

# Dr. Islam Salama

Dentist \ Scientific Researcher



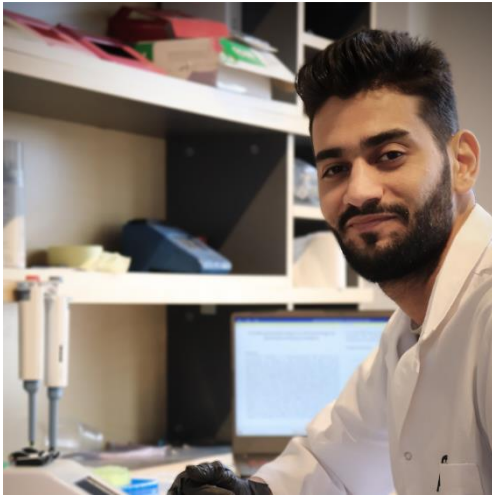
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[slideshare.net/SaimoBoOm](https://www.slideshare.net/SaimoBoOm)



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## Experience

### Shields of Hope | Researcher | Abhath Enterprise During COVID-19 - Benghazi Aug - Dec 2020

- ◆ Led the product design of a face shields design and manufacturing during COVID-19 lockdown and supply shortage, sharing more than 10,000 face shield in this project supported by USAID & UNDP.
- ◆ Used Lean Manufacturing Principles to optimize operator pathways by evaluating process and conducting time cycle studies Used power tools to complete rapid prototyping initiatives to iterate and improve the existing product.

### DentoBot | IT Developer | Libyan International Medical University | Jan - Aug 2018

- ◆ DentoBot is an Artificial Intelligence project works as a Chatbot that communicate with patients directly on social media platforms.
- ◆ Performed a simple user interface with help of natural language processing and no need for Signup or payment.
- ◆ Improved History taking of patients with reducing of treatment Time\Cost.
- ◆ Data Stored at Data base which can be analyzed
- ◆ Helps in making differential diagnosis for multiple diseases depends on patient's history.
- ◆ Improved fixture designs by adding self-locating features, reducing CNC setup time's by 15%.

### WATHIQ V1.5 | WATHIQ+ | Manufacturing Engineer \ Researcher | Abhath CO. , Jan - Apr 2021/2022

- ◆ WATHIQ is Portable Photometer Project built completely from scratch in Libya, including designing, manufacturing, calibration & marketing.
- ◆ Supported all stages of product development including conceptual design, manufacturing of the outer cover case, circuit design and manufacturing, hardware sourcing, packaging & marketing.
- ◆ Got the Innovation Award of Abhath Company for making Silicon Mold for cold casting of product outer cover reducing the production cost about 50% .

### Bio PT | Hardware \ Bio Engineer | Benghazi Libya - Custom Project | Feb - Oct 2022

- ◆ Designed to be first 3D bio printer Project in North Africa.
- ◆ Custom design made to be flexible for available material and sources in Libya.
- ◆ Project helps in understand of materials & Bio material properties that can be available in North Africa.

## PERSONAL DATA

- ◆ Islam Haytham Salama
- ◆ **DOB** : 31/8/1995
- ◆ **So. Status** : Single
- ◆ **Place of Living** : Libya
- ◆ **Education**: Libyan International Medical University BDS Degree "Bachelor of Dental Surgery 2021, with 9 months of internship, and 6 months of experiences in private dental clinics.
- ◆ **Work Experiences**: 2 years of experiences in Abhath NGO Enterprise for prosthetics technology, 1 and half year experiences as researcher in Abhath Company for Bio Technology, GDP 6 months in dental clinics.

## SKILLS

### Software's

- ◆ Basics of CAD software Solid Works, Fusion 360, matter control.
- ◆ Adobe illustrator & Photoshop.
- ◆ Used to draft 2D and Vector Designs.
- ◆ Microsoft office package.
- ◆ Video editing on Davinci resolve.

## MECHANICAL

- ◆ 3D Printing and Laser Cutting used to rapidly prototype parts created or for Research.
- ◆ 3D models based on FDM/ SLA principles.
- ◆ Good experience in prototyping, manufacturing of Bio medical devices, Cold Mold Design like epoxy casting.
- ◆ Experience in laser cutting & engraving & Cutting.

## ELECTRICAL

- ◆ Good knowledge of basic electronic components, microcontrollers due to experiences in bio medical manufacturing.
- ◆ Was a part of team of PCB fabrication
- ◆ Good experience in soldering, wiring.

## Scientific Experiences

- ◆ Good knowledge about material science and bio material science, bio fabrication, biotechnology, farming technology e.g.: hydroponics, artificial prosthesis etc.
- ◆ Own a laboratory for chemicals research.
- ◆ Recently becomes a Member of Libyan Corrosion Society.
- ◆ Good experience in manufacturing process.
- ◆ Ability for fast self-learning skills.
- ◆ **CURRENTLY working as a Dentist in Thanaya Dental Clinic "Benghazi - Libya ", as well as a Researcher at [Abhath CO.](#)**

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## PUBLISHED BOOKS



### Programming by Photoshop | البرمجة بالفوتوشوب

- ◆ A book made to encourage the use of adobe Photoshop as a programming tool
- ◆ Gets more than 4000+ downloads
- ◆ Published online Jan 2016.



