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पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

**(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS**

30th May, 2025

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(54) Title of the invention : PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE REHABILITATION THERAPY

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(57) Abstract :

ABSTRACT PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE REHABILITATION THERAPY A pneumatic pelvic bridging exercise machine designed to assist or resist pelvic lift movements in users undergoing physical rehabilitation, particularly those with neurological impairments. The machine comprises a cushioned support platform, one or more pneumatic actuators, and a control system that regulates air pressure to adjust the level of assistance or resistance during the bridging exercise. The system allows for customizable support based on patient ability, with features including programmable resistance, real-time force feedback, and safety components such as emergency stop mechanisms and adjustable support straps. This innovation facilitates safe, effective pelvic strengthening exercises for individuals with limited mobility due to stroke, spinal cord injury, or other neuromuscular conditions.

No. of Pages : 17 No. of Claims : 8

FORM 1
THE PATENTS ACT, 1970
(39 of 1970)

&
THE PATENTS RULES, 2003
APPLICATION FOR GRANT OF PATENT
[See sections 7,54 & 135 and rule 20(1)]

(FOR OFFICE USE ONLY)

Application No.:
Filing Date:
Amount of Fee Paid:
CBR No.:
Signature:

1. APPLICANT(S):

Sr.No.	Name	Nationality	Address	Country	State	Distict	City
1	Sri Devaraj Urs Academy of Higher Education and Research	India	Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.	India	Karnataka	Kolar	Kolar

2. INVENTOR(S):

Sr.No.	Name	Nationality	Address	Country	State	Distict	City
1	Urvashi Sharma	India	Post Graduate student, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.	India	Karnataka	Kolar	Kolar
2	Dr. Sarulatha H	India	Professor, , R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.	India	Karnataka	Kolar	Kolar
3	Dr. Anjali Suresh	India	Professor, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research,	India	Karnataka	Kolar	Kolar

			Kolar – 563101, Karnataka, India.				
4	Reddycharla Reddamma	India	Post Graduate student, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.	India	Karnataka	Kolar	Kolar

3. TITLE OF THE INVENTION: PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE REHABILITATION THERAPY

**4. ADDRESS FOR CORRESPONDENCE OF APPLICANT /
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5. PRIORITY PARTICULARS OF THE APPLICATION(S) FILED IN CONVENTION COUNTRY:

Sr.No.	Country	Application Number	Filing Date	Name of the Applicant	Title of the Invention
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6. PARTICULARS FOR FILING PATENT COOPERATION TREATY (PCT) NATIONAL PHASE APPLICATION:

International Application Number	International Filing Date as Allotted by the Receiving Office
PCT//	

7. PARTICULARS FOR FILING DIVISIONAL APPLICATION

Original (first) Application Number	Date of Filing of Original (first) Application
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8. PARTICULARS FOR FILING PATENT OF ADDITION:

Main Application / Patent Number:	Date of Filing of Main Application
-----------------------------------	------------------------------------

9. DECLARATIONS:

(i) Declaration by the inventor(s)

I/We ,Urvashi Sharma ,Dr. Sarulatha H,Dr. Anjali Suresh,Reddycharla Reddamma, is/are the true & first inventor(s) for this invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) of the inventor(s):

(c) Name(s): Urvashi Sharma ,Dr. Sarulatha H,Dr. Anjali Suresh,Reddycharla Reddamma

(ii) Declaration by the applicant(s) in the convention country

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) :

(c) Name(s) of the singnatory: Sri Devaraj Urs Academy of Higher Education and Research

(iii) Declaration by the applicant(s)

- **The Complete specification relating to the invention is filed with this application.**
- **I am/We are, in the possession of the above mentioned invention.**
- **There is no lawful ground of objection to the grant of the Patent to me/us.**
- **I am/We are, the assignee or legal representative to true first inventors.**

10. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION:

Sr.	Document Description	FileName
-----	----------------------	----------

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated hering are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this(Final Payment Date): -----

Signature:

Name: Madhu Smita

To The Controller of Patents

The Patent office at CHENNAI

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FORM 2

THE PATENTS ACT, 1970

(39 of 1970)

&

The Patent Rules, 2003

COMPLETE SPECIFICATION

(See sections 100 & rule 103)

1. TITLE OF THE INVENTION

**PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE
REHABILITATION THERAPY**

2. APPLICANTS (S)

NAME(S)	NATION ALITY	ADDRESS
Sri Devaraj Urs Academy of Higher Education and Research	Indian	Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.

3. PREAMBLE TO THE DESCRIPTION

COMPLETE SPECIFICATION

The following description particularly describes the invention and the method in which it has to be performed.

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PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE REHABILITATION THERAPY

TECHNICAL FIELD

[0001]. The invention relates to the field of rehabilitation and physiotherapy
5 equipment and specifically to a pneumatic pelvic bridging exercise machine
for assisted and resistive rehabilitation therapy.

BACKGROUND

[0002]. Rehabilitation for individuals with neurological impairments, such as
stroke, spinal cord injury, and traumatic brain injury, often includes targeted
10 exercises aimed at improving strength, stability, and mobility. One such
exercise is the pelvic bridging movement, which engages the gluteal muscles,
hamstrings, and core stabilizers to promote trunk control and lower limb
function. In healthy individuals, this exercise is performed by lying in a
supine position with knees bent and feet flat on the surface, followed by
15 lifting the pelvis toward the ceiling in a controlled motion.

