CLAIMS

1 . A system for suppressing a back electromotive force (EMF) of a motor drive operable to generate a rotational force, comprising:

a thruster device operable to compute variations in phase, time and/or frequency of the motor drive and the thruster device, the computation based on an optimization algorithm having an objective function defined based on performance indices associated with phase and time delays;

wherein the thruster device is operable to generate a voltage on the shifted phase, time and/or frequency waveform to suppress the back EMF.

2. The system according to claim 1 , wherein the thruster device is operable to shift the phase, time and/or frequency waveform of the thruster device to synchronize with the phase, time and/or frequency waveform of the motor drive.

3. The system according to claim 1 , wherein the thruster device is operable to generate a current on the shifted phase, time and/or frequency waveform flows in an opposing direction to an eddy current, thereby the eddy current is suppressed.

4. The system according to claim 2, wherein the thruster device comprises:

at least one inductor and at least one capacitor operable to generate the voltage; and

a controller operable to vary inductance of the inductor and capacitance of the capacitor based on the shifted phase, time and/or frequency waveform.

5. The system according to claim 4, wherein the thruster device further comprises a thruster sensor operable to detect the variations in the phase, time and/or frequency waveforms of the motor drive and the thruster device.

6. The system according to claim 4, wherein the capacitor comprises a high voltage inductive dual capacitor.

7. The system according to claim 1 further comprising at least one supercapacitor operable to be used as a backup energy discharge on a vehicle, while the back EMF is suppressed by the voltage generated by the thruster device.

8. The system according to claim 7, further comprising an energy management controller operable to charge the supercapacitor to use as the backup energy discharge.

9. The system according to claim 8, wherein the energy management controller is operable to compute a Fourier transform line integration to optimize the charge and discharge of discrete quantum energy onto a vehicle engine load.

10. The system according to claim 1, wherein the thruster device is operable to compute the variations based on a Genetic Algorithm.

11. A method for suppressing a back electromotive force (EMF) of a motor drive operable to generate a rotational force comprising the steps of:

computing, by a thruster device, variations in phase, time and/or frequency waveforms of the motor drive and the thruster device, the computation is based on an optimization algorithm having an objective function defined based on performance indices associated with phase and time delays;

shifting, by the thruster device, the phase, time and/or frequency waveform of the thruster device using the computed variations; and

generating, by the thruster device, a voltage on the shifted phase, time and/or frequency waveform to suppress the back EMF.

12. The method according to claim 11, wherein the thruster device is operable to shift the phase, time and/or frequency waveform of the thruster device to synchronize with the phase, time and/or frequency waveform of the motor drive.

13. The method according to claim 11, wherein the thruster device is operable to generate a current on the shifted phase, time and/or frequency waveform flows in an opposing direction to an eddy current, thereby the eddy current is suppressed.

14. The method according to claim 12, wherein the thruster device comprises:

at least one inductor and at least one capacitor operable to generate the voltage; and

a controller operable to vary inductance of the inductor and capacitance of the capacitor based on the shifted phase, time and/or frequency waveform.

15. The method according to claim 14, wherein the thruster device further comprises a thruster sensor operable to detect the variations in the phase, time and/or frequency waveforms of the motor drive and the thruster device.

16. The method according to claim 14, wherein the capacitor comprises a high voltage inductive dual capacitor.

17. The method according to claim 11, wherein at least one supercapacitor is operable to be used as a backup energy discharge on a vehicle, while the back EMF is suppressed by the voltage generated by the thruster device.

18. The method according to claim 17, wherein an energy management controller is operable to charge the supercapacitor to use as the backup energy discharge.

19. The method according to claim 18, wherein the energy management controller is operable to compute a Fourier transform line integration to optimize the charge and discharge of discrete quantum energy onto a vehicle engine load.

20. The method according to claim 11, wherein the thruster device is operable to compute the variations based on a Genetic Algorithm.