



# 80 wash

REVOLUTIONARY & ECO-FRIENDLY INVENTION

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## 1. Introduction



India Patent (filed) No.: **202011016943**

It is not easy to assume a hotel or a salon always offering a fresh towel or linen to all its visitors. If so, then it is a bitter truth that is hard to digest, implying that even the affluent class might end up using a reused towel or linen in the best multi-star hotel. In such a scenario, the reality of hygiene practiced in the regular hotels opted by frequent travelers is imaginable. All hotels, washing all linens after every use, demand a phenomenal quantum of earth's scarce and precious water resource, thus accelerating the rate of depleting water table.

Apart from the excessive water requirement, sanitation needs time (productive time of users), cost (electricity and detergent) and ample space for drying. Worldwide, all laundry processes span over a day, consume some trillion gallons of water, and the aggregate annual costs run into millions of dollars.

80-WASH reliably offers the much-needed cost-effective solution for linen hygiene in hotels, salons, hostels, and hospitals. It is the world's first waterless washing machine to wash clothes in just 80 seconds.

Based on the patented ISP (immediate supersaturated phase of water) technology, 80-WASH offers an 80 second treatment to clean stains off the towels and linens, disinfect them from germs/bacteria, remove bad odor while consuming just a glass of water.

The waterless 80-WASH technology is thus more economical than regular laundry. Using this technology would also save thousands of gallons of water in every household and commercial establishment.

All efforts are being made to make this technology affordable for use by one and all.

How it works: Conventionally, using steam refreshes the linen and kills germs/bacteria. However, it cannot eradicate the stains. 80-WASH uses radiation to power steams to completely knock out the stains in 80 seconds. The half glass of water (100 ml) is required to wash 7 kg of clothes in 80 seconds.

Impact: Annually, an 80-WASH would save 2,500 gallons of water, 2,300 kWh units of electricity and enhance the fabric life by eight times.


Scaling: 80-WASH can be suitably scaled for use in hospitals, hotels, salons, hostels and utility in residential buildings




## 80 Wash: A waterless wash of clothes in 80 seconds

- 2. Technology:** 80 wash removes the stain with the help of Immediate superheated phase (ISP) of water

## Patent for 80 wash (Published)



Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India



INTELLECTUAL  
PROPERTY INDIA  
PATENTS, DESIGNS, TRADE MARKS  
GEOGRAPHICAL INDICATIONS

Application Details	
APPLICATION NUMBER	202011016943
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	20/04/2020
APPLICANT NAME	Chitkara Innovation Incubator Foundation
TITLE OF INVENTION	APPARATUS AND METHOD FOR NON-THERMAL RADIATION-BASED STERILIZATION
FIELD OF INVENTION	BIO-MEDICAL ENGINEERING
E-MAIL (As Per Record)	info@khuranaandkhurana.com
ADDITIONAL-EMAIL (As Per Record)	info@khuranaandkhurana.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	16/12/2021
PUBLICATION DATE (U/S 11A)	22/10/2021

Application Status	
APPLICATION STATUS	Application Awaiting Examination
	<a href="#">View Documents</a>

Filed

Published

RQ Filed

Under Examination

Disposed



Model No: 80WPC03

Model No: 80WPC07



## 3. Specifications:

Clothes Weight : 7kg

Power consumption per cycle: 0.07kWh

Supply Voltage: 220v 50Hz AC

Power: 1000W

Frequency: 2.4 Ghz

Control: Soft one touch control

Timer: 80 seconds

Safety: The equipment shall be bonded to earth effectively in accordance with the I.E.E.

Wiring Regulations. Sufficient Safety Interlocks to prevent leakage of microwave.

Dimensions: 520mm(W) x 720mm(H) x 450mm(D) approx.

#### 4. Current Installations:

S. No	Location	No. of Beneficiaries
1	Physio Planet	1400
2	Kaushal Hospital	550
3	Hayat Salon, Panchkula, Haryana, India	1,500
4	The Park Plaza, Punjab, India	2,100
5.	Fabricare Ahmedabad (Commercial laundry service to hospitals and hostels)	10,450

#### 5. Survey:

The machine is witnessed by 8,400 patients in different hospitals of India. The survey conducted on effectiveness of machine in hospitals. The observations are mentioned in table 1:



Table 1: Impact created by 80wash and number of beneficiaries in AY 2022-23

- I. Further, the scientific validation is performed with the Microbiology Departments of Government Organizations.
- II. The process is demonstrated to the Himachal Pradesh Government and it is found to be highly effective for the Government and hence the Government of Himachal Pradesh has granted sustainable allowance for the company.

