WHAT IS CLAIMED IS:

1. A light-emitting apparatus comprising:

a power source outputting a source direct-current (DC) power at a source DC voltage; and

a light-emitting module physically separated from the power source and comprising one or more light-emitting submodules, each light-emitting submodule comprising therein a DC-to-DC (DC/DC) converter electrically coupled to a plurality of Light-Emitting Diode (LED) drivable by a driving DC power at a driving DC voltage lower than the source DC voltage;

wherein the DC/DC converter of each light-emitting submodule is also electrically coupled to the power source via one or more cables and is configured for converting the source DC power to the driving DC power at the driving DC voltage for driving the plurality of LEDs of the light-emitting submodule.

2. The light-emitting apparatus of claim 1, wherein the DC/DC converter of each light-emitting submodule is configured for ramping up and down the output voltages thereof to modulate the output currents thereof.

3. The light-emitting apparatus of claim 1 or 2, wherein in each light-emitting submodule, the DC/DC converter is configured for individually outputting the driving DC power to each of the plurality of LEDs in the light-emitting submodule.

4. The light-emitting apparatus of any one of claims 1 to 3 further comprising a gateway for wirelessly communicating with a computing device; wherein each light-emitting submodule further comprises a wireless communication unit configured for wireless communicating with the gateway; and wherein the gateway is configured for wirelessly receiving from the computing device a command for controlling the light-emitting apparatus and in response wirelessly communicating with the wireless communication unit of each light-emitting submodule for controlling the light-emitting of the plurality of LEDs in the light-emitting submodule.

5. The light-emitting apparatus of claim 4, wherein each light-emitting submodule further comprises a control unit in signal communication with the wireless communication unit and configured for individually controlling the light-emitting of each of the plurality of LEDs in the light-emitting submodule.

6. The light-emitting apparatus of any one of claims 1 to 5, wherein the power source comprises at least an alternate-current (AC) to direct-current (AC/DC) converter electrically connectable to an AC power source.

7. The light-emitting apparatus of any one of claims 1 to 5, wherein the power source comprises at least a combination of a solar panel and an energy storage unit; and

wherein the power source is switchable between at least an AC/DC converter electrically connectable to an AC power source and a combination of a solar panel and an energy storage unit.

8. A light-emitting apparatus comprising:

a power source outputting a source DC power at a source DC voltage;

a plurality of LEDs drivable at a driving DC voltage lower than the source DC voltage; and

an electrical path connecting the power source to each LED for powering the LED by the power source;

wherein each electrical path comprises a first portion connected to the power source at the source DC voltage and a second portion connected to the LED at the driving DC voltage; and

wherein the length of the first portion is longer than that of the second portion.

9. The light-emitting apparatus of claim 8 further comprising:

one or more DC/DC convertors each coupled to a plurality of the electrical paths between the major and minor portions thereof for converting the source DC voltage to the driving DC voltage and individually powering each LED by an output of the one or more DC/DC convertors.

10. The light-emitting apparatus of claim 9, wherein each of the one or more DC/DC converters is configured for ramping up and down the output voltages thereof to modulate the output currents thereof.

11. The light-emitting apparatus of any one of claims 8 to 10 further comprising:

a gateway for wirelessly communicating with a computing device; and

one or more wireless communication units coupled to the plurality of LEDs and configured for wireless communicating with the gateway;

wherein the gateway is configured for wirelessly receiving from the computing device a command for controlling the light-emitting apparatus and in response wirelessly communicating with the one or more wireless communication units for controlling the light-emitting of the plurality of LEDs.

12. The light-emitting apparatus of claim 11 wherein the one or more wireless communication units are coupled to the plurality of LEDs through one or more control units; and wherein the one or more control units are configured for controlling the light-emitting of the plurality of LEDs in response to the signal received from the one or more wireless communication units.

13. The light-emitting apparatus of claim 12 further comprising:

one or more control units for signal communication with the one or more wireless communication units and for individually controlling the light-emitting of each of the plurality of LEDs.

14. A method of powering a light-emitting module comprising a plurality of LEDs drivable at a driving DC voltage, the method comprising:

providing a power source outputting a source DC power at a source DC voltage higher than the driving DC voltage; and

establishing a plurality of electrical paths, each electrical path connecting the power source to one of the plurality of LEDs for powering the LED by the power source;

wherein each electrical path comprises a major portion connected to the power source at the source DC voltage and a minor portion connected to the LED at the driving DC voltage.

15. The method of claim 14, wherein said establishing the plurality of electrical paths comprises:

converting the source DC voltage to the driving DC voltage at locations between the major and minor portions of the plurality of electrical paths by using one or more DC/DC convertors each coupling to a plurality of the electrical paths.

16. The method of claim 15 further comprising:

ramping up and down the output voltages of each of the one or more DC/DC converters to modulate the output currents thereof.

17. The method of claim 15 or 16, wherein said establishing the plurality of electrical paths further comprises:

individually powering each LED by an output of the one or more DC/DC convertors.

18. The method of any one of claims 14 to 17 further comprising:

wirelessly commanding the plurality of LEDs for controlling the light-emitting of the plurality of LEDs.

19. The method of claim 18, wherein said wirelessly commanding the plurality of LEDs comprises:

wirelessly commanding one or more wireless communication units to send control signals to the plurality of LEDs through one or more control units for controlling the light-emitting of the plurality of LEDs.

20. The method of claim 19, wherein said wirelessly commanding the plurality of LEDs further comprises:

individually controlling the light-emitting of each of the plurality of LEDs in response to said commanding.

21. A circuitry comprising:

a DC-to-DC (DC/DC) converter for electrically coupling to a power source at a source DC voltage and for electrically coupling to a plurality of light-emitting components drivable by a driving DC power at a driving DC voltage lower than the source DC voltage;

wherein the DC/DC converter is configured for converting the source DC power to the driving DC power at the driving DC voltage for driving the plurality of light-emitting components.

22. The circuitry of claim 21, wherein the DC/DC converter is configured for ramping up and down the output voltages thereof to modulate the output currents thereof.

23. The circuitry of claim 21 or 22, wherein the DC/DC converter is configured for individually outputting the driving DC power to each of the plurality of light-emitting components.

24. The circuitry of any one of claims 21 to 23 further comprising a wireless communication unit for wireless communication with a computing device via a gateway, for wirelessly receiving from the computing device a command for controlling the light-emitting of the plurality of light-emitting components.

25. The circuitry of claim 24 further comprising a control unit for signal communication with the wireless communication unit and for controlling the light-emitting of the plurality of light-emitting components.

26. The circuitry of claim 25, wherein the control unit is configured for individually controlling the light-emitting of each of the plurality of light-emitting components.