



Optimising Building Performance in a Mixed-Use Education Facility

CASE STUDY

Introduction

This mixed-use education facility required targeted BMS and HVAC optimisation to improve indoor environmental conditions, reduce energy consumption, and enhance operational reliability across a range of occupied spaces including laboratories, offices, classrooms, and residential areas.

Conservia was engaged to deliver a structured optimisation program focused on improving thermal comfort while supporting long-term energy and operational performance outcomes.

Challenge

The buildings presented a complex operational environment with varying thermal comfort requirements across multiple zones and stakeholder groups. Existing mechanical system limitations, high energy consumption, and inconsistent indoor conditions created challenges in maintaining reliable building performance.

DELIVERING BMS OPTIMISATION IN A UNIVERSITY ENVIRONMENT

Client Outcome

Conservia implemented a targeted optimisation program delivering measurable improvements in occupant comfort, operational stability, and energy efficiency.

- ✓ Improved indoor environmental conditions
- ✓ Reduced energy consumption
- ✓ Extended infrastructure lifecycle



BMS optimisation enhances comfort across complex mixed-use environments.

Core Services Provided

Conservia delivered a performance-driven advisory and optimisation program focused on improving comfort and reducing energy consumption. Key services included:

- BMS performance review and optimisation
- HVAC system assessment and tuning
- Stakeholder engagement and coordination
- Functional description development and updates
- Energy monitoring and performance validation
- Ongoing seasonal tuning and optimisation

Key Solutions

Energy Advisory & BMS Optimisation: Targeted system tuning and control improvements to enhance comfort and reduce energy use.

- BMS tuning and optimisation across multiple zones
- Control adjustments to address varying thermal requirements
- Eliminated thermal complaints and improved indoor conditions
- Extended equipment lifecycle through reduced run hours
- Strong stakeholder engagement throughout the project

Conclusion

Through targeted BMS optimisation and operational tuning, the project achieved measurable improvements in thermal comfort, system reliability, and energy performance. The outcome demonstrates how structured optimisation strategies can improve building performance while reducing operational costs and extending building infrastructure lifespan.

18%

Reduction in electricity

22%

Reduction in natural gas

< 1 Year

Payback period

