

(54) Title of the invention : REHABILITATIVE EMBEDDED HAND GLOVE FOR THE PARALYZED

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| <p>(51) International classification :A61H0001020000, A61B0034000000, A61B0090000000, A61B0017000000, A61B0005389000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p> | <p>(71)Name of Applicant : 1)K. UMAPATHY Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>2)G. POOJITHA</p> <p>3)D. KHYATHI SRI</p> <p>4)A. SAI SAMVIDA</p> <p>5)D. MEDHA SHARMA</p> <p>6)E. SREE DATHA</p> <p>7)V. DILEEP KUMAR</p> <p>8)S.B.S. SAIRAM</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)K. UMAPATHY Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>2)G. POOJITHA Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>3)D. KHYATHI SRI Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>4)A. SAI SAMVIDA Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>5)D. MEDHA SHARMA Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>6)E. SREE DATHA Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>7)V. DILEEP KUMAR Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> <p>8)S.B.S. SAIRAM Address of Applicant :SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA (SCSVMV), SRI JAYENDRA SARASWATHI STREET, ENATHUR, KANCHIPURAM, TAMILNADU, INDIA, 631 561. -----</p> |
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(57) Abstract :
Repetitive hand movement is often used as a rehabilitation technique in order to regain hand movement and strength. In order to facilitate this rehabilitation, a robotic glove was designed to aid in the movement and coordination of gripping exercises. This glove utilizes a cable system to open and close a patient's hand. The cables are actuated by servomotors, mounted in a backpack. The glove can be controlled in terms of finger position and grip force through switch interface, software program, or myoelectric signal. This project developed a working prototype of the rehabilitative robotic glove which actuates the fingers over a full range of motion across one degree-of-freedom, and is capable of generating a maximum 15N grip force. This paper shows the implementation of the embedded hand glove and its working procedure can be done to the patient's hand.

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