MOHAMMAD HOSSEIN SAADATFAR

Engineer

@ mh.saadatfar@gmail.com mhsaadatfar.com mhsaadatfar

ABOUT ME

As an engineer, I am passionate about building systems that work effectively, no matter what form they take - be it devices, software, or even a company or group of friends. In my current role as CTO of Mersateb Co., a mid-size medical device manufacturing company, I am responsible for the overall technical direction and performance of our organization. A key aspect of my job is implementing and maintaining standards and management systems to ensure the smooth operation of our business. In my view, approaching everything in a systematic way is key to quickly and effectively learning, comprehending, and improving upon any system. My background in power electronics and experience in programming gives me a well-rounded understanding of both the technical and business aspects of our industry.

EDUCATION

MSc in Power Electronics & Electrical Machines

University of Tehran

2015 – 2018

BSc in Electrical Engineering

University of Tehran

2011 – 2015

STRENGTHS

- High Frequency Power Convertors
- Project/Product Management
- DC/DC Convertors
- Fullstack Web Design

LANGUAGES

English
Persian

REFEREES

Fattah Haeri
@ CEO at Mersateb Co.

EXPERIENCE

CTO, Co Founder

Mersateb Co.

April 2015 – Ongoing

Mersateb Co. was founded in 2015 with the goal of creating innovative dermatology treatments using radio frequency technology. The company's dedication to quality and innovation has helped it become one of the first producers of dermatology equipment in Iran in just a few short years. In addition to its core focus on dermatology, Mersateb Co. has also expanded its offerings to include other dermatology and gynecology products, making it a comprehensive provider of these medical services. With over 40 employees and customers in countries across Europe, including Turkey and Spain, Mersateb Co. is dedicated to meeting the highest standards of safety and quality in all of its products.

- Design and Production of one medical device per year on average in the field of Dermatology and Gynecology
- Obtaining the ISO 13485 and Medical CE Certificate
- Over 1000 devices have been produced and sold. (The best-selling dermatology plasma device in Iran)
- Export to 3 European countries.
- Over 40 members of staff

CTO, Co Founder

BMD Co. (BMD ULUSLARARASI MEDIKAL ŞIRKETI)

Sep 2019 – Ongoing

BMD Co. is the branch of Mersateb Co. in Turkey.

PROJECTS

Solatrix™ Fractional Thermo-mechanical Device

2020

Solatrix is a fractional thermo-mechanical device that has a significant effect on the rejuvenation and removal of skin lesions by transferring direct heat to the skin. The high-temperature (400°C) titanium tip of the device transfers heat to the skin with extremely low invasion; and by stimulating collagen production, it causes rejuvenation and eliminates wrinkles. The heat can be controlled by the contact time of the tip with the skin and the penetration depth of the tip.

MadamX™ Vaginal RF Device

2019

The vaginal RF technology exposes the inner and outer parts of vagina to high frequency radio waves emitted from safe electrodes with remarkable results. High-energy and long-lasting RF waves is an effective treatment without any complication that can heat lower layers and muscles with monopolar and multipolar functions without heating the skin or the mucous membrane.

f.haeri@mersateb.com

SKILLS

Programming Languages

C, C++, C#
SQL
Javascript
Verilog

Electronics and Power Electronics

Altium Designer
LabVIEW
OrCAD
PoweSIM
MATLAB
PLC

Embeded Design

STM32 ARM, Keil MDK
FreeRTOS
Xilinx FPGA, Xilinx ISE
AVR, Codevision

Web Design

ASP.Net Web API
Vue.js, Nuxt
Astro

Network

CCNA
Mikrotik MTCNA

Regulation and Standards

Medical Device Directive
MDD 93/42/eec
Medical Device Regulation
MDR EU 2017/745
ISO 13485
ISO 14971
IEC 60601
ISO 9001
EMC

Project Management

Agile Method
Scrum, Kanban

Other

Git
Docker
LaTeX

Firebolt™ Plasma Device

2018

The Firebolt plasma device transfers high-frequency plasma energy to the skin. This energy is used in various treatments such as blepharoplasty and the removal of moles, freckles, and wrinkles. The released energy generates a heating action on the skin surface that removes the old, damaged epidermis and dermis cells, thus triggering collagen creation. The exclusive features of the Firebolt plasma device are its high safety, various treatment indications, and its therapeutic performance without side effects.

Nettle™ Fractional RF Device

2018

The fractional RF technology applies high-frequency and minimally-intrusive radio waves to specific skin layers to produce heat, which stimulates fibroblasts and produces collagen and elastin. Ultimately, this process significantly contributes to skin rejuvenation. Fractional RF applies radio waves to the skin with fractional needles and can produce different effects in the skin's lower layers without exposing the skin surface to heat; thus, significantly reducing treatment side effects.

Hurricane™ Carboxytherapy Device

2019

The device starts a series of interconnected reactions after controlled and continuous injections of CO2 and leads to some changes like vasodilation, an increase in blood flow, and an increase in body temperature. The blood flow increase leads to the oxygenation of the intended area which itself helps the metabolism increase, tissue rejuvenation, and detoxification and it finally causes rejuvenation and cellulitis decrease in the intended tissue.