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2025 International Conference on Next Generation of Green Information and Emerging Technologies : Submission (1226) has been created.

1 message

Microsoft CMT <noreply@msr-cmt.org>   Sun, Apr 27, 2025 at 8:55 PM
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Hello,

The following submission has been created.

Track Name: GIET2025

Paper ID: 1226

Paper Title: Edge-Driven CO2 and Occupancy Prediction with Certificate Generation for Optimized
Classroom Ventilation Systems
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Abstract:
Optimizing classroom ventilation is crucial for indoor air quality and occupant well-being. This
paper presents an edge computing approach using Internet of Things (IoT) sensors and Long Short-
Term Memory (LSTM) networks for intelligent ventilation management in educational settings. Low-
cost IoT devices with environmental sensors collect and process data locally. A lightweight LSTM
model on the edge predicts ventilation quality and occupancy patterns in real-time, enabling
prompt adjustments. The system employs a hierarchical architecture with edge devices for local
processing, a fog layer for aggregation, and cloud services for data storage and analysis. This
edge-driven system demonstrates effective real-time monitoring and analysis of temperature,
humidity, carbon dioxide levels, and occupancy, facilitating optimized classroom conditions and
generating environmental quality certificates. The integration of edge computing, machine
learning, and IoT offers precise environmental quality evaluation for educational institutions
```

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Created on: Sun, 27 Apr 2025 15:25:19 GMT

Last Modified: Sun, 27 Apr 2025 15:25:19 GMT

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Secondary Subject Areas: Not Entered

Submission Files:
      final_paper (1).pdf (1 Mb, Sun, 27 Apr 2025 15:23:28 GMT)

Submission Questions Response: Not Entered

Thanks,
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