What is claimed is:

1. A method for substantially reducing the elasticity of at least one selected textile region of a knitted garment, the method comprising the steps of:

a) knitting the garment in a tubular form, wherein at least one conductive textile electrode is integrally knitted into the garment, while knitting the garment; and

b) rigidifying said at least one selected textile region, wherein said rigidifying includes applying rigidifying matter onto and/or into said at least one selected textile region, thereby substantially reducing the elasticity of said at least one selected textile region.

2. The rigidifying method as in claim 1, wherein said at least one selected textile region is said at least one conductive textile electrode.

3. The rigidifying method as in claim 1, wherein said at least one selected textile region is a region of said garment situated between two adjacent textile electrodes.

4. The rigidifying method as in claim 1, wherein said rigidifying matter is thermoplastic polyurethane (TPU), and wherein said TPU is laminated over the external surface of said at least one selected textile region.

5. The rigidifying method as in claim 1, wherein said rigidifying matter is fusible yarn having a low melting point; wherein said fusible yarn is knitted over the external surface of said at least one selected textile region; and wherein when the fabric of said garment is dyed, said fusible yarn melts and thereby creates a stable and rigidified area.

6. The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity; and wherein a frame, having a preconfigured width, is knitted around said at least one conductive textile electrode, using said non-elastic yarn.

7. The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity, and wherein said non-elastic yarn is knitted in said region of said garment between two adjacent textile electrodes.

8. The rigidifying method as in claim 1, wherein said rigidifying matter is a cross polymer lubricant; and wherein said cross polymer lubricant is sprayed over said at least one selected textile region.

9. A method for knitting a garment having a tubular form being knitted with a base-yarn, including knitting at least one conductive textile electrode, using a knitting machine having N participating feeders and M needles, the method comprising the steps of:

a) continuously knitting said tubular form with one or more flexible non-conductive base-yarns; and

b) knitting said at least one textile electrode integrally within said tubular form, using a conductive yarn, in addition to said non-conductive yarns, wherein said conductive yarn is knitted in a float-loop form by knitting a stitch and skipping over y needles, as follows:

i) continue knitting with at least one base-yarn, when start knitting a current line segment of a conductive textile electrode;

ii) knitting a line segment L_k, using feeder Fi and start stitching with needle Dj;

iii) knitting line the next segment L_{k+1}, using the next feeder F_{i+1} and start stitching the first float-loop with needle D_{j+s}, where $0<s<y$;

iv) repeat steps (i) and (ii) for N feeders and for a preconfigured number of line segments, wherein each line segment has a preconfigured length; and

v) resume knitting with the base-yarns, when completed knitting said current line segment, wherein knitting said float-loops are knitted in a shifted needle knitting scheme, together with unique digital knitting density control, to thereby improve the pressure and the tightness of said at least one conductive textile electrode to the skin of the user.

10. The knitting method as in claim 9, wherein said continued knitting with at least one base-yarn is knitted in a knit&miss knitting scheme, to thereby modify the elasticity of at least one selected textile region of a knitted garment.

11. The knitting method as in claim 9, wherein $j=1$.

12. The knitting method as in claim 10, wherein said knit&miss scheme is selected from the group of knitting schemes comprising:

a) knit-one&miss-one knitting pattern;
b) knit-two&miss-one knitting pattern; and
c) knit-one&miss-two knitting pattern.

13. The knitting method as in claim 9, wherein a preconfigured region of said tubular form, located around and adjacently to said at least one textile electrode, is knitted with higher knitting density than said preconfigured knitting density of said tubular form.

14. A garment having a tubular form, being knitted by a seamless knitting machine with base-yarns, the garment comprising at least one conductive textile electrode, said at least one conductive textile electrode comprising a multiplicity of knitted line segments, each knitted with a conductive yarn and a spandex yarn, wherein said spandex yarn is knitted continuously; wherein at least one of said base-yarns continues knitting when start knitting a current line segment of a conductive textile electrode, in a knit&miss knitting scheme; wherein said conductive yarn has a float-loop form, forming a multiplicity of said float-loops; wherein each of said float-loops is knitted by skipping over y needles between consecutive stitches; and wherein a given of said line segments starts stitching by needle Dj, and the next of said line segments starts stitching by needle D_{j+s}, where $0<s<y$.

