saiful Islam (Imam Abdulrahman Bin Faisal University, Saudi Arabia); Muhammad Aniq Gul and Md Kamrul Islam (King Faisal University, Saudi Arabia); Md. Alhaz Uddin (Jouf University, Saudi Arabia); Uneb Gazder (University of Bahrain, Bahrain)

12:00 1570938532: A Survey on Quantum Cryptography for E-Commerce Applications.
Katragadda Niraja (BVRITH, India); J Kavitha (JNTUH, India); Fahmina Taranum (Osmania University, India)

12:20 1570961643: Fog Computing Security Challenges & Open Issues: A Short Survey.
Shahed Al-Tamimi (Princess Sumaya University for Technology, Jordan); Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan); Mustafa Ahmad Al-Fayoumi (Princess Sumaya University for Technology, Jordan)

12:40 1570969305: Application of AI and ML for Sensor Data Analysis.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Mahum Fareed and Percy Dutta (Symbiosis Institute of Technology Pune, India); Ankit Yadav (SIT Pune, India)

13:00 1570969321: Autonomous Underwater Vehicle for Rugosity and Obstacle Detection.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Dheeraj Meena (SIT Pune, India); Manasvini Vaya (Symbiosis Institute of Technology Pune, India); Namrata Makhija (SIT Pune, India)

DAY -II: Monday, December 4th 11:20 – 13:00 (Asia/Bahrain)

Parallel Session: SC03: New Technologies for Smart Cities-PART-A

Hall Room-02: Session Joining: Room-02

Chair: DR. ARADDHANA DESHMUKH

11:20 1570894473: Smart Cities: A Multi-Aspect Approach.
Fawzi Mohammed Munir Al-Naima (Al-Nahrain University & Al-Kut University College, Iraq); Zoran P čekerevac (MB University & MESTE NGO, Serbia); Sergey Kirsanov (Russian State University for the Humanities, Russia)

11:36 1570925664: Go No Queue Rush-Estimator for Corporate Cafeteria.
A Anandkumar, Koushick S, Praveen Kumar M, Vigneshwaran V and Balaji M (Jai Shriram Engineering College, India)

11:53 1570925926: Developing an Efficient Harvester and Weeder for Improved Plantation Productivity.
Balakrishnan Baranitharan (Kalasalingam Academy of Research and Education Tamil Nadu, India); Karthik Chandran (JEC, India); Rajalakshmi M (Sethu Institute of Technology, India); Subhra Mullick (Indian Statistical Institute, India)

12:10 1570929424: Integrating Augmented Reality Technology in Higher Education.
Fayzeh Abdulkareem Jaber (University of Technology Bahrain, Bahrain); Ayman Al-khazraji (University of Bahrain, Bahrain)

12:26 1570965748: Optimum Planning and Scheduling of Repetitive Construction Projects: Multi-Objective Optimization Using the Cuckoo Search Algorithm
Saraa Naseer Alasadi (University of Baghdad & University of Bahrain, Bahrain)

12:43 1570967431: EV Service Station for Future Smart Cities.
Suresh Vishwakarma (BC Hydro, Canada); Amrita Chaurasia (Christ University, Ghaziabad, India); and Ruchi Tyagi (Asian Institute of Technology, Thailand).

1:00 1570969576: High Accurate Gold Prize Rate Prediction Using Random Forest Regression Algorithm
Surendran R (Saveetha Institute of Medical and Technical Sciences, India); Sivasangari A (Sathyabama Institute of Science and Technology, India); Deepa R (SRM Institute of Science and Technology, India); Geetha Rani K (Jain Deemed to Be University, India); Tamilvizhi T (Panimalar Engineering College, India)

DAY -II: Monday, December 13:00 – 13:30 (Asia/Bahrain)

ZB2: Day-2 – Mid-Day Break

DAY -II: Monday, December 4 13:30 – 15:30 (Asia/Bahrain)

Parallel Session: SD01: New Technologies for Smart Cities-PART-B

Hall Room-01: Session Joining: Room-01

Chair: DR. MD. ARIFUZZAMAN

13:30 1570915552: Urbanization Agenda: A Journey Embracing Geodata Analysis Using Digital Twin Model.
Subhra Mullick (Indian Statistical Institute, India); Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Dheeraj Chitara (Biyani Girls College, Jaipur, Rajasthan, India)

13:54 1570928843: Slag: A Sustainable Alternative for Portland Cement Concrete.
Md. Arifuzzaman (King Faisal University, Saudi Arabia); A. B. M. Saiful Islam (Imam Abdulrahman Bin Faisal University, Saudi Arabia); Muhammad Aniq Gul (King Faisal University, Saudi Arabia); Uneb Gazder (University of Bahrain, Bahrain); Mokammel Hossain Tito (Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh); Md. Alhaz Uddin (Jouf University, Saudi Arabia)

14:18 1570928935: Comparative Study of Lightweight and Conventional Concrete Materials in Buildings on Weak Soil of Coastal Region in KSA.
Mohamed Elsharawy and A. B. M. Saiful Islam (Imam Abdulrahman Bin Faisal University, Saudi Arabia)

14:42 1570952262: Assessment of Machine Learning Algorithms for Formalin Detection in Fish: A Comprehensive Review.
Adheena Benny, Emilin R Renitta and Anitha Mary (Karunya Institute of Technology and Sciences, India); Karthik Chandran (JEC, India); Sayed Kenawy (Delta Higher Institute for Engineering & Technology (DHIET), Mansoura, Egypt)

