

07 March 2020

H.E. António Guterres

Secretary- General

United Nations

New York, NY 10017

USA

Dear Mr. Secretary General,

With a strong commitment to the UN Sustainable Development Goals, Giza Systems Education Foundation is pleased to continue its support and commitment to the ten principles of the Global Compact on human rights, labor, environment, and anti-corruption. As we renew our commitment, we express our intent to support the Global Compact advancing these principles.

GSEF aims to create a ripple of change and develop our community through marrying technology with education to develop a self-directed, better-informed, tech-savvy and socially conscious individual that can contribute positively to impact youth and society as a whole.

GSEF initiatives and activities are built around three anchors; youth enablement, reducing inequalities and responsible consumption, all supported by a fourth anchor "Partnership for the Goals." These anchors coincide with the UN-SDGs 2030 – number 4, 10, 12 and 17 to ensure that our efforts are aligned with the global community with a focus on serving marginalized communities, youth, people with disabilities, children, and teachers and provide support to entrepreneurs interested in starting their sustainable social or environmental businesses.

Giza Systems Education Foundation is adopting the approach of creating shared value for both our stakeholders and community instead of focusing only on corporate social responsibility to create a positive difference in society.

As a result of our commitment to building partnerships to achieve global goals, we have engaged in several partnerships, namely our partnerships with Drosos Foundation, Fab Foundation, Zain Group Kuwait and Federation of the Egyptian Industries to cooperate with and to fill the gaps where needed.

And again we shall continue to use an evidence-based approach to ensure we are making the right choices, and always strive to learn from our previous experiences.

Sincerely yours,

Shehab ElNawawi

Chairman of the Board of Trustees

Giza Systems Education Foundation



**Giza Systems
Education Foundation**

Annual Report

2018
2019



About This Report

The annual report is an overview of Giza Systems Education Foundation programs, activities and partnerships from July 30, 2018 – July 30, 2019.

This report includes information pertaining to the Foundation activities in the field of innovation and industrial development, training and capacity building and enable PWDs. Highlighting some of partnerships with stakeholders, impact of our programs and Inspiring success stories had a major impact on our approaches.



Who We Are

Giza Systems Education Foundation (GSEF) was founded in 2013 as the Corporate Social Responsibility arm of Giza Systems (GS), and registered (registration no. 840 - 17/5/2018) with the Ministry of Social Solidarity as a functional non-profit, non-governmental organization seeking to combat ignorance and poverty in the most marginalized areas in Egypt through the use of technology and technical expertise.

We are one of the very few non-profits in Egypt leveraging technology and its applications to impact education, youth, marginalized groups and our environment.

Our Vision

To use technology to create ripples of change in people's lives and our environment.

Our Mission

Our mission is to build a learning community in Egypt through the employment of technology to foster an environment of knowledge, learning and development of aptitudes. Through innovative and effective programs geared towards the improvement of education and development, we strive to impact the existing ecosystem to serve youth, entrepreneurs, marginalized communities and persons with disabilities for the wellbeing of society and the economy as a whole.

Our strategy

We create value for our communities by working at the level of the individual, society and economy. Leveraging digital fabrication technologies and the education programs we have designed, we are working towards three main anchors pivotal to our strategy and commitment:

Youth enablement:

- Develop a generation of entrepreneurs (social and commercial) that can contribute to their own wellbeing and to their communities, and eventually to the economy.
- Develop a higher-caliber individual better suited to the job market.



Reducing inequalities:

To reduce the various inequalities in the community, GSEF is addressing three main groups:

- Rural areas in Egypt: to promote equal opportunity and provide technology access to marginalized communities.
- Persons with Disabilities (PWD's): building on digital fabrication technologies and makerspaces / labs for the inclusion of PWD's in the society by having them actively join the workforce and becoming entrepreneurs on their own right.
- Children without parental care (orphans): actively supporting Wataneya Society dedicated to reforming standards of care for orphans.



Responsible production and consumption:

- Educate and increase awareness about the applications of digital fabrication technologies to promote responsible production and consumption.
- Promote recycling, up-cycling, re-use initiatives for environmental sustainability.



These anchors coincide with the UN-SDG's (United Nations Sustainable Development Goals



Our Programs

Giza Systems Education Foundation focuses on 4 main pillars to impact youth enablement, reduction of inequalities, and responsible production and consumption:



1. Education & Training

GSEF provides structured courses and training programs specifically developed for each age group to address the needs of a rapidly growing population using the impact of technological applications and digital fabrication technologies.

