RESUME

Saide Koolivand Salouki

Name
Saide koolivand salouki

Date of Birth
May 31th 1984

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Education

2007 - 2009 Associate Degree in Archaeology, University of Bu-Ali Sina, Hameda, Iran

2010 - 2014 Bachelor of Art, Industrial Design, Alzahra University, Tehran, Iran

Thesis Title: Ultrasonic egg beater

Research Advisor: Prof. Javad yazdipour

Experience

2016 - 2016 **Designer,** Design and manufacturing of a hybrid system for harvesting fresh water from fog, air and sea water

2013 - 2016 **Conceptual designer,** Design and modelling of a 3D puzzle truck as a member of Fekraneh Toy industry's design and modelling department

2012 - 2014 **Thesis Project,** Design and conceptual manufacturing of an ultrasonic egg beater using super cavitation phenomena

2012 - 2013 **Urban furniture,** Design and conceptual manufacturing of a laser fountain for organization of beautification

2012 - 2012 **Urban furniture,** Design of a water labyrinth for organization of Tehran beautification

Professional Interests

- Toy design
- Product design
- Sketching
- Modelling
- Team work
- Innovation and Conceptual design
- Water Harvesting systems design

Skills

Rhino
Solid works
Illustrate
Hand Sketching
Microsoft Office
Windows
Web skills

Saide Koolivand Salouki

About me

I was admitted in field of Archeology when I was nineteen years old. I engaged in drilling old products with age of 5000 years in ancient sites. Such long-term hours of study and work on products used by human in different societies from past up to now and widespread distribution and influence of such products caused my special attention to products as a way for improving the human life conditions and developing the cooperation among cultures.

That was very difficult for me to changing my field from Archaeology to Industrial design but I was admitted in the field of industrial design when I was 24 years old and I was graduated after four years. From third year of my education, I entered in design department of Fekraneh Toy industry and engaged in toy design for children as result of my more interest to children and after two years, the first toy designed by me reached to mass production and was welcomed. The philosophy of toy design was paid attention by me during my research about the history of toys in the past and present time. More similarity of available products and such existed disorders in this area caused attraction of my attention to widespread research on toy, so I reviewed different aspects necessary for an industrial designer in toy area by performing opinion poll among 1000 children that leads to my new article about the future of toy industry (not submitted yet).

I have several experiments in design and manufacturing on different products such as three types of fountain, ultrasonic egg beater, three kinds of 3D puzzle toy trucks, four passives to obtain fresh water from fog, air and sea water and etc. These experiments help me to obtain a deep understanding about concepts and details that I learned in theoretical courses.

I enjoy from every minutes of my experiments and I try to combine innovation and traditions for a better design. Also, I love teamwork and I am able to adapt myself with a team in every level and share my knowledge with my group.

Awards

2007: Ranked 400 among 33000 volunteers in Art iterance exam

Publications

Under preparation Paper

S. Koolivand salouki, S. Naeini., “Toys, Products of human or humans, products of toys”, (not submitted yet)

S. Koolivand salouki,., “Effect of humidity and dew point on water harvesting systems”, (not submitted yet)

Personal Interests

Travel
Swimming
Mountaineering
Cycling
Toy
Humanitarian activities

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Selected Projects

I think that industrial design students should have a close relation with other engineering trends. I have had the chance to work with engineers from different tendencies. This cooperation has always been an inspiration to me to introduce new designs and helps me to have more realistic viewpoint to products.

1. Ultrasonic egg beater (thesis project)
2. Laser fountain for organization of Tehran beautification
3. Bamboo fountain for organization of Tehran beautification
4. Design a simple and inexpensive supermarket cart
5. Design a pip inspired by Raytheon Achaemenid
6. Design of an water labyrinth for organization of Tehran beautification
7. Design and manufacturing of three type of 3D-toy puzzle truck for Fekraneh toy industrial
8. Design and Manufacturing of water harvesting systems from air, fog and sea water
9. Industrial Ultrasonic homogenizer

These designs were the result of a class project about a device used in the past. I changed the Rhyton application into a pipe. Achaemenid Empire was definitely the brightest of Iranian civilization and hence I focused on the Achaemenid products. Rhytns were ancient vessels for storing and drinking wine. The word rhyton comes from the Greek rhyta, meaning “to run through”. Rhytons featured a filter hole at the top and a hole at the bottom so that wine could flow through them like a funnel. Rhytons were used by the Minoans and Mycenaean’s in the Bronze Age and possibly were exported to other civilizations through sea commerce.