15:06 1570957374: Revolutionizing Brucellosis Disease Prediction with Specialized Machine Learning Techniques.
Md. Arifuzzaman (King Faisal University, Saudi Arabia); Mokammel Hossain Tito (Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh); U Gazder (UoB, Bahrain); Md. Asaduzzaman (National Heart Foundation Hospital & Research Institute, Bangladesh); Most. Hoor E Jannat (Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh); Shah Md. Maruf (Bangabandhu Sheikh Mujibur Rahman Science and Technology University Bangladesh, Bangladesh); Alifa Nasrin (Combined Military Hospital (CMH), Bangladesh); Md. Ashrafuzzaman (Medical Officer, Bangladesh)

15:25 1570975760: Computational Aspects: Implementation of Islanding Protection System into SIMULINK Model.
Abdularoaf A. Almubarak (University of Bahrain, Bahrain); Ebrahim Abdulla Mattar (University of Bahrain & IET Bahrain Local Network, Bahrain)

DAY -II: Monday, December 4 13:30 – 15:30 (Asia/Bahrain)

Parallel Session: SD03: Smart Energy Systems – Technology Solutions

Hall Room-02: Session Joining: Room-02

Chair: DR. MANISH BILLORE

13:30 1570915561: Enhancing Position Control Performance of Magnetic Levitation System Using Optimized PID-P Controller: A Performance Analysis.
Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Subhra Mullick (Indian Statistical Institute, India)

13:50 1570926705: Designing and Evaluating the Performance of a Solar Tracker System in Hot-Arid Regions.
Raja Mohamed M Sumsudeen (University of Bahrain, Bahrain); Aqil M M (Bahrain University, Bahrain); Ahmed Hussain Matooq H and Isa Mohamed Isa Ali (UOB, Bahrain)

14:10 1570928383: Power Quality Analysis of Grid -Connected Solar PV System Under Variable Irradiance Conditions.
Raja Mohamed M Sumsudeen, Khaled Zehar and Ayman Al-khazraji (University of Bahrain, Bahrain)

14:30 1570929242: Smart City Construction Effect on Energy Saving and CO2 Emissions.
Isa Salman Qamber (Former Professor, Member of BSE, Bahrain)

14:50 1570956411: Transforming Solar Energy: Optimizing Panel Efficiency Through Advanced Machine Learning Approaches and Data Filtering.
Md. Arifuzzaman (King Faisal University, Saudi Arabia); Debasish Sarker (International University of Business Agriculture and Technology, Bangladesh); Mohammad Kamal Hossain (CoRERE, King Fahd University of Petroleuma & Minerals, KSA, Saudi Arabia); Mokammel Hossain Tito (Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Bangladesh); U Gazder (UoB, Bahrain); Anando Zaman (International University of Business Agriculture and Technology, Bangladesh); Ali Nabil Al-Duais (King Faisal University, Saudi Arabia)

15:10 1570970120: Sensor Setup for Industrial Equipment Monitoring: An Overview.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Vamsi Siripurapu (Symbiosis Institute of Technology Pune, India); Maria Praneet (Symbiosis Institute of Technology, Lavale, Pune, India); Adarsh Singh (Symbiosis Institute of Technology Symbiosis International Deemed University, India); Snigdha Nigam (Symbiosis Institute of Technology Pune, India)

15:30 1570974371 Control of A Vertical Axis Wind Turbine.
Heba Isa, Fatema Sayed Husain, Maamar Taleb Ebrahim, Abdulrahman (University of Bahrain, Bahrain)

DAY -II: Monday, December 4 13:30 – 15:30 (Asia/Bahrain)

Parallel Session: SD04: Smart Cities and AI Computational Algorithms

Hall Room-03: Session Joining: Room-03
Chair: DR. QASEM ABU AL-HAIJA

13:30 1570936343: Web Page Classification Using Deep Learning with Text and Image-Based Analysis.
Ayşe Geçkil (Erzurum Technical University & Firat University, Turkey); Ahmet Anil Mungen (OSTİM Technical University, Turkey); Mehmet Kaya (Firat University, Turkey)

13:50 1570938171: Advanced Connected Autonomous Vehicle (ACAV) with Security & System Design Aspects for Intelligent Smart Cities.
MVV Prasad Kantipudi (Symbiosis Institute of Technology, Symbiosis International Deemed University, India); Ayush Dodia, Ayushi Jain and Vaibhav Saini (Verolt Engineering Pvt Ltd, India)

14:10 1570940913: Comparing Fuzzy Logic Methods for Performing Spectrum Sensing in Cognitive Radio.
Khalil El omari (Abdelmalek Essaadi, Morocco); Saad Chakkor (University of Abdelmalek Essaâdi & LabTIC ENSA de Tanger, Morocco); Mostafa Baghouri (LCCPS, ENSAM of Casablanca & University Hassan2, Morocco); Aziz Dkiouak (Abdelmalek Essaâdi University, Morocco)

14:30 1570948558: Edge Device Resource Optimization (EDRO): Evaluating the Impact of Reinforcement Learning and Deep Reinforcement Learning Methods.
Rahul P, Hitaishi Roy and Sanglagna Khakhlary (Amity University Kolkata, India)

14:50 1570952182: NeuroEvolution-Based Hyperparameter Tuning for Reinforcement Learning in SDN Computation Offloading.
Abhijit Banerjee (MAKAUT, India); Subir Gupta (Swami Vivekananda University, India); Sayed Kenawy (Delta Higher Institute for Engineering & Technology (DHIET), Mansoura, Egypt)