[0003]. However, patients with neurological deficits frequently lack the
muscle strength, motor coordination, or cognitive ability to initiate or perform
this movement independently. Prolonged immobility in such patients can lead
to muscle atrophy, pressure ulcers, and delayed functional recovery.
20 Conventional therapy methods often require manual assistance from

therapists, which can be physically demanding, inconsistent, and inefficient—especially in patients with higher body mass or severe impairments.

[0004]. Despite the importance of pelvic bridging in early rehabilitation, there is a notable lack of specialized equipment that can facilitate this exercise for bed-bound or physically limited individuals. Most existing rehabilitation machines are not designed to provide targeted assistance or resistance to the pelvic region in a safe, customizable, and repeatable manner.

[0005]. There is therefore a clear need for a device that can support, assist, or resist the pelvic bridging exercise in a controlled and progressive way. Such a device should allow therapists to tailor support based on patient-specific needs, promote proper form, reduce manual handling demands, and improve therapy outcomes—especially in neurologically compromised populations.

[0006]. The present invention addresses these unmet needs through the development of a pneumatic pelvic bridging exercise machine, offering both assistance and resistance using adjustable pneumatic actuators and a user-friendly control system.

SUMMARY

[0007]. In one aspect of the present disclosure, a pneumatic pelvic bridging exercise machine comprising a support platform configured for a user to lie in a supine position with knees flexed at least one pneumatic actuator configured to assist or resist movement of the user's pelvis during a bridging exercise;

and a pneumatic control system operatively connected to the actuator to regulate air pressure for adjusting assistance or resistance levels.

5 [0008]. In some aspects of the present disclosure, the pneumatic actuator comprises a piston-cylinder arrangement responsive to compressed air, enabling controlled pelvic elevation or resistance.

[0009]. In some aspects of the present disclosure, a user interface with manual or digital controls to adjust pressure, timing, resistance, and repetition settings.

10 [0010]. In some aspects of the present disclosure, adjustable support straps at the user's shoulders, hips, or thighs to maintain alignment and ensure safety during the exercise.

[0011]. In some aspects of the present disclosure, the control system includes sensors to detect the user's applied force and dynamically adjust pneumatic pressure in real-time.

15 [0012]. In some aspects of the present disclosure, the pneumatic actuator provides adjustable support during the lifting phase of the pelvic bridge, reducing muscular effort required from the user.

20 [0013]. In some aspects of the present disclosure, the pneumatic actuator is configured to provide resistance during the bridging motion, increasing muscular engagement for strength training or advanced rehabilitation.

[0014]. In some aspects of the present disclosure, an emergency stop system configured to rapidly release pneumatic pressure and return the system to a neutral position for safety.

BRIEF DESCRIPTION OF DRAWINGS

5 [0015]. The above and still further features and advantages of aspects of the present disclosure become apparent upon consideration of the following detailed description of aspects thereof, especially when taken in conjunction with the accompanying drawings, and wherein:

[0016]. Figure 1 is a diagrammatic representation, in accordance with an
10 aspect of the present disclosure;

DETAILED DESCRIPTION

[0017]. The following description provides specific details of certain aspects of the disclosure illustrated in the drawings to provide a thorough understanding of those aspects. It should be recognized, however, that the
15 present disclosure can be reflected in additional aspects and the disclosure may be practiced without some of the details in the following description.

[0018]. The various aspects including the example aspects are now described more fully with reference to the accompanying drawings, in which the various aspects of the disclosure are shown. The disclosure may, however, be
20 embodied in different forms and should not be construed as limited to the

aspects set forth herein. Rather, these aspects are provided so that this disclosure is thorough and complete, and fully conveys the scope of the disclosure to those skilled in the art. In the drawings, the sizes of components may be exaggerated for clarity.

5 [0019]. It is understood that when an element or layer is referred to as being “on,” “connected to,” or “coupled to” another element or layer, it can be directly on, connected to, or coupled to the other element or layer or intervening elements or layers that may be present. As used herein, the term “and/or” includes any and all combinations of one or more of the associated
10 listed items.

[0020]. The subject matter of example aspects, as disclosed herein, is described with specificity to meet statutory requirements. However, the description itself is not intended to limit the scope of this patent. Rather, the inventor/inventors have contemplated that the claimed subject matter might
15 also be embodied in other ways, to include different features or combinations of features similar to the ones described in this document, in conjunction with other technologies.

[0021]. A pneumatic pelvic bridging exercise machine designed to assist or resist pelvic lift movements in users undergoing physical rehabilitation,
20 particularly those with neurological impairments. The machine comprises a cushioned support platform, one or more pneumatic actuators, and a control system that regulates air pressure to adjust the level of assistance or resistance

during the bridging exercise. The system allows for customizable support based on patient ability, with features including programmable resistance, real-time force feedback, and safety components such as emergency stop mechanisms and adjustable support straps. This innovation facilitates safe, effective pelvic strengthening exercises for individuals with limited mobility due to stroke, spinal cord injury, or other neuromuscular conditions.

[0022]. The present invention provides a pneumatic pelvic bridging exercise machine specifically designed to assist individuals with limited mobility, particularly those with neurological impairments, in performing pelvic bridging exercises. The machine enables a safe, controlled, and progressive rehabilitation experience by utilizing a pneumatic system to assist or resist the pelvic lifting motion.

