# 10TH IET SMART CITIES SYMPOSIUM 2026

1-3 DECEMBER 2026

HYBRID EVENT -WITH VIRTUAL ACCESS SYMPOSIUM

UNIVERSITY OF BAHRAIN

TECHNICAL SUPPORT:

THE INSTITUTION OF ENGINEERING AND TECHNOLOGY

FULL-PAPER REVIEWED MANUSCRIPTS SUBMISSIONS.

Symposium Proceedings will be submitted to the IET Inspec, IEEE Xplore, and Scopus Elsevier's for indexing, once meeting the IET publication standards.

DISTINGUISHED CONTENTS WILL ALSO BE EXAMINED BY IET FOR POSSIBLE SUBMISSION TO IET JOURNALS, AFTER SELECTION AND EXTENSION.

The Institution of Engineering and Technology

TECHNICAL SPONSOR AND SUPPORT




Welcome to the 10TH IET SMART CITIES SYMPOSIUM 2026, 10th IET -SCS-26. An annually run IET symposium related to development of smart innovations for smart cities. The symposium objectives are to create awareness through research and publications about the prospects of smart cities. The symposium also serves as a platform to exchange ideas and thoughts in international prospect and stand. In addition, the symposium is emphasizing the role of academia, universities, industries, experts, and innovations for promoting smart cities solutions, projects, smarter ideas, consultancies and continuity in the form of indexed publications. The 10th IET International Smart Cities Symposium will be held at the University of Bahrain, Bahrain, on December 1-3, 2026. The symposium will feature world-class plenary speakers, major technical symposiums, industry and academic panels, and invited tracks. You are cordially invited to join your latest research work to the symposium. Best paper awards will be selected from accepted papers. The symposium and tracks papers will be published and indexed in IET Inspec - IEEE Xplore and will appear on other indexing databases.

TECHNICAL PROGRAM:

DETAILS ARE FOUND AT:
https://www.iet-smartcities-symposium.com/

SYMPOSIUM KEYNOTE, PAPERS, AND PROCEEDING VOLUME SUMMARY

# THE 10TH IET SCS-2026 SYMPOSIUM

## SETUP AND PURPOSE

# IET TECHNICAL SUPPORT:  THE INSTITUTION OF ENGINEERING AND TECHNOLOGY



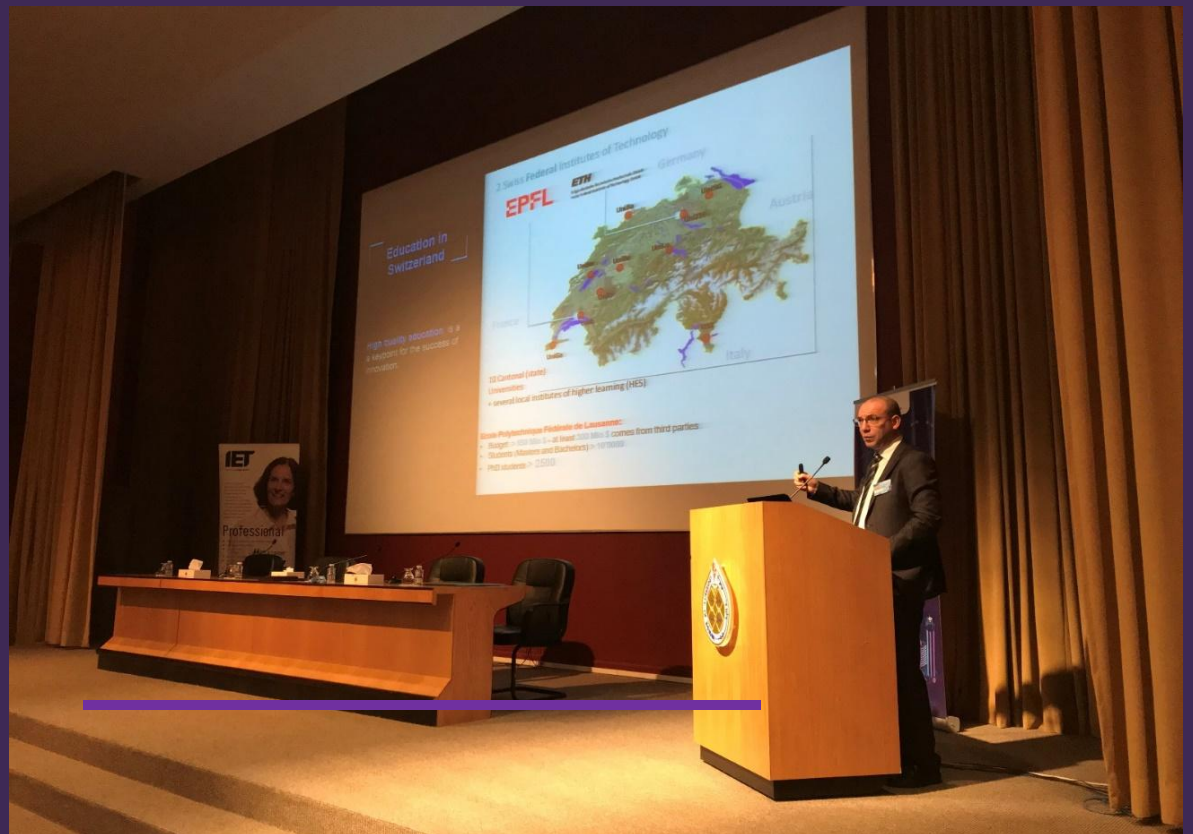








IET
The 2nd
Smart Cities Symposium
SCS19
Organized by the University of Bahrain in collaboration with The Institute of Engineering and Technology IET
University of Bahrain
Zain e-learning center
2019


Education in Switzerland
EPFL
ETH
2 Swiss Federal Institutes of Technology
Germany
Austria
Italy
IET
Professional


Smart City is an Open Season Hunting for attackers

# 19 YEARS … AND WAY FORWARD WITH A SENSE OF 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 2026, the University of Bahrain; 10th Smart Cities Symposium (1-3 December 2026) 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 are 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, 1-3 December 2026. 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.

10TH SMART CITIES SYMPOSIUM -2026

IET PARTNER AND TECHNICAL SUPPORT

19 YEARS OF CONTINUOUS ANNUAL IET FORUMS AND SYMPOSIUMS AT UOB

# DETAILED TECHNICAL PROGRAM AND PARALLEL SESSIONS

# DAY -I

## TUESDAY, DECEMBER 01, 2026

Tuesday, December 1st, 2026, 8:30 - 9:00 (Asia/Bahrain)

DAY1 - GETTING READY, REGISTRATION AND PLATFORM TECHNICAL SETTING

# DAY -I

Tuesday, 1st December 2026, 9:05 - 9:10 (Asia/Bahrain)

OC1: OPENING CEREMONY:

WELCOMING TO THE 10TH IET SMART CITIES SYMPOSIUM BY UNIVERSITY OF BAHRAIN

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

WELCOMING TO THE 10TH IET SMART CITIES SYMPOSIUM

# OPENING:

# HOW THE ANNUAL (IET SMART CITIES SYMPOSIUM) SUPPORTS RESEARCH AND INNOVATION

December 1st - 2026, 09:00+03 - 09:10+03

OPENING CEREMONY:

WELCOMING TO THE 10TH SMART CITIES SYMPOSIUM, UNIVERSITY OF BAHRAIN

## DAY -I

Tuesday, 1st December 2026 9:10 - 9:15 (Asia/Bahrain)

OC1: OPENING CEREMONY: WELCOMING TO THE 10TH SMART CITIES SYMPOSIUM, 2026.

UNIVERSITY OF BAHRAIN:  OPENING CEREMONY WELCOME SPEECHES: WELCOMING TO THE 10TH IET SMART CITIES SYMPOSIUM, 2026.

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

WELCOME TO THE ANNUAL

# UNIVERSITY OF BAHRAIN SMART CITIES EVENT

## HOW THE ANNUAL IET SMART CITIES SYMPOSIUM SUPPORTS RESEARCH AND INNOVATION

PLATFORM OPENING: TUESDAY, 1ST DECEMBER 2026, 8:30 AM (ASIA/BAHRAIN)

1st December 2026, 09:10 A.M. - 09:15 A.M.

Tuesday, 1st December 2026 9:15 - 9:20 (Asia/Bahrain)

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

THANKS, AND APPRECIATION

DAY -I: TUESDAY, 1ST DECEMBER 2026

KEYNOTE SPEECH: 01:

Tuesday, 1st December 2026, 09:15 A.M. - 10:00 A.M. (Asia/Bahrain)

# RESILIENT HYBRID ENERGY SYSTEMS AND DIGITAL TWIN FOR ENERGY TRANSITION AND SUSTAINABLE COMMUNITIES



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*Professor Hossam A. Gabbar,*
*P.Eng., Fellow IET (FIET), Distinguished Lecturer IEEE NPSS, Director of Smart Energy Systems Lab, Ontario Tech University*
*Faculty of Engineering and Applied Science, Ontario Tech University, Canada.*

*Session Chair: Dr. Suresh Vishwakarma, MIET, Lead Engineer, Vancouver, Canada.*

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MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TALK ABSTRACT:

This talk will present the integration of renewable within hybrid energy systems (HESs) to support energy transitions. Different design and coupling mechanisms will be presented to support different installations and user requirements of resilient hybrid energy systems. Development of digital twin and multidimensional simulation are used to evaluate optimum control strategies for different HES models with microgrids and hybrid energy storage systems. Digital twin and Hardware-in-the-loop are demonstrated for accurate analysis of operation strategies and various technologies will be discussed for practical deployment of hybrid energy systems and their use for different applications in city, urban, transportation, remote communities, waterfront, and marine applications. Performance measures are proposed to evaluate different strategies. The talk will include techno-economic evaluation of interconnected HESs with electric, thermal, and fuel energy systems, and their impacts on a number of implementation strategies. Control strategies and optimum control systems will be illustrated to deploy hybrid energy systems, with considerations on scalability, capital cost, project lifetime, and other implementation parameters. Hydrogen technologies will be discussed, including small- and large-scale integration with other energy grids, and HESs. Resiliency and performance measures will be discussed in view of a number of operation and control strategies to meet user requirements.

SPEAKER DETAILS: PROFESSOR HOSSAM A. GABBAR:

Professor Gabbar is a full Professor in the Department of Energy and Nuclear Engineering, the Faculty of Engineering and Applied Science, at Ontario Tech University (UOIT), where he has established the Energy Safety and Control Lab (ESCL), Smart Energy Systems Lab, and Advanced Plasma Engineering Lab. He is the recipient of the Senior Research Excellence Aware for 2016, UOIT. He is recognized among the top 2% of worldwide scientists with high citation in the area of energy. He Fellow IET (FIET) and Distinguished Lecturer – IEEE NPSS on Nuclear-Renewable Hybrid Energy Systems and Plasma-based Waste-to-Energy. He is leading national and international research in the areas of smart energy grids, energy safety and control systems, and waste-to-energy using advanced plasma technologies. Professor Gabbar obtained his B.Sc. degree in 1988 with first class of honor from the Faculty of Engineering, Alexandria University (Egypt). In 2001, he obtained his Ph.D. degree from Okayama University (Japan). From 2001 till 2004, he joined Tokyo Institute of Technology (Japan), as a research associate. From 2004 till 2008, he joined Okayama University (Japan) as an Associate Professor, in the Division of Industrial Innovation Sciences. From 2007 till 2008, he was a Visiting Professor at the University of Toronto. He also worked as process control, safety, and automation specialist in energy and oil & gas industries. Dr. Gabbar has more than 290 publications, including patents, books / chapters, journal and conference papers. Professor Hossam Gaber has been collaborating with Japan and Indonesia to promote nuclear-renewable hybrid energy systems, where he was invited to the panel discussions in Indonesia as part of IAEA and was the representative of Canada in IAEA to develop the roadmap of nuclear-renewable hybrid energy system deployments with different energy scenarios based on regional resources and requirements. Dr. Gaber developed novel integrated hybrid energy system simulator to synthesize and optimize different nuclear-renewable scenarios and evaluate different nuclear power plant and SMR technologies based on energy load profiles and local resources. Dr. Gaber prepared nuclear deployment strategies and training programs, and explored in different countries including Canada, USA, Indonesia, UK, Norway, South Africa, Brazil, Egypt, UAE, and Hungary. Dr. Gaber has presented his scholarly research in Wisconsin, Budapest, Tokyo, Cairo, Jakarta, and other cities around the world. Dr. Gaber is also leading national research related to radioactive waste for SMR deployment as part of University Network of Nuclear Engineering (UNENE), Canadian National Laboratory (CNL), Ontario Power Generation (OPG), and NSERC. His research led to patents and products in the market with industrial applications and projects.

DAY -I: TUESDAY, 1ST DECEMBER 2026

KEYNOTE SPEECH: 02:

Tuesday, 1st December 2026, 10:00 A.M. - 10:30 A.M. (Asia/Bahrain)

# BUILDING SMARTER CITIES FOR BETTER MENTAL HEALTH: BALANCING INNOVATION WITH HUMAN CONNECTION



*Speaker: Dr. Simmi Narula*
*Psychiatric Mental Health Nurse Practitioner based in Connecticut,*
*DNP, PMHNP-BC, Connecticut, USA.*

*Session Chair: DR. FAHD SAUD MIRA, UNIVERSITY OF BEDFORDSHIRE, UK.*

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

## TALK ABSTRACT

Dr. Simmi Narula will explore the evolving role of smart cities in transforming healthcare through connected technologies and digital innovation in her keynote address. Her presentation will highlight how intelligent healthcare ecosystems can improve population health, strengthen public health surveillance, enable earlier identification of at-risk individuals, and support more proactive, preventive, and personalized mental healthcare. Her keynote will also examine the ethical, clinical, and societal challenges associated with rapid technological advancement. The topics will include data privacy and security, increasing dependence on digital systems, reduced face-to-face interaction, social isolation, technology-related anxiety, sleep disturbances, and the broader psychological impact of living in an increasingly connected world. Drawing on her clinical expertise and frontline experience in psychiatric mental healthcare, Dr. Narula will present a balanced perspective on the opportunities and limitations of emerging technologies. She will emphasize that while innovations such as artificial intelligence, predictive analytics, electronic medical records, and digital health platforms have the potential to enhance healthcare delivery, they should complement, not replace the human connection that remains fundamental to effective mental health treatment.

## SPEAKER DETAILS: DR. SIMMI NARULA

Dr. Simmi Narula, DNP, PMHNP-BC, is a Psychiatric Mental Health Nurse Practitioner based in Connecticut, USA. She has extensive experience in community-based mental health, integrated behavioral healthcare, and the application of technology to enhance patient outcomes. Dr. Narula is committed to delivering compassionate, evidence-based psychiatric care to diverse populations while advocating for equitable access to high-quality mental healthcare. Throughout her career, Dr. Narula has developed and led community wellness initiatives, including Resilience Programs at Our Lady of Fatima School and the Mindfulness Through Drumming & Movement program at the Norwalk and Darien Senior Centers in the United States. As a clinician, speaker, and thought leader, Dr. Narula is passionate about the convergence of smart cities, digital health, and behavioral healthcare. She explores how emerging technologies can transform healthcare delivery while addressing the growing mental health needs of modern communities. Her work focuses on leveraging electronic medical records (EMRs), health data analytics, artificial intelligence, predictive modeling, and digital health platforms to enable earlier identification of at-risk individuals, strengthen care coordination, enhance preventive interventions, and reduce disparities in access to healthcare.

