Efficient lighting

Tips & Tricks on best practice and what to avoid in terms of energy-efficient lighting and controls

Expert Name: Camille Madi

Managing Partner

Solmadis

Definition / Benefits	Constraints / Challenges / Barriers			
 Technical / Aesthetic LED affects the human body Light pollution Efficient lighting & P.V. Office lighting (quality & output) DSM & Solar street lights LED failure Specs of consumer products Efficiency & Design / Equivalents Life span Industrial lighting Artificial lighting applications Home automations & Lighting 	 ✓ Outdoor lighting → Pollution ✓ Specific solutions for specific applications ✓ Lower the load for P.V. ✓ Glare & Colour ✓ Retina & Melatonin effects ✓ Voltage & Frequency range ✓ Drivers / Heat dissipation / IP rating ✓ Quality control ✓ Integrating efficient designs with utility ✓ LED lamps burning out ✓ Replacing high consumption sodium & metal halide in warehouses & factories ✓ Question of daylight & grow lights ✓ Compatibility of lamps with home-auto 			
Best Practice / Solutions / Tools	Resources / local Availability			
 ✓ Directional Lighting ✓ Motion Sensing ✓ Monitors & Automation ✓ Glare Rating ✓ Colour Temperature & Rendering ✓ Lower consumption before P.V. ✓ Careful selection ✓ List of specs to look at when purchasing 	 ✓ Consultants ✓ General awareness (schools / unis / GVT) ✓ Wiki ✓ Awareness of suppliers & Installers ✓ Government & Import standards ✓ Lack of availability of proper components ✓ Consultants ✓ Specs → true 			

	& compare	✓	Raw materials	
\checkmark	Solar stations vs individual poles	✓	Company services	
\checkmark	Certifications	✓	Prices vs quality	
\checkmark	Flexibility of LEDs application	✓	Technical people	
	Importance of heat dissipation & electronic components			
\checkmark	Feasibility / Results			
\checkmark	Higher intensity vs # of lights sources			
	Dimming / constant current			