Our programs and workshops serve a wide variety of age ranges starting from 8 years old. We aim to form a community of learners, makers and experts that share knowledge and experiences, as well as create an impact.

Our curriculum is built around instilling 4 key capabilities:

1. Problem Solving Mindset
2. Design Skills
3. Digital Fabrication and Manufacturing
4. Capacity in Electronics and Programming

We offer programs for the development of individuals. These programs are delivered in short durations in a hands-on workshop environment. The courses aim to educate our target on the different elements of digital fabrication, as well as other required complementary knowledge courses, such as design thinking and design concepts. These programs form the base of our 100 and 200 level courses. They may be taken towards a certain certificate, or as standalone courses.



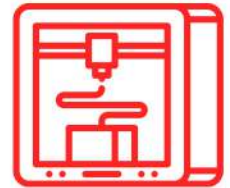
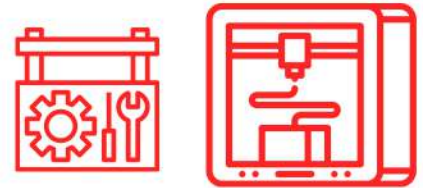


100 Level

Basic level courses are delivered in all the maker spaces /labs. In the 100 level courses, participants with no previous background are introduced to digital fabrication tools and the process of product design in an interactive and hands on to learn the basics of 3D printing, laser cutting, electronics and control in addition to other skills.

200 Level

The 200 track is an intermediate level, participants get more in-depth knowledge, skills, and practice on digital fabrication. They learn about CNC machines anatomy, machines manufacturing and maintenance, advanced 3D printing, laser cutting, etc. They also learn about web development, mobile apps, advanced 3D milling, composites, and woodworking or art making, advanced electronics, programming languages, and control.



300 Level



The 300 track is the ultimate aim of our education program. It consists in programs designed to address the needs of specific communities using digital fabrication technologies. The purpose is to integrate all the skills and disciplines in order to generate, prototype and deliver a proof of concept for real community challenges. Participants develop a usable functional product that is commercially Viable. The 300 track courses focus on sustainable design, innovation, entrepreneurship, business and Research.

Training & Capacity building

Giza Systems Education Foundation offers trainings to schools, universities, associations and organizations. The training can either be from the general curricula introducing participants to digital fabrication technologies or can be tailored to suit the specific needs.



Fab-Masar program

The management of all kinds of wastes is one of the biggest challenges facing Upper Egypt. Therefore Giza Systems Education Foundation collaborated with Enroot for Development and launched Masar-Fab program to raise awareness about waste management and how is the digital fabrication technology is helping in this field. Through Design Thinking and Fab Lab environment, this program introduces digital fabrication tools and how to use them in prototyping and validating ideas.



30 Entrepreneurs, Post graduate and students had joined the projects from different backgrounds



6 Project ideas had been developed and transformed into prototypes



50 Training hours had been given for 10 continues days



Training took place at Sohag University and Fab Lab Sohag

Masar-Fab phase 2

The second phase of the program will focus on entrepreneurs and students have ideas to transform into startups and have an impact on Sohag society in order to solve the social problems, support the economy and create jobs for youth. It is supposed to start the second phase during the first quarter of 2020.



Fab-Masar program helped me to build a complete business model for my idea of recycling animal bones to produce Bleaches and fodders

**Marina Ashraf
Participant**



MENA Network for social protection

The Federation of the Egyptian Industries (FEI) Launched the MENA Network for social protection as a part of the Global Business Network (GBN) for Social Protection Floors created in Geneva in 2015 by the International Labor Organization (ILO) to provide a platform for private sector to contribute to the achievement of United Nations Sustainable Development Goals (SDG) on social protection and to support the ILO's Global Flagship Program on Building Social Protection Floors for All.

Social protection is fundamental in reducing poverty and inequality, in improving human capital and productivity and in supporting growth and jobs. Access to social protection is a critical ingredient for economic growth. Investing for an educated and healthy workforce can foster transitions from low productivity jobs to decent, high productivity jobs.