[0023]. The system comprises a sturdy frame structure constructed from durable, lightweight materials such as aluminum or stainless steel to ensure safety and stability during use. The frame supports a padded support platform on which the user lies in a supine position. The platform is contoured and cushioned to provide ergonomic support for the user's back and pelvis, ensuring comfort throughout the exercise session. The platform may also include adjustable footplates to stabilize the user's lower limbs and ensure proper alignment.

[0024]. The core feature of the invention is the integration of pneumatic actuators—typically cylinders with pistons—that are positioned to apply a

controlled vertical force to the user's pelvic region. These actuators are connected to an electric air compressor that generates and supplies the required air pressure. When activated, the actuators extend or retract, lifting or resisting the user's pelvis in coordination with the desired exercise protocol.

5 The pneumatic system may be operated in two modes: an assistance mode, in which the actuators help elevate the pelvis to reduce user effort, and a resistance mode, in which the actuators oppose the movement to enhance muscular engagement.

[0025]. A pneumatic control system governs the air pressure supplied to the
10 actuators. This system includes a pressure regulator and a distribution manifold to ensure even and safe delivery of air across all actuators. The control system may be manual, using switches or dials, or digital, incorporating a touchscreen interface with programmable settings such as resistance levels, duration, and number of repetitions. Additionally, a wireless
15 remote control may be provided for ease of use by therapists or caregivers.

[0026]. To accommodate a wide range of user needs, the machine includes adjustable support straps or pads positioned at the shoulders, hips, or thighs. These straps help guide the user into proper alignment and maintain stability throughout the exercise, reducing the risk of injury and ensuring correct
20 muscle activation. The straps are made from soft, durable materials such as neoprene or nylon and can be adjusted to fit users of various sizes.

[0027]. Advanced embodiments of the invention may include integrated sensors, such as force sensors or motion detectors, to monitor the user's movement and applied effort in real time. These sensors enable adaptive feedback, allowing the machine to automatically adjust the assistance or resistance based on the user's strength, coordination, or fatigue level. Such feedback loops increase safety and optimize therapeutic benefit.

[0028]. The height and angle of the pneumatic actuators can be manually or electronically adjusted, allowing therapists to customize the machine setup based on individual patient requirements. The system also includes a recovery mode, where the actuators provide maximum assistance with minimal resistance, making it suitable for early-stage rehabilitation or users with severe impairments.

[0029]. For safety, the machine is equipped with an emergency stop mechanism that immediately releases pneumatic pressure and returns the system to a neutral position in the event of a malfunction or user distress. Additional safety features may include range-of-motion limiters, pelvic support pads, and a patient alert system.

[0030]. In operation, the pneumatic pelvic bridging exercise machine enables a structured and repeatable exercise cycle. The user is first positioned on the platform, secured with straps if necessary, and the feet are stabilized on the footplates. Upon activation, the pneumatic actuators begin to inflate gradually, lifting the user's pelvic region in a controlled arc that simulates the natural

bridging motion. The speed, height, and force of this lift can be programmed through the control panel, allowing the therapist to tailor the session based on the user's current rehabilitation stage.

5 [0031]. During the lifting phase, users with limited voluntary movement receive passive assistance from the actuators, allowing for engagement of the hip extensors and core muscles without excessive effort. For users in more advanced stages of therapy, the system can provide graded resistance, making the pelvic lift more challenging to promote muscular strengthening and endurance.

10 [0032]. An essential feature of the invention is its programmable exercise modes, which may include repetition counting, hold durations at the peak of the bridge, and gradual increase in resistance over time. The control system can store user profiles and progress data, enabling long-term tracking of rehabilitation outcomes. This makes the device suitable not only for clinical
15 environments but also for tele-rehabilitation or home use, under remote supervision by a physiotherapist.

[0033]. The pneumatic system may also be configured to operate in a bi-phase mode, where assistance or resistance is provided during both the lifting and lowering phases of the pelvic bridge. This ensures consistent muscle
20 engagement throughout the range of motion and helps to train eccentric control, which is often lacking in patients with neurological injuries.

[0034]. In some embodiments, the pneumatic components are designed with modularity, allowing for easy maintenance or replacement of parts. Quick-connect fittings, noise-dampening air lines, and compact compressors ensure that the device remains quiet and non-intimidating—especially important for patient comfort in home or inpatient settings.

5

[0035]. The system may also include range-of-motion limiters, allowing the therapist to set upper and lower limits for pelvic elevation. These mechanical or sensor-based stops are especially important in patients with joint restrictions or post-surgical precautions. An integrated load monitoring module may also be used to detect asymmetry in effort between the two sides of the body, allowing the therapist to address muscular imbalances during therapy.

10

[0036]. In preferred embodiments, the actuator mechanisms are housed beneath or adjacent to the pelvic platform, connected via a linkage or cradle system that supports the pelvis evenly during lift. The linkage may include rotating or sliding elements to minimize shear forces and enhance user comfort.

15

[0037]. From an electrical and safety standpoint, the system is powered by a standard AC source or a rechargeable battery unit, making the machine portable and convenient for use across different treatment rooms. All electronic and pneumatic components are enclosed in a protective housing to prevent dust, fluid ingress, or accidental tampering.