This was another class project. The idea of this shopping cart was inspired by the pelican’s beak for hypermarkets. We want to understand the factors that make users experience a product as better as or worse than another and as what it is that gives an unexplained relationship with their products.in this idea, the bag was removable and is not a part of shopping cart to be lighter and more compact compare to existing designs. The ergonomic concepts were investigated, also. The central of gravity of the cart will close to the ground by heavier loads, which makes the cart to be more controllable for the users. The contact parts were designed to be made from antibacterial materials.

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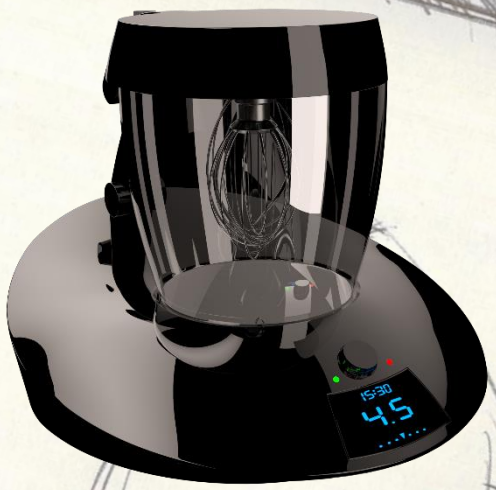
ULTRA SONIC
EGG BEATER
INDUSTRIAL DESIGN

The idea generation is an iterative process where creative tools such as brainstorming, exploratory sketching are used to create the concept, it features and final design. To further develop and visualize, the concept is 3Domodeled in CAD software and finally rendered into photo realistic images. The result is an innovative, user friendly, low noise low vibration, low power and safer stand mixer that inspires people with an urban lifestyle.



The ultrasonic egg beater is my thesis project. This project was one of my experiences of a good cooperation between industrial design and other engineering disciplines. I had to understand some details about ultrasonic sensor design and acoustic wave propagation. The idea of my thesis was born from ultrasonic humidifiers which uses an ultrasonic transducer in cavitation mode to make the water into the powder. Cavitation is the formation of vapor cavities in a liquid –i.e. small liquid –cavitation – free zones ("bubbles" or "voids") – that are the consequence of cavitational forces acting upon the cvitational liquid. It usually occurs when a liquid is subjected to rapid changes of pressure that cause the formation of cavities where the pressure is relatively low. When subjected ti higher pressure, the voids implode and can generate an intense shockwave. This phenomena can be generated by different mechanisms such as high speed propellers in conventional egg beaters or can be generated by ultrasonic waves and the cavitation has sufficient energy to mix the liquids instead of mechanical propellers. In this application the transducers are based in the beater and can make a homogenize combination. A tonpilz sensor was designed in this application. The PZt8 NT-III piezo ceramic material was selected. The sensor was designed by lumped element method and evaluated b numerical methods by multi-physics COMSOL and ANSY Software.

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DOBE 3D Toy puzzle

Water harvesting

Most areas of my country is an arid or semi-arid regions and supplying water for people has gained high importance.

Despite this fact, there are unit potential opportunities in my country for water harvesting from air, fog and sea water. It is three years that I am trying to design suitable products for different regions of my country for inexpensive water harvesting systems.

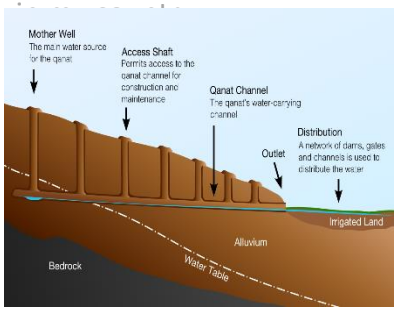
I developed three different design for three different regions.

1. Vertical mesh fog-harvesting system for coastal, arid and semi-arid regions
2. Underground mounting system for hot and humid regions
3. Deep Qanat-mounting systems for high arid regions

These system designed according to new material engineering achievements based on super-hydrophilic polymers and nanographene coatings.