15:10 1570952230: Assessment of Gradient Classifier Based Approaches in Advanced Recommendation Framework: Uncovering Limitations.
Ananth kumar Tamilarasan, P Kanimozhi and R Sowmya (IFET College of Engineering, India)

15:25 1570952234: Exploring YouTube Ad View Prediction Through Machine Learning: Analysis and Interpretation.
Pronaya Bhattacharya (Amity School of Engineering and Technology, Amity University, India); Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Sudip Chatterjee (Amity School of Engineering and Technology Amity University Kolkata India, India); Vivek Prasad (Nirma University, India); Kaustubh Suthar and Harsh Maniar (Institute of Technology Nirma University, India)

15:45 1570968958 Using Machine Learning for Security Issues in Cognitive IoT.
Wafa Abdullah Alzuabi and Wael M El-Medany (University of Bahrain, Bahrain); Saeed Sharif (UEL, United Kingdom (Great Britain))

Monday, December 4th 15:30 – 15:35 (Asia/Bahrain)

CD-2: CLOSING OF DAY-2

DAY -III

TUESDAY, DECEMBER 05, 2023

DAY -III

Tuesday, 5th December 2023, 8:30 – 9:00 (Asia/Bahrain) - D3: Day3 – Getting Ready, and Platform Technical Help

KEYNOTE SPEECH: 05

5th Tuesday, December 2023, 09:00 – 09:45 (Asia/Bahrain)

ILLUSTRATING EDGE AI TECHNIQUES AND TOOLS TOWARDS DIGITALLY TRANSFORMED CITIES

Professor Pethuru Raj
Chief Architect and Vice President, Edge AI Division, Reliance Jio Platforms Ltd, Bangalore, India

MAIN-THEATRE HALL
(Availability of Virtual Access)

Session Chair: Dr. Neeta N Thune, Ph.D. (Electronics), Associate Professor, Marathwada Mitra Mandal's College of Engineering, Pune 411052, India

TALK ABSTRACT

Talk Abstract: With the astounding growth in the artificial intelligence (AI) technology ecosystem, a variety of everyday problems across industry verticals are being attempted to be automated and accelerated. Today we have a bevy of pioneering AI algorithms and models empowering business behemoths and start-ups to be right and relevant to their customers and consumers. With the ready availability of big data and greater computational power, AI-based data analytics brings forth predictive, prescriptive and personalized insights in time. The knowledge discovered gets disseminated to appropriate systems and devices to exhibit intelligent behavior in their assignments and obligations. There are a dazzling array of cutting-edge technologies and state-of-the-art platforms for simplifying and speeding up AI model engineering, evaluation, optimisation and deployment tasks. Now with the exponential growth of connected devices (alternatively referred to as networked embedded systems or IoT edge devices) joining mainstream computing in the digital era, the computing activity is being systematically shifted to IoT edge devices, which individually and collectively perform proximate data processing to extract timely and actionable insights, which, in turn, results in a slew of real-time and real-world services and applications. By translating heavyweight AI models into lightweight models using a suite of compression techniques and tools, hosting and running AI models on edge devices and their clusters become the talk of the town. Such a transition empowers edge devices to be intelligent in their operations, offerings and outputs. In this talk, I would like to demystify the edge AI paradigm and how it is going to be a game-changing phenomenon for the entire society. Further on, I will focus on detailing some prominent personal and professional use cases of edge AI. Especially setting and sustaining intelligent environments and enterprises is being simplified and speeded up through the smart leverage of the distinct power of the edge AI paradigm.

SPEAKER DETAILS: PROFESSOR PETHURU RAJ

Gaining theoretical as well as practical knowledge on various data science (DS) technologies, tools and use cases. Well-versed in machine and deep learning (ML/DL) algorithms and frameworks, AI model creation and optimization (pruning, quantization, transfer learning, knowledge distillation, and sparse modeling) and model deployment through MLOps on Kubernetes clusters. Worked on a few data science projects (Anaconda), big and streaming data analytics platforms (Apache Hadoop, Spark, Flink, etc.). Contributed to set up and sustain Kubernetes-managed containerized clouds towards multi-cloud environments (AWS, Microsoft Azure, and Google Cloud). Architected legacy modernization systems towards cloud-native applications. Proposed a K-framework, which is a dynamic pool of end-to-end CI/CD pipelines for serverless apps (Knative), data science (DS) apps (Kubeflow), Blockchain apps (DApps) and smart contracts, IoT apps, etc. Applying SRE technologies and approaches to realize resilient software systems. Working on Edge AI product engineering and management aspects. Competent in software patterns (architectural patterns (SOA, MSA, and EDA) and software design, integration, resiliency, and deployment patterns). Researching on several Computer vision (CV) and natural language processing (NLP) towards cognitive systems. Provided technology consulting, evangelization, mentoring and advisory services in formulating end-to-end digital transformation stringently based on AI, process excellence, infrastructure optimization, architecture assimilation, and technology adoption aspects.