15. The garment as in claim 14, wherein a preconfigured region of said tubular form, located around and adjacently to said at least one textile electrode, is knitted with higher knitting density than said preconfigured knitting density of said tubular form.

16. The garment as in claim 14, wherein at least one selected textile region of the garment is rigidified by applying rigidifying matter onto or into said at least one selected textile region.

17. The garment as in claim 16, wherein said at least one selected textile region is a conductive textile electrode.

18. The garment as in claim 16, wherein said at least one selected textile region is a region of said garment situated between two adjacent textile electrodes.

19. The garment as in claim 16, wherein said at least one selected textile region is rigidified using TPU, and wherein said TPU is laminated over the external surface of said at least one selected textile region.

20. The garment as in claim 16, wherein said at least one selected textile region is rigidified using fusible yarn having a low melting point, wherein said a fusible yarn is knitted over the external surface of said at least one selected textile region; and wherein when said garment is dyed, said fusible yarn melts and thereby creates a stable and rigidified area.

21. The garment as in claim 16, wherein said at least one selected textile region is rigidified using a non-elastic yarn having no or limited elasticity.

22. The garment as in claim 21, wherein a frame, having a preconfigured width, is knitted around said at least one conductive textile electrode, using said non-elastic yarn.

23. The garment as in claim 21, wherein said non-elastic yarn is knitted in said region of said garment between two adjacent textile electrodes.

24. The garment as in claim 16, wherein said rigidifying matter is a cross polymer lubricant, and wherein said cross polymer lubricant is spayed over in said at least one selected textile region.

25. The rigidifying method as in claim 1 further comprising the step of modifying the elasticity of at least one other selected region of the garment.

26. The rigidifying method as in claim 2, wherein said rigidifying matter is thermoplastic polyurethane (TPU), and wherein said TPU is laminated over the external surface of said at least one selected textile region.

27. The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity, and wherein said non-elastic yarn is sewn over said at least one selected textile region.

CLEAN AMENDED CLAIMS

The following is a complete listing of a new set of claims, completely replacing the original set of claims:

1. (Currently amended) A method for substantially reducing the elasticity of at least one selected textile region of a knitted garment, the method comprising the steps of:

a) knitting the garment in a tubular form, wherein at least one conductive textile electrode is integrally knitted into the garment, while knitting the garment; and

b) rigidifying said at least one selected textile region, wherein said rigidifying includes applying rigidifying matter onto and/or into said at least one selected textile region, thereby substantially reducing the elasticity of said at least one selected textile region.

2. (Currently amended) The rigidifying method as in claim 1, wherein said at least one selected textile region is said at least one conductive textile electrode.

3. (Original) The rigidifying method as in claim 1, wherein said at least one selected textile region is a region of said garment situated between two adjacent textile electrodes.

4. (Currently amended) The rigidifying method as in claims 1 or 2, wherein said rigidifying matter is thermoplastic polyurethane (TPU), and wherein said TPU is laminated over the external surface of said at least one selected textile region.

5. (Currently amended) The rigidifying method as in claim 1, wherein said rigidifying matter is fusible yarn having a low melting point;

wherein said fusible yarn is knitted over the external surface of said at least one selected textile region; and

wherein when the fabric of said garment is dyed, said fusible yarn melts and thereby creates a stable and rigidified area.

6. (Currently amended) The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity; and

wherein a frame, having a preconfigured width, is knitted around said at least one conductive textile electrode, using said non-elastic yarn.

7. (Original) The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity, and

wherein said non-elastic yarn is sewn over said at least one selected textile region.

8. (Currently amended) The rigidifying method as in claim 1, wherein said rigidifying matter is a non-elastic yarn having no or limited elasticity, and

wherein said non-elastic yarn is knitted in said region of said garment between two adjacent textile electrodes.

9. (Original) The rigidifying method as in claim 1, wherein said rigidifying matter is a cross polymer lubricant; and

wherein said cross polymer lubricant is spayed over said at least one selected textile region.

