5. The controllable brake of claim 2, wherein the shaft and rotor are connected in a manner to allow backlash between the rotor and the shaft, and the electronics is configured for detecting movement of the shaft.

6. A controllable brake, comprising:

(a) a rotor having first and second rotor surfaces, an outer periphery, and a working portion on the at least one of first and second rotor surfaces at a position proximate the outer periphery;

(b) a shaft having said rotor connected thereto in a manner to restrain relative rotation therebetween;

(c) a housing having a first chamber rotatably housing the rotor therein, and including a magnetic field generator spaced from the rotor, and configured and positioned for generating magnetic flux through a controllable material in a direction parallel to the shaft and perpendicular to the working portion on at least one surface proximate the outer periphery; and

(e) a controllable material contained with said first chamber in contact with at least the working portion of the rotor.

7. The controllable brake of claim 6, wherein said electromagnetic field generator comprises an electromagnetic coil, and poles positioned for generating a flux extending through the controllable material on one side of the rotor, and wherein said rotor comprises a disk.

8. The controllable brake of claim 6, wherein said shaft is supported for rotation by bearings in said housing, and further comprising seals for sealing said first chamber to retain said controllable material therein.

9. The controllable brake of claim 6, further comprising a return-to-center acting device in the first chamber to urge the rotor to return to a relative center position.

10. The controllable brake of claim 6, wherein the shaft and rotor are connected in a manner to allow backlash between the rotor and the shaft.

11. A controllable brake, comprising:

(a) a rotor having first and second rotor surfaces, an outer periphery, and a working portion on the first and second rotor surfaces at a position proximate the outer periphery;

(b) a shaft having said rotor connected thereto at one end of the shaft;

(c) a housing including a first chamber rotatably housing the rotor therein, and a magnetic field generator spaced from the rotor, and configured and positioned for generating magnetic flux through a controllable material in a direction parallel to the shaft and perpendicular to the working portion proximate the outer periphery, and a second chamber containing electronics therein; and

(d) a controllable material contained within said first chamber in contact with at least the working portion of the rotor.

13. The controllable brake of claim 11, wherein said electromagnetic field generator comprises an electromagnetic coil, and poles disposed axially with respect to one side of the rotor, and wherein said rotor comprises a disk.

14. The controllable brake of claim 11, wherein said electronics further comprises sensors for detecting relative rotational position of the rotor.

15. The controllable brake of claim 11, further comprising a return-to-center acting device of the first chamber to urge the rotor to return to a relative center position.

16. The controllable brake of claim 11, wherein the shaft and rotor are connected in a manner to allow backlash between the rotor and the shaft, and the electronics is configured for detecting movement of the shaft.

17. A controllable brake, comprising:

(a) a rotor having first and second rotor surfaces, an outer periphery, and a working portion on the outer periphery and on the first and second rotor surfaces at a portion proximate the outer periphery;

(b) a shaft having said rotor connected thereto in a manner to restrain relative rotation therebetween;

(c) a housing having a first chamber rotatably housing the rotor therein, and including a magnetic field generator spaced from the rotor, and for generating a magnetic flux in directions both, (1) through a controllable material parallel to the shaft and perpendicular to the working portion proximate the outer periphery, and (2) through a controllable material perpendicular to the shaft and to the outer periphery of the rotor; and

(d) a controllable material contained within said first chamber in contact with at least the working portion of the rotor and the periphery thereof.

18. The controllable brake of claim 17, wherein said electromagnetic field generator comprises an electromagnetic coil, and poles positioned for generating a flux extending through controllable material on one side of the rotor, and wherein said rotor comprises a disk.

19. The controllable brake of claim 17, further comprising a return-to-center acting device in the first chamber to urge the rotor to return to a relative center position.

20. The controllable brake of claim 17, wherein said magnetic field generator comprises an electromagnetic coil, a first pole associated with the electromagnetic coil adjacent a working surface of the rotor, and a second pole extending spaced beyond the periphery of said rotor for generating magnetic fields which is extended perpendicular to each other in relation to the rotor periphery and the working surface.

21. A controllable brake, comprising:

(a) a rotor having first and second rotor surfaces, an outer periphery, and a working portion on the outer periphery and on the first and second rotor surfaces at a portion proximate the outer periphery;

(b) a shaft having said rotor connected thereto in a manner to restrain relative rotation therebetween;

(c) a housing having a first chamber rotatably housing the rotor therein, and including a magnetic field generator spaced from the rotor, and for generating magnetic flux in a direction both, (1) through a controllable material parallel to the shaft and perpendicular to the working portion proximate to the outer periphery, and (2) through a controllable material perpendicular to the shaft and to the outer periphery of the rotor, and a second chamber containing electronics therein; and