# DAY -I: TUESDAY, DECEMBER 1,

# PARALLEL SESSIONS

DAY -I: TUESDAY, DECEMBER 1 10:30 - 13:00 (ASIA/BAHRAIN):

PARALLEL SESSION: SA01: INTERNET OF THINGS AND SMART APPLICATIONS-PART-A:

SESSION JOINING: HALL-A

SESSION CHAIR: MS. RISHIKA BILLORE.

10:30 1571321559: FedTRA: A Root-Free Broad-Spectrum Robust Aggregation Rule for Poisoning-Resilient Federated Intrusion Detection in IoT Networks.
Dr. Abeer Saleh Alshammari, Dr. Abeer Saleh Alshammari (CTU & Hi Conception, USA).

10:45 1571345906: An IoT-Enabled Multi-Sensor Child Presence and Heat-Risk Detection System for Smart Urban Mobility.
Dr. Wan Nur Azhani Wan Samsudin; Ms. Amala Nanthagopal; Mr. Mohd Harizan Zul; Dr. Rajkumar Palaniappan; Dr. Wan Syahirah Wan Samsudin; Dr. Raseeda Hamzah, Dr. Wan Nur Azhani Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Ms. Amala Nanthagopal (Universiti Malaysia Pahang Al-Sultan Abdullah), Mr. Mohd Harizan Zul (ADTEC JTM Campus Jerantut, Malaysia), Dr. Rajkumar Palaniappan (University of Technology Bahrain, Bahrain), Dr. Wan Syahirah Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Raseeda Hamzah (Universiti Teknologi MARA Cawangan Melaka, Malaysia).

11:00 1571354447: Design and Experimental Evaluation of a Layered Security Architecture for Smart City Network Infrastructure.
Ms. Harkiran Kaur; Ms. Tanishka Nagpal; Dr. Shilpi Sharma, Ms. Harkiran Kaur (Amity University Noida, Uttar Pradesh, India), Ms. Tanishka Nagpal (Amity University, Noida, Uttar Pradesh India, India), Dr. Shilpi Sharma (Amity University, India).

11:20 1571357396: AI-driven IoT Forensic Framework for Detecting Anomalous Activities in Smart Home Networks.
Dr. Faizal Hajamohideen, Dr. Faizal Hajamohideen (University of Technology and Applied Sciences, Oman).

11:40 1571352335: QUASAR-7G: Quantum-Inspired Agentic Route-Radio-Edge Orchestration for Prospective 7G Smart-City Emergency Mobility.
Dr. Pronaya Bhattacharya; Mr. Shaon Bandyopadhyay; Mr. Pramijeet Bhattacharjee; Dr. Rabel Guharoy, Dr. Pronaya Bhattacharya (Amity University, Kolkata, India), Mr. Shaon Bandyopadhyay (Amity School of Engineering and Technology, India), Mr. Pramijeet Bhattacharjee (Amity University, India), Dr. Rabel Guharoy (Galgotias College of Engineering and Technology, India).

12:00 1571347832: Calibrated Abstention Lightweight Machine Learning for Reliable Smart City IoT Routing.
Mr. Kumeel Rasheed; Dr. Naila Azhar; Mr. Sagedur Rahman; Mr. Chenhao Cai, Mr. Kumeel Rasheed (Shenzhen University, China), Dr. Naila Azhar (The Hong Kong University of Science & Technology, Hong Kong), Mr. Sagedur Rahman (Shenzhen University, China), Mr. Chenhao Cai (Shenzhen University, China).

12:20 1571348686: Quantum-Safe Security for Smart-City IoT: A Taxonomy of Cryptographic Approaches and Migration Strategies.
Dr. Qasem Abu Al-Haija; Prof. Khalid El Makkaoui, Dr. Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan), Prof. Khalid El Makkaoui (Mohammed Premier University, Morocco).

12:40 1571350788: Comprehensive Survey for Security-Reliability Trade-Off in Cognitive Radio Networks Under Eavesdropping Attacks.
Mr. Aws Ahmed Kadhim; Prof. Sattar B. Sadkhan, Mr. Aws Ahmed Kadhim (University of Babylon, Iraq), Prof. Sattar B. Sadkhan (Babylon University - IRAQ & Chairman of IEEE ComSoc Iraq Chapter, Iraq).

DAY -I: TUESDAY, DECEMBER 1 10:30 - 13:00 (ASIA/BAHRAIN):

## PARALLEL SESSION: SA02: ARTIFICIAL INTELLIGENCE COMPUTATIONAL ALGORITHMS: HEALTHCARE

SESSION JOINING: HALL-B

SESSION CHAIR DR. FAIZAL HAJAMOHIDEEN (UNIVERSITY OF TECHNOLOGY AND APPLIED SCIENCES, OMAN).

10:30 1571339965: Toward Reliable Alert Triage: A Rhythm-Fused Transformer for Smart-Hospital ECG Classification.
Mr. Mohamed Fekrouni; Prof. Saad Chakkor, Mr. Mohamed Fekrouni (Laborattory of Information and Communication Technologies (LabTIC) ENSAT Tangier, Morocco), Prof. Saad Chakkor (LabTIC, ENSA of Tangier, University of Abdelmalek Essaadi, Morocco).

10:45 1571357383: AI Implemented Early Diagnosis of Cardiovascular Diseases: A Systematic Review.
Dr. Faizal Hajamohideen, Dr. Faizal Hajamohideen (University of Technology and Applied Sciences, Oman).

11:00 1571355039: Explainable AI Framework for Emotion-Aware Distress Detection Using a Memory-Augmented Local LLM Chatbot.
Ms. Arundhuti Dey; Prof. Dhrubasish Sarkar, Ms. Arundhuti Dey (NSHM Knowledge Campus Kolkata, India), Prof. Dhrubasish Sarkar (Bhawanipur Global Campus, Kolkata, India).

11:20 1571354275: Reliable Knowledge-Grounded Synthetic Clinical Text Generation with Large Language Models: A Controlled Generation and Evaluation Framework.
Ms. Sedanur Sayer; Prof. Mehmet Karakose, Ms. Sedanur Sayer (Firat University, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

11:40 1571354239: EdgeOSA-X: Leakage-Aware Cross-Dataset TinyMLfor Sleep Apnea Detection and Severity Estimation from Single-Lead ECG.
Mr. Sudip Chatterjee; Anuja Kumar Acharya; Dr. Pronaya Bhattacharya; Dr. Anjan Bandyopadhyay, Mr. Sudip Chatterjee (Amity School of Engineering and Technology Amity University Kolkata India, India), Anuja Kumar Acharya (Kalinga Institute of Industrial Technology (KIIT) University, India), Dr. Pronaya Bhattacharya (Amity University, Kolkata, India), Dr. Anjan Bandyopadhyay (Kalinga Institute of Industrial Technology, India).

12:00 1571353514: Low-Cost EMG-Controlled Cable-Driven Exoskeleton for Smart Rehabilitation: Design and Experimental Validation.
Mr. Hasan Ahmed; Mr. Mohamed Saeed; Mr. Mohamed Abdulla; Dr. Said G Khan, Mr. Hasan Ahmed (University of Bahrain, Bahrain), Mr. Mohamed Saeed (University of Bahrain, Bahrain), Mr. Mohamed Abdulla (University of Bahrain, Bahrain), Dr. Said G Khan (University of Bahrain, Bahrain).

12:20 1571338564: A Comparative Machine Learning Framework for Multi-Class Diabetes Risk Prediction Using Clinical Features.
Mr. A Anandkumar, Mr. A Anandkumar (Jai Shriram Engineering College, India).

12:40 1571357451: AI-Driven Soil Health Assessment and Nutrient Optimization Using Machine Learning.
Gayathri S; Kanagavalli N; Dr. Ajitha Samuel; Dr. Surendran R; Dr. Balamurugan K S, Gayathri S (Karpaga Vinayaga College of Engineering and Technology, India), Kanagavalli N (Vel Tech High Tech, India), Dr. Ajitha Samuel (Sathyabama Institute of Science and Technology, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India), Dr. Balamurugan K S (SRM Bharathidasan College of Engineering and Technology, India).

DAY -I: TUESDAY, DECEMBER 1 10:30 - 13:00 (ASIA/BAHRAIN)

PARALLEL SESSION: SA03: SMART ENVIRONMENTS -PART-A:

SESSION JOINING: HALL-C

SESSION CHAIR: DR. PRONAYA BHATTACHARYA (ASSOCIATE PROF. AND HEAD-CSE, ASETK, AUK, INDIA);

10:30 1571357602: Topology Aware Digital Energy Intelligence for Smart City Distribution Networks: A Feeder-Level Energy Accounting and Loss Assessment Tool.
Mrs. Anjali Sharma; Ms. Shraddha Sharma; Mrs. Sushma Gangrade; Mr. Akash Kumar Bansal, Mrs. Anjali Sharma (MP State Electricity Board, India), Ms. Shraddha Sharma (Entergy, USA), Mrs. Sushma Gangrade (India), Mr. Akash Kumar Bansal (Madhya Pradesh Paschim Kshetra Vidhyut Vitran Company Limited Indore, India).

10:45 1571357604: AI-Driven Predictive Frequency Stability and Self-healing Load Shedding Control.
Dr. Abdulla Desmal; Mudhi Mohammed; Ms. Naseba Nawaf Abdullah Mohammed, Dr. Abdulla Desmal (Bahrain Polytechnic, Bahrain), Mudhi Mohammed (Bahrain Polytechnic, Bahrain), Ms. Naseba Nawaf Abdullah Mohammed (Bahrain).

11:00 1571357375: Knowledge-Graph-Enabled Cyber-Physical Infrastructures for Social-Aware and Green Smart Environments.
Dr. Subrata Paul; Dr. Anirban Mitra; Dr. Satyendra Narayan, Dr. Subrata Paul (Brainware University, India), Dr. Anirban Mitra (Eastern International University, Vietnam), Dr. Satyendra Narayan (Algomau University, Canada).

11:20 1571355629: Bayesian Evidence Fusion Reveals Transferable Industrial Siting Priorities Across Sustainable Smart City Contexts.
Dr. Abdul Nasir Abd. Ghafar, Dr. Abdul Nasir Abd. Ghafar (UMP, Malaysia).

11:40 1571355548: Can Smart Cities Trust LLMs? Evidence and Directions for Retrieval-Augmented Engineering Decision Systems.
Dr. Ahmad Shahir Jamaludin, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia).

12:00 1571355560: Ontology as the Semantic Bridge: Mapping Smart-City Digital Twins and Industrial Data Spaces.
Dr. Ahmad Shahir Jamaludin, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia).

12:20 1571354740: Deterministic TinyML Benchmarking for Industrial Pump Fault Diagnosis on ESP32: Accuracy, Memory, and WCET Trade-Offs.
Mr. Ishan Bhattacharya; Dr. Anirban Mitra; Dr. Subhashis Roy, Mr. Ishan Bhattacharya (Amity University Kolkata, India), Dr. Anirban Mitra (Eastern International University, Vietnam), Dr. Subhashis Roy (Amity University Kolkata, India).

12:40 1571353793: Dielectric Contrast in Skin Lesions at Microwave Frequencies: In Vivo Measurements Using a Low-Cost Coaxial Probe System.
Mr. Luis Fernando Tupac Lazo; Ms. Lucia Fernanda Dávila Tejada; Mr. Manuel Alejandro Condori Huayna; Mr. Ebert G San Roman Castillo, Mr. Luis Fernando Tupac Lazo (Universidad Católica San Pablo, Peru), Ms. Lucia Fernanda Dávila Tejada (Universidad Católica San Pablo, Peru), Mr. Manuel Alejandro Condori Huayna (Universidad Católica San Pablo, Peru), Mr. Ebert G San Roman Castillo (Universidad Católica San Pablo, Peru).

13:00 1571357409: An Adaptive Spatio-Temporal Graph Intelligence Framework for Predictive Urban Traffic Management in Smart Cities.
Dr. Bobbinpreet Kaur, Dr. Bobbinpreet Kaur (Chandigarh University, India).

TUESDAY, DECEMBER 1, 13:00 - 13:30 (ASIA/BAHRAIN)

ZB1: DAY-1 - MID-DAY BREAK

DAY -I: TUESDAY, DECEMBER 1, 13:30 - 15:30 (ASIA/BAHRAIN):

PARALLEL SESSION 01: SB01: SMART ENVIRONMENTS -PART-B:

SESSION JOINING: HALL-A

SESSION CHAIR: DR. NAZISH ABID HUSSAIN (UNIVERSITY OF BAHRAIN).

13:30 1571354426: Toward Reliable Smart City Demand Forecasting: Decomposing the Sampling-Interval-Driven Cross-Domain Transfer Penalty with Data-Priced Adaptation and Calibrated Intervals.
Mr. Nilabha Mukherjee; Mr. Siddharth Arora; Dr. Shilpi Sharma, Mr. Nilabha Mukherjee (Amity University, India), Mr. Siddharth Arora (Amity University, India), Dr. Shilpi Sharma (Amity University, India).

13:50 1571354605: CORA-FL: Certified Outage-Resilient Adaptive Decentralized Federated Learning for Smart-City Edge Networks.
Dr. Pronaya Bhattacharya, Dr. Pronaya Bhattacharya (Amity University, Kolkata, India).

14:10 1571354909: Vision-Language-Based Edge Intelligent System for Real Time Parking Management.
Mala C V; Dr. Surendran R; Rajeswari C, Mala C V (Saveetha Institute of Medical and Technical Sciences, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India), Rajeswari C (Chennai Institute of Technology, India).

14:30 1571355191: A Multi-Model Reliability Assessment Approach for Autonomous Vehicle Sensors under Electromagnetic Interference (EMI) Conditions.
Mr. Md Salman Siam; Dr. Md Kamrul Islam; Mrs. Marium Binte Monir; Mr. Mostafa Sameer; Mr. Syed Aaqib Javed; Mr. Mahbub Hassan, Mr. Md Salman Siam (Military Institute of Science and Technology, Bangladesh), Dr. Md Kamrul Islam (King Faisal University, Saudi Arabia), Mrs. Marium Binte Monir (Ahsanullah University of Science and Technology, Bangladesh), Mr. Mostafa Sameer (Florida International University Miami, FL, USA), Mr. Syed Aaqib Javed (Ahsanullah University of Science and Technology, Bangladesh), Mr. Mahbub Hassan (Chulalongkorn University, Thailand).

14:50 1571355519: Data Governance for AI-Assisted International Arbitration: A Privacy, Procedural Fairness and Accountability Index.
Mr. Hussain Zulfiqar; Mrs. Menikpura Sithara Pavithrani, Mr. Hussain Zulfiqar (Shenzhen University, China), Mrs. Menikpura Sithara Pavithrani (Shenzhen University, China).

15:10 1571355044: A Disaster-Aware Edge Computing Simulator for Emergency Vehicle Routing in Smart Cities an Ant Colony Optimization Approach.
Mr. Burak Emre Yılmaz; Prof. Mehmet Karakose, Mr. Burak Emre Yılmaz (Firat University, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

15:30 1571354850: VibeDT5: Constraint-Grounded Vibe Coding with Digital-Twin Validation for Human-Centric CNC Manufacturing.
Dr. Pronaya Bhattacharya; Dr. Rekha Vig; Mr. Abhik Patra; Dr. Bharat Bhushan; Prof. Ebrahim Abdulla Mattar, Dr. Pronaya Bhattacharya (Amity University, Kolkata, India), Dr. Rekha Vig (Amity School of Engineering and Technology, India), Mr. Abhik Patra (Amity University Kolkata, India), Dr. Bharat Bhushan (Sharda University, India), Prof. Ebrahim Abdulla Mattar (University of Bahrain, Bahrain).