Giza Systems Education Foundation joined two committees of the MENA Network:

1. Training and Employment
2. Education

MENA Network main objectives:

1. Contribute to the achievement of SDG on social protection and to the development of knowledge on social protection, notably regarding the linkages between social protection and business profitability.
2. Increase industry productivity and efficiency by fostering higher social protection standards across supply chain and beyond.
3. Increase enterprise competitiveness and attractiveness by establishing the best in class social protection programs.

Youth Employment Initiative

As a beginning of the activities of education and training committee, the FEI launched youth employment initiative to maximize the benefit of applying CSR activities in developing rural areas with a specific emphasis on creating new job opportunities.

The initiative aims at empowering rural women, youth and disabled, reinforcing their rights and assuring their participation in designing and implementing the agriculture and rural development agenda.

Giza Systems Education Foundation joined the Initiative to Improve the quality of education and creating effective and interactive ways of teaching .



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Fab Teachers program

We aim not to just introduce the digital fabrication tools of Fab world and how to combine them in lesson plans, that embrace the students human side, to achieve the desired 21st century skills of learners; but rather put the teachers back into the mode of being students, where they can learn and reflect on what they learn in a fun, engaging and fail-safe environment.

Program General Objectives:

1. Development of Maker Mindset in TAs.
2. Empowering student mentality and proactivity in TAs.
3. Forming a community of knowledge that share best practices and solutions for challenges.
4. Introduction of Making and Digital Fabrication tools and embed it in teaching.

Along 2 weeks, in coordination with the university leadership, our team had attended a section taught by each TA in their faculty to monitor and mentor the application of learnt tools (Digital Fabrication, interactive learning, and student-centered approach) in classroom and validate the tools application with large group of students.



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جامعة حلوان
HELWAN UNIVERSITY

GIZA
SYSTEMS
Education Foundation

FLoW in Helwan university

Today's students must be prepared to thrive in a constantly evolving technological landscape and become empowered learners by understanding and using these technologies in their curriculums and everyday teachings.

Therefore, Fab Lab on Wheels (FLoW) had existed for two weeks in the campus of Helwan University and faculties of engineering, industrial education, applied arts and other Faculties to learn students about the applications of digital fabrication and its uses to help them transforming their ideas into prototypes and real projects.

Fab teachers outputs

Teaching assistants from the faculties of industrial education, home economics and applied arts have restructured their curricula and introduced digital manufacturing as a major tool in the courses.



8 TAs Had been trained for 50 hours



8 Different faculties participated the training program



FLoW presented more than **35** workshop in one week.



365 student attended FLoW workshops

“

FLoW visit to the faculty of Industrial Education allowed students to learn about new technologies they had never seen before

Dr. Essam
Prof at Helwan University

”



Sustainable Design Boot Camp

Human Centered Sustainable Design is a key skill to successful product design and entrepreneurship. Building on participatory action research, human-centered design is moving beyond participants' involvement and producing solutions to challenges, thus creating a more inclusive innovative and collaborative community.

In Collaboration with Y-Center, 23 members of the Giza Systems Education Foundation and AYB team from Ain-Shams University had been taken through the entire process of breaking down a complex problem, finding patterns and cause-effect relationships, mapping stakeholders, designing product prototypes and running user tests, turning an idea into an actionable solution and finally making a business model for it.

The problem statements and consequent projects in this program had been mapped to the following domains:

- Education
- Empowering Hand crafts
- Waste & Resource Management
- Agriculture development.

Ezbet Abu-Qarn Visit

In order to have an authentic experience, a collaboration with AYB-ASU SB was established to visit Ezbet Abu-Qarn; a poor slum in Misr El Qadima.

AYB team has been working for around 15 years in that slum on 3 main aspects:

1. Educational
2. Infrastructure
3. Economic and small scale projects

“

The boot camp changed my thinking method and learned to see problems from another Perspective

Mostafa Fawzy
Volunteer in FLiNC

”





Rural Development Academy

In light of SDG – 9: “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation” and ILO’s programmatic focus and strategic priorities of Creating shared prosperity, Advancing economic competitiveness, Safeguarding the environment and Strengthening knowledge and institutions; Digital Fabrication and the maker world comes to empower individuals and learners to see science, think and apply differently, embracing proactivity and proficiency in solving challenges and contributing positively to their community.

Therefore, Giza Systems Education Foundation hosted a workshop in Fab Lab Fayoum within the activities of The “rural development academy” organized by the International Labor Organization (ILO) in cooperation with the United Nations Industrial Development Organization (UNIDO), the Ministry of Foreign Affairs of Norway and a number of other institutions.