20

[0038]. To ensure safety in real-time, the machine may include multi-level alerts, such as visual warnings, auditory signals, and automatic shutdowns in the event of sensor error, pressure spikes, or improper user positioning. The system can be programmed to require therapist override or confirmation before proceeding to higher levels of resistance.

5

[0039]. The described pneumatic pelvic bridging machine bridges the gap between traditional manual therapy and automated rehabilitation systems by providing a targeted, scalable solution for one of the most functionally important exercises in lower body recovery. It empowers patients to regain trunk and hip strength, improve postural control, and eventually transition toward functional activities such as bed mobility, sitting, and gait training.

10

[0040]. The pneumatic pelvic bridging exercise machine disclosed herein provides a novel and effective solution for facilitating pelvic bridging exercises in individuals with reduced mobility, particularly those with neurological impairments. By incorporating adjustable pneumatic actuators, customizable control settings, and comprehensive safety features, the invention addresses longstanding challenges in rehabilitation, such as inconsistent manual assistance, patient safety, and adaptability to various functional levels.

15

[0041]. This invention allows for both assistive and resistive exercise modes, supports real-time feedback through sensors, and can be tailored to meet the unique needs of each user. The modular and ergonomic design promotes ease

20

of use for both patients and therapists, making it suitable for clinical, home-based, and long-term care environments.

[0042]. Overall, the pneumatic pelvic bridging exercise machine enhances the quality and effectiveness of therapeutic exercise, reduces the physical burden on caregivers, and supports gradual progression in rehabilitation outcomes. It represents a significant advancement in assistive rehabilitation technology, particularly in the field of neurophysiological and musculoskeletal recovery.

5

10

**##### DIGITALLY SIGNED#####
MADHU SMITA (IN/PA-3454) and
PREM CHARLES I (IN/PA – 3311)
Registered Patent Agents on behalf of the Applicant(s)**

15

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Claims:

I/We Claim:

1. A pneumatic pelvic bridging exercise machine comprising:
 - a) a support platform configured for a user to lie in a supine position with knees flexed;
 - b) at least one pneumatic actuator configured to assist or resist movement of the user's pelvis during a bridging exercise; and
 - c) a pneumatic control system operatively connected to the actuator to regulate air pressure for adjusting assistance or resistance levels.
2. The machine as claimed in claim 1, wherein the pneumatic actuator comprises a piston-cylinder arrangement responsive to compressed air, enabling controlled pelvic elevation or resistance.
3. The machine as claimed in claim 1, further comprising a user interface with manual or digital controls to adjust pressure, timing, resistance, and repetition settings.
4. The machine as claimed in claim 1, further comprising adjustable support straps at the user's shoulders, hips, or thighs to maintain alignment and ensure safety during the exercise.
5. The machine as claimed in claim 1, wherein the control system includes sensors to detect the user's applied force and dynamically adjust pneumatic pressure in real-time.

6. The machine as claimed in claim 1, wherein the pneumatic actuator provides adjustable support during the lifting phase of the pelvic bridge, reducing muscular effort required from the user.
7. The machine as claimed in claim 1, wherein the pneumatic actuator is configured to provide resistance during the bridging motion, increasing muscular engagement for strength training or advanced rehabilitation.
8. The machine as claimed in claim 1, further comprising an emergency stop system configured to rapidly release pneumatic pressure and return the system to a neutral position for safety.

Dated this May 07, 2025

**##### DIGITALLY SIGNED#####
MADHU SMITA (IN/PA-3454) and
PREM CHARLES I (IN/PA – 3311)
Registered Patent Agents on behalf of the Applicant(s)**

ABSTRACT

**PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED
AND RESISTIVE REHABILITATION THERAPY**

A pneumatic pelvic bridging exercise machine designed to assist or resist pelvic lift
5 movements in users undergoing physical rehabilitation, particularly those with
neurological impairments. The machine comprises a cushioned support platform, one
or more pneumatic actuators, and a control system that regulates air pressure to adjust
the level of assistance or resistance during the bridging exercise. The system allows
for customizable support based on patient ability, with features including
10 programmable resistance, real-time force feedback, and safety components such as
emergency stop mechanisms and adjustable support straps. This innovation facilitates
safe, effective pelvic strengthening exercises for individuals with limited mobility due
to stroke, spinal cord injury, or other neuromuscular conditions.

15

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Registered Patent Agents on behalf of the Applicant(s)**

20

Applicant(s): Sri Devaraj Urs Academy of Higher Education and Research.

