

# MIDTERM REPORT

## SYSTEMATIC CREATIVITY TRIZ BASICS

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# Introduction to the topic

The subject of consideration are winter jackets. Often in countries with very cold winters, people are forced to buy winter jackets with heavy linings, which during a long stay on the street can still become cold. Often there are situations when you have to spend a long time on the street, for example, waiting for transport at the bus stop or cleaning the car from snow in the morning.

Therefore, there is the problem of maintaining heat and reducing the weight of winter jackets. The elimination of this problem is especially important for people whose work is associated with a long stay on the street. Heavy winter jackets hamper movement, but at the same time people need to be active.



# Patents for the system

Refine search → Results page 2 → CN206782028 (U) → CN207084143 (U)

CN207084143 (U)

Bibliographic data

Description

Claims

Mosaics

Original document

Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

Quick help

→ What is meant by high quality text as facsimile?

→ What does A1, A2, A3 and B stand for after a European publication number?

→ What happens if I click on "In my patents list"?

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**Bibliographic data: CN207084143 (U) — 2018-03-13**

★ In my patents list

Report data error

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Winter protection suit

Page bookmark

CN207084143 (U) - Winter protection suit

Inventor(s):

SHI XIAOMIN ±

Applicant(s):

WENZHOU JINYUANYANG GARMENTS CO LTD ±

Classification:

- international: A41D1/02; A41D27/08; A41D27/18; A41D27/20

- cooperative:

Application number:

CN201720861997U 20170714

Priority number(s):

CN201720861997U 20170714

**Abstract of CN207084143 (U)**

Translate this text into

Select language

patenttranslate powered by EPO and Google

The utility model discloses a winter protection suit, including the clothing body, be provided with a neck on the clothing body, be provided with button on the front part of a chinese robe or jacket of the clothing body, it founds the magnetism knot that time -out ability lock is in the same place to be provided with a neck in the book tie clip layer of both sides, it buckles to roll over the decoration that button is the same that is provided with and sets up on the front part of a chinese robe or jacket in the one side of leading ability and front part of a chinese robe or jacket laminating, the utility model discloses have magnetism and detain to set up in the inside terseness of rolling over the neck surface of having guaranteed of a neck, roll over the neck and found time -out magnetism and detain can the lock to make together and roll over the neck and keep rising immediately the state to play the effect of winter protection, roll over the neck and found the time -out and can bebe originally rolled over that the neck covers, buckle and show with setting up the decoration that button is the same on the clothing body, keep the uniformity effect of button range.

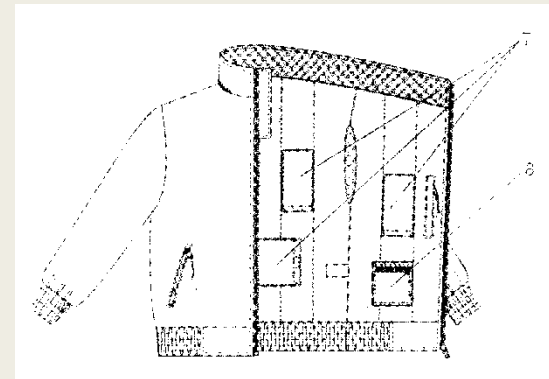
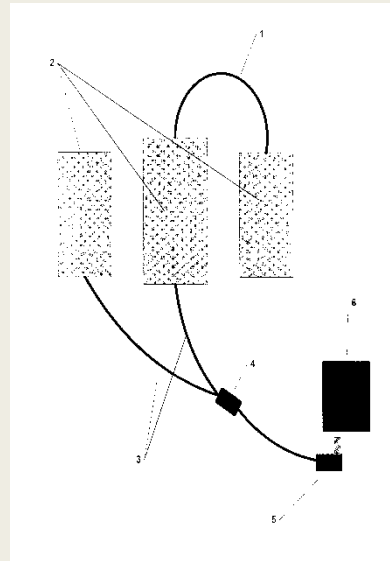
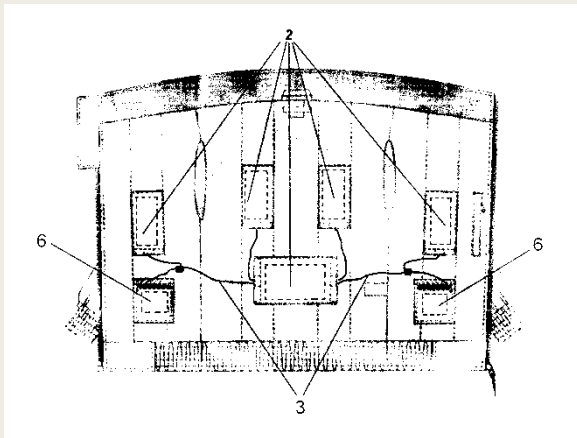
There were not many patents in the Espacenet Patent search, but I found one that could be used in my system.

# Patents for the system

I found one interesting patent that perfectly reflects what I wanted to find for solving the problem with winter jackets, using [patents.google.com](https://patents.google.com).

In the drawings image Insulated jacket with a heating element: 1 - insulated jacket with wrap over, 2 - heating element (parts) 3 - insulated jacket with the heating element.

Insulated jacket with the heating element comprises a heating infrared modules - 2, connecting the power cord - 1 and 3, the distributor element - 4, an electrical connector (plug) - 5, a charger with battery - 6, pockets for heating infrared modules - 7, pockets for charger with battery - 8.



Inventor: Mikhail Ivanovich Podolkhov  
Original Assignee: Limited liability company "Avangard-overalls"  
Priority date: 2013-06-25

# Function of the system

To my mind the function of the system can be next:

- The heating system warm jacket
- The heated jacket warm people



# Function Oriented Search

A generalized function is to heat to a certain temperature.

This function, in my opinion, is important in the work of greenhouses. Greenhouses use infrared heat sources. that can be used for heated jackets.

Thus, in an adapted solution, there may be an installation of an infrared heat sources in the jacket for heating.





# Applying of biomimetic to the system

In my project I think the example of biomimetic is the symbiotic relationships between the heating system and the jacket. This two products can be combined, coexist together and not interfere with each other.

Symbiosis of and algae. In this context, symbiosis of fungus and trees can be given. They coexist with each other. Moreover, such a symbiosis is beneficial to both trees and fungus, and they do not interfere with each other.



# Ideal Final Result for my system

The ideal result in a project can be

- 1) the heat system does not change the usual characteristics and functions of the jacket (for example, it does not increase the weight of the jacket and does not require removal during washing)
- 2) the system turns on by itself when the ratio of the ambient temperature and the air temperature inside the jacket, and produces heating to the optimum temperature



# Contradictions for the system

Contradictions for my system is weight preservation when using a heating system.

Instead of using pads in fur coats or other heavy materials, light cables and a small battery can be used.



# TESE for the system

I think the TESE in this system is more about Dynamisation Trend. If we will finally have winter jackets that can recognize and compare the weather, it will be self-adapting system.