DAY -I: TUESDAY, DECEMBER 1 13:30 - 15:30 (ASIA/BAHRAIN):

PARALLEL SESSION 02: SB02: CYBERSECURITY SOLUTIONS:

SESSION JOINING: HALL-B

SESSION CHAIR: SESSION CHAIR: DR. SUSAN HASSAN, AL-NAHRAIN UNIVERSITY, IRAQ.

13:30 1571357393: Explainable AI for IoT Forensics: Enhancing Transparency in Cyberattack Investigation.
Dr. Faizal Hajamohideen, Dr. Faizal Hajamohideen (University of Technology and Applied Sciences, Oman).

13:50 1571347870: Uncertainty-Aware Recommendation Governance: Managing Exposure Risk Through Local Reranking in Data-Driven Decision-Making.
Mr. Sagedur Rahman; Mr. Kumeel Rasheed; Mr. Usman J. Wushishi, Mr. Sagedur Rahman (Shenzhen University, China), Mr. Kumeel Rasheed (Shenzhen University, China), Mr. Usman J. Wushishi (Chongqing University of Posts and Telecommunications, China).

14:10 1571346217: A: Heterogeneous Graph Neural Network Approach to Predicting Campus Placement Readiness from Topic-Wise Aptitude Performance.
Mr. A Anandkumar, Mr. A Anandkumar (Jai Shriram Engineering College, India).

14:30 1571346911: Explainable Machine Learning for Aqueous Solubility Prediction from Molecular Descriptors.
Mr. Elbaraa ElSayed Elkenawy; Mr. Ahmed Ashraf Abdelfatah, Mr. Elbaraa ElSayed Elkenawy (Al-Malik Al-Kamel Military Secondary School, Dakahlia, Egypt), Mr. Ahmed Ashraf Abdelfatah (Mansoura University, Egypt).

14:50 1571358010: A: Transformer-Lasso-Adam-Based Framework for Wind Turbine Fault Prediction and Condition Monitoring.
Mr. Inam Ul Haq; Mr. Abhishek Kumar; Mr. Mayur Khandelwal, Mr. Inam Ul Haq (Chandigarh University, India), Mr. Abhishek Kumar (Chandigarh University Mohali India), Mr. Mayur Khandelwal (EXL, USA).

15:00 1571345501: Teacher-in-the-Loop AI for Real-Time Detection of Teaching and Learning Gaps in Smart Classrooms: A Human-Centred Mobile-Edge-Cloud Framework
Dr. Pushan Kumar Dutta; Dr. Fernando Ortiz Rodriguez; Mr. Shaje Ganny; Dr. Anuj Kumar; Dr. Pawan Whig, Dr. Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India), Dr. Fernando Ortiz Rodriguez (Universidad Autonoma de Tamaulipas, Mexico), Mr. Shaje Ganny (Swiss AI Academy, Switzerland), Dr. Anuj Kumar (Rushford Business School, Switzerland), Dr. Pawan Whig (India).

15:20 1571341648: Enhanced PTES Vulnerability Assessment Framework for Public Wi-Fi Environments.
Dr. Kabeer Ahmed Bhatti; Dr. Faisal Imran; Dr. Haseeb Ahmed Malik; Dr. Asim Ali; Dr. Muhammad Asif, Dr. Kabeer Ahmed Bhatti (Bahria University, Pakistan), Dr. Faisal Imran (Bahria University, Pakistan), Dr. Haseeb Ahmed Malik (Bahria University, Pakistan), Dr. Asim Ali (Bahria University, Pakistan), Dr. Muhammad Asif (Bahria University Islamabad, Pakistan).

15:40 1571344891: The Active Architectural Envelope Building-Integrated Photovoltaics (BIPV) in Iraqi Architecture.
Dr. Susan Hassan; Mrs. Aisha Alaa Saleh, Dr. Susan Hassan (Al-Nahrain University, Iraq), Mrs. Aisha Alaa Saleh (Al Nahrain University, Iraq).

DAY -I: TUESDAY, DECEMBER 1 13:30 - 16:00 (ASIA/BAHRAIN):

PARALLEL SESSION 03: SB03: SMART TRANSPORTATION SYSTEM:

SESSION JOINING: HALL-C

SESSION CHAIR: DR. U GAZDER.

13:30 1571326234: Data-Driven Optimization of Container Terminal Dwell Time.
Ms. Khaoula Bahia; Ms. Inas Hakiki; Mr. Anas Marchouh; Mrs. Wissam Chati; Dr. Yousra Chtouki, Ms. Khaoula Bahia (Al Akhawayn University, Morocco), Ms. Inas Hakiki (Al Akhawayn University, Morocco), Mr. Anas Marchouh (Al Akhawayn University, Morocco), Mrs. Wissam Chati (Al Akhawayn University, Morocco), Dr. Yousra Chtouki (Al Akhawayn University, Morocco).

13:50 1571331438: Traffic-predictor: Big Data-Driven Predictive Analytics Framework for Urban Transportation Optimization.
Ms. Buvana M; Mr. Akilesh Prabhu, Ms. Buvana M (Anna University, India), Mr. Akilesh Prabhu (India)

14:10 1571333787: Zero-Trust and Privacy-By-Design for Smart Urban Platforms: An Attack-Graph Simulation of Cyber-Resilience.
Mr. Saleem Ahmed Al-Azazi; Dr. Ali Hussein Saleh Zolait; Dr. Aawag Mohsen Alawag; Dr. Abdullah Baarimah, Mr. Saleem Ahmed Al-Azazi (Taiz University, Yemen & International Organization for Migration IOM, Yemen), Dr. Ali Hussein Saleh Zolait (University of Bahrain, Bahrain), Dr. Aawag Mohsen Alawag (UITM, Malaysia), Dr. Abdullah Baarimah (A'Sharqiyah University, Oman).

14:30 1571346771: Hybrid Data Fusion for Sustainable Predictive Maintenance and Maritime Decarbonisation in Smart-City Transport Ecosystems.
Mr. Zafeiris Tzioridis; Mr. Dimitris Stamou; Mrs. Areti Petsa; Dr. Christos Spandonidis, Mr. Zafeiris Tzioridis (Prisma Electronics, Greece), Mr. Dimitris Stamou (Prisma Electronics, Greece), Mrs. Areti Petsa (Prisma Electronics, Greece), Dr. Christos Spandonidis (Prisma Electronics, Greece).

14:50 1571347742: Vibration-Based Signal Processing for Structural Health Monitoring of Highway Bridges: A Time-Frequency Framework for Damage-Induced Frequency Shifts.
Mrs. Sheenam Middha, Mrs. Sheenam Middha (Chandigarh University, India).

15:10 1571347813: PD-MGCI: Unified Perception-Decision Framework with Multi-Granularity Causal Intervention and SAC-Biformer Attention for Autonomous Driving on Structured Roads.
Ms. Jaswinder Kaur; Dr. Navneet Kaur, Ms. Jaswinder Kaur (Chandigarh University, India), Dr. Navneet Kaur (Chandigarh University, India).

15:30 1571347350: A Resilient Cybersecurity Framework for Smart Cities: Integrating Zero Trust, Threat Intelligence, and Quantum-Safe Communication.
Dr. Qasem Abu Al-Haija; Dr. Satyaki Nan, Dr. Qasem Abu Al-Haija (Jordan University of Science and Technology, Jordan), Dr. Satyaki Nan (Georgia Southwestern State University, USA).

15:40 1571350837: AURA-DT: An Agentic Ai-Driven Digital Twin Framework for Autonomous Incident Management in Smart Cities.
Dr. Harun Çiğ, Dr. Harun Çiğ (Harran University, Turkey).

16:00 1571352208: Multi-Agent Emergency Vehicle Signal Priority in a Sumo/Traci Digital Twin Testbed.
Mr. Ziya Tan; Prof. Mehmet Karakose, Mr. Ziya Tan (Tokat Gaziosmanpaşa Üniversitesi, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

16:15 1571352277: AI-Driven Traffic Analysis for Optimal Geometric Design and Material Selection to Minimize Accident Risk at Road Turning Points and Flyovers in Smart Cities.
Ms. Pallavi Vishwakarma; Dr. Suresh Vishwakarma, Ms. Pallavi Vishwakarma (None, India), Dr. Suresh Vishwakarma (Institution of Engineering and Technology, Canada).

16:30 1571353282: Advancing ML-Driven Multi-Objective Optimization for Smart Waste Collection Logistics: Balancing Uncertain Generation, Traffic, and Emissions.
Ms. Pallavi Vishwakarma; Dr. Suresh Vishwakarma, Ms. Pallavi Vishwakarma (None, India) Dr. Suresh Vishwakarma (Institution of Engineering and Technology, Canada).

DAY -I: TUESDAY, DECEMBER 1 13:30 - 16:00 (ASIA/BAHRAIN):

PARALLEL SESSION 04: SB04: SMART CITIES SOLUTIONS

SESSION JOINING: HALL-D:

SESSION CHAIR: DR. MOHMED SOLLA (M), LIBYA ACADEMY FOR POSTGRADUATE STUDIES.

13:30 1571353480: CityLoop: Verifier-Guided Loop Engineering for Agentic Traffic Incident Response with Mobility Digital Twins.
Dr. Pronaya Bhattacharya; Prof. Ebrahim Abdulla Mattar; Mr. Shaon Bandyopadhyay; Mr. Pramijeet Bhattacharjee, Dr. Pronaya Bhattacharya (Amity University, Kolkata, India), Prof. Ebrahim Abdulla Mattar (University of Bahrain, Bahrain), Mr. Shaon Bandyopadhyay (Amity School of Engineering and Technology, India) Mr. Pramijeet Bhattacharjee (Amity University, India).

13:50 1571354917: AI-Enabled Resilient Transportation Systems for Extreme Weather in the GCC: Integrating Network Impacts, Travel Behaviour, Traffic Safety, and Disruption Recovery.
Dr. Md Kamrul Islam; Mr. Md Salman Siam; Dr. Ibrahim Alsghan; Dr. Uneb Gazder; Mr. Mahiman Zinnurain; Dr. Md. Atikul Islam, Dr. Md Kamrul Islam (King Faisal University, Saudi Arabia), Mr. Md Salman Siam (Military Institute of Science and Technology, Bangladesh), Dr. Ibrahim Alsghan (Sharqia Development Authority, Saudi Arabia), Dr. Uneb Gazder (Monash University Malaysia, Malaysia), Mr. Mahiman Zinnurain (Dhaka University of Engineering and Technology, Bangladesh), Dr. Md. Atikul Islam (Khulna University, Bangladesh).

14:10 1571355266: A QAOA-Based Maximum Weight Independent Set Optimization for Adaptive Traffic Signal Control in Smart Cities.
Mrs. Seda Nur Güngör; Prof. Mehmet Karakose, Mrs. Seda Nur Güngör (Firat (Euphrates) University, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

14:30 1571315202: From Prediction to Operation: Quantifying the Value of Demand-Forecast Accuracy for Bike-Sharing Rebalancing.
Mr. Yuancheng Zheng, Mr. Yuancheng Zheng (Shanghai University, China).

14:50 1571318161: Digital-Twin-Assisted Dynamic Fluid Antenna Systems for Autonomous Vehicular Networks: A Framework for Predictive Port Selection and Adaptive Beamforming.
Dr. Amit Chaurasia, Dr. Amit Chaurasia (Manipal University Jaipur, India).

15:10 1571322790: Logistical Drivers of Supply Chain Management: A Case of Gas Industry.
Mr. Nidal Baba; Dr. Mohmed Solla; Dr. Yousif Bagadi; Dr. Ahmed Suliman B Ali; Dr. Mahmoud Jahjouh, Mr. Nidal Baba (Misruata University, Libya), Dr. Mohmed Solla (Libya Academy for Postgraduate studies, Libya), Dr. Yousif Bagadi (Misurata University, Libya), Dr. Ahmed Suliman B Ali (Universiti Teknologi MARA, Malaysia), Dr. Mahmoud Jahjouh (University of Bahrain, Bahrain).

15:30 1571338046: A Multimodal AI Framework for Contextual Guidance in Smart Education System.
Mr. Rahul Dagade; Dr. Nisha Godha Dagade; Dr. Priyanka Amol Kadam, Mr. Rahul Dagade (Vishwakarma Institute of Technology, Pune, India), Dr. Nisha Godha Dagade (Sinhgad Institutes, Pune, India), Dr. Priyanka Amol Kadam (Vishwakarma Institute of Technology, India).

15:45 1571342174: Sensitivity-Aware Performance Assessment of an Urban Grid-Connected Photovoltaic System Under Hot-Arid Conditions.
Dr. Raja Mohamed M Sumsudeen, Dr. Raja Mohamed M Sumsudeen (University of Bahrain, Bahrain).

TUESDAY, DECEMBER 1 16:00 (ASIA/BAHRAIN)

CD-1: CLOSING OF DAY-1

# DAY -II

## WEDNESDAY, DECEMBER 02, 2026

## DAY -II: 2ND WEDNESDAY, DECEMBER 2026

PLATFORM OPENING: 2ND WEDNESDAY, DECEMBER 2026, 8:45 AM (ASIA/BAHRAIN)

KEYNOTE SPEECH: 03:

2nd Wednesday, December 2026, 9:00 AM – 9:30 AM Asia/Bahrain)

# CREATING SMART RESIDENTS IN SMART CITIES: 7 BEHAVIOUR CHANGE TIPS FOR PROMOTING RESPONSIBLE CITIZENSHIP



*Speaker: Dr. Sameer Deshpande*
*Associate Professor, Social Marketing @ Griffith, Department of Tourism and Marketing*
*Griffith Business School, Griffith University, Marketing, Nathan, Australia.*

*Session Chair: Dr. Satveer Kour, Guru Nanak Dev University, India.*

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TALK ABSTRACT:

Poor civic sense, irresponsible citizenship, and a lack of awareness of smart technologies and ecosystems can lead to inappropriate behaviours, falling victim to financial and non-financial fraud, and the dismantling of high-quality city infrastructure. This presentation will share 7 behaviour-change tips, along with case examples of how government, nonprofit, and corporate organisations promoted appropriate behaviours among citizens to maintain established systems and ensure all residents can enjoy a good-quality urban life.

SPEAKER DETAILS: DR. SAMEER DESHPANDE:

Sameer Deshpande is an Associate Professor in the Tourism and Marketing Department in Griffith Business School, Griffith University. He is also the Deputy Director of Social Marketing @ Griffith. Over two decades in the area of 'marketing for a better world,' Sameer has taught, widely published in academic journals, books, and conference proceedings, reviewed, trained and consulted with government and non-profit organisations in India, Canada, Singapore, Australia, and the U.S. He is the Editor of Social Marketing Quarterly. Recently, he established the Asian Social Marketing Association in Singapore and serves as an advisor to the SOMAI Social Marketing Association of India. Sameer has raised over three million dollars and published studies testing the effectiveness of behaviour change initiatives using social marketing frameworks, with particular emphasis on a consumer-insights approach in a variety of contexts, including financial services to disadvantaged women, alcohol abstinence during pregnancy, safe sexual practices, promotion of alternative rides, responsible drinking, water rights, and physical activity. His book, co-authored with Nancy Lee, Social Marketing in India, has been well-received by the Indian academic and practitioner social marketing sector.