### Technology Building | بناء التكنولوجيا

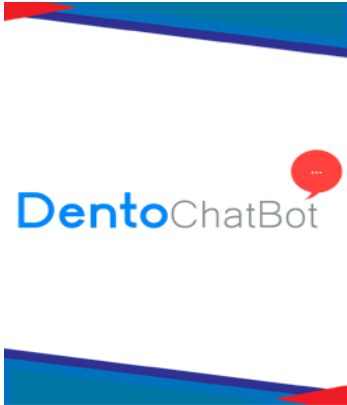
- ◆ Thinking out of the box.
- ◆ Building whole technology from scratch to advance
- ◆ Including project building
- ◆ Published Oct 2017.



### New Bio Book | كتاب جديد

- ◆ a new book under progress fulfilled its purpose to be the first Arabic bio book explaining process of Bio Fabrication Technology
- ◆ Expected publishing date Jan 2023.

## Dento ChatBot



### What?

- ◆ DentoChatBot AI Chat bot project makes history taking and diagnosis very easy.
- ◆ Minimize human operator error



### How ?

- ◆ Designed on API.Ai platform
- ◆ Made to be easy to use & easy communicate with people.



### Features ?

- ◆ No need for download!
- ◆ chatbots can work on any social media platform

## First 2 Part Silicon Mold In Libya , Totally Manufactured In Libya



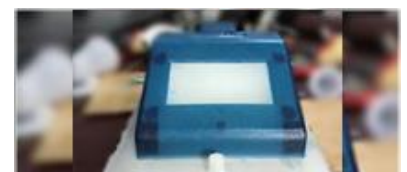
### What?

- ◆ Outer cover of the device designed in solid works then printed by FDM 3D Printer.
- ◆ Model finished, polished & prepared.



### How?

- ◆ Material of silicon selected depends on needs.
- ◆ Pouring upper and parts of silicon mold.



### Results

- ◆ Reduced faulty products sold to customers by 30 %.
- ◆ Reduce time of painting and post processing.

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## WATHIQ+ PACKAGING – Totally Manufactured In Libya



### What?

- ◆ Create a low cost, lightweight packaging for WATHIQ Portable photometer medical device.
- ◆ Packaging is used to hold the device safely as it is shipped to contractors who are installing it as part of a laboratory renovation.

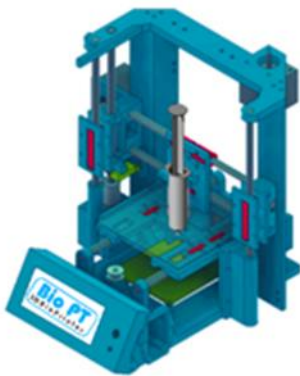
### How?

- ◆ Used Adobe Illustrator to design the outer box
- ◆ Manufactured locally by cutting box borders using CNC Laser machine NEJE MASTER V2.

### Results

- ◆ Reduced production costs by 70%
- ◆ Also designed and manufactured of foam core of the box.

## BIO PT First 3D Bio Printer In North Africa



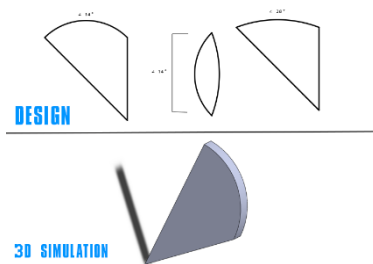
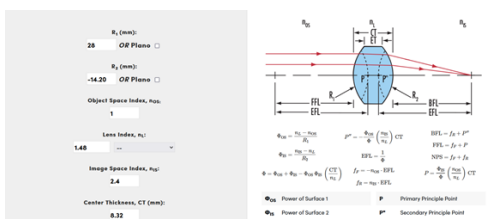
### What?

- ◆ Full Locally manufactured 3D Bio printer in Libya helps in fabrication and printing of human organs.

### How?

- ◆ Body of printer printed using modified open source project, all parts printed by 3D printer.
- ◆ Mechanism of syringe pump and software developed by our team to be strong to withstand the stresses caused by the printer movements, so opens a big door of bio research.

## Specific Convex lens for photo spectrometer totally made in Libya



### What?

Lens needed to fit a proper working length specific for photospectrometer WATHIQ+ project, no local supplier available, so I designed a lens, calculated proper angles, index of reflection, focal point and focal length.

### How?

Lens Designed in 2D using Solidworks software with the specific dimensions, then 3D extruded, edited and exported.

### Results

Lens fabricated using CO2 laser in Acrylic material, excellent result in testing.