Innovation Hub (iHub)

1. Initial State

iHub started in 2013 by a group of volunteers that wanted to add more to the educational system at Ain Shams University. Throughout five years, many programs were suggested, planned, executed and evaluated in an extracurricular manner to help boost innovation at university undergrads. By 2007, iHub reached to the point where it was capable to serve 7000 undergrads and recent grads per year. It also just scaled to work in three other universities: Cairo University, Minia University, and Alexandria University. iHub was able to form a network of 120 industry partners and tens of NGOs and governmental strategic partners, through which it was providing tens of extracurricular programs in both entrepreneurship and professional development tracks, as shown in

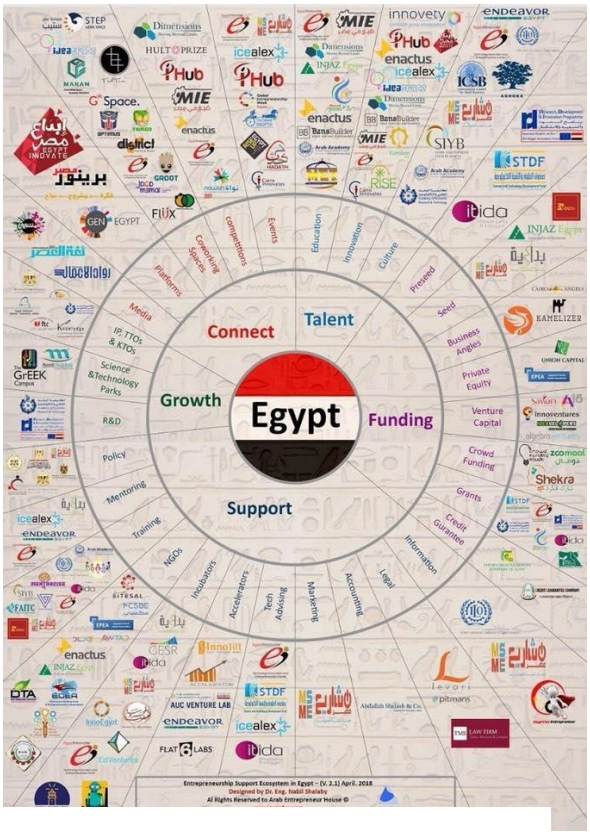


Figure 1.

