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**Title:** Smart Campus Based on AI and IoT in the Era of Industry 5.0: Challenges and Opportunities

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**Information:**

* The paper explores the role of AI and IoT in transforming university campuses into smart, efficient, and sustainable environments.
* It highlights the benefits of AI-driven smart campuses, such as personalized education, optimized resource management, and improved safety.
* The paper also identifies challenges, including data privacy, security concerns, ethical considerations, and the digital divide.
* The Industry 5.0 framework is introduced, emphasizing human-AI collaboration to enhance campus sustainability.

**Dataset**

| **Field Name** | **Description** | **Data Type** |
| --- | --- | --- |
| Building ID | Unique identifier for each campus building | Integer |
| Timestamp | Date and time of data collection | Datetime |
| Energy Consumption | Power usage of the building (kWh) | Float |
| Water Usage | Amount of water consumed (liters) | Float |
| Temperature | Indoor temperature of the building (°C) | Float |
| Humidity | Indoor humidity levels (%) | Float |
| Occupancy Level | Number of people present in the building | Integer |
| Air Quality Index | Measure of indoor air pollution | Float |
| Lighting Usage | Power consumption by lighting systems (kWh) | Float |
| HVAC Usage | Energy used by heating, ventilation, and air conditioning | Float |
| Waste Management | Amount of waste collected per building (kg) | Float |
| Renewable Energy | Energy generated from solar/wind sources (kWh) | Float |
| Transportation Data | Shuttle/bike usage, EV charging sessions | Integer/String |
| Security Events | Number of security alerts or anomalies detected | Integer |