HONEYWELL FORGE

A SMART UNIVERSITY GETS SMARTER WITH ENERGY OPTIMIZATION

An autonomous smart solution gets top grades for energy savings and comfort at Hamdan Bin Mohammed Smart University.

HBMSU Case Study

Energy consumption in commercial buildings accounts for more than 36 percent of global energy and nearly 40 percent of total CO2 emissions [1]. Inspired by its vision to lead the smart learning innovation, Hamdan Bin Mohammed Smart University (HBMSU), the first and only accredited smart university in the United Arab Emirates, wanted to combat this issue and reduce operating costs across its campus. To do this, it needed a solution that could work with its existing third-party systems to avoid an upfront capital expense. It also required a solution that would protect occupant comfort levels in its buildings and achieve savings without requiring it to change its operational processes.

SOLUTION

Thanks to a combination of Honeywell Forge's machine learning and autonomous control technologies, HBMSU piloted a closed-loop solution that evaluates the internal set-points for a building's HVAC system every 15 minutes to determine if it's running at peak capacity. By analyzing factors such as time of day, weather, occupancy levels, and dozens of other data points, the solution makes automatic, calculated adjustments up to 96 times in each 24-hour period to reduce energy consumption. Honeywell Forge Energy Optimization has been applied to HBMSU's existing non-Honeywell building management system, successfully demonstrating Honeywell Forge's open architecture and hardware-agnostic capabilities.

RESULTS

By automating adjustments based on real-time data, HBMSU experienced a 10 percent reduction of energy consumption across its campus. These savings were achieved without manual intervention and while keeping learners and faculty members comfortable on campus. The additional energy savings are especially significant because HBMSU campus is regarded as a highly smart, energy efficient building with fully connected lighting, cooling, building management, power, and efficiency control, all optimized based on real-time occupancy.

"At HBMSU, we are innovative in all our endeavors. We remain steadfast to our commitment to deploy the latest technological and smart innovations on our campus and ensure the provision of the highest levels of operational efficiency that matches the best in the world. We were pleasantly surprised by the positive results that we saw from Honeywell Forge, and we're excited for the energy savings it'll continue to harvest."

- DR. MANSOOR AL AWAR,

CHANCELLOR OF HBMSU

Based on a pilot of Energy Optimization at HBMSU over a 4 months timeline. Typical customers achieve 23% savings after 3 months of deploying Energy Optimization at a properly equipped building. Results may vary. Past performance is not indicative of future results. Honeywell does not guarantee energy savings.

[1] International Energy Agency, Buildings, https://www.iea.org/topics/buildings

10%

REDUCTION IN HVAC ENERGY CONSUMPTION

Honeywell Forge Energy Optimization

Machine Learning Driven
Comfort Level Maintained
Optimized Every 15 min
System Wide HVAC Optimization

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