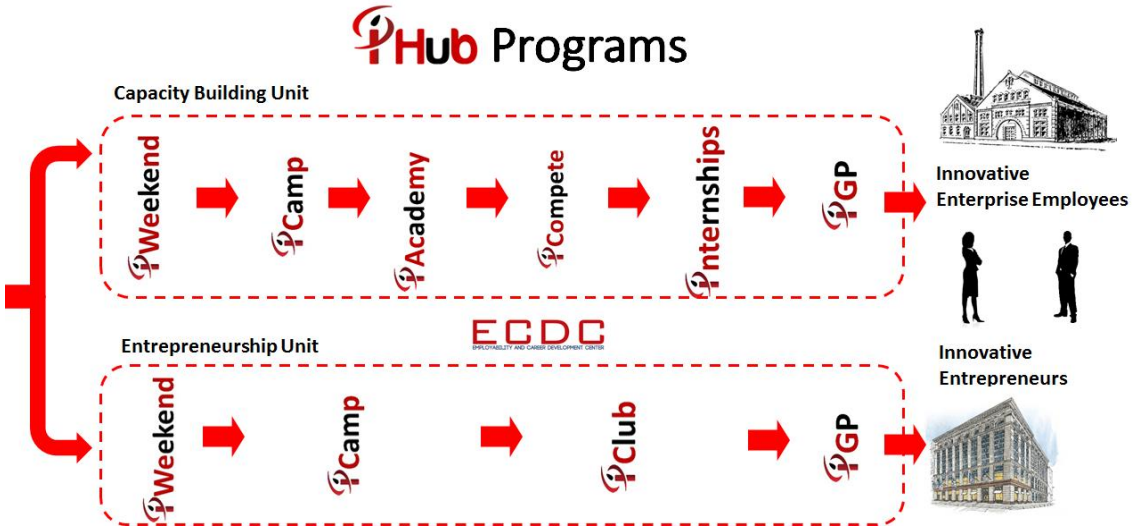


Figure 1 iHub Programs

2. ASRT Joining as a Strategic Partner

Jan 2018 marks the first official date that the ASRT has kindly accepted, not just to support iHub, but also to strategically partner with it, such that it restructures itself to be able to provide its services to its beneficiaries in a more efficient way. The objective was also to scale its entrepreneurial services and programs, so that more undergrads graduate with better entrepreneurial skills in order to provide a larger intake for the different specialized startup incubators that were being setup by the ASRT.

3. iHub Reorganization

With the new rise in iHub and to support scaling its services across the different locations, a lot must change. Accordingly, in 2018, iHub started efforts to restructure itself internally, as well as to investigate improving its brand identity. As we speak, internal restructuring has finished with the org chart shown in Figure 2. Each position had a clear job description created. Existing employees were trained to make sure that they can fulfill their job requirements, and new employees were attracted to fill the missing job positions.

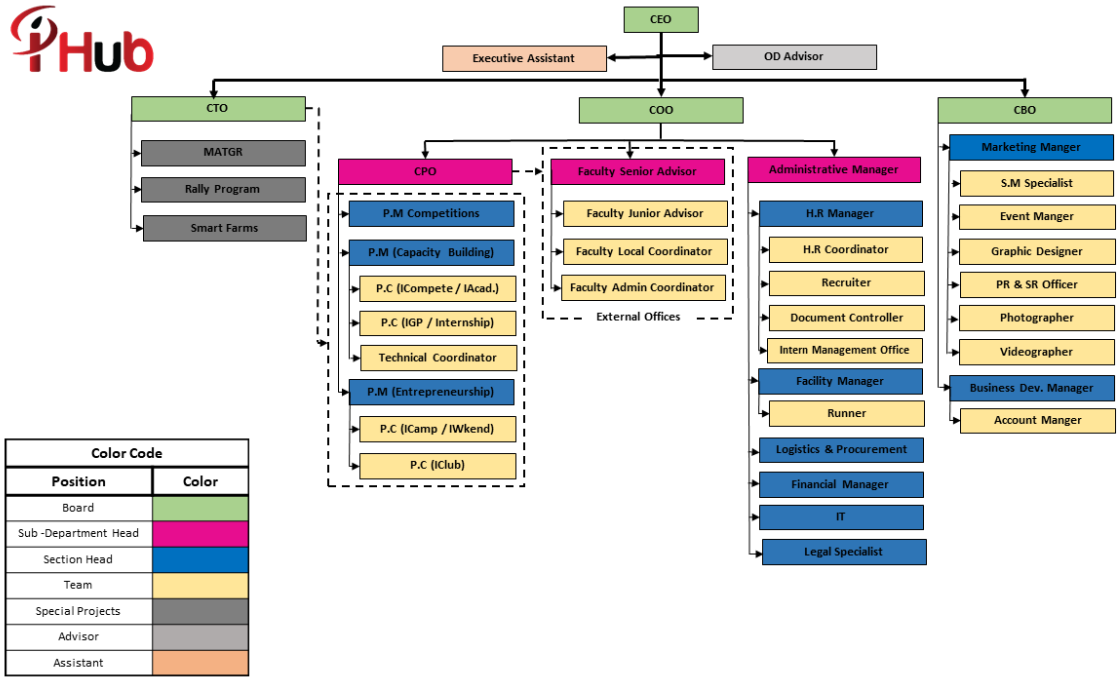


Figure 2 iHub Organization Structure

4. Entrepreneurship

4.1. IWeek

The iWeekend program has been implemented across all four campuses to attract new students into the iHub flow. The iWeekend program is a 3 day program that takes place over a week, where participants are trained on design thinking and are pushed to identify ideas and solutions to problems that they find through market research. In the current academic year, the program was implemented 20 times across all four universities at the Engineering, Pharma and Commerce campuses accommodating ~1100 participants. The iWeekends spanned topics relevant to the energy, agriculture, enabling PWDs, drug delivery, medical, transportation, education, water, pollution, food safety, travel, industry and tourism sectors.