- III. The beta version of the machine is available in the market for Sale but for the business units. The product can be requested for pilot sale on 80wash website ([www.80wash.com](http://www.80wash.com)).

## 6. Experimental Results on Stains:

The system is tested on following stubborn stains

- i. Tomato Ketchup
- ii. Coffee and Tea

The odour was checked with the following



*Before 80 WASH*

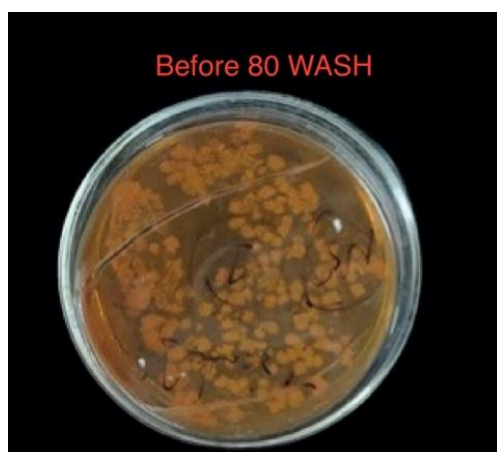


*After 80 WASH*

## 7. Experiments on bacteria's using 80 WASH:

*E.Coli (gram negative) , staphylococcus (gram positive)*

The working prototype is developed and tested in the Chitkara University Central Instrumentation Facility, Chitkara University, Punjab, India, with the E. Coli and Staphylococcus bacteria. After 80 seconds, 99.98% bacteria were denatured. The images of results are shown below:



Before using 80 WASH



After using 80 WASH

## 8. Testimonials from Renowned Scientists:

S. N.	Name	Affiliation	Contact
1	Dr. Deepak Sharma	Senior Scientist	deepaks@imtech.res.in
2	Dr. Satya Tapas	CEO, SciDogma Research	Satyatapas.dahp@gmail.com
3	Dr. Gajraj	21 <sup>st</sup> Enviro Solution (A NABL Accredited Laboratory)	21centuryenviro@gmail.com
4	Ms. Deepika	Deputy Director Government of Himachal Pradesh India	hpcedhimachal@gmail.com

## 9. Cost-Economic impact Analysis Report:

- I. The linen gets available for reuse in 80 seconds in comparison to the 2 days in case of laundry. Hence, business units require lesser inventories for towels and linens.
- II. It saves 10-20 Gallons of water every day and hence saves INR 1,000 every day.
- III. It doesn't require consumables and consumes 48 percent lesser electricity hence it saves INR 2,200 per day.



## 10. Product Validation:

### Washing machine with radiation technology: only half a glass of water will clean in 80 seconds five pairs of clothes, students and teachers made

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## This washing machine will clean 10 pairs of clothes in 80 seconds with just 1 glass of water

The students of Chitkara University have made such a washing machine that will wash a lot of clothes in very little water.

Updated: Jan 25, 2022, 01:18 PM IST






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## H. 80-sec washing machine with just 1 glass of water !?

This washing machine will clean 10 pairs of clothes in 80 seconds with just 1 glass of water.

The students of Chitkara university have invented the washing machine that cleans all the clothes in 80 seconds.

Technology is expanding day by day in the country at a very fast pace. The special thing is that now the students of universities are also bringing convenience to the people through research.

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## A comprehensive report of 80 Wash

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### Washing machine with radiation technology: only half a glass of water will clean in 80 seconds five pairs of clothes, students and teachers made