## DAY -II: 2ND WEDNESDAY, DECEMBER 2026

KEYNOTE SPEECH: 04: 2ND WEDNESDAY, DECEMBER 2026, 9:30 A.M. (ASIA/BAHRAIN)

2ND WEDNESDAY, DECEMBER 2026, 9:30 A. M. – 10:30 A. M. (ASIA/BAHRAIN)

# FROM SMART CITIES TO INTELLIGENT CITIES:
# LEVERAGING AI AND DIGITAL TRANSFORMATION FOR SUSTAINABLE URBAN FUTURES



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*Speaker: Professor Santosh Kumar Vishwakarma,*
*MTech, PhD, Professor and Dean (Data Science), Gyan Ganga Institute of Technology & Sciences, Jabalpur, India.*

*Session Chair: Professor Vimmi Pandey Professor and Head of the Computer Science & Engineering Department at Gyan Ganga College of Technology in Jabalpur, India*

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MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TALK ABSTRACT:

Smart cities are rapidly evolving from connected infrastructure and data-driven services towards intelligent, adaptive and human-centric urban ecosystems. The emergence of Artificial Intelligence, Generative AI, IoT, Digital Twins and Industry 4.0 technologies is transforming how cities plan, govern and deliver services, while simultaneously reshaping the skills and capabilities required by the supporting workforce. My keynote explores this transition from conventional smart cities to intelligent cities, focusing particularly on the convergence of technology, human capital and institutional transformation. It examines how AI and emerging digital technologies can contribute not only to intelligent mobility, energy management, healthcare, public safety and governance, but also to developing the human capabilities required to design, manage and operate these systems effectively. My talk will present a practical framework for developing AI-ready and future-ready urban ecosystems, built around three interconnected dimensions: intelligent infrastructure, intelligent governance and intelligent human capital. I will discuss how universities, industries, governments and civic institutions can collaborate to develop the skills, innovation ecosystems and lifelong-learning mechanisms required to respond to rapid technological change. My talk will also highlight the increasingly important role of higher education institutions as innovation and talent hubs for smart cities. I will discuss how universities can prepare students and professionals with competencies in AI, data analytics, cybersecurity, digital transformation, sustainability and interdisciplinary problem-solving, while strengthening industry-academia collaboration and creating a sustainable talent pipeline for future cities. My talk concludes with a practical roadmap for moving from technology-enabled smart cities to human-centric intelligent cities, where technology is an enabler of inclusive growth, sustainable development, employability, innovation and improved quality of life, rather than an end.

SPEAKER DETAILS: PROFESSOR SANTOSH KUMAR VISHWAKARMA:

Professor Santosh Kumar Vishwakarma is an academic leader, researcher and technology professional with extensive experience in higher education, academic administration, quality assurance, accreditation, industry–academia collaboration and emerging technologies. He is currently associated with Gyan Ganga Institute of Technology & Sciences, Jabalpur, and has been actively involved in institutional development, academic quality enhancement and initiatives focused on preparing students and faculty for the future of work. His areas of interest include Artificial Intelligence, Digital Transformation, Smart and Sustainable Cities, Industry 4.0, Quality Assurance, Outcome-Based Education, Innovation and Future Skills. He has been involved in academic and professional initiatives related to faculty development, curriculum transformation, industry interaction, accreditation and institutional quality improvement. His current work focuses on leveraging emerging technologies and quality-driven institutional practices to create future-ready educational ecosystems and strengthen the interface between higher education, industry and society.

# DAY -II: WEDNESDAY, DECEMBER 2,

# PARALLEL SESSIONS

2ND WEDNESDAY, DECEMBER 2026 10:30 – 13:00 (ASIA/BAHRAIN)

PARALLEL SESSION 01: SC02: SMART ALGORITHMS APPLICATIONS-A:

SESSION JOINING: HALL-A

SESSION CHAIR: DR. AYMAN AL-KHAZRAJI, COLLEGE OF ENGINEERING, UNIVERSITY OF BAHRAIN

10:30 1571355300: Human/Social Dimension of the Digital-Twin-Enabled Rooftop Rainwater Harvesting Framework
Ms. Anubha; Mrs. Anamika Jiwane, Ms. Anubha (National Institute of Technology, Patna, India), Mrs. Anamika Jiwane (University of Bahrain, Bahrain).

10:45 1571348812: Shift-Calibrated Graph Ridge for Urban Air-Quality Early Warning.
Mr. Xingqiu Zhang; Prof. Sang-Chul Kim, Mr. Xingqiu Zhang (Kookmin University, Korea (South)), Prof. Sang-Chul Kim (Kookmin University, Korea (South)).

11:55 1571269001: Evaluating Risk Management Strategies for Contract Package 101 - Metro Manila Subway Project.
Mr. Essiah John M. Cadsawan; Mr. John Miguel P. Orilla; Ms. Jasmine Mickaela L. Pascua; Mr. Christ John L. Marcos, Mr. Essiah John M. Cadsawan (Mapua University, Philippines), Mr. John Miguel P. Orilla (Mapua University, Philippines), Ms. Jasmine Mickaela L. Pascua (Mapua University, Philippines), Mr. Christ John L. Marcos (National University, Philippines).

11:15 1571326438: Climate-Aware Thermal Comfort Control in Smart Office Buildings: Field-Data Simulation Across Six Climates.
Ms. Ghanima Al-Alali; Mr. Saleem Ahmed Al-Azazi; Dr. Yaser Gamil; Dr. Aawag Mohsen Alawag, Ms. Ghanima Al-Alali (Taiz University, Yemen), Mr. Saleem Ahmed Al-Azazi (Taiz University, Yemen & International Organization for Migration IOM, Yemen), Dr. Yaser Gamil (Monash University, Malaysia), Dr. Aawag Mohsen Alawag (UITM, Malaysia).

11:30 1571326388: Investigation of Facility Management Implementation: Practice, Performance and Barriers.
Dr. Mohmed Solla; Mr. Mohammed Salim Othman Qutayt; Dr. Saleh Ahmed; Dr. Ahmed Suliman B Ali; Dr. Mahmoud Jahjouh, Dr. Mohmed Solla (Libya Academy for Postgraduate studies, Libya), Mr. Mohammed Salim Othman Qutayt (Libyan Academy for Postgraduate Studies, Libya), Dr. Saleh Ahmed (Bright Star University, Libya), Dr. Ahmed Suliman B Ali (Universiti Teknologi MARA, Malaysia), Dr. Mahmoud Jahjouh (University of Bahrain, Bahrain).

11:45 1571347046: Auditing Bahrain's Open Data Portal for Smart-City Reuse: Delivery, Documentation and Cross-Format Fidelity.
Mr. Abdulla Alarabi, Mr. Abdulla Alarabi (University of Bahrain, Bahrain).

12:00 1571357439: A Hybrid Agentic AI and NLP Framework for Contextual Emotion Analysis and Social Interaction Insights.
Dr. Sivasangari A; Dr. R. Sivasubramanian; Mr. Rajakumar B; Dr. Deepa R; Dr. Surendran R Dr. Sivasangari A (Sathyabama Institute of Science and Technology, India), Dr. R. Sivasubramanian (Malla Reddy University, India), Mr. Rajakumar B (J.N.N. Institute of Engineering, India), Dr. Deepa R (SRM Institute of Science and Technology, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India).

12:15 1571353513: Framework for Net-Positive Data Centers for Sustainable Smart Cities.
Ms. Shraddha Sharma; Mrs. Anjali Sharma; Mr. Gaurav Vishwakarma; Ms. Lipika Mittal, Ms. Shraddha Sharma (Entergy, USA), Mrs. Anjali Sharma (MP State Electricity Board, India), Mr. Gaurav Vishwakarma (Vedanta, India), Ms. Lipika Mittal (EY, USA).

12:30 1571340668: Kuwait's Water Resilience: A Comprehensive Study of Strategies, Technologies, and Feasibility.
Dr. Hanan Alsharah; Ms. Madonna Ghanem; Dr. Mohammad Aljeemaz; Dr. Mariam S. Alshammari, Dr. Hanan Alsharah (University of Essex, United Kingdom (Great Britain)), Ms. Madonna Ghanem (UCAM University, Spain), Dr. Mohammad Aljeemaz (Coventry University, United Kingdom (Great Britain)), Dr. Mariam S. Alshammari (Innotech Consulting, Kuwait).

DAY -II: WEDNESDAY, DECEMBER 2 10:30 – 13:00 (ASIA/BAHRAIN)

PARALLEL SESSION 02: SC03: NEW TECHNOLOGIES FOR SMART CITIES-PART-A: ENERGY FOCUS:

SESSION JOINING: HALL-B

SESSION CHAIR: DR. QASEM ABU AL-HAIJA (JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, JORDAN);

10:30 1571352906: Environment-Aware Adaptive Underwater Visual Intelligence with Water-Type Conditioning and RGB-Depth Fusion.
Dr. Pushan Kumar Dutta; Mr. Sangramjit Sarkar; Dr. Serra Aksoy; Prof. Ansar-Ul-Haque Yasar, Dr. Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India), Mr. Sangramjit Sarkar (Amity University Kolkata, India), Dr. Serra Aksoy (Ludwig Maximilian University of Munich (LMU), Germany), Prof. Ansar-Ul-Haque Yasar (Hasselt University, Belgium).

10:45 1571352869: Oscillatory Artifact Correction, Dielectric Feature Extraction, and a Continuous Suspicion Index for in Vivo Skin Lesion Screening with a Low-Cost Coaxial Probe.
Ms. Lucia Fernanda Dávila Tejada; Mr. Luis Fernando Tupac Lazo; Mr. Ebert G San Roman Castillo; Mr. Manuel Alejandro Condori Huayna, Ms. Lucia Fernanda Dávila Tejada (Universidad Católica San Pablo, Peru), Mr. Luis Fernando Tupac Lazo (Universidad Católica San Pablo, Peru), Mr. Ebert G San Roman Castillo (Universidad Católica San Pablo, Peru), Mr. Manuel Alejandro Condori Huayna (Universidad Católica San Pablo, Peru).

11:00 1571353410: DDoS Detection Using Mutual Information Feature Selection with Autoencoder and Stacked LSTM Network.
Dr. Tareq Alhajahjeh; Prof. Aladdin Ayesh; Dr. Francisco Javier Aparicio Navarro; Dr. Muhammad Kazim, Dr. Tareq Alhajahjeh (De Montfort University, United Kingdom (Great Britain)), Prof. Aladdin Ayesh (University of Aberdeen, United Kingdom (Great Britain)), Dr. Francisco Javier Aparicio Navarro (De Montfort University, United Kingdom (Great Britain)), Dr. Muhammad Kazim (DMU, United Kingdom (Great Britain)).

11:20 1571352107: A Semantic Chain-Driven Zero-Trust Framework for Secure and Resilient AI Agents.
Mrs. Ebtehal H Omoush; Dr. Ammar Mohammad Jamil Odeh, Mrs. Ebtehal H Omoush (Princess Sumaya University for Technology, Jordan), Dr. Ammar Mohammad Jamil Odeh (Princess Sumaya University for Technology, Jordan).

11:36 1571351111: Deep Learning for Preventive Maintenance: Real-Time Anomaly Detection in Industrial Machinery.
Dr. Shamneesh Sharma; Dr. Digvijay Puri; Mr. Tarun Pare; Mr. Chetan Sharma; Dr. Saikat Gochhait; Dr. Manoj Manuja, Dr. Shamneesh Sharma (byteXL TechED Private Limited, India), Dr. Digvijay Puri (L&T EduTech, India)Mr. Tarun Pare (Sandip University, Nashik India, India & Sandip University, India), Mr. Chetan Sharma (The ICFAI University & Upgrad Education Private Limited, India), Dr. Saikat Gochhait (Symbiosis International Deemed University, India), Dr. Manoj Manuja (Geeta University, Panipat, Haryana, India).

11:53 1571350789: Knowledge Graph Guided Retrieval Augmented Generation for Municipal Service Decision Support: A Controlled NYC311 Study.
Dr. Harun Çiğ, Dr. Harun Çiğ (Harran University, Turkey).

12:10 1571349394: Machine Learning-Based Performance Modeling of a Three-Phase Thyristor-Fed Separately Excited DC Motor Using Experimental Data.
Mr. Salih Mukkon, Mr. Salih Mukkon (Polytechnic Bahrain, Bahrain).

12:26 1571340047: Smart Helmet for Intelligent Urban Road Safety and Emergency Response in Smart Cities.
Dr. Wan Nur Azhani Wan Samsudin; Mr. Haziq Zufairy Hilmy; Dr. Marlina Yakno; Dr. Raseeda Hamzah; Dr. Wan Syahirah Wan Samsudin; Mr. Mohd Harizan Zul, Dr. Wan Nur Azhani Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Haziq Zufairy Hilmy (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Marlina Yakno (Universiti Malaysia Pahang Al-Sultan Abdullah & Universiti Sains Malaysia, Malaysia), Dr. Raseeda Hamzah (Universiti Teknologi MARA Cawangan Melaka, Malaysia), Dr. Wan Syahirah Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Mohd Harizan Zul (ADTEC JTM Campus Jerantut, Malaysia).

12:43 1571336418: Smarter Shields: Leveraging ML for Next-Gen Malware Detection.
Dr. Rabel Guharoy; Mr. Debanjan Chowdhury; Dr. Jatin Patel; Mr. Ratnam Dodda; Ms. Soumya Jena; Prof. Kalpesh Wandra, Dr. Rabel Guharoy (Galgotias College of Engineering and Technology, India), Mr. Debanjan Chowdhury (UEM, India), Dr. Jatin Patel (RRU, India), Mr. Ratnam Dodda (Jawaharlal Nehru Technological University Anathapur, India), Ms. Soumya Jena (Amity University, Gurugram, India), Prof. Kalpesh Wandra (Rashitriya Raksha University, India).

DAY -II: WEDNESDAY, DECEMBER 2 10:30 – 13:00 (ASIA/BAHRAIN)

PARALLEL SESSION 02: SC03: NEW TECHNOLOGIES FOR SMART CITIES-PART-B: ENERGY FOCUS:
SESSION JOINING: HALL-C

SESSION CHAIR: DR. BOBBINPREET KAUR (M.TECH., PH.D., POST DOC, (MALAYSIA));

10:30 1571273161: Data-Driven CO2 Emission Forecasting for Indian States Using Time-Weighted Learning and Seasonal SARIMAX with Power-Mix Indicators.
Dr. Rahul Gowtham Poola; Ms. Jasmitha E; Mr. Tanmay Mahajan, Dr. Rahul Gowtham Poola (SRM Institute of Science and Technology, India), Ms. Jasmitha E (SRMIST, India), Mr. Tanmay Mahajan (SRMIST, India).

10:45 1571337142: An Intelligent Solar Battery Management System with Real Time IoT Monitoring for Electric Vehicles.
Mr. Blessed Chipongo; Mr. Munyaradzi Charles Rushambwa; Dr. Rajkumar Palaniappan; Dr. Keith Machingamidze; Prof. Vikneswaran Vijean; Mr. Peter Musiiwa Mr. Blessed Chipongo (Harare Institute of Technology, Zimbabwe), Mr. Munyaradzi Charles Rushambwa (Harare Institute of Technology, Zimbabwe), Dr. Rajkumar Palaniappan (University of Technology Bahrain, Bahrain) Dr. Keith Machingamidze (Harare Institute of Technology, Zimbabwe), Prof. Vikneswaran Vijean (Universiti Malaysia Perlis, Malaysia), Mr. Peter Musiiwa (Harare Institute of Technology, Zimbabwe).

11:00 1571345492: Systems Engineering for AI-Enabled Resilient Multi-Energy Microgrids: An Electrical-Frequency Proof of Concept.
Dr. Pushan Kumar Dutta; Prof. Ebrahim Abdulla Mattar; Dr. Mohammed Nazeh Alimam; Dr. Poornachandran William, Dr. Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India), Prof. Ebrahim Abdulla Mattar (University of Bahrain, Bahrain), Dr. Mohammed Nazeh Alimam (Berlin School of Business and Innovation, Germany), Dr. Poornachandran William (Karunya Institute of Technology and Sciences Deemed University, India).