More than 30 representatives of civil society institutions and officers of a number of development projects from inside and outside Egypt participated in the workshop.

The workshop dealt with how digital fabrication contributes to inclusive rural development, utilizing available resources, creating new job opportunities and creating simple and effective solutions.

During the workshop, a number of innovations were presented, such as rice straw recycling machine for paper making used for garnishing purposes and solar solar dryer innovated by Fab Lab Fayoum team, which is used in drying shrimp crusts and maintaining its properties in order to transform it into fertilizers.



“ Digital fabrication can be a great way to launch startups, develop new models, improve and develop products and use innovative materials.

Claudio, Italy

”



2. Research, Development and Innovation

We believe that the technological and industrial renaissance begins with creating an environment conducive to innovation and practical experience, so Giza Systems Education Foundation launched its makerspaces program in 2015.

Makerspaces Program

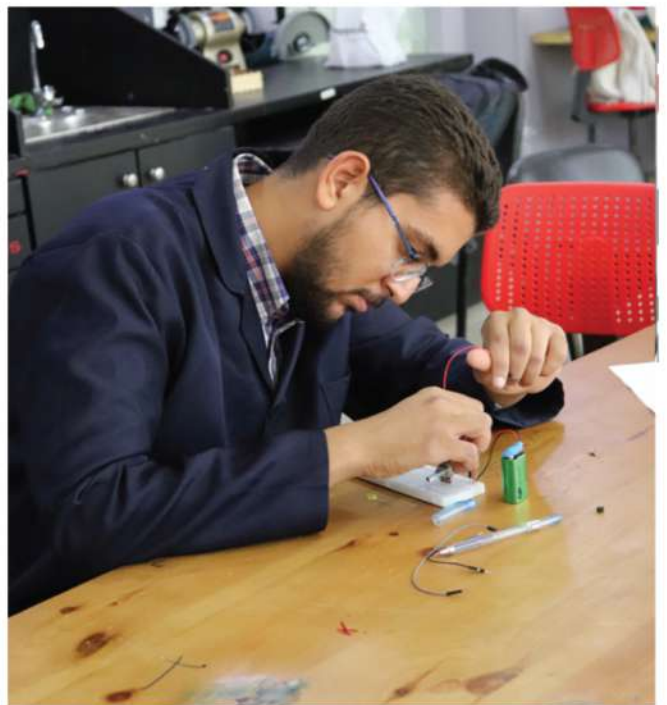
Makerspaces, also known as fab labs, were established to create an environment conducive to research, development, innovation and practical experience. Makerspaces are equipped with digital fabrication machines, so that innovators, researchers, technologists, entrepreneurs and makers can turn their ideas into real products.

Our makerspace program consists of a growing number of fixed Fab Labs and one mobile Fab Lab. The program specifically focuses on the adaptation of digital fabrication for personal and community development, as well as works on capacity building for the local workforce. It also provides the environment and support needed for young entrepreneurs to create prototypes and turn their ideas into viable startups.

Makerspaces are open to everyone from children, amateurs and tinkerers to students, practitioners, and artists. The program embraces community innovators and technical or scientific skills seekers coming from a variety of backgrounds starting from the age of 8 years. Makerspaces were launched to foster innovation, collaboration and the sharing of know-how.

To cater to the different needs of visitors and users of the labs, we provide a variety of services and support including:

- Digital fabrication machines usage
- Technical support
- Mentorship
- Co-working space
- Technical and business support to start-up companies
- Prototype development and support
- Training



FLiNC



GSEF launched FLiNC in November 2015 at Giza Systems headquarters. FLiNC was the first fab lab in the makerspace program. It is designed with state-of-the-art digital fabrication equipment; including laser cutters, 3D printers, a CNC precision milling machine, and a variety of electronic components and tools.



