CLAIMS

1. An apparatus for reducing effects of tremors on an area of the human body, the apparatus comprising a gyroscope device and an attachment assembly for attachment of the gyroscope device to a location on the human body in the area, wherein the attachment assembly provides a substantially inelastic attachment to the location and comprises a gyroscope mount; characterised in that the gyroscope mount comprises a substantially stiff first plate having a shape adapted to substantially correspond with a shape of the human body in the location.

2. An apparatus as claimed in claim 1 wherein the substantially inelastic attachment comprises at least one substantially inelastic strap attachable to the first plate and securable around and/or against the location, optionally wherein the strap includes a tension or tightness indication system; optionally wherein the strap maintains, in use, a strap tension of about 0.3 Nm.

3. An apparatus as claimed in claim 1 wherein the substantially inelastic attachment comprises a demountable cuff formed of a substantially inelastic material; optionally wherein the cuff is in the form of a glove or part of a glove attachable to a hand of a person.

4. An apparatus as claimed in any preceding claim wherein the substantially inelastic attachment is formed of a first polymeric material which is substantially inelastic embedded within a second polymeric material which may be substantially inelastic or elastic; optionally wherein the second polymeric material is a synthetic rubber, optionally a neoprene or polychloroprene rubber.

5. An apparatus as claimed in any preceding claim wherein the substantially inelastic attachment is formed of a fabric having a thickness of from 1 to 3 mm.

6. An apparatus as claimed in any preceding claim wherein the substantially inelastic attachment is demountable to the area of the human body; optionally wherein the

attachment is demountable by means of a fastening device orientated longitudinally with respect to the area of the human body.

7. An apparatus as claimed in claim 6 wherein the fastening device is a zip fastening device; optionally wherein the zip fastening device runs substantially the entire length of the substantially inelastic attachment; further optionally wherein the zip fastening device has a zip puller and the zip fastener device is orientated such that mounting of the apparatus to the human body is achieved, in use, by a pulling action on the zip puller.

8 An apparatus as claimed in any preceding claim wherein the attachment assembly further comprises a second plate mountable to the body such that a compression or clamping force can be applied to the body; optionally wherein the second plate is substantially stiff or wherein the second plate is flexible; further optionally wherein the second plate is a perforated plate.

9. An apparatus as claimed in claim 8 wherein at least one of the first plate and the second plate is formed of a polymeric material, a metal, a metal alloy, wood or a composite material.

10. An apparatus as claimed in claim 8 or claim 9 wherein the compression or clamping force is:

i) about 50N or more, optionally about 100N or more; and/or

ii) about 300N or less, optionally about 200N or less.

11. An apparatus as claimed in claim 8 or claim 9 wherein the compression or clamping force is from 50 to 300 N, optionally from 100 to 200 N.

12. An apparatus as claimed in any preceding claim wherein the first plate is substantially rigid.

13. An apparatus as claimed in any preceding claim wherein the area of the body is a hand and wherein the first plate is dimensioned so as not to overlie, in use, the proximal and distal phalanges of the thumb.

14. An apparatus as claimed in any preceding claim wherein the area of the body is a hand and wherein the first plate has a generally annular sectoral shape having an outer curvature corresponding generally to the curvature of the knuckles of the hand.

15. An apparatus as claimed in claim 13 or claim 14 wherein the first plate is dimensioned so as not to overlie, in use, the knuckles of the hand.

16. An apparatus as claimed in any one of claims 8 to 11 or any one of claims 12 to 15 when dependent on claim 8 wherein the area of the body is a hand and wherein the second plate is dimensioned so as not to extend, in use, to the knuckles of the hand or to the proximal and distal phalanges of the thumb.

17. An apparatus as claimed in any preceding claim in which the attachment assembly further comprises a visual indication system to indicate when the attachment assembly is applied, in use, with a correct force or tension against the location.