Tuesday, December 5th 2023, 9:45 – 10:45 (Asia/Bahrain)

DAY -III

KEYNOTE SPEAKER-6

5th Tuesday, December 2023, 9:45 – 10:45 (Asia/Bahrain)

EFFECTIVE AND EFFICIENT RIVERINE WASTE MANAGEMENT OF BUILDING SUSTAINABLE SMART CITIES

Dr. Sharina Yunus
Deputy Director of the Enterprise Office for Universiti Teknologi, Brunei

MAIN-THEATRE HALL
(Availability of Virtual Access)

Session Chair: Dr. Ganesh Narine, Senior Manager, Hydro One, Canada

TALK ABSTRACT

Abstract: Effective and efficient riverine waste management is an essential component of building sustainable Smart Cities that prioritises the health and well-being of its residents. In recent years, the problem of riverine waste management has become an increasingly urgent issue in many ASIAN countries. Rapid economic growth, urbanization and several other several factors have led to a surge in waste generation, which often endup in rivers. During this keynote speech, attendees will gain a vivid understanding of the current state of riverine waste management in ASIAN countries and the major challenges that must be overcome. The speaker will highlight promising multi-modal approaches that are being used to tackle riverine waste management and showcase the vital role of technology in addressing these challenges. Emerging technologies such as blockchain and artificial intelligence will also be discussed. Drawing from personal experience and research, the speaker will provide valuable insights into effective strategies for managing riverine waste. Overall, the speech intends to provide a timely analysis of this pressing problem, emphasizing the importance of collaboration and innovation in combating plastic pollution and the role it can play in building sustainable Smart Cities.

SPEAKER DETAILS: DR. SHARINA YUNUS

Dr. Sharina Yunus is an Assistant Professor in the Electrical and Electronic Engineering Department and currently serves as the Deputy Director of the Enterprise Office for Universiti Teknologi Brunei. In this role, she has been responsible for developing the IP and commercialization policies to enhance the Innovation Ecosystem at the University. She has recently completed a research project funded by the ASEAN research grant program on ICT startup issues and challenges. Dr. Sharina has worked with ASEAN European Foundation (ASEF) as a mentor for the 2nd AI Innovation Lab on The Universities Role in Artificial Intelligence AI Innovation Ecosystem. She has also served as a guest panel expert in Digital Education Learning 4 All (DEL4ALL) under the European Research Project. She is currently a member of the National Nano Technology Committee. She firmly believes in giving back to the community and regularly dedicates her time to mentoring robotic teams to promote STEM education. Dr. Sharina has served as a member of the judging panel in the MAKEX International Robotic Competition. She is also the founder of the Learning Ladders Society, a non-profit organization for Children with Autism and Related Disorders. Dr. Sharina has a Doctorate in Optoelectronics from the University of Bath, United Kingdom. Her research interest lies in integrated robotics and AI, robotics for STEM education, Smart Sustainable Cities, Agrotechnology, and PV renewable energy.

DAY -III: Tuesday, December 5th 10:30 – 13:00 (Asia/Bahrain)

Parallel Session: SE02: Smart Monitoring and Solutions

Hall Room-01: Session Joining: Room-01

Chair: DR. SAFAA ZAMAN

10:30 1570941164: Radio Frequency and Wireless Optical Communication Comparison for WSN and IoT Applications.
Ouiam Amenchar (university of abdelmalek essaadi Ensa of tangier, Morocco); Saad Chakkor (University of Abdelmalek Essaâdi & LabTIC ENSA de Tanger, Morocco); Aziz Dkiouak (Abdelmalek Essaâdi University, Morocco); Mostafa Baghouri (LCCPS, ENSAM of Casablanca & University Hassan2, Morocco)

10:55 1570956627: ChatGPT Security Risks and Solutions
Safaa Zaman (Kuwait University, Kuwait)

11:20 1570960950: IoT Based Automated Greenhouse: A Bibliometric Survey and Future Research Directions.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Sonali Kothari (Symbiosis International Deemed University, India)

11:45 1570967743: Strengthening Data Security in Bahrain: Leveraging Microsoft Purview to Prevent Leakage of Sensitive Information.
Naser Fadhel Aldoseri and Wael M El-Medany (University of Bahrain, Bahrain)

12:15 1570967755: Securing Smart Cities in the Quantum Era: Challenges, Solutions, and Regulatory Considerations.
Ahmed Almudaweb and Wael M El-Medany (University of Bahrain, Bahrain)

12:40 1570975754: Distribution System Islanding Detection Classification Using Artificial Neural Networks.
Abdularoaf A. Almubarak (University of Bahrain, Bahrain); Ebrahim Abdulla Mattar (University of Bahrain, Bahrain)

DAY -III: Tuesday, December 5th 10:30 – 13:00 (Asia/Bahrain)

Parallel Session: SE03: Smart Homes, Smart Hospitals, and Smart Campuses

Hall Room-02: Session Joining: Room-02

Chair: MRS. FARIEL KHAN

10:30 1570967620: Smart Design via Digital Architecture.
Islam Hamdi El Ghonaimy (University of Bahrain & Associate prof, Bahrain); Walaa Fathi Abdullah Sultan (University of Bahrain, Bahrain)

10:50 1570969570: Numerical Analysis of Compression Test on 3D Printed Reinforced ABS and PLA.
Surendran R (Saveetha Institute of Medical and Technical Sciences, India); Suresh A, Pradeep surya Dadi and Keerthana P (Chennai Institute of Technology, India); Tamilvizhi T (Panimalar Engineering College, India)

11:10 1570969877: Evolution of Protocols Used in Environmental Monitoring Using WSN.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Samiksha Khandelwal (Symbiosis Institute of Technology, India); Sujay Shinde, Shivam Srivastava and Shrey Choudhary (Symbiosis Institute of Technology Pune, India)

11:30 1570972130: Artificial Intelligence and Smart Cities Through the Looking Glass: Real-Time Application Challenges.
Ruchi Tyagi, (Adjunct Faculty Asian Institute of Technology, Thailand), Suresh Vishwakarma (Senior Engineer, BC Hydro, Vancouver, Canada), Alexey Stanislavovich Timoshchuk (Vladimir Law Institute, Russia), Anurag Sharma (Industry Fellow, SoB, University of Petroleum and Energy Studies, Dehradun, India).