Sheet: 1 of 1

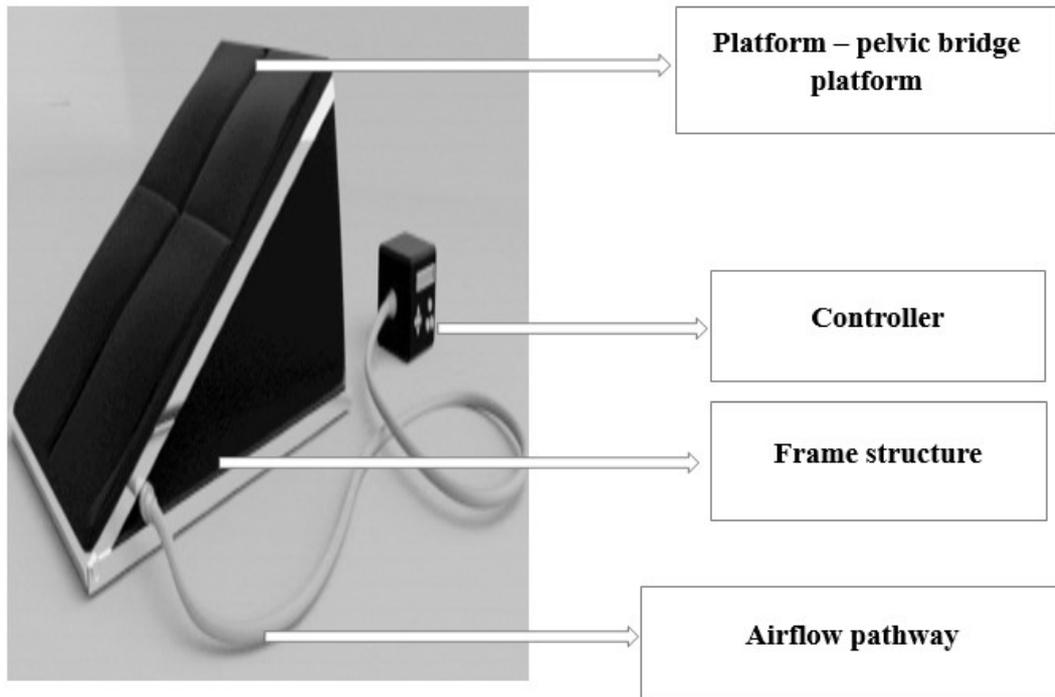


Figure 1

DIGITALLY SIGNED#####
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Registered Patent Agents on behalf of the Applicant(s)

FORM 3

THE PATENT ACT, 1970
(39 of 1970)

AND

THE PATENTS RULES, 2003

STATEMENT AND UNDERTAKING UNDER SECTION 8

[(See section 8; Rule 12)]

1. Name of the applicant(s).	I/We Sri Devaraj Urs Academy of Higher Education and Research, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India. , Applicant Type - EI , hereby declare:				
2. Name, address and nationality of the joint applicant.	(i) that I/We who have made the application for patent number 202541044083 in India, dated 07/05/2025 08:15:31. , alone / jointly with, (ii) that I/We have not made any application for the same/substantially the same invention outside India Or (iii) that I/We have made for the same/ substantially same invention, application(s) for patent in the other countries, the particulars of which are given below:				
Name of the country	Date of application	Application No.	Status of the application	Date of publication	Date of disposal
NA	NA	NA	NA	NA	NA
3. Name and address of the assignee	(i) that the rights in the application(s) filed in India has/have been assigned to None. Rights remained with the Applicant. (ii) that I/We undertake that upto the date of grant of the patent by the Controller, I/We would keep him informed in writing regarding the details of corresponding applications for patents filed outside India in accordance with the provisions contained in section 8 and rule 12. Dated this 7th day of May 2025				
4. To be signed by the applicant or his authorized registered patent agent.	Signature(s)				
5. Name of the natural person who has signed.				
	To The Controller of Patents, The Patent Office, at New Delhi				
Note: ” Strike out whichever is not applicable; ”					

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FORM 5

THE PATENT ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003

DECLARATION AS TO INVENTORSHIP

[See section 10(6) and rule 13(6)]

1. NAME OF APPLICANT(S) Sri Devaraj Urs Academy of Higher Education and Research,

hereby declare that the true and first inventor(s) of the invention disclosed in the complete specification filed in pursuance of my/our application numbered **202541044083** dated **07/05/2025** is/are

2. INVENTOR(S)

Name	Country	Nationality	Address
Urvashi Sharma	India	India	Post Graduate student, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.
Dr. Sarulatha H	India	India	Professor, , R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.
Dr. Anjali Suresh	India	India	Professor, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.
Reddycharla Reddamma	India	India	Post Graduate student, R. L. Jalappa College of Physiotherapy, Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.

Dated this. **07/05/2025** Day of **2025**

Signature

Name of the signatory

3. DECLARATION TO BE GIVEN WHEN THE APPLICATION IN INDIA IS FILED BY THE APPLICANT(S) IN THE CONVENTION COUNTRY:--

We the applicant(s) in the convention country hereby declare that our right to apply for a patent in India is by way of assignment from the true and first inventor(s).

Dated this. **07/05/2025**. Day of **2025**

Signature

Name of the signatory

4. STATEMENT (to be signed by the additional inventor(s) not mentioned in the application form)

I/We assent to the invention referred to in the above declaration, being included in the complete specification filed in pursuance of the stated application.

Dated this(Final Payment Date):-----

Signature

Name of the signatory

This form is electronically generated.

FORM 28
THE PATENT ACT, 1970
(39 OF 1970)
&
The Patents Rules, 2003
TO BE SUBMITTED BY SMALL ENTITY /STARTUP/EDUCATIONAL
INSTITUTION
[See rules 2 (fa), 2(fb), 2(ca) and 7]

We, **SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH,**
an **INDIAN EDUCATIONAL INSTITUTION** recognised by **UNIVERSITY GRANTS**
COMMISSION, the applicant in respect of the patent application no **2025410** _____ hereby
declare that we are an educational institution in accordance with rule 2(ca) and submit the
following document(s) as proof:

i) Notification of May 25th, 2007 issued by UGC and MHRD.