4.2. iCamp : Innovation Camp

iCamp is a 6-week program that takes teams of undergrads with an idea and works with them to transform their idea into a startup mockup with a proof of concept. During the 6 week journey participants are provided with a bootcamp to deepen certain business and marketing concepts, provided with mentorship sessions, access to labs and industrial workshops, and a space work from. At the end, participant teams compete to provide startup concept with a business model, a marketing plan that they executed and a working proof of concept.

In 2018, iCamp started in Alexandria, Cairo and Minia **serving about 1000 undergrads** coming from different backgrounds: Pharma, Engineering, Commerce, Computer Science, Art and Agriculture. It is expected to end in early October 2018.

4.3. iClub : Innovation Club

iClub is a 12 week pre-incubation program that takes teams and individuals that have a proof of concept with a business model an wish to take it to the next step. Teams could be graduates or undergrads that show the commitment. Teams start with a bootcamp giving the basics they need to better understand how to apply business planning, project management, team selection, and marketing to their startup concept. Each team is then paired with one or more mentors that will help them develop their startup concept into a startup with an MVP and validated MVP.

iClub'18 was announced in Cairo in June 2018. More than a hundred applied, out of which 14 teams were selected after interviews. The bootcamp started in July 2018, teams were further filtered to reach 10, and are continuing now to further develop their startups. iClub is expected to finish in October 2018.

5. Professional Development

5.1. IJuniors

60 pre-university students were admitted and trained in three different tracks: Software & Robotics, Sciences, and Graphics Design. They went through a 105-hour hands-on program that spanned three weeks.

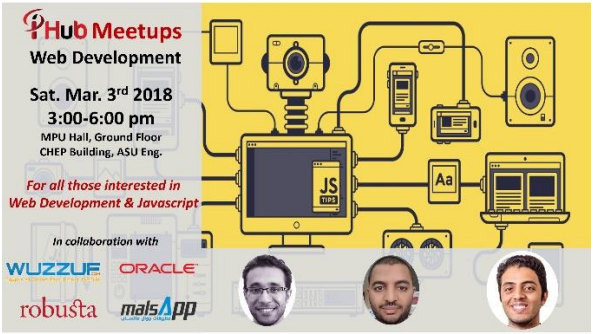
5.2. iAcademy

4000 university undergrads and recent graduates joined the different iAcademy workshops that took place throughout the year. These workshops spanned between 1 week to three months targeting different fields. Instructors came from the industry and were ensured to have good training skills. The workshops included: Blockchain, Artificial Intelligence, CPA certification preparation, CNC design, Industrial Automation, Machine Design, CAD for constructions, Structural Modeling, Marketing, Project Management, Business Modeling, Leadership, Engine Management, …..etc

Hub NOKIA

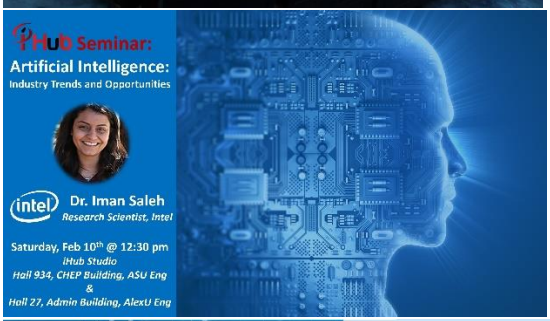
5.3. Meetups

Monthly meetups have been conducted accommodating ~1600 interested attendees from the public to come participate. Meetups were in the fields of Industrial Automation, Artificial Intelligence, Education Reform, 5G Communication, Blockchain, Embedded Systems for Automotive, Challenges in the Oil & Gas Industry, …etc



5.4. Seminars

iHub has organized weekly industry seminars inviting all those interested in different trending topics. These seminars were mostly held on Saturdays and covered different topics in the fields of Personal Development, Finance, Computer Engineering, Automotives, Constructions, Energy, Architecture, Telecommunications, Industrial Automation, Product Design, ….etc