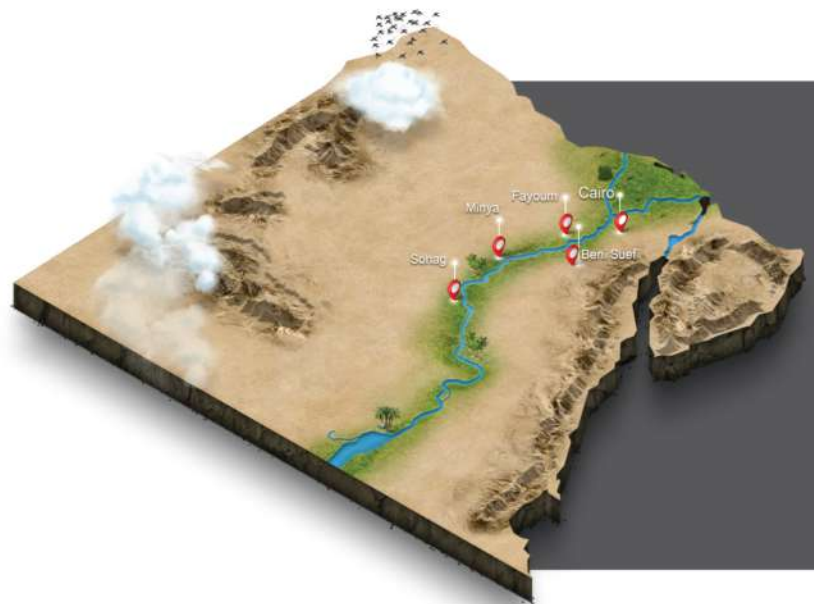
Makerspaces in Egyptian governorates

Following the Fab Lab on Wheels tour to the different governorates, GSEF established makerspaces in Upper Egypt to promote digital fabrication technology in marginalized communities and enable access to the latest technologies for the development of entrepreneurs and high caliber individuals.

These Fab Labs aim to assist the community in finding practical and affordable solutions to their research problems or challenges through digital fabrication technologies.

Our Makerspaces / Fab Labs currently open:

The role of our fab labs is not only to help youth to transform the ideas into prototypes, but also to find solutions for the community problems to enhance the surrounding society therefore, each of our fab labs is adopting several SDGs to enhance the impact of our social role.



Fab Labs in MEA Region

as we believe in the dissemination of technology not only in Egypt but in the Middle East and Africa, GSEF establish, manage and operate Fab Lab Al Ihsaa, KSA 2018.

- Plans are underway to open fab labs in:
- Nairobi, Kenya: 2020
 - Dar es Salaam, Tanzania: 2021





Fab Lab on Wheels (FLoW)

FLoW is the first fab lab of its kind in Egypt. It was launched December 2016 in collaboration with DELLEMC and Fab Lab Egypt. It consists of a mobile Fab Lab housed in a bus, promoting the message of "Tour. Educate. Create."

The purpose of the Fab Lab on Wheels project was to serve as a means for the dissemination of digital fabrication know-how and skills across Egypt. As the cornerstone of this project, the mobile Fab Lab was seen as essential to democratizing access to technology in order to raise awareness to the next generation of makers and potential entrepreneurs.

Through bringing technology to Egypt's rural and under-served areas, various communities can have access to the latest advancements and technologies.

Fab Lab on Wheels (FLoW) is a condensed, mobile version of the fixed Fab Labs that tours from one city to another. FLow makes technology available to everyone, stimulates young talent, and initiates makerspaces in diverse locations.





FloW Numbers



26 Tours in different Universities and schools



79 Instructed workshops during Flow tours



1520 Participants had a FLoW tour

Makerspaces Numbers



2195 Participants joined our makerspaces



309 Instructed workshops in our makerspaces



172 Projects had been technically supported



67 Projects had been mentored



24 Prototypes had been produced in our makerspaces



Dimensions Maker Hackathon 5

Maker Hackathon is the first hardware hackathon born in the Arab World and aiming to travel all over the world. It is an initiative by Zoomaal, the leading crowdfunding platform from the Arab World.

A hardware hackathon is a 3-day competition organized by Dimensions Helwan University student organization, where participants are divided into teams, each applying their skills in various disciplines including software and hardware development, business ideas, and product design to develop a hardware prototype, by the end of the 3 days.

Giza systems Education Foundation participated and supported Dimensions Maker Hackathon as a golden sponsor for the second year in row to encourage youth to innovate and find solutions for our community problems.

Also Fab lab on Wheels participated the hackathon to provide Machines usages for the teams. Fab Lab New Cairo team joined the hackathon to provide technical support and mentorship for the projects and participated teams.





Project Nitrous

Project Nitrous started as a 18 months pilot project Launched on 1st of February 2018 by Giza Systems Education foundation and funded by Drosos Foundation. Nitrous project leverages digital fabrication technologies to enable and empower people with disabilities (PwDs) .

