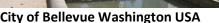
## **IEEE CN Smart Cities**

## Bellevue Washington USA December 16, 2022, 7 am PST

## Live Stream from Bellevue Washington

Why is Bellevue Washington USA ranked one of the top Smart Cities in the World? Find out what propels this City to wake up every morning. Find out more about their Light Rail and driverless vehicles. Why is the mayor actively involved with her residents? Find out how governance is making the City of Bellevue flourish in Smart Parks and Recreation - accessibility where everyone can participate. Find out more about this Smart City center and plans.







Mayor Dr. Lynne Robinson



IEEE

**Smart Cities Connectivity** 

<u>Elements of a Smart City</u>: Smart cities leverage information and communications technology to enhance livability, sustainability and resiliency.

<u>Smart Buildings</u>: Develop more "Smart" buildings that are connected, fault-detecting and self-healing Reduce Waste: Aggressively reduce water and energy use through sophisticated analytics and improved monitoring Safer Buildings: Improve response by Integrating building security with 911 emergency response

Smart Connectivity: City is a provider and facilitator of services.

Expanded WiFi - Increase internet access for all with expanded public Wi-Fi

Fiber - Enhance digital economy with high speed, secure, resilient networks

Broadband - Ease access to existing city infrastructure to facilitate public-private partnerships

Smart Networks - Increase efficiencies with integrated Smart City communications networks

<u>Smart Energy</u>: Focus on reducing outages and improving energy conservation and renewables Optimized Grid: Reduce system outages through optimized grid system operation Advanced Metering: Improve conservation and customer service through advanced metering

<u>Smart Mobility</u>: Connected Vehicles - Increase safety and efficiency with real-time performance monitoring of signal system and connected vehicle integration

Register at: https://events.vtools.ieee.org/m/332846

Smart Streetlights - Increase energy savings by expanding LED street-lighting and piloting parking availability management - Informed Travelers - Better informed motorists with enhanced traveler information

Transit Integration - Improve transit speed and reliability with next generation transit signal prioritization

Ped Bike Safety - Improve bicyclist and pedestrian safety through automated monitoring and measuring

## **Smart Public Safety**

Continue improving technology enabling regional and national communication and emergency management Integrated Systems - Optimized response time and care for patients through Integrating systems. Includes coordination across communication centers and electronic patient records

Predictive Analysis - Predictive and preventive crime analysis

Resilient Communications - Police and fire are supporting a national effort to create the FirstNet communication network using a dedicated radio spectrum that supports broadband communications.

Regional Partnerships - Our first responders are coordinating with communication centers and neighboring agencies on integrated dispatch and unified radio systems to increase response efficiency.

Situational Awareness - Application of new emergency management software that integrates all command centers for better management of resources.

<u>Smart Water</u> Proactively improve water reliability and conservation – Proactive Detection

Advanced Metering - Improve customer service and conservation with advanced metering

Improved Reliability: Improved reliability, capacity, and water quality through predictive operations



'Coral Gables Smart Districts Cyber-Physical Infrastructure & Digital Twin Integration Platform', Director of Innovation and Technology /Chief Innovation Officer at City of Coral Gables

Coral Gables in Florida has implemented a robust and resilient smart city technology infrastructure and engineering framework throughout multiple innovation districts that provide hyper-connectivity, visibility, control, and automation of city services. This infrastructure fosters quality of life improvements in Public Safety, mobility, energy efficiency, sustainability, and accessibility of digital services, supported by a robust foundation of resilient high-speed communications/broadband --built on IEEE engineering standards and other industry frameworks and best practices for security, fault-tolerance and automated failovers during hurricanes and other disasters. This

Raimundo Rodulfo

digital reality fabric includes fiber optics corridors, wireless networks, public Wi-Fi, satellite communications, a complex layer of cyber-physical systems and IoT sensors (smart lights and smart lighting controllers, CCTV, ALPR, traffic and environmental sensors, and first-of-its-kind smart city Al-powered modular integrated poles), distributed clouds, Al and machine learning-powered predictive data analytics, a smart city hub digital twin and real-time urban analytics IoT-Al public platform for citizens, first responders, traffic engineers, academic researchers, businesses, and entrepreneurs.

**Bio:** Mr. Rodulfo started his career in the early 1990s as an engineer in the telecommunications industry (Bellsouth, Siemens, NCR). Worked on projects with Motorola and Lucent Technologies in Chicago and Agilent Technologies in Silicon Valley. Joined the City of Coral Gables in 2004 and currently serves as Chief Innovation Officer and Director of Innovation and Technology. Leads strategic planning, oversight and management of citywide IT operations, infrastructure, and smart city initiatives. Under his leadership, the city has received numerous awards including first place in the Digital Cities 2018, first place in the U.S. Open Cities Index in 2019 and 2020, Smart 50 Award in Urban Infrastructure in 2020, Smart Cities Council Innovation Excellence Award in 2022, IEEE Smart Cities Awards Jury Prize in 2022, recognized as one of the eight Smart Cities to Watch in 2020 by State Tech Magazine and as one of the 12 finalists worldwide in the Gartner Eye on Innovation Awards in 2021. Licenses/Certifications/Education: IEEE Senior Member, IISE Senior Member, Licensed Professional Engineer (P.E. EE, Florida and NCEES national record) / PMP, CSSBB, PCIP, HIPAA, Incident Management, Virtualization, SAP, ITIL / MSEM (FIU), GCES (FIU), BSEE (UNEXPO)