

**PATENT NO. 320921**  
**SYSTEM AND METHOD OF STABLE ROTATION OF A MAGNETICALLY  
LEVITATED FERROMAGNETIC BODY**

**APPLICATION NO.** 1429/KOL/2012

**APPLICANT**

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**ABSTRACT**

A levitation system for magnetic levitation of a ferromagnetic body and high speed stable rotation of the said ferromagnetic body during levitated condition is disclosed involving a dc electromagnetic levitation means, a levitable moving object and means adapted for desired stabilized damping of said levitable object during levitation and /or for production of the driving force during motion of said levitable object in its levitated state. The said levitable moving object preferably comprises a rotatable ferromagnetic body and the said means adapted for desired stabilized damping and/or said for production of the driving force during motion comprises non-ferromagnetic material selectively for producing driving torque to rotate the levitated cylindrical object and to produce damping force in the system during rotation.

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**CLAIM 1**

A magnetic levitation system comprising (i) D.C. electro-magnetic levitation means suspended over levitable moving ferromagnetic object favoring lifting of the ferromagnetic object involving force of attraction between magnet pole-face of the electromagnet and the ferromagnetic object; (ii) said levitable moving ferromagnetic object which is rotatable; (iii) means involving non-ferromagnetic body for desired stabilized damping of said levitable ferromagnetic object during levitation and for production of driving torque during rotation of said levitable ferromagnetic object in its levitated state.