Under the slogan "Innovation that changes lives," the project aims to utilize digital technologies to enable the disabled by creating assistive devices and empowering them to revolutionize the products they use to make them highly customizable to suit their individual needs. The project also involves them in product design and learning digital fabrication skills to promote them actively joining the workforce and becoming entrepreneurs in their own right.

Nitrous works on three main objectives. The first objective will tackle the utilization of digital fabrication, specially 3D printing to support disabled people in creating their own assistive tools.

The second is involving the engagement of the community by creating skills among the disabled to not only promote inclusion and wellbeing and working on economic and skill enhancement of the beneficiaries through digital fabrication.

The third is developing a blueprint for sustainability to ensure that this specific digital fabrication lab applications (servicing people with disabilities) are socially, technically and financially sustainable to ensure business continuity.



drosos (...)





Nitrous Numbers



26 Beneficiaries were trained to manufacture their assistive tools and benefited from Nitrous



Worked on **8** different visual and physical disabilities



More than **90** parts and assistive tools had been designed



2 Educational kits had been delivered consist of **42** parts



More Than **500** Parts had been printed



2 Hackathons were organized for awareness, involvement and community development



Worked with cases from **7** different governorates: Mansoura, Al bahiera, Alexandria, Giza, Fayoum, Ismailia and Luxor.



Worked with **1** school and **2** NGOs



Nitrous in MFC 2019

Project Nitrous team utilized the Maker Faire Cairo event and exhibited with the following objectives: raise awareness about assistive technology, take feedback, include Nitrous Competition'19 participants and build a community. Maker Faire Cairo'19 also marked the end of phase 1 in the Nitrous Competition'19.

Project Nitrous displayed over 76 assistive tools and also had some assistive tools mobile for further reach, among which were 2 functional assistive tools developed by the competition participants themselves. 12 from Nitrous Competition participants have joined alongside Project Nitrous team. They got to integrate with the community at the event, be Nitrous ambassadors and walk the attendees through Nitrous and the assistive tools presented. The participants were resilient and took ownership of the Project. They introduced Project Nitrous to around 212 from the attendees.

Maker Faire® Cairo

**PROJECT
NITROUS**
Innovation that changes lives

Project Nitrous team gamified the awareness experience through a customized collaboration with "The Maze". The event attendees would enter a small competition of "Best idea for an assistive tool" and then enter "The Maze". The Maze escape rooms' challenges were inspired by people with physical disabilities; moving around on a wheelchair, identifying shapes with covered eyes... etc.

A lot of the feedback received on this experiential experience was that it got them to live in the shoes of a disabled person for a few minutes, leading them to empathize more and experience the challenges that a disabled person faces. Around 164 had participated and applied to the competition of whom 2 won and 61 had played in The Maze.

The exposure and display of the assistive tools had a great impact on the ideas; the ideas won were an attachment for the multi-tool for irons, and edit on the accessible chess.

We also had around 20 volunteers with us that day where they got to interact and collaborate with the Competition participants. Some volunteers were concerned that it might be difficult to collaborate with the participants but everyone enjoyed the experience and was included.

Some of Project Nitrous partners came to support; Yomken and Handicap International.



“

The experience was great. for the first time I felt the challenges facing people with special abilities

Ahmed Sallam

”



over 76 assistive tool displayed



20 volunteers participated



212 attendees



61 played the maze



164 competition participants



2 winners

Nitrous Hackathon

Nitrous Hackathon is a one-day event that allows the community to work with beneficiaries to develop assistive tools using digital fabrication and 3D modeling. Prior to hackathon, the technical experts and community receive training in empathy, hackathon process, values, and design thinking.