11:20 1571346955: AI-Driven Risk-Adaptive Zero Trust Architecture for Securing Third-Party Remote Access in Smart Oil and Gas Industrial Environments.
Mr. Abdul Khadir Mahamed; Mr. Sai Pavan Kumar Mandapaka; Mr. Ramesh Subramani; Mr. Ananth Narayanan, Mr. Abdul Khadir Mahamed (New York University, USA), Mr. Sai Pavan Kumar Mandapaka (New York University, USA), Mr. Ramesh Subramani (New York University, USA), Mr. Ananth Narayanan (Estee Lauder Companies, USA).

11:36 1571347062: Disaster Management Enhancement for Electrical Load Shedding using Fuzzy-Analytical Hierarchy Method.
Mrs. Noor Zaihah Jamal; Ms. Sulastri Abdul Manap; Dr. Abdul Nasir, Mrs. Noor Zaihah Jamal (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Ms. Sulastri Abdul Manap (Universiti Malaysia Pahang & Universiti Malaya, Malaysia), Dr. Abdul Nasir (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

11:53 1571349725: Rooftop Deficits and Ground Photovoltaic Opportunity: A Parcel-Level Decision Framework for Dubai.
Mrs. Zahra Radhi A. Salman; Prof. Minwir Al-Shammari, Mrs. Zahra Radhi A. Salman (University of Bahrain, Bahrain), Prof. Minwir Al-Shammari (University of Bahrain, Sakhir, Bahrain).

12:10 1571350898: AI-Driven Surrogate Optimization of Water-Energy-Food Nexus Systems in the GCC Region.
Mrs. Hajar H Alfadhli; Dr. Mohammed Redha Qader; Dr. Fatema Albalooshi, Mrs. Hajar H Alfadhli (University of Bahrain, Bahrain), Dr. Mohammed Redha Qader (University of Bahrain, Bahrain), Dr. Fatema Albalooshi (University of Bahrain, Bahrain).

12:25 1571351243: Advancing Sustainable Power Grids through Renewable Energy Integration in Smart Cities.
Dr. Suresh Vishwakarma; Ruchi Tyagi, Dr. Suresh Vishwakarma (Institution of Engineering and Technology, Canada), Ruchi Tyagi (Adjunct Asian Institute of Technology, Thailand. Ex-Senior Faculty Birm, Mauritius).

12:45 1571352282: Professional Capabilities for Sustainable Energy Implementation in Smart Cities: A Challenge-Capability-Outcome Framework.
Dr. Suresh Vishwakarma; Ruchi Tyagi, Dr. Suresh Vishwakarma (Institution of Engineering and Technology, Canada), Ruchi Tyagi (Adjunct Asian Institute of Technology, Thailand. Ex-Senior Faculty Birm, Mauritius).

DAY -II: Tuesday, December 2, 13:00 – 13:30 (Asia/Bahrain), ZB2: Day-2 – Mid-Day Break.

DAY -II: WEDNESDAY, DECEMBER 2 13:30 – 15:30 (ASIA/BAHRAIN)

PARALLEL SESSION 01: SD01: NEW TECHNOLOGIES FOR SMART CITIES-PART-B:

SESSION JOINING: HALL-A

SESSION CHAIR: DR. ANAMIKA JIWANE, ARCHITECTURE AND INTERIOR DESIGN -INTERIOR DESIGN PROGRAM, (UNIVERSITY OF BAHRAIN, BAHRAIN).

13:30 1571354788: Seismic Performance Evaluation of an Irregular G+10 Shopping Mall Using ETABS and Machine Learning.
Mr. Rajarshi Gupta; Mr. Kritish Dutta, Mr. Rajarshi Gupta (Amity University Kolkata, India), Mr. Kritish Dutta (Amity University Kolkata, India).

13:54 1571355418: Encoder-Decoder Architectures for Federated Short-Term Load Forecasting in Heat Pump Households.
Dr. Ahmet Cahit Yasa; Mr. Rıza Cenk Erdur, Dr. Ahmet Cahit Yasa (Celal Bayar University, Turkey), Mr. Rıza Cenk Erdur (Ege University, Turkey).

14:18 1571355545: Trustworthy by Design: Critical Appraisal of Edge-Cloud Sensor Fusion in Smart City IIOT.
Dr. Ahmad Shahir Jamaludin, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia).

14:42 1571355619: Beyond Accuracy: Mapping Explainability, Uncertainty, Validation, and Safety in Trustworthy Smart-City AI Research.
Dr. Abdul Nasir Abd. Ghafar, Dr. Abdul Nasir Abd. Ghafar (UMP, Malaysia).

15:06 1571355631: AI-Enabled Precision Farming for Data-Driven Crop Productivity Optimization.
Dr. S. Bhuvaneshwari; Dr. Sundara Rajulu Navaneethakrishnan; Dr. Sivasangari A; Dr. Surendran R; Prof. M Mageshwari, Dr. S. Bhuvaneshwari (Karpaga Vinayaga College of Engineering and Technology, India), Dr. Sundara Rajulu Navaneethakrishnan (Dhanalakshmi Srinivasan University Trichy, India), Dr. Sivasangari A (Sathyabama Institute of Science and Technology, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India) Prof. M Mageshwari (Veltech University, India).

15:25 1571355313: Dead Gate Elimination and Dynamic Magnitude Pruning Approach for Resource Optimization in Federated Hybrid Quantum Models.
Mr. Çağatay Umut Öğdü; Mr. Erdi Acar; Prof. Mehmet Karakose, Mr. Çağatay Umut Öğdü (Firat University, Turkey) Mr. Erdi Acar (QCO Quantum Computing Teknoloji A.Ş, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

15:45 1571352897: Explainable AI-Based Quality Assessment and Automated Grading of Agricultural Produce Using Computer Vision.
Mr. Rocky Kumar; Dr. Udit Mamodiya; Dr. Manjeet Rege, Mr. Rocky Kumar (Poornima University, India), Dr. Udit Mamodiya (Poornima University, India), Dr. Manjeet Rege (University of St. Thomas, USA).

DAY -II: WEDNESDAY, DECEMBER 2 13:30 – 15:30 (ASIA/BAHRAIN)

PARALLEL SESSION 02: SD03: SMART ENERGY SYSTEMS – TECHNOLOGY SOLUTIONS:

SESSION JOINING: HALL-B

SESSION CHAIR: DR. RAJA MOHAMMED SUMSUDEEN, COLLEGE OF ENGINEERING, UNIVERSITY OF BAHRAIN

13:30 1571352815: Spatiotemporal Nighttime-Light Growth as an Indicator of Potential Energy Infrastructure Pressure in Bahrain.
Mrs. Nooreya Sayed Shehab; Dr. Mazen Ali; Dr. Mehdi Mili, Mrs. Nooreya Sayed Shehab (University of Bahrain, Bahrain), Dr. Mazen Ali (University of Bahrain, Bahrain), Dr. Mehdi Mili (University of Bahrain, Bahrain).

13:50 1571353450: CarbonSense: An Explainable AI Framework for Evaluating Renewable Energy Readiness Across Indian States.
Snehadhanya Dutta; Mrs. Moumita Chatterjee; Dr. Dipak Kumar Kole; Prof. Dhrubasish Sarkar, Snehadhanya Dutta (Srikrishna College, Nadia, India), Mrs. Moumita Chatterjee (Aliah University, India), Dr. Dipak Kumar Kole (St. Thomas' College of Engineering. and Technology, India), Prof. Dhrubasish Sarkar (Bhawanipur Global Campus, Kolkata, India).

14:10 1571355085: Deterministic and Explainable AI-Driven Decision Support System for KNX-Based Home Energy Management.
Mr. Kaan Imral; Dr. Levent Birgül; Prof. Mehmet Karakose, Mr. Kaan Imral (Firat University, Turkey), Dr. Levent Birgül (Second Author, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

14:30 1571355515: Impact of Wind-Based Backup Generation on Distribution-System Reliability and Interruption Costs.
Dr. Nisha Godha Dagade; Mr. Rahul Dagade; Dr. Priyanka Amol Kadam, Dr. Nisha Godha Dagade (Sinhgad Institutes, Pune, India), Mr. Rahul Dagade (Vishwakarma Institute of Technology, Pune, India), Dr. Priyanka Amol Kadam (Vishwakarma Institute of Technology, India).

14:50 1571355557: Toward Control-Grade Oil and Gas Production: Critical Appraisal of Real-Time Hybrid Digital Twins.
Dr. Ahmad Shahir Jamaludin, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia).

15:10 1571355624 Multi-Objective Optimisation of Industrial Land Allocation for Low-Carbon and Productive Smart City Planning.
Dr. Abdul Nasir Abd. Ghafar, Dr. Abdul Nasir Abd. Ghafar (UMP, Malaysia).

15:30 1571358014: Hybrid Deep Learning and Machine Learning Approach for Wind Power Forecasting and Turbine Suitability Assessment.
Mr. Inam Ul Haq; Mr. Abhishek Kumar; Mr. Mayur Khandelwal, Mr. Inam Ul Haq (Chandigarh University, India), Mr. Abhishek Kumar (Chandigarh University, Mohali, india), Mr. Mayur Khandelwal (EXL, USA).

15:45 1571355590: Development of Palm Biomass and POFA-Reinforced PLA Biocomposites for Sustainable Smart City Infrastructure.
Dr. Mas Ayu Hassan, Dr. Mas Ayu Hassan (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

16:00 1571349054: Operational Hull Condition Monitoring with Speed-Loss Projection: Feature Selection and the Accuracy-Detectability Trade-off.
Mr. Georgios Markantonakis; Mr. Zafeiris Tzioridis; Dr. Christos Spandonidis, Mr. Georgios Markantonakis (Prisma Electronics SA, Greece), Mr. Zafeiris Tzioridis (Prisma Electronics, Greece), Dr. Christos Spandonidis (Prisma Electronics, Greece).

DAY -II: WEDNESDAY, DECEMBER 2 13:30 – 15:30 (ASIA/BAHRAIN)

PARALLEL SESSION 03: SD04: SMART CITIES AND AI COMPUTATIONAL ALGORITHMS:

SESSION JOINING: HALL-C

SESSION CHAIR: DR. RABEL GUHAROY (PH. D (NIT DURGAPUR), RESEARCHER (EX-RESEARCH SCIENTIST, UNIVERSITY OF MALTA, MALTA, EUROPE)

13:30 1571355628: Parameter-Driven Simulation of Sustainable Industrial Siting Under Smart-City Planning Constraints and Uncertainty Trade-Offs.
Dr. Abdul Nasir Abd. Ghafar, Dr. Abdul Nasir Abd. Ghafar (UMP, Malaysia).

13:50 1571357371: A Knowledge-Augmented Social Graph Framework for Cyber-Physical Infrastructures in Smart Cities: Smart Homes, Smart Hospitals and Smart Campuses.
Dr. Subrata Paul; Dr. Anirban Mitra; Mr. Rohit Sharma, Dr. Subrata Paul (Brainware University, India), Dr. Anirban Mitra (Eastern International University), Mr. Rohit Sharma (Eastern International University, Vietnam).

14:10 1571357447: Vision-Based AI Systems for Automated Crop Health Monitoring.
Vani Shree K; R. Yuvarani; Dr. Sivasangari A; Dr. Surendran R; Dr. Rajalakshmi R Vani Shree K (Karpaga Vinayaga College of Engineering and Technology, India) R. Yuvarani (Vel Tech Rangarajan, India), Dr. Sivasangari A (Sathyabama Institute of Science and Technology, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India), Dr. Rajalakshmi R (Pandian Saraswathi Yadav Engineering College, India).

14:30 1571353507: Managing Solar Access Depreciation from Vertical Growth in Smart Cities.
Ms. Shraddha Sharma; Mrs. Anjali Sharma; Ms. Lipika Mittal; Mrs. Samyuktha Anand, Ms. Shraddha Sharma (Entergy, USA), Mrs. Anjali Sharma (MP State Electricity Board, India), Ms. Lipika Mittal (EY, USA), Mrs. Samyuktha Anand (Qualcomm, USA).

14:50 1571349835: GPU-Accelerated Preprocessing and Quantised Vision-Language Inference for Smart-City Scene Understanding.
Mr. Syed Ibad Ur Rahman; Dr. Syed Abbas Jan; Dr. Said G Khan; Dr. Terng-Yin Hsu, Mr. Syed Ibad Ur Rahman (National Yang Ming Chiao Tung University, Taiwan), Dr. Syed Abbas Jan (National Yang Ming Chiao Tung University, Taiwan), Dr. Said G Khan (University of Bahrain, Bahrain), Dr. Terng-Yin Hsu (National Yang Ming Chiao Tung University, Taiwan).

15:10 1571350635: AI-Enabled Adaptive Learning and Multilingual Pedagogy Framework for Inclusive Smart Education.
Dr. Prerna Srivastava; Dr. Udit Mamodiya; Mr. Reza Moezzi; Dr. Mohamed Lahby, Dr. Prerna Srivastava (Poornima University, India), Dr. Udit Mamodiya (Poornima University, India), Mr. Reza Moezzi (Technical University of Liberec, Czech Republic), Dr. Mohamed Lahby (Ecole Normale Supérieure (ENS) de Casablanca, Morocco).

15:25 1571349419: NeuroScribe: Local-First Structured Psychiatric Decision Support with LoRA-Adapted Small Language Models.
Mr. Mohammed Shahnwaz; Dr. Pronaya Bhattacharya; Dr. Nilanjana Dutta Roy; Prof. Ebrahim Abdulla Mattar, Mr. Mohammed Shahnwaz (Amity University Kolkata, India), Dr. Pronaya Bhattacharya (Amity University, Kolkata, India) Dr. Nilanjana Dutta Roy (Amity University Kolkata, India), Prof. Ebrahim Abdulla Mattar (University of Bahrain, Bahrain).

15:45 1571347352: Development of an ESP32-Based Heel Monitoring Prototype for Interface Pressure and Microclimate Evaluation.
Ms. Nur Syaqilla Rashadan; Dr. Muhamad Amin Abd Wahab; Dr. Mohamad Ikhwan Kori; Dr. Muhammad Faiz, Ms. Nur Syaqilla Rashadan (Malaysia), Dr. Muhamad Amin Abd Wahab (Universiti Teknologi Malaysia, Malaysia), Dr. Mohamad Ikhwan Kori (Universiti Teknologi Malaysia, Malaysia), Dr. Muhammad Faiz (Universiti Teknologi Malaysia, Malaysia).

WEDNESDAY, DECEMBER 2 16:00 (ASIA/BAHRAIN)

CD-2: CLOSING OF DAY-2

# DAY -III

# THURSDAY, DECEMBER 03, 2026

## DAY -III: 3RD THURSDAY, DECEMBER 2026

PLATFORM OPENING: 3RD THURSDAY, DECEMBER 2026, 8:45 AM (ASIA/BAHRAIN)

KEYNOTE SPEECH 5: 3RD THURSDAY, DECEMBER 2026, 9:05 AM – 9:30 AM (ASIA/BAHRAIN)

# SMART CITIES, SMART WORKFORCES: MEASURING AGENTIC AI'S IMPACT ON URBAN WORK AND TURNING DISPLACEMENT RISK INTO OPPORTUNITY



*Speaker: Ravish Gupta*
*AI/ML Researcher*
*AI Led, BigCommerce | ex-Amazon (AWS Bedrock & Transform), Senior Member IEEE | M.S., Purdue University, USA.*

*Session Chair: Shefali Vishwakarma, IET - Communities Committee America, Vancouver, Canada.*

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TALK ABSTRACT:

Smart cities have transformed how urban centers manage transport, energy, health, and data, and cities are expected to generate more than 60 percent of global GDP over the coming twenty years. Yet the arrival of agentic AI, systems that complete entire workflows end to end rather than assisting with single tasks, is reshaping the urban workforce that produces that growth, and workforce intelligence has not yet joined the smart cities' agenda. This keynote presents the Agentic Task Exposure (ATE) framework, a task-level method for measuring how exposed each occupation in a city is to agentic AI, built from 18,796 work tasks mapped to the human abilities each one requires. Applied across major technology regions, the framework shows that exposure concentrates in white-collar cognitive work, that capital regions face pressure two to three years ahead of smaller cities, and that the steepest changes fall within today's planning horizon. The same analysis reveals the opportunity: new categories of work emerging in human-AI collaboration, AI governance, and domain-specific AI operations, roles that favor sector experience over programming skill. For smart cities, this means treating workforce data as core infrastructure alongside energy grids and transport networks: smart city planners who measure exposure at the task level can time reskilling programs, target the occupations that need them most, and route experienced workers into the supervisory roles agentic systems create. The talk closes with a practical workforce-planning blueprint for smart cities worldwide, drawing on applications of the framework in the United States and Korea and on open datasets available for any city or country, including the Gulf region, where fast-developing smart city infrastructure makes such planning both possible and timely.