18. An apparatus as claimed in any preceding claim wherein the gyroscope device includes a gyroscope housing and the gyroscope housing and gyroscope mount include mutually interacting elements such that the gyroscope housing is demountable from the gyroscope mount, optionally wherein the interacting elements include a positive locking feature to retain the gyroscope housing mounted to the gyroscope mount; optionally wherein the interacting elements provide a slide-to-lock fitting, a bayonet fitting or a twist-to-lock fitting.

19. An apparatus as claimed in any preceding claim wherein the attachment assembly further comprises a passive tremor stabilisation component.

20. An apparatus as claimed in claim 19 wherein the passive tremor stabilisation component comprises a stretchable fabric shaped and dimensioned to be appliable to or

around the location; optionally wherein the component extends beyond the location and provides different compressive characteristics along a length of the component; further optionally wherein the compressive characteristics are in the range of 1.7 kpa to 4.8 kpa (13mmHg to 36mmHg) as measured according to BSI 661210:2018.

21. An apparatus as claimed in any preceding claim further comprising a joint stabilisation apparatus.

22. An apparatus as claimed in claim 21 wherein the gyroscope mount is mountable to the human body adjacent a joint and to one side thereof and wherein the joint stabilisation apparatus comprises a generally elongate linkage having first and second ends, wherein the first end is coupled to the gyroscope mount and the second end is couple to a joint movement retardation device mountable to a second side of the joint, wherein the joint movement retardation device is adapted to apply a retardation force to the second end of the linkage to counter flexing of the joint; optionally wherein the first end of the linkage includes a universal joint.

23. An apparatus as claimed in claim 21 or 22 wherein the joint stabilisation device comprises or further comprises an elastic hysteresis device adapted to apply an elastic stabilising force to the gyroscope mount; optionally wherein the gyroscope mount is mountable to the human body adjacent a joint and to a first side thereof and wherein the elastic hysteresis device comprises a band or strap securable to a second side of the joint and further comprising a linkage comprising first and second elastic members, each member being oppositely disposed above and below the hinge axis of the joint.

24. An apparatus as claimed in any one of claims 21 to 23 wherein the joint movement retardation device comprises a frictional device adapted to apply a frictional stabilising force to the second end of the linkage.

25. An apparatus as claimed in any one of claims 21 to 24 wherein the joint movement retardation device comprises a braking disc assembly comprising a sensor to sense a movement of the second end of the linkage and an electromagnetically actuatable disc brake

actuatable, in response to an input from the sensor, to apply a braking force to the second end of the linkage.

26. An apparatus as claimed in any one of claims 21 to 25 wherein the joint movement retardation device comprises a dashpot coupled to the second end of the linkage.

27. An apparatus as claimed in any one of claims 21 to 26 wherein the joint movement retardation device comprises a magneto-rheological damping device coupled to the second end of the linkage.

28. An apparatus as claimed in any preceding claim wherein the gyroscope device includes an electrically driven motor and wherein the apparatus further comprises a power pack and control system for the motor of the gyroscope device.

29. An apparatus as claimed in claim 28 wherein the power pack is demountably attachable to the apparatus at a position remote the gyroscope attachment assembly; optionally wherein the power pack is electrically couplable to the gyroscope device by means of a demountable electrical connector; further optionally wherein the demountable electrical connector is a self-orientating electrical connector; yet further optionally wherein the demountable electrical connector comprises a magnetic power connector wherein the connector comprises first and second connector elements and wherein each element comprises a magnet of opposite polarity to a positionally corresponding magnet in the other element.

30. An apparatus as claimed in claim 28 or claim 29 wherein the power pack is mountable adjacent the area of the human body.

31. An apparatus as claimed in any preceding claim wherein the gyroscopic device comprises at least one control moment gyroscope or at least one reaction wheel.

32. An apparatus as claimed in any preceding claim further comprising at least one vibrational unit.

33. An apparatus as claimed in any preceding claim comprising a plurality of gyroscopic devices.