**PROBLEM THAT EXIST IN THE DESIGN OF AN INTELLIGENT BUILDING**

1. ***Demand a new approach***

Intelligent buildings require integration of more than just building systems: They demand a new approach to design and construction. "The divisional construction process makes it really difficult to structurally put together a converged building," Murchison explains. Instead of an architect handing off responsibility for the design of electrical, mechanical, and structural systems to various engineers, intelligent buildings must be designed considering the interaction of these and other systems from the onset (instead of autonomous operation).

1. ***Consultants and design team members are not found.***

"In many cases, these different consultants and design team members may not even

meet, and may not even coordinate or work together. Alignment of all the stakeholders

in the process can create a lot of common-sense efficiencies," he says.

1. ***Difficult to secure project funding***

Because intelligent buildings are far from the norm, it can be difficult to secure project funding without proof of their value. Cost savings reaped at the project's inception and during building operation can help paint a clearer picture of life-cycle costs. CABA's Life Cycle Cost Analysis tool can help. It constructs a detailed cost model and life-cycle analysis, and calculates the value of integrated buildings by showing the net savings when smart technologies are employed.

1. ***Subsystem failure more***

Expected times between failures, degrees of robustness ( continuous operating when some function fail. Fails in a safe mode. Resiliency of the design including redundant components.

1. ***Network failure mode***

Offer diversity through multiple network path.

<http://www.intelligentbuildings.com/PDF/news/Buildings%20Magazine%20Interviews%20IB.pdf>