By AdminTNC January 24, 2022

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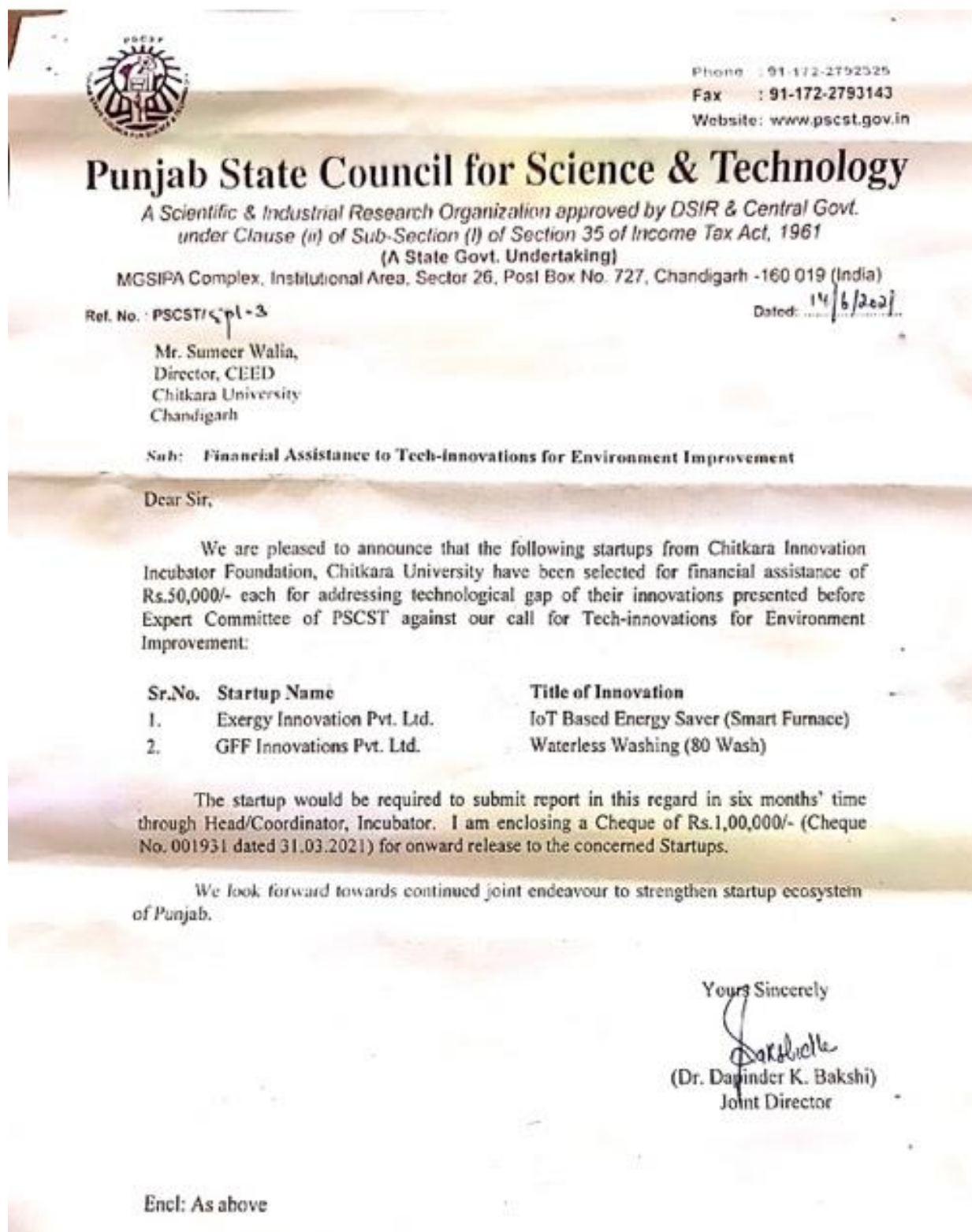
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80Wash – a startup incubated by Chitkara University Research and Innovation Network (CURIN) won second position at the India



## 11. Awards and Recognitions:



### *Financial Award by Govt of Punjab*



## Grant worth INR 3 Lacs under CM Himachal Start-up



### CERTIFICATION OF REGISTRATION Department of Industries, Government of Himachal Pradesh

This is to certify that 80WASH has been registered as a Startup applicant under Para 13.1 of "Chief Minister New Industries/Innovation Project/Startup Scheme" by the Department of Industries, Government of Himachal Pradesh and has been recommended to CHITKARA UNIVERSITY, HIMACHAL PRADESH (Incubation Centre under this Scheme) for further Screening by the Technical Committee.

Date of Issue: 05.11.2020

Place of Issue: **Shimla**

**The certificate shall only be valid for the entity:**

- Up to one month from the date of its registration; and

**Note:**

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- This certificate is not valid for availing Tax benefits.
- This is a system generated certificate and hence does not require any physical signature.
- If such registration is found to have been obtained on the basis of false information or without uploading the relevant documents at any time, Department of Industries reserves the right to revoke the registration certificate without any prior notice or reason.

## 12. Video Links:

S.no	Description of video	Link of video
1.	Product Intro video	<a href="https://www.youtube.com/watch?v=llfFfv_z3x8">https://www.youtube.com/watch?v=llfFfv_z3x8</a>
2.	Working of 80 WASH	<a href="https://youtu.be/fMf7FGO_gxs">https://youtu.be/fMf7FGO_gxs</a>
3.	80 WASH team interview	<a href="https://www.youtube.com/watch?v=JdzontGn5V0">https://www.youtube.com/watch?v=JdzontGn5V0</a>

