

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311060783 A

(19) INDIA

(22) Date of filing of Application :11/09/2023

(43) Publication Date : 13/10/2023

(54) Title of the invention : AN AUTOMATED SYSTEM FOR SCIATICA PAIN MANAGEMENT

(51) International classification :A61N0001320000, A61N0001360000, A61P0025020000, A61N0001040000, A61N0007000000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -----

**2)Chitkara Innovation Incubator Foundation**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Ms. Roopika Sabharwal**

Address of Applicant :Assistant Professor, Department of Physiotherapy, Chitkara School of Health Sciences, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -----

**2)Dr. Amandeep Singh**

Address of Applicant :Principal & Professor, Department of Physiotherapy, Chitkara School of Health Sciences, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -----

**3)Dr. Nitin Kumar Saluja**

Address of Applicant :Associate Director (Research) and Associate Professor, Chitkara University Research and Innovation Network, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -----

**4)Dr. Debarshi Ghosh**

Address of Applicant :Assistant Professor, Chitkara University Research and Innovation Network, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura -----

(57) Abstract :

ABSTRACT TITLE: AN AUTOMATED SYSTEM FOR SCIATICA PAIN MANAGEMENT The present invention provides an automated system for sciatica pain management in a subject, the system (1000), comprising: at least one adjustable belt to be placed on to the subject, the belt having: a pair of belt clips mounted on the at least one adjustable belt and capable to secure the at least one adjustable belt to the subject; at least one reservoir for a drug to be administered to the subject; at least one pulse generator capable of generating ultrasound, electroporation, and TENS pulses; at least one pulse controller for modulating the pulse treatment modalities; at least one oscilloscope capable to perform as a function generator and digital storage oscilloscope for visualizing the applied pulses; and a processor configured to integrate ultrasound, electroporation, and TENS modalities by the at least one pulse generator and at least one pulse controller. The system is capable to deliver the drug to deep nerve and remove blockages in sciatic nerve and relax the nerve. Fig. 1

No. of Pages : 14 No. of Claims : 4