11:50 1570972136: Sustainable Education in The Context of Smart Cities Setup.
Simran Rani, (Research Scholar, Himalayiya University, Dehradun, India), Shailendra Kumar Pokhriyal, (School of Management, Himalayiya University, Dehradun, India).

12:10 1570972140: Tourism Aspects of Smart Cities in the near Future: Development and Transformation.
Trisha Sharma (Research Scholar, Himalayiya University, Dehradun, India), Shailendra Kumar Pokhriyal (School of Management, Himalayiya University, Dehradun, India)

12:30 1570976272: GIS Decision Based Systems in Energy Management Systems.
Aaed Khalil Shahada (Easten Power, KSA); Ebrahim Abdulla Mattar (University of Bahrain, Bahrain)

DAY -III: Tuesday, December 5th 10:30 – 13:00 (Asia/Bahrain)

Parallel Session: SE04: Robotics and Systems Intelligence

Hall Room-03: Session Joining: Room-03
Chair: DR. SALWA BASERRAH

10:30 1570916106: Zero Crossing Correlation to Detect Underground Leak.
Mostefa M Ghassoul (University of Bahrain, Bahrain)

10:55 1570928090: Design of Beach Cleaning Robot (BeBot).
Salwa Baserrah, Fatima Abdulla Alkaabi, Rama Mohamed Alkaraki and Almaha Hamad Alammari (University of Bahrain, Bahrain)

11:20 1570929623: Coma Patients Monitoring Using Smart System.
Rajeswari P (Velammal College of Engineering and Technology, India)

11:45 1570967566: QR Video Steganography Using Python.
Atharva Suresh Sasane (Symbiosis Institute of Technology, Pune, India); Prithvi Majety and Srujan Borkar (Symbiosis Institute of Technology, India); Mrinal Bachute (India)

12:10 1570969566: Face Recognition in Digital Documents with Live Image .
Ajitha Samuel (Sathyabama Institute of Science and Technology, India); Deepa R (SRM Institute of Science and Technology, India); Johnpaul S (Vel Tech Multi Tech Engineering College, India); Sadish Sendil M (Guru Nanak Institute of Technology, India); Surendran R (Saveetha Institute of Medical and Technical Sciences, India)

12:25 1570969801: Comparative Analysis of ROS SLAM Algorithms in an Autonomous Nursing Mobile Robot.
Ujwala Kshirsagar (Belorkar) (Symbiosis International University, Lavale Campus Pune., India & Symbiosis Institute of Technology, India); Aditya Mahesh Rane, Balajee Srinivasan, Om Kamble, Parth Nikam, Pratham Talekar, Satvik Sattenapalli and Nitin Khedkar (Symbiosis Institute of Technology Pune, India)

DAY -III: Tuesday, December 5th 13:00 – 13:30 (Asia/Bahrain) - ZB3: Day-3 – Mid-Day Break

DAY -III: Tuesday, December 5 13:30 – 16:30 (Asia/Bahrain)

Parallel Session: SF00: Smart Healthcare and Technology Solutions

Hall Room-01: Session Joining: Room-01

Chair: DR. ZOUHIR BAHRI

13:30 1570917534: Breast Abnormalities Classification Using Pre-Processing and Deep Transfer Learning Techniques.
Saida Sarra Boudouh (LIM Laboratory University of Laghouat Algeria, Algeria); Mustapha Bouakkaz (University of Laghouat - LIM Laboratory Algeria, Algeria)

13:50 1570921367: Multi-Class Support Vector Machine Based Approach for Sleep Disorder Identification Using EEG Signals
Rajalakshmi M (Sethu Institute of Technology, India); Karthik Chandran (JEC, India); Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India)

14:10 1570927677: Early-Stage Diabetes Prediction Using Machine Learning Algorithms.
Akifa Naim Ahmed Patiwala (Majan College & University of Bedfordshire, Oman); Jacintha Menezes (Majan University College, Oman & University of Bedforshire, United Kingdom (Great Britain))

14:30 1570927708: Predicting the Occurrence of Heart Attacks Using Data Mining.
Sulaiman Said Al-Abri (Majan College & Also Majan College, Oman); Jacintha Menezes (Majan University College, Oman & University of Bedforshire, United Kingdom (Great Britain))

14:50 1570928202: Lung Cancer Prediction Through Data Mining.
Al Shima Al Kharusi (Majan University College, Oman); Jacintha Menezes (Majan University College, Oman & University of Bedforshire, United Kingdom (Great Britain))

15:10 1570928837: AutoML Frameworks for Disease Prediction Using Medical Claims.
Dheeraj Chitara (Biyani Girls College, Jaipur, Rajasthan, India); Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India); Prashant Kumar (Kalinga University, Raipur, Chhattisgarh, India); Kamlesh Kumar (Biyani Girls College, Jaipur, India)

14:30 1570955346: Optimizing Machine Learning Algorithms to Enhance Blood Donation for Liver Patients: A Case Study.
Maad M. Mijwil, Mmm (Baghdad College of Economic Sciences, Iraq); Indu Bala (Lovely Professional University, India); Mostafa Abotaleb (South Ural State University, Russia); Sayed Kenawy (Delta Higher Institute for Engineering & Technology (DHIET), Mansoura, Egypt); Mohammad Aljanabi (Alsalam University College, Iraq); Abdelhameed Ibrahim (Mansoura University, Egypt)