10. (Currently amended) A method for knitting a garment having a tubular form being knitted with a base-yarn, including knitting at least one conductive textile electrode, using a knitting machine having N participating feeders and M needles, the method comprising the steps of:

a) continuously knitting said tubular form with one or more flexible non-conductive base-yarns; and
b) knitting said at least one textile electrode integrally within said tubular form, using a conductive yarn, in addition to said non-conductive yarns, wherein said conductive yarn is knitted in a float-loop form by knitting a stitch and skipping over y needles, as follows:
    i) continue knitting with at least one base-yarn, when start knitting a current line segment of a conductive textile electrode;
    ii) knitting a line segment L_k, using feeder F_i and start stitching with needle D_j;
    iii) knitting line the next segment L_{k+1}, using the next feeder F_{i+1} and start stitching the first float-loop with needle D_{j+s}, where $0<s<y$;
    iv) repeat steps (i) and (ii) for N feeders and for a preconfigured number of line segments, wherein each line segment has a preconfigured length; and
    v) resume knitting with the base-yarns, when completed knitting said current line segment.

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wherein knitting said float-loops are knitted in a shifted needle knitting scheme, together with unique digital knitting density control, to thereby improve the pressure and the tightness of said at least one conductive textile electrode to the skin of the user.

11. (Currently amended) The knitting method as in claim 10, wherein said continued knitting with at least one base-yarn is knitted in a knit&miss knitting scheme, to thereby modify the elasticity of at least one selected textile region of a knitted garment.

12. (Original) The knitting method as in claim 10, wherein j=1.

13. (Original) The knitting method as in claim 11, wherein said knit&miss scheme is selected from the group of knitting schemes comprising:

d) knit-one&miss-one knitting pattern;

e) knit-two&miss-one knitting pattern; and

f) knit-one&miss-two knitting pattern.

14. (Original) The knitting method as in claim 10, wherein a preconfigured region of said tubular form, disposed around and adjacently to said at least one textile electrode, is knitted with higher knitting density than said preconfigured knitting density of said tubular form.

15. (Original) A garment having a tubular form, being knitted by a seamless knitting machine with base-yarns, the garment comprising at least one conductive textile electrode, said at least one conductive textile electrode comprising a multiplicity of knitted line segments, each knitted with a conductive yarn and a spandex yarn,

wherein said spandex yarn is knitted continuously;

wherein at least one of said base-yarns continues knitting when start knitting a current line segment of a conductive textile electrode, in a knit&miss knitting scheme;

wherein said conductive yarn has a float-loop form, forming a multiplicity of said float-loops;

wherein each of said float-loops is knitted by skipping over y needles between consecutive stitches; and

wherein a given of said line segments starts stitching by needle D_j, and the next of said line segments starts stitching by needle D_{j+s}, where $0<s<y$.

16. (Original) The garment as in claim 15, wherein said knit&miss scheme is selected from the group of knitting schemes comprising:

d) knit-one&miss-one knitting pattern;

e) knit-two&miss-one knitting pattern; and

f) knit-one&miss-two knitting pattern.

17. (Original) The garment as in claim 15, wherein a preconfigured region of said tubular form, disposed around and adjacently to said at least one textile electrode, is knitted with higher knitting density than said preconfigured knitting density of said tubular form.

18. (Original) The garment as in claim 15, wherein at least one selected textile region of the garment is rigidified by applying rigidifying matter onto or into said at least one selected textile region.

19. (Original) The garment as in claim 18, wherein said at least one selected textile region is a conductive textile electrode.

20. (Original) The garment as in claim 18, wherein said at least one selected textile region is a region of said garment situated between two adjacent textile electrodes.

21. (Original) The garment as in claim 18, wherein said at least one selected textile region is rigidified using TPU, and wherein said TPU is laminated over the external surface of said at least one selected textile region.

22. (Original) The garment as in claim 18, wherein said at least one selected textile region is rigidified using fusible yarn having a low melting point,

wherein said a fusible yarn is knitted over the external surface of said at least one selected textile region; and

wherein when said garment is dyed, said fusible yarn melts and thereby creates a stable and rigidified area.

23. (Original) The garment as in claim 18, wherein said at least one selected textile region is rigidified using a non-elastic yarn having no or limited elasticity.

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24. (Original) The garment as in claim 23, wherein a frame, having a preconfigured width, is knitted around said at least one conductive textile electrode, using said non-elastic yarn.

25. (Original) The garment as in claim 23, wherein said non-elastic yarn is knitted in said region of said garment between two adjacent textile electrodes.

26. (Original) The garment as in claim 18, wherein said rigidifying matter is a cross polymer lubricant, and wherein said cross polymer lubricant is spayed over in said at least one selected textile region.

27. (new) The rigidifying method as in claim 1 further comprising the step of modifying the elasticity of at least one other selected region of the garment.

AMENDED SHEET