SPEAKER DETAILS: RAVISH GUPTA

Ravish Gupta is an AI/ML researcher and Senior Member of the IEEE, based in Seattle, USA. He is Lead Software Engineer and AI Pillar Lead at Commerce.com (BigCommerce), where he designed the company's agentic AI infrastructure, and previously spent over eight years at Amazon Web Services, including work on AWS Bedrock and AWS Transform. His research on agentic AI and labor markets introduced the Agentic Task Exposure framework, with applications spanning the United States, Korea, and India, and open datasets used by researchers internationally, including at central banks and leading universities. His work on AI for mental health and multi-agent systems has been published in Springer LNNS and other venues, and he serves as a session chair and peer reviewer for international conferences.

## DAY -III: 3RD THURSDAY, DECEMBER 2026

KN6: KEYNOTE SPEAKER-6: 3RD THURSDAY, DECEMBER 2026, 9:35 AM – 10:00 AM (ASIA/BAHRAIN)

## KN6: KEYNOTE SPEAKER-6

# BUILDING RESILIENT SMART CITIES - BALANCING INNOVATION AND CYBER RISK IN THE DIGITAL URBAN AGE



*Speaker: Professor Dr. Shilpi Sharma,*
*Professor & Deputy Head, Department of Computer Science & Engineering*
*Amity School of Engineering & Technology*
*Amity University, Sector 125, Noida – 201303, UP, India.*

*Session Chair: Dr. Prerna Ajmani - Vivekananda Institute of Professional Studies -TC, India*

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

## TALK ABSTRACT:

As smart cities deploy IoT sensors, SCADA-integrated infrastructure, and AI-driven control systems, I've seen innovation consistently outpace the security architectures meant to protect it. In this keynote, I examine the expanding attack surface of smart cities specifically insecure edge devices, unpatched legacy protocols, and converging OT/IT networks. Emphasizing on real-world breaches in connected transportation, energy grids, and public safety systems. I will focus on zero-trust principles and secure-by-design engineering at the protocol. I'll share a practical framework for identifying systemic vulnerabilities before they cascade and make the case that resilient smart cities require security engineered as core infrastructure, not bolted-on compliance. A walk-through real-world case studies of infrastructure attacks, including breaches on connected transportation, energy grids, and public safety systems, to illustrate where architectural blind spots are exploited.

## SPEAKER DETAILS: PROFESSOR DR. SHILPI SHARMA:

Dr. Shilpi Sharma is Professor and Deputy Head in the Department of Computer Science and Engineering at Amity University Uttar Pradesh, India, with over two decades of academic and research experience. She holds a Ph.D. in Computer Science and Engineering, with her research interests spanning Cyber Security, Network Security, Blockchain, Cloud Computing, Quantum Computing, and Cyber Law. She currently guides four Ph.D. scholars and has supervised one scholar who has successfully completed doctoral research. She has filed 12 patents, including international patents, with three patents granted, along with one copyright. She has authored and co-authored more than 90 research papers in reputed SCI, ESCI, and Scopus-indexed journals and international conferences. She is also the co-author of four books, co-editor of two academic books, and author/co-author of six book chapters in emerging technology domains. She has received the Best Paper Award for her research contributions and has presented her work at several national and international conferences. She is a member of IEEE, ACM Senior Member, IET, and IAENG. She actively contributes to the academic and research community as a Keynote Speaker, Session Chair, Conference Chair, Advisory Board Member, and Technical Program Committee Member.

DAY -III: 3RD THURSDAY, DECEMBER 2026

KN7: KEYNOTE SPEAKER-6: 3RD THURSDAY, DECEMBER 2026, 10:00 AM – 10:30 AM (ASIA/BAHRAIN)

## KN7: KEYNOTE SPEAKER-7

# WHAT CAN A SMART CITY SAFELY DISCONNECT?
# USING SEGMENTATION AND ZERO TRUST TO KEEP ESSENTIAL SERVICES RUNNING



*Speaker: Dr. Abdul Khadir Mahamed*
*OT Cybersecurity Architect, New York University, USA*

*Session Chair: Ms. Poonam Choubey, Assistant Professor, Sagar Institute of Research and Technology, India.*

MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TALK ABSTRACT:

A municipal water utility suspects a cyber incident and needs to isolate a network connection while its pumps are running. Before acting, operators need to know whether they'll still see critical alarms, whether local controls will remain available, and who can authorize reconnection. This keynote follows the utility from isolation through recovery and shows how choices made during network design shape the options available to operators during an incident. Drawing on IEC 62443 zones and conduits, NIST guidance for operational technology security, and Zero Trust principles, the talk shows how engineering, operations, and cybersecurity teams can map critical dependencies, define what must keep running locally, and agree on what to verify before restoring access. Attendees will leave with a practical framework they can use to review a segmentation design or run a tabletop exercise for their own essential services.

SPEAKER DETAILS: DR. ABDUL KHADIR MAHAMED:

Dr. Abdul Khadir Mahamed is an OT Cybersecurity Architect with more than 14 years of experience in enterprise and industrial cybersecurity. He designs industrial network segmentation and secure vendor access for global manufacturing and distribution operations. He is currently pursuing a master's degree in cybersecurity at New York University (NYU) and created OT Security Studio, a browser-based learning platform for industrial cybersecurity practitioners.

# DAY -III: THURSDAY, DECEMBER 3,

# PARALLEL SESSIONS

DAY -III: THURSDAY, DECEMBER 3, 2026 - 10:30 – 13:00 (Asia/Bahrain)

PARALLEL SESSION 01: SE02: SMART MONITORING AND SOLUTIONS - HEALTHCARE:

SESSION JOINING: HALL-A

SESSION CHAIR: MS. POONAM CHOUBEY, ASSISTANT PROFESSOR, SAGAR INSTITUTE OF RESEARCH AND TECHNOLOGY, INDIA.

10:30 1571271896: ARMIGO: An IoT-Enabled AI-Driven Gamified VR System for Upper Limb Rehabilitation in Children with Hemiplegia.
Ms. Dinithi Neranjana Theekshani Weerasinghe; Mr. Sanjana Nimesh; Mr. Asanka Dilshan Wickrama Surendra; Anushka Siyabalapitiya, Ms. Dinithi Neranjana Theekshani Weerasinghe (SLIIT, Sri Lanka), Mr. Sanjana Nimesh (SLIIT, Sri Lanka), Mr. Asanka Dilshan Wickrama Surendra (SLIIT, Sri Lanka), Anushka Siyabalapitiya (SLIIT, Sri Lanka).

10:55 1571314153: Attention-Enhanced U-Net for Smart Healthcare Systems: Breast Ultrasound Image Segmentation.
Mrs. Benallou Chaimaà; Ms. Sirine Charef; Dr. Saida Sarra Boudouh; Ms. Hadjer Bouziani; Ms. Fatima Zahra Guerzou, Mrs. Benallou Chaimaà (Université Amar Telidji, Algeria), Ms. Sirine Charef (Université Amar Telidji, Algeria), Dr. Saida Sarra Boudouh (LIM Laboratory University of Laghouat Algeria, Algeria), Ms. Hadjer Bouziani (Université Amar Telidji, Algeria), Ms. Fatima Zahra Guerzou (Université Amar Telidji, Algeria).

11:20 1571314161: Quality-Driven Adaptive Aggregation for Federated Retinal OCT Classification in Smart Healthcare Systems
Ms. Fatima Zahra Guerzou; Ms. Hadjer Bouziani; Dr. Saida Sarra Boudouh; Ms. Sirine Charef; Mrs. Benallou Chaimaà, Ms. Fatima Zahra Guerzou (Université Amar Telidji, Algeria), Ms. Hadjer Bouziani (Université Amar Telidji, Algeria), Dr. Saida Sarra Boudouh (LIM Laboratory University of Laghouat Algeria, Algeria), Ms. Sirine Charef (Université Amar Telidji, Algeria), Mrs. Benallou Chaimaà (Université Amar Telidji, Algeria).

11:45 1571345947: Deep Learning-Based Retinal Disease Screening for Smart Healthcare.
Mr. Muhammad Aiman Darus; Dr. Wan Syahirah Wan Samsudin; Dr. Nur Zahirah Mohd Ali; Dr. Wan Nur Azhani Wan Samsudin; Dr. Rajkumar Palaniappan; Ms. Nur Zafirah Mohamad Radzai, Mr. Muhammad Aiman Darus (Universiti Malaysia Pahang Al- Sultan Abdullah (UMPSA), Malaysia), Dr. Wan Syahirah Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Nur Zahirah Mohd Ali (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Wan Nur Azhani Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Rajkumar Palaniappan (University of Technology Bahrain, Bahrain), Ms. Nur Zafirah Mohamad Radzai (Malaysia).

12:15 1571352429: Health Care Services in Smart Cities: Digital Infrastructure for Equitable and Responsive Urban Care.
Ms. Simran Rani, Ms. Simran Rani (Himalayiya University, India).

12:40 1571354610: Real-Time Control of KNX Building Automation via an EEG-Based Brain-Computer Interface: A Facial Action and Motor Imagery-Based Approach.
Mr. Onur Fidan; Mr. Turan Goktug Altundogan; Mr. Mustafa Umut Aydın; Prof. Mehmet Karakose, Mr. Onur Fidan (Firat University, Turkey), Mr. Turan Goktug Altundogan (Manisa Celal Bayar University, Turkey), Mr. Mustafa Umut Aydın (Optimus Solutions Teknoloji Ticaret A.Ş, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

DAY -III: THURSDAY, DECEMBER 3, 2026 - 10:30 – 13:00 (Asia/Bahrain)

PARALLEL SESSION 02: SE03: SMART HOMES, SMART HOSPITALS, AND SMART CAMPUSES:

SESSION JOINING: HALL-B

SESSION CHAIR: DR. SALWA BASERRAH, COLLEGE OF ENGINEERING, UNIVERSITY OF BAHRAIN.

10:30 1571353847: A Personalised Recommendation System Based on Sensor Data and User Behaviour for KNX-Based Smart Building Automation
Mr. Omer Faruk Yelman; Mr. Hakan Ulusoy; Prof. Mehmet Karakose Mr. Omer Faruk Yelman (Firat University, Turkey), Mr. Hakan Ulusoy (Optimus Solutions Technology Manufacturing Industry Trade Inc, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

10:50 1571353757: Advancement of Early Detection and Real-Time Monitoring of Water-Related Hazards for Public Safety in Smart Cities.
Ms. Nursyazleen Syazwani; Dr. Noorazliza Sulaiman; Mr. Muhamad Ridzuan Radin Muhamad Amin; Mr. Devin Babu; Mr. Mohd hanafi Muhammad sidik; Dr. Norain Binti Abdullah; Dr. Abdul Nasir, Ms. Nursyazleen Syazwani (Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), Malaysia) Dr. Noorazliza Sulaiman (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Muhamad Ridzuan Radin Muhamad Amin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Devin Babu (University Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Mohd hanafi Muhammad sidik (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Norain Binti Abdullah (Kindai University, Japan), Dr. Abdul Nasir (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

11:10 1571352439: A Hybrid AI-Based Non-Destructive System for Fruit Ripeness Prediction Using Multi-Sensor Data Fusion.
Ms. Liyona J R; Dr. Biju J, Ms. Liyona J R (Karunya University, India), Dr. Biju J (Karunya Institute of Technology and Sciences Coimbatore, India).

11:30 1571351150: Dynamic Multi-Relational Hypergraph Neural Networks for Explainable Multi-Company Placement Eligibility and Skill-Gap Diagnosis.
Mr. A Anandkumar, Mr. A Anandkumar (Jai Shriram Engineering College, India).

11:50 1571352101: Digital Microfinance for Inclusive Smart Cities: A Conceptual Framework for People-Centered Financial Participation in India.
Ms. Kavita Joshi; Ruchi Tyagi; Dr. Chabi Gupta, Ms. Kavita Joshi (Amity University Noida, India & Amity College of Commerce and Finance India, India), Ruchi Tyagi (Adjunct Asian Institute of Technology, Thailand. Ex-Senior Faculty Birm, Mauritius), Dr. Chabi Gupta (Amity University, India).

12:10 1571352102: Utilization of Waste Heat Using Thermoelectric Generators (TEG) in Automotive Industry.
Ms. Huda Tarada; Ms. Rabab Hasan; Mr. Mohamed Sadeq; Dr. Salwa Baserrah, Ms. Huda Tarada (University of Bahrain, Bahrain), Ms. Rabab Hasan (University of Bahrain, Bahrain), Mr. Mohamed Sadeq (University of Bahrain, Bahrain), Dr. Salwa Baserrah (University of Bahrain, Bahrain).

12:30 1571352198: ASIC Implementation of an Area Efficient 8×8 Dual Stream Folded Comba Multiplier.
Mr. Mohd Faraz Husain; Mr. Ethesham Ahmed; Dr. Mohd Wajid, Mr. Mohd Faraz Husain (Aligarh Muslim University, India), Mr. Ethesham Ahmed (Aligarh Muslim university, India), Dr. Mohd Wajid (Aligarh Muslim University, India)

12:45 1571349286: Interpretable PM2.5 Risk for Smart-City Air-Quality Management: Nonlinear Meteorological Responses and Site Heterogeneity in Beijing.
Mr. Wenchao Ma, Mr. Wenchao Ma (Shanghai University, China).

13:00 1571348477: Communication-Aware Design of a Modular AIEnhanced Underwater ROV Monitoring System.
Ms. Fatema Alzaki; Mr. Hussain Habib, Ms. Fatema Alzaki (Bahrain Polytechnic, Bahrain), Mr. Hussain Habib (Tutor, Bahrain).

DAY -III: THURSDAY, DECEMBER 3, 2026 - 10:30 – 13:00 (Asia/Bahrain)

PARALLEL SESSION 03: SE04: ROBOTICS AND SYSTEMS INTELLIGENCE:

SESSION JOINING: HALL-C

SESSION CHAIR: DR. PRERNA AJMANI, (VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES – TECHNICAL CAMPUS (VIPS-TC) IN DELHI, INDIA).

10:30 1571352188: E: Neuro or: Predictive Neuro Symbolic Framework for Sustainable Robotic Actuation in Smart Infrastructure and Merging the Symbolic reasoning with Neural Prediction for Energy Efficient Robotics.
Mr. Astitva Gourav, Mr. Astitva Gourav (Bharati Vidyapeeth deemed University, India).

10:55 1571353478: AMIS-CP: Calibrated Multimodal Intent Fusion and Risk-Aware Safety Gating for Human-Robot Collaboration.
Dr. Pronaya Bhattacharya, Dr. Pronaya Bhattacharya (Amity University, Kolkata, India).