The information provided herein is correct to the best of our knowledge and belief.

Dated this 7th Day of May, 2025

SIGNATURE:

DIGITALLY SIGNED#####
MADHU SMITA (IN/PA-3454) and
PREM CHARLES I (IN/PA – 3311)
Registered Patent Agents on behalf of the Applicant(s)

To,
The Controller of Patents,
The Patent Office, at Chennai



UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110002

विश्वविद्यालय अनुदान आयोग
बहादुर शाह जफर मार्ग
नई दिल्ली - 110 002

No.F.8-24/2006 (CPP-1)

June, 2007

20 JUN 2007

NOTIFICATION

In exercise of the powers conferred by Section 3 of the University Grants Commission Act, 1956, the Central Government on the recommendation of the Commission has declared Sri Devraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, comprising Sri Devraj Urs Medical College, Tamaka, Kolar, Karnataka, as a 'Deemed to be University' for the purpose of the aforesaid Act, from the date of disaffiliation of 'Sri Devraj Urs Medical College', Tamaka, Kolar, Karnataka, from Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka.

2. This declaration is subject to the conditions mentioned at S.No.2 of the endorsement of this notification.
3. The Ministry of Human Resource Development or the University Grants Commission will not provide any Plan and Non-Plan grants to Sri Devraj Urs Academy of Higher Education and Research or any of its constituent institutions.

(Urmil Gulati)
Under Secretary

Copy forwarded to :-

1. The Vice-Chancellor, Rajiv Gandhi University of Health Sciences, 4th T Block, Jayanagar, Bangalore-560 041, Karnataka

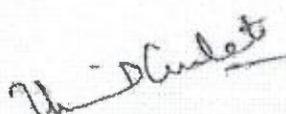
Chairman, Sri Devraj Urs Academy of Higher Education and Research, Tamaka, Kolar-563101, Karnataka. The declaration made in para 1 of this notification relating to conferment of status of deemed-to-be-university will be subject to the following conditions:-

- (a) The 'Deemed-to-be-University' shall finalise its Memorandum of Association (MoA) and Rules immediately in conformity with the University Grants Commission's Model MoA and Rules for the Deemed to be Universities and get it approved by the UGC.
- (b) The management of Sri Devraj Urs Medical College, Tamaka should legally vest with Sri Devraj Urs Academy of Higher Education and Research.
- (c) The moveable as well as immovable assets, including that of Sri Devraj Urs Medical College should be legally transferred in the name of the Trust formed for management of the deemed-to-be-university institution through a valid deed registered under the Indian Registration Act, in the interest of future of students, members of faculty, employees and for maintaining the standards of higher education.
- (d) The deemed-to-be-university institution or its constituent unit shall ^{not} offer any course/programme that has not been approved by the Ministry of Health and Family Welfare or other relevant Ministries and/or the relevant Statutory Councils such as Medical Council of India, etc.
- (e) The deemed-to-be-university institution or its constituent unit shall not offer/award, as the case may be, any degrees that are not specified by the UGC. The deemed-to-be-university institution will continue to ensure that the nomenclature of the degrees awarded by it are specified by the UGC under Section 22 of the UGC Act, 1956.
- (f) The deemed-to-be-university institution shall award degrees to only those students who are admitted/enrolled with it or its constituent unit subsequent to the date of this notification.
- (g) As for those students who are already enrolled with the institution concerned prior to the date of this notification, they shall continue to be enrolled with the present affiliation university, namely, Rajiv Gandhi University of Health Sciences, Bangalore, which shall have to agree to examine and grant degrees to them on successful completion of the courses/ programmes they are pursuing at present in the teaching institutions of the deemed-to-be-university institution.
- (h) The deemed-to-be-university institution shall regularly obtain the requisite 'renewal' of approval / permission of Ministry of Health and Family Welfare and other relevant Statutory Councils, as the case may be, well within the prescribed time limit, in respect of the courses offered, intake capacity of students, etc.

- (i) The deemed-to-be-university institution and its constituent unit shall start/offer, as the case may be, the courses/programmes in accordance with the relevant prescribed norms and guidelines of the UGC and the relevant statutory professional regulatory Councils, such as Medical Council of India (MCI), Indian Nursing Council (INC), Dental Council of India (DCI), AICTE, etc.
- (j) The 'Deemed-to-be-University' as well as its constituent institutions shall strictly abide by all the norms and guidelines as laid down by the UGC and other Statutory Councils such as Medical Council of India, etc. from time to time, as are applicable to institutions notified as 'Deemed-to-be-Universities'.