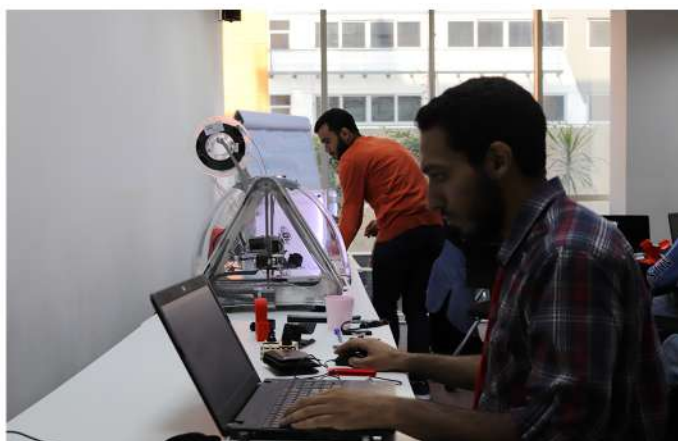
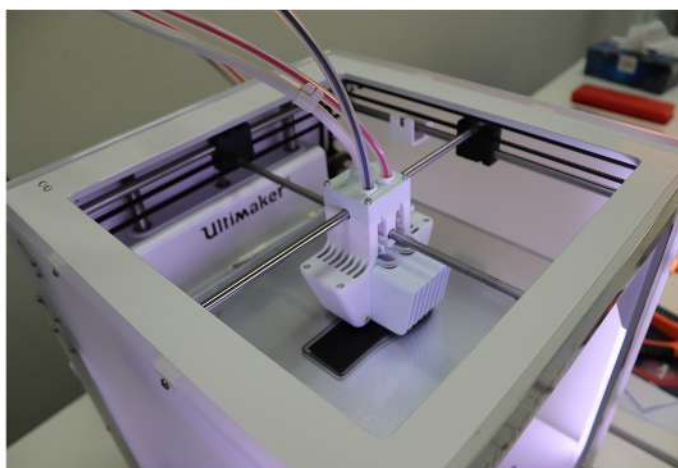
NITROUS Hackathon key objectives:

1. Awareness: To spread awareness among various communities that may create a direct impact on our project. Such communities will include technical experts in digital fabrication, beneficiaries, individuals who work in serving people with disabilities, or others.

2. Involvement: Involve the beneficiaries, in the process and enabling them to create their own assistive technology.

3. Functional Prototypes: To create functional prototypes to support beneficiaries to rely on themselves.

4. Develop the Community: The beneficiaries need to have a community of support and an ecosystem. During the Hackathon, this community is harnessed and engaged.



“

The experience was great & I like the field after this day, Finally, I joined the team and I am doing what I love now.

Nahla Khaled
Participant

”



5 Parts had been Innovated during NITROUS hackathon



15 Engineers and people with special needs participated in the last hackathon

NITROUS competition

Nitrous Competition helps the interested beneficiaries, who have been involved in the process, to start their own business in digital fabrication. Interpersonal & technical skills are constantly being developed through Nitrous, user-focused, process. This enables Nitrous beneficiaries to successfully start their own business in digital fabrication.

The Nitrous Competition objective is to facilitate their inclusion in society by helping them to be part of the digital fabrication professional community in Egypt. Moreover, the competition helps the involved beneficiaries to have a source of income from utilizing the gained experience.

Interested beneficiaries apply through Nitrous channels. After the application phase, the applicants will be assessed based on their communication skills, ability to learn, ability to self-manage and work ethics.

The Nitrous team designed a competition involvement guide to help the beneficiary to come up with the business idea. The competition involvement guide follows the same methodology that has been used in the 1-1 coaching sessions.

At the beginning of the competition involvement, each beneficiary chooses a project to work on. This project is divided into a set of tasks where his performance is evaluated accordingly. Those tasks might vary from research, printing, defining the problem, etc. The final submission will also have a certain weight in the evaluation. Through each stage, the applicants will be filtered based on their performance.

The winner(s) of the Competition will be set up to start their own business and create a revenue stream for themselves. The Nitrous team will work closely with the winner(s) to secure all technical and financial needs for their business. In addition, a royalty fee will be granted for Nitrous to help to sustain it financially. This revenue stream will come in terms of royalty fee for the Nitrous project on the revenue streams of the business. In return, Nitrous will provide to the beneficiary regular consultation, regulatory compliance and impact assessment. The competition will be held annually for a period of 3 months.

Competition levels of involvement	
1	Digital Fabrication application
2	Choose an application of interest
3	Business opportunities within the application
4	Opportunity of interest
5	Prototype
6	Digital fabrication

NITROUS Competition winners



Ahmed Sabry is the winner of the competition and now he is one of project Nitrous team and we are working with him on a training program to start his own business and create a revenue stream for himself.



Tarek Salem He designed platform to connect the people with disabilities to the near lab can print their parts or a part that fit their



Giza Systems Education Foundation

EVENTS





5th CSR annual conference

Giza Systems Education Foundation participated the fifth CSR annual conference which took place on April 15 and 16, under the title "CSR and the Rise of Regional Partnerships for Development." The conference was held in partnership with the Federation of Egyptian Industries (FEI), Alex Bank, and Sawiris Foundation for Social Development.

