



SMART LIGHTING ENGINEERING RESEARCH CENTER

Lighting Innovation for a Smarter Tomorrow



Academic-Industry Day
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Systems Integration and Smart Lighting

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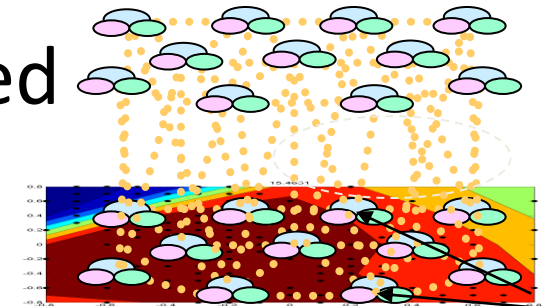
Rensselaer



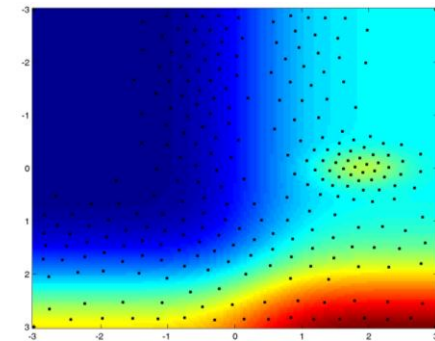
- Smart Lighting and Smart Rooms



- Systems Integration: Distributed and Multivariable Control



- Initial Experiments: Adaptive Sampling of Lighting Fields



Smart Lighting Systems

Adapt to the needs and alter the functions of a room or space.



Smart Lighting Systems

Improve Productivity and Efficiency
Support Health and Comfort
Enable Information and Entertainment



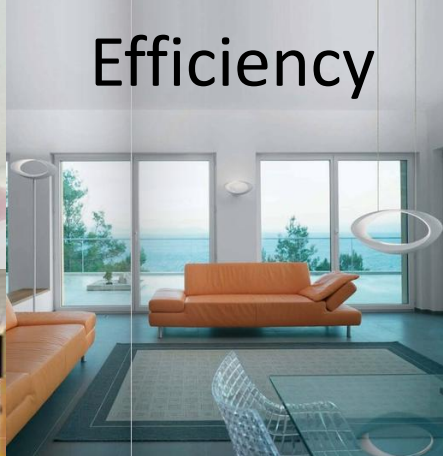
Smart Rooms

Comfort

Productivity



Efficiency



London Health Sciences Centre



Graphics: Artemide Group

Health

Information



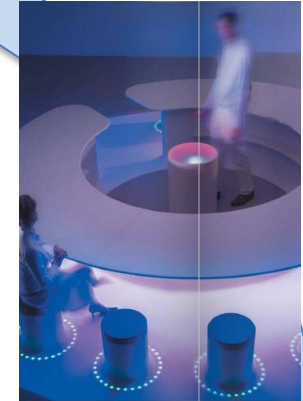
Smart Rooms

Comfort



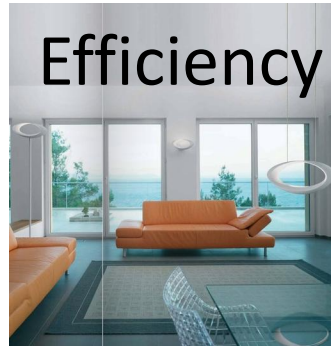
- Light Field Control
- Color Tunable

Productivity



- Adaptive Control
- Efficient Display
- Interactive and Dynamic

Efficiency



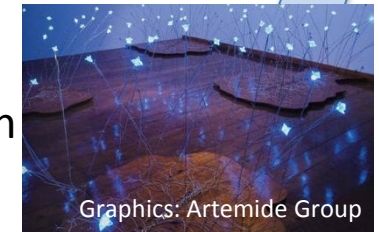
- Energy Efficient
- Cost Effective

- Smart Grid and Smart Building Interface



- Therapeutic
- Circadian Adapted
- Biomonitor

- Visible Light Information Channels



Health

Information



Smart Rooms Integrate Sensors