The Secretary, Government of India, Ministry of Human Resource Development, Department of Secondary & Higher Education, Shastri Bhawan, New Delhi-110 001

4. The Principal Secretary (Higher Education), Education Department, Government of Karnataka, M.S. Building, 5th Floor, Bangalore-560 001
5. PS to Chairman, UGC, New Delhi
6. The Joint Secretary (NET) UGC, New Delhi
7. The Joint Secretary (DU), UGC, New Delhi
8. Secretary General, Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-110 002
9. Member Secretary, AICTE, IG Sports Complex, I.P. Estate, New Delhi-110 002
10. All Regional Offices of UGC
11. Senior Statistical Officer, UGC, 35, Ferozeshah Road, New Delhi
12. All Sections in the UGC Office
13. Guard File


(Urmil Gulati)
Under Secretary

(TO BE PUBLISHED IN THE GAZETTE OF INDIA PART-I, SECTION-1)

1

No.F.9-36/2006-U.3(A)
Government of India
Ministry of Human Resource Development
Department of Higher Education

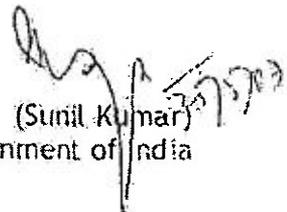
Shastri Bhawan, New Delhi,
Dated the 25th May, 2007.

NOTIFICATION

In exercise of the powers conferred by Section 3 of the University Grants Commission (UGC) Act, 1956, the Central Government, on the advice of the University Grants Commission, hereby declare Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, comprising Sri Devaraj Urs Medical College, Tamaka, Kolar, Karnataka, as a 'Deemed-to-be-University' for the purposes of the aforesaid Act, from the date of disaffiliation of 'Sri Devaraj Urs Medical College', Tamaka, Kolar, Karnataka, from Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka.

This declaration is subject to the conditions mentioned at Sl. No. 5 of the endorsement of this notification.

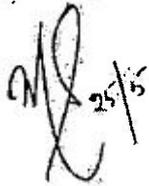
3. Government of India or the University Grants Commission will not provide any Plan or Non Plan grants to Sri Devaraj Urs Academy of Higher Education and Research or any of its constituent institutions.


(Sunil Kumar)
Joint Secretary to the Government of India

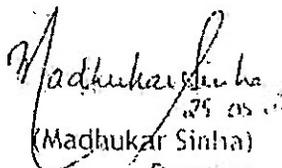
The Manager,
Government of India Press,
Faridabad (Haryana).

Copy to: -

1. The Secretary, University Grants Commission, Bahadurshah Zafar Marg, New Delhi -110002.
2. The Secretary, Medical Council of India, Pocket - 14, Sector - 8, Dwarka Phase-I, New Delhi - 110075.
3. Vice Chancellor, Rajiv Gandhi University of Health Sciences, 4th 'T' Block, Jayanagar, Bangalore - 560041, Karnataka.
4. Under Secretary(ME-P.II), Ministry of Health and Family Welfare (Department of Health & Family Welfare), Nirman Bhavan, New Delhi - 110001.
5. Chairman, Sri Devaraj Urs Academy of Higher Education & Research, Tamaka, Kolar - 536101, Karnataka. The declaration made in para 1 of this notification relating to conferment of status of deemed-to-be-university will be subject to the following conditions:-
 - (a) The 'Deemed-to-be-University' shall finalise its Memorandum of Association (MoA) and Rules immediately in conformity with the University Grants Commission's Model MoA and Rules for the Deemed to be Universities and get it approved by the UGC.
 - (b) The management of Sri Devaraj Urs Medical College, Tamaka should legally vest with Sri Devaraj Urs Academy of Higher Education & Research.
 - (c) The movable as well as immovable assets, including that of Sri Devaraj Urs Medical College should be legally transferred in the name of the Trust formed for management of the deemed-to-be-university institution through a valid deed registered under the Indian Registration Act, in the interest of future of students, members of faculty, employees and for maintaining the standards of higher education.
 - (d) The deemed-to-be-university institution or its constituent unit shall not offer any course/programme that has not been approved by the Ministry of Health and Family Welfare or other relevant Ministries and/or the relevant Statutory Councils such as Medical Council of India, etc.
 - (e) The deemed-to-be-university institution or its constituent unit shall not offer/award, as the case may be, any degrees that are not specified by the UGC. The deemed-to-be-university institution will continue to ensure that the nomenclature of the degrees awarded by it are specified by the UGC under Section 22 of the UGC Act, 1956.


25/5

- (f) The deemed-to-be-university institution shall award degrees to only those students who are admitted/enrolled with it or its constituent unit subsequent to the date of this notification.
- (g) As for those students who are already enrolled with the Institution concerned prior to the date of this notification, they shall continue to be enrolled with the present affiliating university, namely, Rajiv Gandhi University of Health Sciences, Bangalore, which shall have to agree to examine and grant degrees to them on successful completion of the courses / programmes they are pursuing at present in the teaching Institutions of the deemed-to-be-university institution.
- (h) The deemed-to-be-university institution shall regularly obtain the requisite 'renewal' of approval / permission of Ministry of Health and Family Welfare and other relevant Statutory Councils, as the case may be, well within the prescribed time limit, in respect of the courses offered, intake capacity of students, etc.
- (i) The deemed-to-be-university institution and its constituent unit shall start/offer, as the case may be, the courses/programmes in accordance with the relevant prescribed norms and guidelines of the UGC and the relevant statutory professional regulatory Councils, such as Medical Council of India(MCI), Indian Nursing Council(INC), Dental Council of India(DCI), AICTE, etc.
- (j) The 'Deemed-to-be-University' as well as all its constituent institutions shall strictly abide by all the norms and guidelines as laid down by the UGC and other Statutory Councils such as Medical Council of India, etc. from time to time, as are applicable to institutions notified as 'Deemed-to-be-Universities'.
6. Press Information Bureau, Shastri Bhawan, New Delhi-110001.
7. The Secretary-General, Association of Indian Universities, A.I.U. House, 16, Kotla Marg, New Delhi - 110002.
8. Director(Administration) & Web Master, Department of Higher Education, Shastri Bhavan, New Delhi. It is requested that suitable instructions may be issued to CMIS to upload this notification on the website (Home site) of the Department.
9. Guard file / Notification file.