The conference sheds light on the importance of partnerships, highlighting that a single organization, on its own, cannot cope with the different challenges facing Egypt today. Hence, the public and the private sectors as well as NGOs need to work together to become successful drivers of change.

The conference discussed several current issues holding back the progress of education, poverty, gender equality, training for employment, entrepreneurship, innovation, and empowering youth and women, through different panels.

Lara Shawky, a member of GSEF Board of Trustees, participated in the panel discussion about The importance of the role of the corporate foundations and the activities of GSEF in the development of interactive education in Egypt.



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Maker Faire Cairo 2019

For the fifth year in a row, Maker Faire Cairo organized by Fab Lab Egypt and gathered makers from all over Cairo and governorates in one place to connect and share their passion and enthusiasm for making. From prosthetic makers, to drone creators and robot enthusiasts, over 10,000 visitors gathered to attend the day-long event at Smart Village, Cairo.

GSEF theme for 2019 was focusing on the concept of inside – out and how digital fabrication can embody ideas, emotions, experiences, needs, etc.

Changing the perception of the audience about making and simplify it by showing how components can be put together and showing products insides.

Providing insight to the audience about each product or device, how it is made and what it is made of was very attractive and encouraging them to try to do their own things and become makers.

GSEF focused on showing the applications of Digital fabrication in our daily bases through exhibiting furniture, home accessories and different innovations.



More than **250** participants visited GSEF area



FLoW presented more than **10** workshops





Fab 15 Conference 2019

The Fab15 was hosted by Fab Lab Egypt (parent company San3a Tech) and Fab Lab New Cairo (under Giza Systems Education Foundation), coming together to organize this huge event established by The Center of Bits and Atoms and Fab Foundation.

fab 15 is the world's largest and most important International Digital Fabrication Conference, as it gathers members, practitioners, researchers and entrepreneurs from over 1,600 Fab Labs globally for a week of panels, talks, hands-on workshops on the principles and applications of digital fabrication. Leading keynote speakers from prominent universities, entrepreneurs, and technologists to designers, archaeologists and Forbes-featured figures are lined up for this year's conference.

The conference works on promoting the concept of sharing, discussions, collaboration and creation of communities around the different local and global interests relating to digital manufacturing, innovation and technology.



This round also explored urban transition towards locally productive and globally connected cities in the "Fab City" track. Attendees from all around the world got to live an intercultural experience allowing them to broaden their horizons and get exposed to new perspectives, ideas and challenges.

Fab 15 event was held in ElGouna from July 28 to August 2, which enabled the attendees to explore the beauty of the Red Sea and effectively promote tourism in Egypt coastal cities. Attendees then travelled to Cairo to attend the Fab Festival to be held at the Greek Campus, downtown Cairo, to ensure the transfer of knowledge and exposure of the Egyptian maker community to the international prominent talents. This also provided the attendees with the opportunity to discover the capital's wonders and historical sites.



More than **470** participants attended Fab 15 conference



More than **2000** participants attended the Fab Festival



More than **50** presentations, panel discussions, and talks presented



50 speakers participated Fab 15 and the Fab Festival



110 Instructed workshops and activities

Quality Standards for Alternative Care – Wataneya Association

Giza Systems Education Foundation has supported Wataneya in various capacities to assist it in its numerous programs and projects dedicated to the establishment of minimum standards of care for orphans.

The Association aims at developing and applying the quality of care standards within orphan care institutions, to be applied at a national level through the executive bodies concerned, in order to provide a safe environment for the empowerment of children, and their integration into the community to become successful individuals that contribute to the society.

The Quality Standards for Alternative Care were accredited by the Ministry of Social Solidarity in 2014 and are now mandatory nationwide. With the compulsory application of these standards, the goal is to create a future of equal opportunities for children without family care, through the standardization of systems and standards within orphan institutions, and activate and adopt all aspects of care and services that are offered to them.

Wataneya Forsa Program

Through our partnership with Wataneya Association, GSEF is support Forsa program that builds the capacity of young orphans and helps them acquire the needed skills for the job market including how to write winning CVs and cover letters, and how to effectively prepare for job interviews.





Giza Systems Education Foundation

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