14:50 1570969565 Autism Detection Due to Environmental Pollutants Using Supervised Learning Algorithms.
Surendran R (Saveetha Institute of Medical and Technical Sciences, India); Seena M S (Middlesex University, United Arab Emirates); Aravind Swaminathan (Middlesex University, Dubai, United Arab Emirates); Joel Benjamin J (Middlesex University, United Arab Emirates); Visal Vinod (Middlesex University, India)

16:10 1570969575: Revolutionizing Carotid Pulse Analysis: A Novel Approach with Custom Designed Neck Band.
Pradeep surya Dadi (Chennai Institute of Technology, India); Deepa R (SRM Institute of Science and Technology, India); Surendran R (Saveetha Institute of Medical and Technical Sciences, India); Tamilvizhi T (Panimalar Engineering College, India); Sadish Sendil M (Guru Nanak Institute of Technology, India)

16:30 1570972128: Health is Wealth: Importance of Healthcare Management in Smart Cities.
Nidhi Bhatia (Research Scholar, Indian Institute of Technology, Delhi), Biswajita Parida (School of Management, Indian Institute of Technology)

DAY -III: Tuesday, December 5th 13:30 – 15:30 (Asia/Bahrain)

Parallel Session: SF01: Internet of Things and Smart Applications-PART-B

Hall Room-02: Session Joining: Room-02
Chair: DR. AYMEN AL-KHAZRAJI

13:30 1570976513: Ai-Driven Process Automation in Manufacturing Business Administration: Efficiency and Cost-Efficiency Analysis.
Deepak Pandurang Gavade (India)

13:50 1570956147: Hybrid Fault Diagnostic Method via a Novel IoT Solution.
Christos Spandonidis and Dimitrios Paraskevopoulos (Prisma Electronics, Greece)

14:10 1570967758: Framework for APT Resilience with Blockchain-Enhanced Intrusion Detection and Response (IDR).
Wael M El-Medany (University of Bahrain, Bahrain)

14:30 1570967896: Security in Cloud Computing: Threats, Mitigation Strategies, and Future Directions.
Nada Khalifa (University of Bahrain & The BENEFIT Company, Bahrain); Wael M El-Medany (University of Bahrain, Bahrain)

14:50 1570975634: Detecting Depression Using Natural Language Processing -NLP- Techniques.
Hawra Ahmed Al mohssin (Saudi Arabia); Ebrahim Abdulla Mattar (University of Bahrain, Bahrain)

15:10 1570975362: Use of Large Language Models for Medical Synthetic Data Generation in Mental Illness.
Irfan Aygun (Celal Bayar University, Turkey); Mehmet Kaya (Firat University, Turkey)

15:30 1570972148: Image and Video Steganography Using Least Significant Bit Technique.
Akshya Ganeshan Iyer, Anshika Srivastava, Mitali Pagarware, and Mrinal Bachute, Department of Electronics and Telecommunications, Symbiosis Institute of Technology, Pune. (India)

DAY -III: Tuesday, December 5th 13:30 – 15:40 (Asia/Bahrain)

Parallel Session: SF03: Design Solutions & Smart Cities Design-PART-B

Hall Room-03: Session Joining: Room-03
Chair: DR. R. SURENDRAN

13:30 1570929404: Cloud Based Soilless Cultivation for Urban Areas.
Sugamya K (Chaitanya Bharathi Institute of Technology, India)

13:50 1570972150: Text Enhancement by Image Processing in MATLAB.
Kushagra Sachwani, Sambhav Bhansali, Amber Sahu, Sumit Dharmamehar, Mrinal Bachute, Department of Electronics and Telecommunications, Symbiosis Institute of Technology, Pune (India)

14:10 1570972562: Optimal Allocation of PV Based DG and Capacitor in Radial Distribution Network.
Nisha Dagade (SITS, India); Rahul Dagade (University of Pune, India); Nishant Godha (Senior Engineer, India)

14:30 1570965429: Secure Traffic Signal Controller Remote Stage Override System Through Secure Network.
Tariq Abdulsalam Aljaradi and Wael M El-Medany (University of Bahrain, Bahrain)

14:50 1570970443: A CNN-LSTM Based Approach for Image Captioning.
Esra Balik, Mehmet Kaya and Buket Kaya (Firat University, Turkey)

15:20 1570974719: Classification of Brain Tumor MRI Images Using Convolutional Neural Network.
Mehmet Kaya and Usman Khalid (Firat University, Turkey)

15:40 1570965143: Implementation of Cybersecurity Regulations for FinTech Companies.
Faisal A Alghamdi (University of Bahrain & Saudi Aramco, Saudi Arabia); Wael M El-Medany (University of Bahrain, Bahrain)

DAY -III: Tuesday, December 5th 15:30 – 15:40 (Asia/Bahrain) – Short Break

Tuesday, December 5th 15:40 – 16:00 (Asia/Bahrain)

