

We Claim:

1. A flow regulation system for regulating a flow of a fluid from an intermittently augmented fluid reservoir, comprising:
 - a fluid reservoir container;
 - an effluent conduit through which fluid is discharged from the fluid reservoir container;
 - a fluid turbine disposed in the effluent conduit;
 - a generator operatively connected to the fluid turbine for converting mechanical energy of the fluid turbine to electrical energy;
 - a power conditioning module electrically energized by the generator for altering voltage and current characteristics of electricity generated by the generator;
 - an electrical load electrically energized by the power conditioning module via an electrical load bus, the electrical load mounted to the fluid reservoir container and including digital computing circuits; and
 - a load manager configured to monitor an operational characteristic of the flow regulation system;

wherein the load manager responds to a change in said operational characteristic by sending a signal to alter one of: (1) a clock frequency of the electrical load, (2) a mean rate of digital switching operations of the electrical load, and (3) a current draw of the electrical load; and

wherein an increase in the current draw of the electrical load causes an increase in the resistive torque of the generator, thereby inhibiting the rotation of the fluid turbine, for regulating a flow rate of discharge from the fluid reservoir container.

2. The flow regulation system of Claim 1, wherein the load manager monitors a voltage of the electrical load bus.
3. The flow regulation system of Claim 1, wherein the power conditioning module includes a rectifier configured to convert an alternating current to a direct current.
4. The flow regulation system of Claim 1, wherein the flow regulation system is affixed to a solid substrate such as to the earth.
5. The flow regulation system of Claim 1, wherein the flow regulation system is buoyant and floats adjacent to an upper surface of a body of water.
6. The flow regulation system of Claim 5, wherein fluid is discharged from the flow regulation system via a first effluent conduit configured to discharge fluid in a first direction approximately parallel to the upper surface of the body of water.
7. The flow regulation system of Claim 6, wherein fluid discharged from the flow regulation system generates thrust to move the system across the upper surface of the body of water.
8. The flow regulation system of Claim 6, wherein fluid is discharged from the flow regulation system via a second effluent conduit configured to discharge fluid in a second direction approximately parallel to the upper surface of the body of water.

9. The flow regulation system of Claim 8, wherein the first and second effluent conduits have disposed therein respective first and second fluid turbines, and wherein the first and second fluid turbines are operatively connected to respective first and second generators, and wherein said first and second generators energize respective first and second electrical loads, and wherein said first and second electrical loads are configured to receive signals to adjust: (1) a clock frequency of said electrical load, (2) a mean rate of digital switching operations of said electrical load, and (3) a current draw of said electrical load.

10. The flow regulation system of Claim 9, wherein fluid flow through said first effluent conduit applies a torque to the flow regulation system that tends to turn the flow regulation system in a first turning direction, and the said fluid flow through said second effluent conduit applies a torque to the flow regulation system that tends to turn the flow regulation system in a second turning direction.

11. The flow regulation system of Claim 10, further comprising a navigation manager to calculate one of: (1) a direction of movement, and (2) a speed of movement of the flow regulation system across the body of water.

12. The flow regulation system of Claim 11, wherein the navigation manager commands a direction of movement of the flow regulation system.

13. The flow regulation system of Claim 12, wherein the first load manager reduces a current draw of the first electrical load, thereby increasing a rate of fluid discharge from the first effluent conduit to increase a rate of turning of the flow regulation system.