Optoelectronic-integrated remote monitoring type for edge computing

This paper presented the GENIO platform, which seamlessly integrates edge computing capabilities within Passive Optical Network (PON) infrastructures, allowing for effectively transforming ...

This work introduces a near-sensor edge computing (NSEC) system, built on a bilayer AlN/Si waveguide platform, to provide real-time, energy-efficient AI capabilities at the edge.

Throughsimulations, we show the feasibility of GENIO insupporting real-world edge scenarios and its betterperformance compared to a traditional edgecomputing architecture.

Today many remote monitoring solutions are available that offer a reliable wireless communication integrated into a single, inexpensive unit. These new wireless I/O devices are easy to install, and ...

The rapid development of IoT combined with applications requiring instantaneous computing power, drives the need for edge computing systems. Quest"s hardware, software, and services provide a ...

This review then introduces the emerging paradigm of in-sensor computing, where AI algorithms are integrated directly within photonic devices, enabling real-time data processing, ...

This paper explains how seven trends are re-defining remote monitoring and onsite service requirements and how this will lead to improvements in operations and maintenance of IT ...

Several methodologies and technologies utilized for continuously monitoring and managing crude oil manufacturing are analyzed in light of the integrating of the Industrial Internet of ...

This integrated photonic in-sensor computing approach not only minimizes data transfer and associated energy costs but also enables rapid, edge-resident biomolecular diagnostics with...

This integrated photonic in-sensor computing approach not only minimizes data transfer and associated energy costs but also enables rapid, edge ...

Optoelectronic-integrated remote monitoring type for edge computing

Web: https://www.csc-energia.com.pl