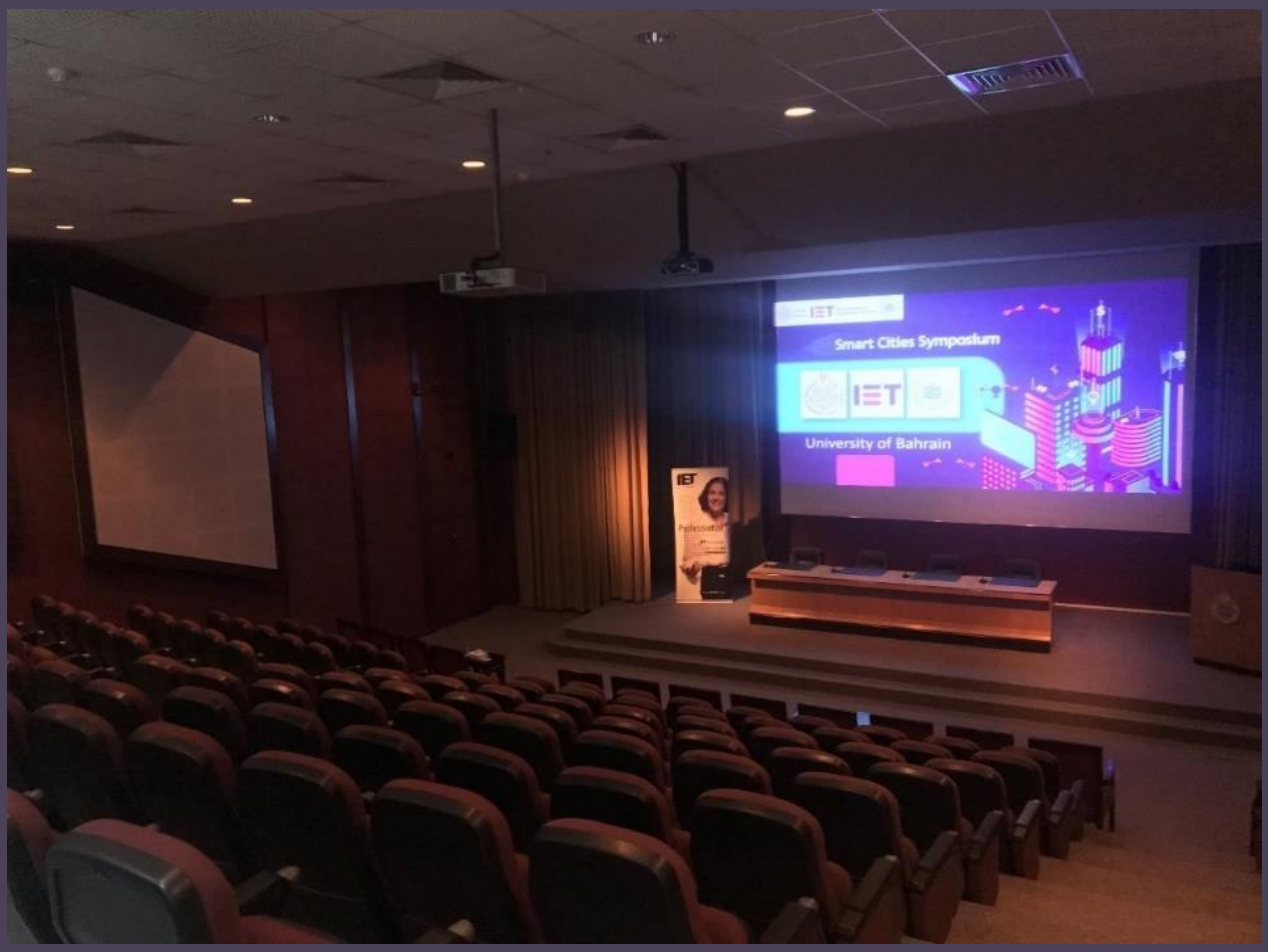
CD-3: Closing Remarks of 7th SMART CITIES SYMPOSIUM, 2023

Closing Remarks of 7th IET SMART CITIES SYMPOSIUM, 2023

Chair: Dr. Sharina Yunus
Deputy Director of the Enterprise Office for Universiti Teknologi, Brunei

MAIN-THEATRE HALL
(Availability of Virtual Access)

KEYNOTES AND PARALLEL SESSIONS HYBRID JOINING



Keynotes and Parallel Sessions Hybrid Joining:

Sessions Access:

To join sessions in Main-Hall

To join sessions in Room-01

To join sessions in Room-02

To join sessions in Room-03

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7TH IET SMART CITIES SYMPOSIUM PROGRAM
3-5 DECEMBER 2023
KEYNOTES AND PARALLEL SESSIONS DETAILS

DAY-I

SUNDAY, 3RD DECEMBER 2023

Main-Hall
Registration: Main Hall Opening by 8:30 am

9:00 am
Main-Hall

Opening Ceremony
OPENING SPEECH
SUNDAY 3RD DECEMBER 2023, 09:05+03 - 09:10+03

TOWARDS SMART CITIES AND DIGITAL TWIN CITIES: A NOVEL PARADIGM

Opening Speech by His Excellency Dr. Fuad Mohammed Al-Ansari
University of Bahrain President

3RD DECEMBER 2023, 09:10+03 - 09:15+03

THE SMART CITIES EVENT

Welcome Speech by
Organization Committee Welcome

SUNDAY THE 3RD OF DECEMBER 2023, 09:20+03 - 10:00+03
KN1: KEYNOTE SPEAKER -1

POWER ELECTRONICS THE KEY TECHNOLOGY FOR GRID INTEGRATION

Professor Frede Blaabjerg
Electric Power Systems and Microgrids, Aalborg University
Denmark

SESSION CHAIR
Dr. Raja Mohamed M. Sumsudeen, University of Bahrain
Bahrain

SUNDAY THE 3RD OF DECEMBER 2023, 10:00+03 - 10:30+03
KN2: KEYNOTE SPEAKER-2

SATELLITE IMAGERY AND BIG DATA FOR SMART CITIES

Dr. Michael Kio
FIET, Fellow of the Institution of Engineering and Technology
James Clarke School of Engineering, University of Maryland College Park
USA