11:20 1571355541: Closing Human-Robot Resilience Gaps in Smart Manufacturing Through Adaptive Automation: Evidence and Frontiers.
Dr. Ahmad Shahir Jamaludin, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia).

11:45 1571357453: Autonomous AI-Based Agricultural Robots for Smart Weed Detection and Removal.
Jayapratha Clement; AG Noorul Julaiha; Dr. Ajitha Samuel; Dr. Surendran R; Dr. Balamurugan K S, Jayapratha Clement (Karpaga Vinayaga College of Engineering and Technology, India), AG Noorul Julaiha (Vel Tech High Tech, India), Dr. Ajitha Samuel (Sathyabama Institute of Science and Technology, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India), Dr. Balamurugan K S (SRM Bharathidasan College of Engineering and Technology, India).

12:10 1571349832: Design and Implementation of a Fuzzy-Logic Smart Irrigation System for Integrated Vertical Farming.
Ms. Ain Naqiyah Fadzilah; Dr. Syamimi Mardiah Shaharum; Dr. Wan Syahirah Wan Samsudin; Dr. Nur Zahirah Mohd Ali; Normaniha Abd Ghani; Dr. Rajkumar Palaniappan Ms. Ain Naqiyah Fadzilah (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Syamimi Mardiah Shaharum (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Wan Syahirah Wan Samsudin (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Nur Zahirah Mohd Ali (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Normaniha Abd Ghani (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Rajkumar Palaniappan (University of Technology Bahrain, Bahrain).

12:25 1571348146: Geospatial Intelligence and Deep Learning Framework for Automated Cadastral Feature Extraction and Urban Land-Record Mapping Using Drone Imagery.
Mr. Indra Kishor; Dr. Udit Mamodiya; Mrs. Subhra Mullick; Dr. Pawan Whig, Mr. Indra Kishor (Poornima Institute of Engineering & Technology, India), Dr. Udit Mamodiya (Poornima University, India), Mrs. Subhra Mullick (Indian Statistical Institute, India), Dr. Pawan Whig (India).

12:45 1571332078: Design and Implementation of a Real-Time Threat Hunting and Intrusion Monitoring Platform Using Wazuh, Suricata, and Machine Learning.
Mr. Ahsan Syafii Rusdin, Mr. Ahsan Syafii Rusdin (President University, Indonesia).

DAY -III: THURSDAY, DECEMBER 3, 2026 - 13:00 – 13:30 (Asia/Bahrain) - ZB3: Day-3 – Mid-Day Break.

DAY -III: THURSDAY, DECEMBER 3, 2026 - 13:30 – 16:30 (Asia/Bahrain)

PARALLEL SESSION 01: SF00: SMART HEALTHCARE AND TECHNOLOGY SOLUTIONS:

SESSION JOINING: HALL-A

SESSION CHAIR: DR. ZOUHIR BAHRI, (UNIVERSITY OF BAHRAIN, BAHRAIN).

13:30 1571352385: A Federated Explainable Stacking Ensemble for Early Detection of Coronary Artery Disease Using Hybrid Feature Selection.
Mr. Shimanto Kumar; Mr. Md Sadi Al Huda; Mrs. Anika Sarker Emo; Mr. Md. Shamsul Alam; Mr. Md. Asraf Ali; Dr. Syamimi Mardiah Shaharum, Mr. Shimanto Kumar (Khwaja Yunus Ali University, Bangladesh), Mr. Md Sadi Al Huda (Khwaja Yunus Ali University Enayetpur, Bangladesh & Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mrs. Anika Sarker Emo (Khwaja Yunus Ali University, Bangladesh), Mr. Md. Shamsul Alam (American International University-Bangladesh (AIUB), Bangladesh), Mr. Md. Asraf Ali (Khwaja Yunus Ali University, Bangladesh), Dr. Syamimi Mardiah Shaharum (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

13:50 1571352390: Kidney-HybridXAI-Net: A Privacy-Preserving Hybrid CNN-Transformer Framework with Federated Learning and Explainable AI for CT-Based Kidney Disease Classification.
Ms. Sadia Tadris; Mr. Md Sadi Al Huda; Mr. Neyamul Islam; Mr. Md. Shamsul Alam; Mr. Md. Asraf Ali; Dr. Syamimi Mardiah Shaharum, Ms. Sadia Tadris (Khwaja Yunus Ali University, Bangladesh), Mr. Md Sadi Al Huda (Khwaja Yunus Ali University Enayetpur, Bangladesh & Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mr. Neyamul Islam (Khwaja Yunus Ali University, Bangladesh) Mr. Md. Shamsul Alam (American International University-Bangladesh (AIUB), Bangladesh), Mr. Md. Asraf Ali (Khwaja Yunus Ali University, Bangladesh), Dr. Syamimi Mardiah Shaharum (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

14:10 1571354828: Deep Learning-Based Medical Waste Classification for Smart Hospitals in Smart Cities.
Mr. Mert Çeçen; Prof. Mehmet Karakose, Mr. Mert Çeçen (Kastamonu University, Turkey), Prof. Mehmet Karakose (Firat University, Turkey).

14:30 1571357391: Heart Of The Machine: Artificial Intelligence and Explainable AI in Cardiovascular Interventions - Critical Translation, Challenges, And Future Directions.
Dr. Faizal Hajamohideen, Dr. Faizal Hajamohideen (University of Technology and Applied Sciences, Oman).

14:50 1571352304: FedPlane: Federated Brain Tumor MRI Classification Under Real Acquisition-Plane Heterogeneity.
Mr. Neyamul Islam; Mr. Md Sadi Al Huda; Ms. Sadia Tadris; Mr. Md. Shamsul Alam; Mr. Md. Asraf Ali; Dr. Syamimi Mardiah Shaharum, Mr. Neyamul Islam (Khwaja Yunus Ali University, Bangladesh), Mr. Md Sadi Al Huda (Khwaja Yunus Ali University Enayetpur, Bangladesh & Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Ms. Sadia Tadris (Khwaja Yunus Ali University, Bangladesh), Mr. Md. Shamsul Alam (American International University-Bangladesh (AIUB), Bangladesh), Mr. Md. Asraf Ali (Khwaja Yunus Ali University, Bangladesh), Dr. Syamimi Mardiah Shaharum (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia) .

15:10 1571346910: An Explainable LightGBM-Based Machine Learning Framework for Accurate and Reliable Thyroid Disease Classification.
Mr. Elbaraa ElSayed Elkenawy; Mr. Salaheldin Elnasiri, Mr. Elbaraa ElSayed Elkenawy (Al-Malik Al-Kamel Military Secondary School, Dakahlia, Egypt), Mr. Salaheldin Elnasiri (King Salman International University, Egypt).

14:30 1571345117: Medicine Vending machine with AI chatbot.
Ms. Shreya Vibhute; Mr. Mandar Arasidha, Ms. Shreya Vibhute (AISSMS IOIT, India), Mr. Mandar Arasidha (AISSMS IOIT PUNE, India).

14:50 1571325351: EEG-MIFNet: An EEG-Based Motor Imagery Feature Network for Brain-Computer Interface Applications.
Ms. Prerna Ajmani; Ms. Shagun Jain, Ms. Prerna Ajmani (Vivekananda Institute of Professional Studies-TC, India), Ms. Shagun Jain (Vivekananda Institute of Professional Studies, India).

16:10 1571352369: A New Management Approach Using Small Language Models at Edge Healthcare Services in Smart Cities.
Mr. Osman Furkan Kucuk; Prof. Mehmet Karakose; Eray Hanoğlu, Mr. Osman Furkan Kucuk (Firat University, Turkey), Prof. Mehmet Karakose (Firat University, Turkey), Eray Hanoğlu (Panates Technology Investment Inc., Turkey).

16:30 1571352902: AI-Enabled Real-Time Digital Twin for Predictive Health Monitoring, Fault Diagnosis, and Reliability Enhancement of Critical Engineering Assets.
Dr. Udit Mamodiya; Mr. Rocky Kumar; Dr. Manimuthu Arunmozhi, Dr. Udit Mamodiya (Poornima University, India), Mr. Rocky Kumar (Poornima University, India), Dr. Manimuthu Arunmozhi (Aston Business School, United Kingdom (Great Britain)).

16:45 1571353789: Comparative Evaluation of Permittivity Extraction Models for a Low-Cost Open-Ended Coaxial Probe System Applied to Skin Tissue Characterization.
Mr. Luis Fernando Tupac Lazo; Ms. Lucia Fernanda Dávila Tejada; Mr. Manuel Alejandro Condori Huayna; Mr. Ebert G San Roman Castillo, Mr. Luis Fernando Tupac Lazo (Universidad Católica San Pablo, Peru), Ms. Lucia Fernanda Dávila Tejada (Universidad Católica San Pablo, Peru), Mr. Manuel Alejandro Condori Huayna (Universidad Católica San Pablo, Peru), Mr. Ebert G San Roman Castillo (Universidad Católica San Pablo, Peru).

DAY -III: THURSDAY, DECEMBER 3, 2026 - 13:30 – 16:30 (Asia/Bahrain)

SESSION JOINING: HALL-B

PARALLEL SESSION 03: SF03: DESIGN SOLUTIONS & SMART CITIES DESIGN-PART-B:

SESSION CHAIR: DR. MAS AYU HASSAN (UNIVERSITI MALAYSIA PAHANG AL-SULTAN ABDULLAH, MALAYSIA).

13:30 1571347945: Trust and Ethical Governance in the Metaverse.
Mr. Fahad Mira, Dr Mr. Fahad Mira, Dr (University of Bedfordshire, United Kingdom (Great Britain) & London, United Kingdom (Great Britain)).

13:50 1571355540: When Failure Data Vanish: Critical Evidence on Digital-Twin Vibration Analytics for Smart-City Maintenance.
Dr. Ahmad Shahir Jamaludin; Dr. Abdul Nasir; Dr. Mohd Nizar Mhd Razali; Mrs. Nurul Hasya Md Kamil; Dr. Mas Ayu Hassan, Dr. Ahmad Shahir Jamaludin (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia), Dr. Abdul Nasir (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Dr. Mohd Nizar Mhd Razali (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia), Mrs. Nurul Hasya Md Kamil (Universiti Malaysia Pahang Al Sultan Abdullah, Malaysia), Dr. Mas Ayu Hassan (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia).

14:10 1571357467: Generative Artificial Intelligence in English Language Studies: A Framework for Enhancing Academic Writing and Language Learning.
Dr. Faizal Hajamohideen; Ms. Shaheena Jaleela Faizal, Dr. Faizal Hajamohideen (University of Technology and Applied Sciences, Oman), Ms. Shaheena Jaleela Faizal (Sohar University, Oman).

14:30 1571357462: Edge AI for Real-Time Decision Making in Precision Farming.
Dr. Balamurugan K S; Dr. S Divesh; Varshath Nikila B; Dr. Surendran R; Dr. B Keerthika, Dr. Balamurugan K S (SRM Bharathidasan College of Engineering and Technology, India), Dr. S Divesh (Dhanalakshmi Srinivasan University, India), Varshath Nikila B (Vel Tech Multi Tech, India), Dr. Surendran R (Saveetha Institute of Medical and Technical Sciences, India), Dr. B Keerthika (Karpaga Vinayaga College of Engineering and Technology, India).

14:50 1571357511: Evidential Semantic Attention Swin Transformer based Weed Detection for Internet of Things Scenario.
Mr. A Azhaguraj; Dr. Michael G, Mr. A Azhaguraj (Saveetha Institute of Medical and Technical Sciences, India), Dr. Michael G (Saveetha School of Engineering Simats Engineering Saveetha University, India).

15:20 1571357604: AI-Driven Predictive Frequency Stability and Self-healing Load Shedding Control.
Dr. Abdulla Desmal; Mudhi Mohammed; Ms. Naseba Nawaf Abdullah Mohammed, Dr. Abdulla Desmal (Bahrain Polytechnic, Bahrain), Mudhi Mohammed (Bahrain Polytechnic, Bahrain), Ms. Naseba Nawaf Abdullah Mohammed (Bahrain).

15:40 1571273637: AI-Powered Multi-Agent System for Enhancing Leader Engagement and Citizen Service Delivery.
Ms. Arunita Arun Chavanke; Dr. Amruta Mahajan; Chaitrali Chaudhary; Chinmay Desale; Om Dalvi, Ms. Arunita Arun Chavanke (Pimpri Chinchwad College of Engineering, India), Dr. Amruta Mahajan (Pimpri Chinchwad College of Engineering, Pune, India), Chaitrali Chaudhary (Pimpri Chinchwad College of Engineering Pune, India), Chinmay Desale (Pimpri Chinchwad College of Engineering Pune, India), Om Dalvi (Pimpri Chinchwad College of Engineering Pune, India).

16:00 1571276144: Low-Latency Distributed Architectures for Real- Time Non-QM Mortgage Underwriting.
Mr. Lakshya Jain, Mr. Lakshya Jain (Annaly Capital Management, USA & University of Illinois Urbana-Champaign, USA).

16:15 1571333358: From Public Space to Data Space: Examining Citizen Agency in Data-Driven Smart Cities.
Dr. Nazish Abid; Ms. Sagarika Nayak; Dr. Adiba Shafique; Ms. Ratna Ghosh, Dr. Nazish Abid (University of Bahrain, Bahrain), Ms. Sagarika Nayak (Canada), Dr. Adiba Shafique (University of Nottingham, United Kingdom (Great Britain)), Ms. Ratna Ghosh (Indian Institute of Technology, Kharagpur, India).

DAY -III: THURSDAY, DECEMBER 3, 2026 - 13:30 – 16:30 (Asia/Bahrain)

PARALLEL SESSION 04: SF04: DESIGN SOLUTIONS & SMART CITIES DESIGN-PART-C:

SESSION JOINING: HALL-D:

SESSION CHAIR: MS. SHOLEH MADANI, P.ENG., MIET, ABB INC. COQUITLAM, BC, CANADA

13:30 1571352260: CropSmart-ML: An Optuna-Tuned Stacked Ensemble Framework for Intelligent Crop Recommendation.
Mr. Aakash S S; Mr. Sukesh M; Mr. Ganesh Kumar A; Dr. Saran Raj S; Dr. Rajmohan Rajendran; Dr. Sunday Adeola Ajagbe, Engr, Mr. Aakash S S (Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, India), Mr. Sukesh M (Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, India), Mr. Ganesh Kumar A (Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, India), Dr. Saran Raj S (Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, India), Dr. Rajmohan Rajendran (SRM Institute of Science and Technology, India), Dr. Sunday Adeola Ajagbe, Engr (Abiola Ajimobi Technical University, Ibadan Nigeria, Nigeria & University of Zululand, South Africa).

13:50 1571351143: Quantum Computing for Analytics in Industry 5.0: A Comprehensive Review of Architectures, Algorithms, and Applications.
Mr. Osama Alabedallat; Ms. Neha Singh; Dr. Mamoon Rashid, Mr. Osama Alabedallat (Bahrain Polytechnic Campus, Isa town, Bahrain), Ms. Neha Singh (Manipal University Jaipur, India), Dr. Mamoon Rashid (Bahrain Polytechnic, Bahrain).

14:10 1571349224: Knowledge-Enhanced Disaster Impact Classification and Response Recommendation.
Mrs. Zeynep Karaca; Prof. Ilhan Aydin, Mrs. Zeynep Karaca (Firat University, Turkey), Prof. Ilhan Aydin (Firat University, Turkey & Firat, Turkey).

14:30 1571347731: Comparative Visualization of Shallow and Deep Convolutional Neural Networks Using Grad-CAM.
Mrs. Sheenam Middha, Mrs. Sheenam Middha (Chandigarh University, India).