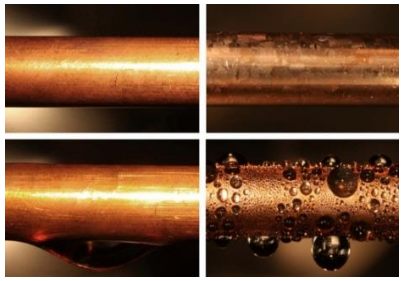
My team are working on a novel water harvesting system for massive traditional facilities called “Qanat” in high arid regions

These are deep mounting systems and are able to gather huge amount of water. The condensers will be mounting in 30 meter underground.



Cotton coated mesh with PNIPAAm polymer can absorb 340% of its own weigth of water from misty air-compared with only 18% usual cotton.

Coating of these condenser surface with a layer of grapheme, just one atom thick, can improve the rate of heat transfer by a factor of four.



A new optimization was done for dayson Airdrop system. A prototype of modified system was fabricated.

The modified system was able to gather 200 liter per day in relative humidity of %65. The system was mounted underground in 1 meter depth. The next generation of these kind of system is under preparation to gather more than 1000 liter per day in the same situation. The new system is inexpensive, portable with easy installation and is able to be mounted undersea for coastal applications.

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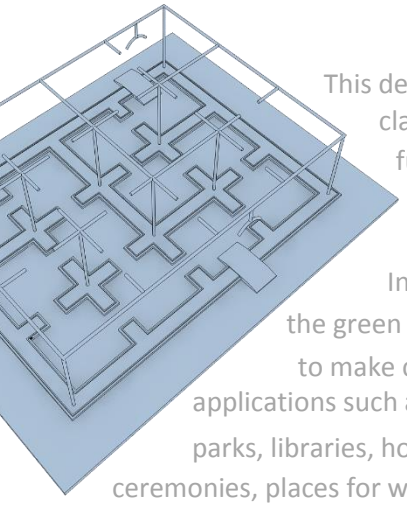
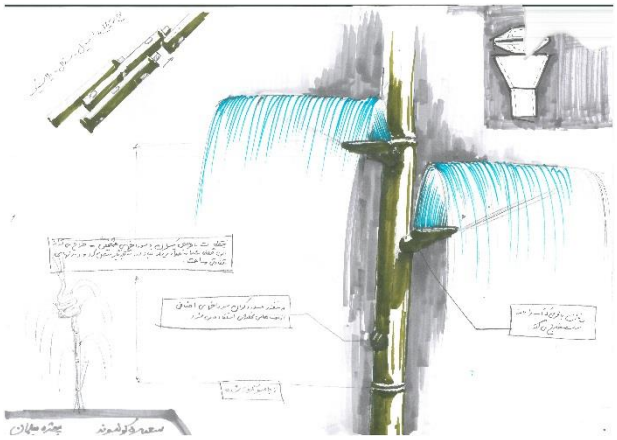
Fountains



This design was the result of a class project about urban furniture and introduced to organization of Tehran beautification. In fact, it was inspired by the green mazes for hot countries to make cool places for different applications such as children playgrounds, parks, libraries, hotels, Official welcoming ceremonies, places for worship and etc.

The water maze design is modular and the parts was prefabricated. The fountain can be made in different size and dimensions according to the order of customers. Quick and easy installation, development ability and ability to change the maze's form are the special characteristics of this design.



A bamboo fountain was designed for organization of Tehran beautification, which was inspired from large bamboo. The nozzle was designed to out the water as bamboo leafs. Similar to the water maze, the design was modular and the parts was prefabricated. This fountain can be made in different size and dimensions according to the order of customers.

Laser fountain was designed for organization of Tehran beautification as an urban element. It was a recirculating fountain that sent water jet w through some nozzle into a basin. The trick is to arrange a laser to shoot out through each nozzle. Because of total internal reflection, the laser light will follow the arc of the water stream.

The long collimating nozzle helps generate a smooth unbroken jet of water. A simulator based on the beam tracing method is developed for this fountain in MATLAB by a group of engineers to proof the laser propagation into nozzle with arbitrary situations such as different materials, nozzle length and curves and laser wavelengths (color). If you cup your hands under the stream, you are rewarded with a pretty handful of wet green, red or blue lights. I underestimated its attraction for hand washing, urban beautification, children playgrounds, Amusement park, museum, musical fountains and hotels.

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Sketch samples