May 20, 2021

aiSensing Announces AI-based Predictive Maintenance Solution Based on QuickLogic EOS S3 Platform and SensiML Analytics Toolkit

- Industrial IoT endpoint vibration sensor enables smart, AI-based local predictive maintenance

- High performance, low cost solution identifies fault conditions quickly and accurately

- Operates locally and independently, no cloud connection required

SAN JOSE, Calif., May 20, 2021 /PRNewswire/ -- QuickLogic Corporation (NASDAQ: QUIK), a developer of ultra-low power multi-core voice-enabled SoCs, embedded FPGA IP, and Endpoint AI solutions, today announced that its customer, aiSensing, has developed an AI-enabled Industrial IoT solution that can determine multiple fault modes for predictive maintenance applications. This vibration sensor employs Artificial Intelligence/Machine Learning (AI/ML) techniques to intelligently monitor equipment status and identify and signal when different fault modes occur. The aiSensing solution is based on QuickLogic's QuickAI platform including the ultra-low power EOS™ S3 multi-core sensor processing SoC, QuickFeather development kit, and SensiML Analytics Toolkit for endpoint AI applications.

aiSensing's Predictive Maintenance (PdM) solution integrates AI/ML technology to monitor the status of manufacturing equipment locally without the need for an internet-based cloud connection. This approach results in a robust, high performance, real-time, and high security predictive maintenance solution for end customers. The total solution is also extremely low power and low cost, making it practical to implement for a wide range of manufacturing applications. In addition, the AI models used by the sensor can be easily and quickly customized for each piece of manufacturing equipment to achieve a high degree of accuracy.

Accurate predictive maintenance is one of the key hallmarks of the AI-enabled Industry 4.0 (fourth generation) wave of intelligent manufacturing. In this case, the aiSensing solution integrates a vibration sensor, using AI to differentiate between normal and abnormal operation for a particular piece of manufacturing equipment, and sends an alarm message to engineers and managers as soon as an abnormal state is detected. By identifying pending failures before they happen, the intelligent sensor allows operators to shut down equipment for maintenance in an orderly way and thus manage their production lines more efficiently and cost-effectively. It can also help save cost by avoiding unnecessary preventative maintenance.

"With QuickLogic's multi-core ultra-low power EOS S3 SoC plus Open Source QuickFeather Dev Kit and SensiML's Analytics Toolkit, aiSensing has developed three generations of our AI Vibration Detector in less than six months to support different customer requirements," said Dennis Chu, aiSensing's chief technology officer. "Our resulting endpoint AI-based IoT solution helps us enable predictive maintenance applications with better performance and cost than cloud-based AI solutions, and positions us well for future growth."

The aiSensing smart vibration sensor is available now in industrial temperature grade (-40 to +85 degrees C). It is waterproof, dustproof, and explosion resistant. To learn more, visit https://www.youtube.com/watch?v=z7TPI7i2vn4

About QuickLogic
QuickLogic Corporation (NASDAQ: QUIK) is a fabless semiconductor company that develops low power, multi-core semiconductor platforms and Intellectual Property (IP) for Artificial Intelligence (AI), voice and sensor processing. The solutions include embedded FPGA IP (eFPGA) for hardware acceleration and pre-processing, and heterogeneous multi-core SoCs that integrate eFPGA with other processors and peripherals. The Analytics Toolkit from our recently acquired wholly owned subsidiary, SensiML Corporation, completes the end-to-end solution with accurate sensor algorithms using AI technology. The full range of platforms, software tools and eFPGA IP enables the practical and efficient adoption of AI, voice and sensor processing across mobile, wearable, hearable, consumer, industrial, edge and endpoint IoT. For more information, visit www.quicklogic.com and https://www.quicklogic.com/blog/.

The QuickLogic logo and QuickLogic are registered trademarks of QuickLogic Corporation and EOS is a trademark of QuickLogic. All other brands or trademarks are the property of their respective holders and should be treated as such.

 View original content:http://www.prnewswire.com/news-releases/aisensing-announces-ai-based-predictive-maintenance-solution-based-on-quicklogic-eos-s3-platform-and-sensiml-analytics-toolkit-301295918.html

SOURCE QuickLogic Corporation