14:50 1571343836: Cross-Platform Real-Time Acoustic Leak Localization in Urban Water Pipelines: Experimental Validation and Hardware Performance Analysis.
Dr. Ramasamy Srinivasagan, Dr. Ramasamy Srinivasagan (King Faisal University, Saudi Arabia), Arunagiri A (Department of Electrical Power Engineering Technology Yanbu Industrial College Yanbu, Saudi Arabia).

15:20 1571337208: Spectral Weight Topology Analysis for Execution-Free Integrity Verification of Serialized Machine Learning Models.
Ms. Malak Mekyassi; Ms. Bahiya Cheikh Mohamed Fadel; Mr. Taha Mahha; Mrs. Aboubakr Bajdid; Dr. Ibrahim Guelzim, Ms. Malak Mekyassi (ENSAM Casablanca, Morocco), Ms. Bahiya Cheikh Mohamed Fadel (ENSAM Casablanca, Morocco), Mr. Taha Mahha (ENSAM, Morocco), Mrs. Aboubakr Bajdid (ENSAM Casablanca, Morocco) Dr. Ibrahim Guelzim (Hassan 2 University of Casablanca, Morocco & National High School of Arts and Crafts, Morocco).

15:40 1571317760: AI-Driven Waqf Asset Management: A Governance Framework for Algorithmic Stewardship, Shariah Compliance, and Public Resource Accountability.
Dr. Pushan Kumar Dutta; Dr. Bratini Shome; Dr. Aniruddha Das; Mr. Vugar Abdullayev, Dr. Pushan Kumar Dutta (Amity University Kolkata, India & Amity School of Engineering and Technology, India), Dr. Bratini Shome (Amity University Kolkata, India), Dr. Aniruddha Das (Amity Business School, Amity University Kolkata, West Bengal, India), Mr. Vugar Abdullayev (Azerbaijan State Oil and Industry University, Azerbaijan).

16:00 1571321415: Water wAIS: AI-Powered Leak Detection and Non-Revenue Water Reduction in Mumbai's Aging Water Distribution Network
Ms. Rhea Agrawal, Ms. Rhea Agrawal (CNS, India).

DAY -III: THURSDAY, DECEMBER 3, 15:30 – 15:40 (Asia/Bahrain) – Short Break

THURSDAY, DECEMBER 3 15:40 – 16:00 (ASIA/BAHRAIN)

# CD-3: Closing Remarks of 10th IET SMART CITIES SYMPOSIUM, 2026

DR. SURESH VISHWAKARMA, P.ENG., CENG, MIET, MBA, PHD, POSTDOC, SENIOR ENGINEER,

VANCOUVER CANADA, AND IET - COMMUNITIES RESOURCES COMMITTEE MEMBER

Closing Remarks of 10th IET SMART CITIES SYMPOSIUM, 2026

MAIN-THEATRE HALL – FOR THE VIRTUAL ACCESS

# KEYNOTES AND PARALLEL SESSIONS HYBRID JOINING

KEYNOTES AND PARALLEL SESSIONS HYBRID JOINING:

TO JOIN SESSIONS IN MAIN HALL MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TO JOIN SESSIONS IN HALL-1: SESSION JOINING: HALL-1

TO JOIN SESSIONS IN HALL-2 SESSION JOINING: HALL-2

TO JOIN SESSIONS IN HALL-3 SESSION JOINING: HALL-3

TO JOIN SESSIONS IN HALL-4 SESSION JOINING: HALL-4

TO JOIN SESSIONS IN HALL-5 SESSION JOINING: HALL-5

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# ACCESSING: 10TH IET SCS-2026 – HALLS: A-E, DECEMBER 2026




To join sessions in Main Hall MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

To join sessions in Hall-1: Session Joining: Hall-1

To join sessions in Hall-2 Session Joining: Hall-2

To join sessions in Hall-3 Session Joining: Hall-3

To join sessions in Hall-4 Session Joining: Hall-4

To join sessions in Hall-5 Session Joining: Hall-5

10TH IET SMART CITIES SYMPOSIUM PROGRAM

# 1-3, DECEMBER 2026

# KEYNOTES AND PARALLEL SESSIONS DETAILS

DAY-I

TUESDAY, 1ST DECEMBER 2026

Main-Hall: Main Hall Opening by 8:30 am: MAIN-THEATRE HALL – VIRTAUL ACCESS

9:00 am: 10:30 am.

OPENING SPEECH

TUESDAY 1ST DECEMBER 2026, 09:05+03 - 09:10+03, WELCOME: WELCOME TO THE 10TH IET SMART CITIES SYMPOSIUM.

TUESDAY THE 1ST OF DECEMBER 2026, 09:20+03 - 10:00+03

KN1: KEYNOTE SPEAKER -1
RESILIENT HYBRID ENERGY SYSTEMS AND DIGITAL TWIN FOR ENERGY TRANSITION AND SUSTAINABLE COMMUNITIES
PROFESSOR HOSSAM A. GABBAR,
P.ENG., FELLOW IET (FIET), DISTINGUISHED LECTURER IEEE NPSS, DIRECTOR OF SMART ENERGY SYSTEMS LAB, ONTARIO TECH UNIVERSITY
FACULTY OF ENGINEERING AND APPLIED SCIENCE, ONTARIO TECH UNIVERSITY, CANADA.
SESSION CHAIR: DR. SURESH VISHWAKARMA, MIET, LEAD ENGINEER, VANCOUVER, CANADA,
MAIN-THEATRE HALL – FOR VIRTUAL ACCESS: MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

TUESDAY THE 1ST OF DECEMBER 2026, 10:00+03 - 10:30+03

KN2: KEYNOTE SPEAKER -2
BUILDING SMARTER CITIES FOR BETTER MENTAL HEALTH: BALANCING INNOVATION WITH HUMAN CONNECTION

SPEAKER: DR. SIMMI NARULA
PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONER BASED IN CONNECTICUT
DNP, PMHNP-BC, CONNECTICUT, USA
SESSION CHAIR: SESSION CHAIR: DR. FAHD SAUD MIRA, UNIVERSITY OF BEDFORDSHIRE, UK.
MAIN-THEATRE HALL – FOR VIRTUAL ACCESS: MAIN-THEATRE HALL – FOR VIRTUAL ACCESS

Tuesday 1st December 2026: 11:00 +03 to 01:00 +03

| Parallel Session: Hall-A | Parallel Session: Hall -B | Parallel Session: Hall-C |
|---|---|---|
| SA01: Internet of Things and Smart Applications-PART-A | SA02: Artificial intelligence Computational Algorithms | SA03: Smart Environments -PART-A |
| SESSION JOINING: HALL-A | SESSION JOINING: HALL-B | SESSION JOINING: HALL-C |

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

Tuesday 1st December 2026: 13:30 +03 to 16:30 +03

| Parallel Session: Hall-A | Parallel Session: Hall-B | Parallel Session: Hall-C | Parallel Session: Hall-D |
|---|---|---|---|
| SB01: Smart Environments -PART-B | SB02: Cybersecurity Solutions | SB03: Smart Transportation System | SB04: Smart Cities Solutions |
| SESSION JOINING: HALL-A | SESSION JOINING: HALL-B | SESSION JOINING: HALL-C | SESSION JOINING: HALL-D |

CD-1: Closing of Day-1

WEDNESDAY, 2ND DECEMBER 2026

Main-Hall: Getting Ready: Main Hall Opening by 8:30 am: MAIN-THEATRE HALL – VIRTAUL ACCESS

9:00 am – 10:30 am

KN4: KEYNOTE SPEAKER -3
WEDNESDAY, 2ND DECEMBER 2026, 09:00+03 - 09:30+03

CREATING SMART RESIDENTS IN SMART CITIES: 7 BEHAVIOUR CHANGE TIPS FOR PROMOTING RESPONSIBLE CITIZENSHIP
Associate Professor, Social Marketing @ Griffith, Department of Tourism and Marketing
Griffith Business School, Griffith University, Marketing, Nathan, Australia
Session Chair: Dr. Satveer Kour, Assistant Professor, Guru Nanak Dev University, India

MAIN-THEATRE HALL – VIRTAUL ACCESS

KN4: KEYNOTE SPEAKER-4
WEDNESDAY, 2ND DECEMBER 2026, 09:30+03 - 10:45+03

FROM SMART CITIES TO INTELLIGENT CITIES:
LEVERAGING AI AND DIGITAL TRANSFORMATION FOR SUSTAINABLE URBAN FUTURES

Speaker: Professor Santosh Kumar Vishwakarma,
MTech, PhD, Professor and Dean (Data Science), Gyan Ganga Institute of Technology & Sciences, Jabalpur, India.

Session Chair: Professor Vimmi Pandey Professor and Head of the Computer Science & Engineering Department at Gyan Ganga College of Technology in Jabalpur, India

MAIN-THEATRE HALL – VIRTAUL ACCESS

Wednesday, 2nd December 2026: 10:30 +03 to 13:00 +03

| Parallel Session: Hall-A | Parallel Session: Hall-B | Parallel Session: Hall-C |
|---|---|---|
| SC02: Smart Algorithms Applications-A | SC03: New Technologies for Smart Cities-PART-A | SC04: New Technologies for Smart Cities-PART-D |
| Session Joining: Hall-A | Session Joining: Hall-B | Session Joining: Hall-C |

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

Wednesday, 2nd December 2026: 13:00 +03 to 15:15 +03

| Parallel Session: Hall-A | Parallel Session: Hall-B | Parallel Session: Hall-C |
|---|---|---|
| SD01: New Technologies for Smart Cities-PART-B | SD03: Smart Energy Systems – Technology Solutions | SD04: Smart Cities and AI Computational Algorithms |
| Session Joining: Hall-A | Session Joining: Hall-B | Session Joining: Hall-C |

CD-2: Closing of Day-2

DAY-III

THURSDAY, 3RD DECEMBER 2026

Main-Hall: Getting Ready:  Main Hall Opening by 8:30 am: MAIN-THEATRE HALL – VIRTAUL ACCESS

9:00 am – 10:30 am

KN5: KEYNOTE SPEAKER -5
Thursday, 3RD December 2026, 09:00+03 - 09:30+03

SMART CITIES, SMART WORKFORCES: MEASURING AGENTIC AI'S IMPACT ON URBAN WORK AND TURNING DISPLACEMENT RISK INTO OPPORTUNITY
Speaker: Ravish Gupta
AI/ML Researcher, AI Led, BigCommerce | ex-Amazon (AWS Bedrock & Transform), Senior Member IEEE | M.S., Purdue University, USA.
Session Chair:  Shefali Vishwakarma, IET - Communities Committee America, Vancouver, Canada.

KN6: KEYNOTE SPEAKER -6
THURSDAY, 3RD DECEMBER 2026, 09:30+03 - 10:00+03
BUILDING RESILIENT SMART CITIES - BALANCING INNOVATION AND CYBER RISK IN THE DIGITAL URBAN AGE

Speaker: Professor Dr. Shilpi Sharma
Professor & Deputy Head, Department of Computer Science & Engineering
Amity School of Engineering & Technology, Amity University, Sector 125, Noida – 201303, UP, India.
Session Chair:  Dr. Prerna Ajmani - Vivekananda Institute of Professional Studies -TC, India.

KN7: KEYNOTE SPEAKER -7
THURSDAY, 3RD DECEMBER 2026, 10:00+03 - 10:30+03

WHAT CAN A SMART CITY SAFELY DISCONNECT? USING SEGMENTATION AND ZERO TRUST TO KEEP ESSENTIAL SERVICES RUNNING

Speaker: Dr. Abdul Khadir Mahamed
OT Cybersecurity Architect, New York University, USA.
Session Chair: Dr. Poonam Choubey, Assistant Professor, Sagar Institute of Research and Technology, India.

Thursday, 3rd December 2026: 10:30 +03 to 01:00 +03

PARALLEL SESSION: HALL-A
SE02: SMART MONITORING AND SOLUTIONS
SESSION JOINING: HALL-A

PARALLEL SESSION: HALL-B
SE03: SMART HOMES, SMART HOSPITALS, AND SMART CAMPUSES
SESSION JOINING: HALL-B

PARALLEL SESSION: HALL-C
SE04: ROBOTICS AND SYSTEMS INTELLIGENCE
SESSION JOINING: HALL-C

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

Thursday, 3rd December 2026: 01:30 +03 to 15:30 +03

PARALLEL SESSION: HALLA
SF00: SMART HEALTHCARE AND TECHNOLOGY SOLUTIONS
SESSION JOINING: HALL-A

PARALLEL SESSION: HALL-B
SF01: INTERNET OF THINGS AND SMART APPLICATIONS-PART-B
SESSION JOINING: HALL-B

PARALLEL SESSION: HALL-C
SF03: DESIGN SOLUTIONS & SMART CITIES DESIGN-PART-B
SESSION JOINING: HALL-C

PARALLEL SESSION: HALLD
SF03: DESIGN SOLUTIONS & SMART CITIES DESIGN-PART-C
SESSION JOINING: HALL-D

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

MAIN-THEATRE HALL – VIRTAUL ACCESS

Closing Remarks of 10th IET SMART CITIES SYMPOSIUM, 2026

Session Chair:
Dr. Suresh Vishwakarma, P.Eng., CEng, MIET, MBA, PhD, PostDoc, Senior Engineer, Vancouver Canada, and IET (Communities Resources Committee Member).

SB-3: Day-3 - Symposium Ending

links to Virtual Halls: Please find the (emails for 10th IET Smart Cities Symposium -2026 at UOB).

10th IET SCS-2026-Main-HALL (FOR KEYNOTES, OPENING, CLOSING SESSIONS):

General | 10th IET SCS-2026-Main-HALL | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3Ahdj4inpaVJAohRl6grO3W5L66yuEsjPMgioP4mo6o5c1%40thread.tacv2/conversations?groupId=ead4b779-89b1-49f3-996c-ce6cdc3a92c5&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*

10th IET SCS-2026-HALL- 1:

General | 10th IET SCS-2026-HALL-1 | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3Ahdj4inpaVJAohRl6grO3W5L66yuEsjPMgioP4mo6o5c1%40thread.tacv2/conversations?groupId=ead4b779-89b1-49f3-996c-ce6cdc3a92c5&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*

10th IET SCS-2026-HALL- 2:

General | 10th IET SCS-2026-HALL-2 | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3Am4Nzlh3_AKzSV9dbfq2r3U2e8xvJ1KDOhCm8o-VURAE1%40thread.tacv2/conversations?groupId=cc960e0b-0be1-44f5-813a-deb4ec86e41a&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*

10th IET SCS-2026-HALL- 3:

General | 10th IET SCS-2026-HALL-3 | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3AL6ddeMsmA_-oxedmL3tjGcal0caL04vtzEXNP3hm3G01%40thread.tacv2/conversations?groupId=3633949d-9f47-4b9a-8690-e2a57c89d233&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*

10th IET SCS-2026-HALL- 4:

General | 10th IET SCS-2026-HALL-4 | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3AGjaxNwahSC109tOMeMUdeGtkvijaqFo34E9KPHlvVe81%40thread.tacv2/conversations?groupId=2024b0e5-11d6-44c2-af5a-bb383bc02ede&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*

10th IET SCS-2026-HALL- 5:

General | 10th IET SCS-2026-HALL-5 | Microsoft Teams

*https://teams.cloud.microsoft/l/team/19%3ArL4DI7pRxF4n45GU1tkmdvNWoLrt_LaBlRlcHOOKtgE1%40thread.tacv2/conversations?groupId=eef1fd6e-8611-47d2-a3a0-1959e9eba33a&tenantId=026137b5-e313-46d1-9b2f-026ecb50c842*