(Madhukar Sinha)
Director

FORM 9

THE PATENT ACT, 1970
(39 of 1970)
&
THE PATENTS RULES, 2003

REQUEST FOR PUBLICATION

[See section 11A (2) rule 24A]

I/We **Sri Devaraj Urs Academy of Higher Education and Research** hereby request for early publication of my/our [Patent Application No.] TEMP/E-1/49273/2025-CHE

Dated **07/05/2025 00:00:00** under section 11A(2) of the Act.

Dated this(Final Payment Date):-----

Signature

Name of the signatory

To,
The Controller of Patents,
The Patent Office,
At Chennai

This form is electronically generated.



தமிழ்நாடு தமில்நாடு TAMILNADU



22 APR 2025

*1. Pream Charless
Krishnagiri*

DS 115724

V. Radha

V. RADHA

S.V.L. No: 3936/B1/2000
163-A, Salem Road
KRISHNAGIRI-635 001

STAMP DUTY FOR
APPLICATION NO: 202541044083

FORM 26
THE PATENTS ACT, 1970
(39 OF 1970)

&

THE PATENT RULES, 2003

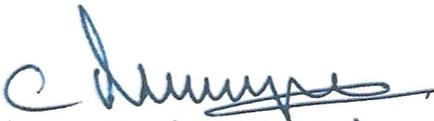
**FORM FOR AUTHORIZATION OF A PATENT AGENT/OR ANY PERSON IN A MATTER OF
PROCEEDING UNDER THE ACT**
(See Section 127 and 132; rule 135)
POWER OF ATTORNEY

I / we,

NAME(S) OF APPLICANT(S)	NATION ALITY	ADDRESS
Sri Devaraj Urs Academy of Higher Education and Research	Indian	Sri Devaraj Urs Academy of Higher Education and Research, Kolar – 563101, Karnataka, India.

hereby authorize, Prem Charles I (INPA3311) and Madhu Smita (INPA3454), Registered Patent Agents with address for communication at Allinnov Research and Development Private Limited, #360A, First Floor, Senthur Murugan Kovil Street, Opp. S.M. Mahal, Oldpet, Krishnagiri - 635001, Tamil Nadu, India, to act on our behalf in connection with Patent filing and further prosecution, filing of assignments and any document related thereto, with reference to our patent application/ reference no. 202541044-083 dated 07-05-25 and all further patent applications filed by them in future, on our behalf and request that all notices, requisitions and communications relating thereto may be sent to such person at the above address unless otherwise specified. They are also authorized to substitute another attorney / agent to attend hearings (if any) in relation to the patent. We hereby revoke all previous authorizations, if any, in respect of same matter or proceeding. We hereby assent to the action already taken by the said persons in the above matter.

Dated -08-05-25


Registrar

Sri Devaraj Urs Academy of Higher Education and Research
Education and Research
Tamaka, Kolar - 563 103.

To,

The Controller of Patents

The Indian Patent Office

At Chennai, Kolkata, Delhi, Mumbai

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E-mail: chennai-patent@nic.in
Web Site: www.ipindia.gov.in



सत्यमेव जयते

G.A.R.6
[See Rule 22(1)]
RECEIPT



Docket No 45996

Date/Time 2025/05/07 08:15:31

To
Madhu Smita

UserId: madhusmita

#01, Dwarka Sector 14

CBR Detail:

Sr. No.	App. Number	Ref. No./Application No.	Amount Paid	C.B.R. No.	Form Name	Remarks
1	E-106/9067/2025/CHE	202541044083	0	----	FORM28	
2	202541044083	TEMP/E-1/49273/2025-CHE	1600	27343	FORM 1	PNEUMATIC PELVIC BRIDGING EXERCISE MACHINE FOR ASSISTED AND RESISTIVE REHABILITATION THERAPY
3	E-12/10406/2025/CHE	202541044083	2500	27343	FORM 9	----

TransactionID	Payment Mode	Challan Identification Number	Amount Paid	Head of A/C No
N-0001663092	Online Bank Transfer	0705250002928	4100.00	1475001020000001

Total Amount : ₹ 4100.00

Amount in Words: Rupees Four Thousand One Hundred Only

Received from Madhu Smita the sum of ₹ 4100.00 on account of Payment of fee for above mentioned Application/Forms.

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Docket No 46006

Date/Time 07/05/2025

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User Id: madhusmita

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Sr. No.	App. Number	Ref. No./Application No.	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202541044083	E-3/9182/2025/CHE	0	----	FORM 3	
2	202541044083	E-5/4066/2025/CHE	0	----	FORM 5	

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Docket No 46478

Date/Time 08/05/2025

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Madhu Smita

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Sr. No.	App. Number	Ref. No./Application No.	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202541044083	E-45/5911/2025/CHE	0	----	FORM 26	

Total Amount : ₹ 0

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