

## CLAIMS

1. A method (M1; M2) performed by a control device (100) for controlling driving operation of an articulated tracked vehicle (V), said articulated tracked vehicle comprising a drive arrangement (120) for operating the vehicle, the  
5 articulated tracked vehicle (V) comprising a first vehicle unit (V1) and a second vehicle unit (V2) steerably connected to the first vehicle unit (V1) by means of a steering device (D) for mutually pivoting said vehicle units (V1, V2), the mutual pivoting comprising roll movement about a roll axis (X), the steering device (D) comprising a roll arrangement (A2) for said roll movement, the  
10 method comprising the steps of:
  - controlling (S1) the roll arrangement (A2) of the steering device (D) so as to control mutual roll movement of said vehicle units.
2. A method according to claim 1, wherein the step of controlling the roll arrangement (A2) is performed by means of a control arrangement (110).
- 15 3. A method according to claim 1 or 2, wherein the step of controlling the roll arrangement (A2) by means of the control arrangement (110) comprises providing a brake function and/or a locking function and/or an damping function and/or an actuation function of the control arrangement (110).
4. A method according to any of claims 1-3, wherein the step of controlling  
20 mutual roll movement of said vehicle units (V1, V2) further comprises controlling one or more of: power provision of the drive arrangement (120); a braking system (130) of the vehicle (V); and a transmission arrangement (140) of the vehicle (V).
5. A method according to any of claims 1-4, wherein the step of controlling  
25 mutual roll movement of said vehicle units (V1, V2) is performed based on one or more of: roll angle between said vehicle units (V1, V2); power of said drive arrangement (120); speed of drive wheels (1); speed of transmission (140).

6. A control device (100) for controlling driving operation of an articulated tracked vehicle (V), said articulated tracked vehicle comprising a drive arrangement (120) for operating the vehicle (V), the articulated tracked vehicle (V) comprising a first vehicle unit (V1) and a second vehicle unit (V2) steerably  
5 connected to the first vehicle unit (V1) by means of a steering device (D) for mutually pivoting said vehicle units (V1, V2), the mutual pivoting comprising roll movement about a roll axis (X), the steering device (D) comprising a roll arrangement (A2) for said roll movement, the control device (100) being configured to:
- 10 – control (S1) the roll arrangement (A2) of the steering device (D) so as to control mutual roll movement of said vehicle units (V1, V2).
7. A control device according to claim 6, the control device (100) being configured to control the roll arrangement (A2) by means of a control arrangement (110).
- 15 8. A control device according to claim 6 or 7, the control arrangement (110) comprising a brake member (112) for providing a brake function and/or a locking member (114) for providing a locking function and/or an damping member (116) for providing an damping function and/or an actuator member (118) for providing an actuation function.
- 20 9. A control device according to any of claims 6-8, the control device (100), when controlling mutual roll movement of said vehicle units (V1, V2), further being configured to control one or more of: power provision of the drive arrangement (120); a braking system (130) of the vehicle (V); and a transmission arrangement (140) of the vehicle (V).
- 25 10. A control device according to any of claims 6-9, the control device (100), when controlling mutual steering movement of said vehicle units (V1, V2), is configured to perform said control based on one or more of: roll angle between said vehicle units (V1, V2); steering angle between said vehicle units (V1, V2);

power of said drive arrangement (120); speed of drive wheels (1); speed of transmission.

11. An articulated tracked vehicle (V1) comprising a control device (100) according to any of claims 6-10.

5 12. A computer program (P) for controlling driving operation of an articulated tracked vehicle, said computer program (P) comprising program code which, when run on control device (100) or another computer (500) connected to the control device (100), causes the control device to perform the steps according to claim 1-5.

10 13. A computer readable medium comprising instructions which, when executed by a computer, cause the computer to carry out the method according to anyone of claims 1-5.