SESSION CHAIR
Session Chair: Dr. Tagore Ramlal- Assistant Professor (Utilities Engineering), University of Trinidad and Tobago;
Chair IET Trinidad & Tobago LN

Sunday 3rd December 2023
11:00 +03 to 01:00 +03

Room-01	Room-02	Room-03
SA01	SA02	SA03
Internet of Things and Smart Applications-PART-A	Artificial intelligence Computational Algorithms	Smart Environments -PART-A

13:00 +03 to 13:30 +03
ZB1: Day-1 - Mid-Day Break

Sunday 3rd December 2023
13:30 +03 to 15:30 +03

Room-01	Room-02	Room-03
SB01	SB02	SB03
Smart Environments -PART-B	Cybersecurity Solutions	Smart Transportation System

CD-1: Closing of Day-1

7TH IET SMART CITIES SYMPOSIUM PROGRAM
3-5 DECEMBER 2023
ONLINE SESSIONS ACCESS - PARALLEL SESSIONS

DAY-II

MONDAY, 4TH DECEMBER 2023

Main-Hall
Getting Ready: Main Hall Opening by 8:30 am

9:00 am
Main-Hall: 7SCS-2023

KN4: KEYNOTE SPEAKER -4
MONDAY 4TH DECEMBER 2023, 09:00+03 - 09:30+03

SUSTAINABLE ENGINEERING PRACTICES FOR SMART CITIES INFRASTRUCTURE

Dr. Suresh Vishwakarma
Honorary Professor Amity University, Ex-Adjunct Professor University of Trinidad and Tobago, Senior Engineer-BC Hydro, Vancouver, Canada

Session Chairing
Session Chair: Dr. Ruchi Tyagi, Asian Institute of Technology
Thailand

KN5: KEYNOTE SPEAKER-5
MONDAY 4TH DECEMBER 2023, 09:30+03 - 10:45+03

MACHINE LEARNING ALGORITHMS AND DEEP LEARNING NETWORKS FOR SMART GRID DATA ANALYTICS

Professor D. Devaraj
Senior Professor, Department of Electrical & Electronics Engineering, Kalasalingam Academy of Research and Education, Krishnankoil- India

SESSION CHAIR
Dr. Mohammed Majid Mohammed Al-Khalidi, University of Bahrain
Bahrain

Monday 4th December 2023
11:20 +03 to 13:00 +03

Room-01	Room-02	Room-03
SC01: New Applications-A	SC02: Smart Algorithms Applications-A	SC03: New Technologies for Smart Cities-PART-A

ZB2
Day-2 - Mid-Day Break
13:00 +03 to 13:30 +03

Monday 4th December 2023
13:00 +03 to 15:15 +03

Room-01	Room-02	Room-03
SD01: New Technologies for Smart Cities-PART-B	SD03 : Smart Energy Systems – Technology Solutions	SD04 : Smart Cities and AI Computational Algorithms

CD-2: Closing of Day-2

7TH IET SMART CITIES SYMPOSIUM PROGRAM
3-5 DECEMBER 2023
ONLINE SESSIONS ACCESS - PARALLEL SESSIONS

DAY-III

TUESDAY, 5TH DECEMBER 2023

Main-Hall
Getting Ready: Main Hall Opening by 8:30 am

9:00 am
Main-Hall: 7SCS-2023

KN5: KEYNOTE SPEAKER -5
TUESDAY, 5TH DECEMBER 2023, 09:00+03 - 09:45+03

ILLUSTRATING EDGE AI TECHNIQUES AND TOOLS TOWARDS DIGITALLY TRANSFORMED CITIES

Professor Pethuru Raj
Chief Architect and Vice President, Edge AI Division, Reliance Jio Platforms Ltd, Bangalore, India

Session Chair:
Dr. Neeta N Thune, Ph.D. (Electronics), Associate Professor, Marathwada Mitra Mandal's College of Engineering, Pune 411052, India

KN6: KEYNOTE SPEAKER -6
TUESDAY, 5TH DECEMBER 2023, 09:50+03 - 10:45+03

EFFECTIVE AND EFFICIENT RIVERINE WASTE MANAGEMENT OF BUILDING SUSTAINABLE SMART CITIES

Dr. Sharina Yunus
Deputy Director of the Enterprise Office for Universiti Teknologi, Brunei

Session Chair:
Dr. Ganesh Narine, Senior Manager, Hydro One, Canada

Tuesday, 5th December 2023
10:30 +03 to 01:00 +03

Room-01	Room-02	Room-03
SE02: Smart Monitoring and Solutions	SE03: Smart Homes, Smart Hospitals, and Smart Campuses	SE04: Robotics and Systems Intelligence

ZB-3
Mid-Day Break
13:00 +03 to 13:30 +03

Tuesday, 5th December 2023
01:30 +03 to 15:30 +03

Room-01	Room-02	Room-03
SF00: Smart Healthcare and Technology Solutions	SF01: Internet of Things and Smart Applications-PART-B	SF03: Design Solutions & Smart Cities Design-PART-B

Main-Hall:
CD-3
Closing Remarks
15:40 +03 to 16:00 +03

Closing Remarks of 7th IET SMART CITIES SYMPOSIUM, 2023

Dr. Sharina Yunus
Deputy Director of the Enterprise Office for Universiti Teknologi, Brunei

Main-Hall:

SB-3: Day-3 - Symposium Ending