5.5. Industry Visits

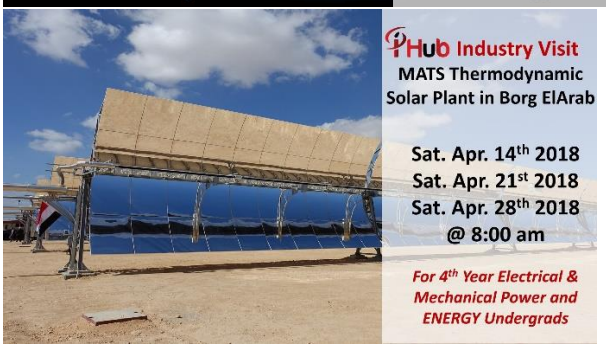
At least one factory visit was organized on a weekly basis in the 2018 Spring semester. More than 500 students were taken to factories and sites to better understand topics they study and to provide awareness on what happens on the ground. These visits included New Capital Power Station, Zaafarana Wind Turbine Station, Ghabbour, BMW, ETF, Ministerial Compound in the Administrative Capital, Ceramica Cleopatra, New Experimental Power Station in Borg ElArab, Road Elfarag Axis, ABB Factory

PHub Industry Visit
Egypt Cable Factory
ECM
EGYPT CABLE
Tue. Feb. 20th 2018
@ 8:00 am
For Electrical Power Undergrads Graduating in 2019

PHub Industry Visit
EGYTRAFO Factory
EGYTRAFO
Tue. Feb. 20th 2018
@ 9:00 am
For Electrical Power Undergrads Graduating in 2019

PHub Industry Visit
Telecom Egypt Training Sector
telecomegypt
Tue. Feb. 13th 2018
@ 9:00 am
For 3rd & 4th Year Electrical Communication Undergrads

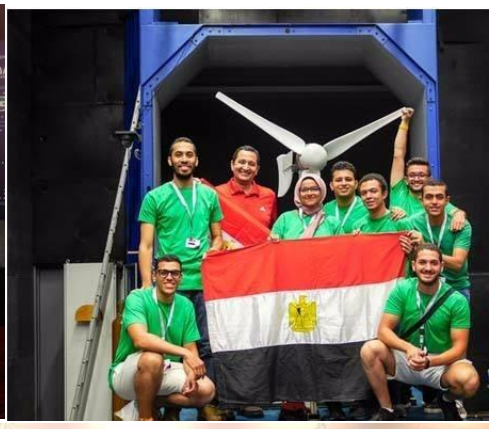
PHub Industry Visit
Zaafarana Wind Farm
Wed. Feb. 14th 2018
@ 8:00 am
For 4th Year Electrical & Mechanical Power and ENERGY Undergrads


PHub Industry Visit
MATS Thermodynamic Solar Plant in Borg ElArab
Sat. Apr. 14th 2018
Sat. Apr. 21st 2018
Sat. Apr. 28th 2018
@ 8:00 am
For 4th Year Electrical & Mechanical Power and ENERGY Undergrads

5.6. Global Competitions

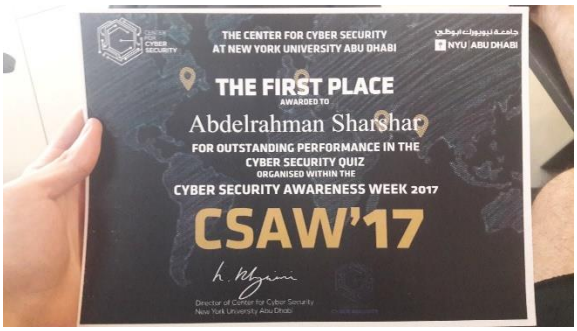
Student teams were organized, mentored, and supported to plan, execute and travel to represent iHub at many global competitions that they were able to create enough noise and show what Egyptian students can accomplish. These teams included almost 600 undergrads who participated in the following competitions:

- Shell Eco Marathon Prototype Competition
- Formula Student Class I ICE
- ROV
- Shell Eco Marathon Urban Electric Competition
- Formula Student Class II – Electric in partnership with Sussex University
- Seismic Design Competition
- Cybersecurity Catch the Flag
- iCAN for Microelectronics
- Microelectronics Olympiads
- ACM International Collegiate Programming Contest



iCAN
國際創新創業大賽頒獎慶典
iCAN2018 AWARD CEREMONY
24th June, Hong Kong

SPEAK OUT FOR ENGINEERING
Institution of MECHANICAL ENGINEERS
TOP 6
ASU RACING TEAM
powered by PHub


THE CENTER FOR CYBER SECURITY
AT NEW YORK UNIVERSITY ABU DHABI
NYU ABU DHABI
THE FIRST PLACE
AWARDED TO
Abdelrahman Sharshar
FOR OUTSTANDING PERFORMANCE IN THE
CYBER SECURITY QUIZ
ORGANISED WITHIN THE
CYBER SECURITY AWARENESS WEEK 2017
CSAW'17

Organized By
Strategic Partner
Official Bank
TREND MICRO

5.7. Organized Competitions

iHub has also organized its own competitions that attracted teams from all over Egypt and other countries as well. These competitions accommodated 550 undergrads from the fields of business, architecture, civil engineering, computer science, mechatronics and mechanical engineering. These competitions were:

- Renewable Power Generator Contest (RPG)
- Computer Vision Contest (CVC)
- Zero Energy Unit Contest (ZerU)

5.8. iCompete

iCompete is a program in which companies participate with us by providing us market- and industry-based challenges. These challenges are categorized and provided to the undergrads. Each undergrad team chooses a challenge that they attempt to solve in 8 weeks. The submitted designs and solutions are judged by industry experts and those that excel are provided with prizes and internship opportunities to continue working in the direction of the challenge they participate in.

5.9. Internships

iHub has organized for ~1500 of its senior undergrads to participate in industry internships in 130+ companies in 10 countries. The internships were conducted in companies like: Siemens, CIB, HSBC, Americana, Vodafone, BMW, GE, Toyota, Arab Contractors, Projacs, ElSeweedy, Giza Systems, IBM, Microsoft, OCS, SICT, Agrisource Data, ….. etc

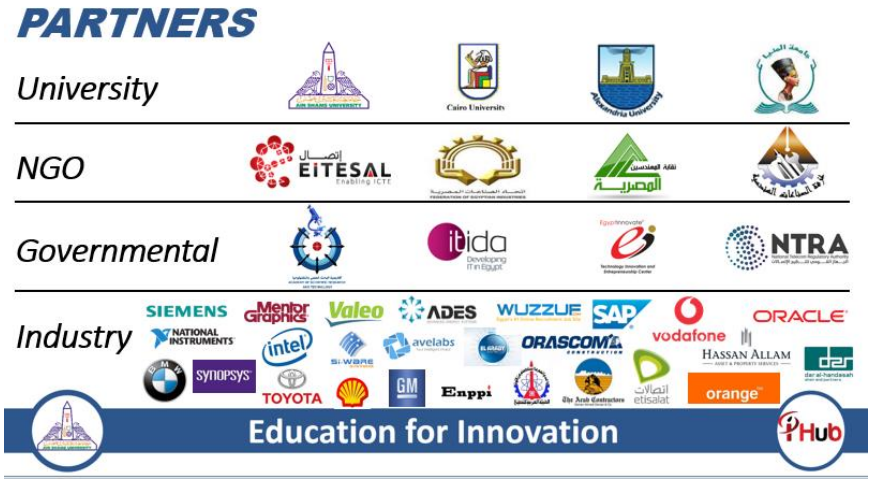
5.10. iGP

Approximately 200 senior undergrads continued working on the Autonomous Vehicle Interdisciplinary Graduation Project (iGP). The project has been going on for three years now, and the car has reached level 3 autonomy. Two other iGPs have been started this year. One is related to exoskeletons and the other is related to smart farms.

6. Industry Partnerships

iHub created special partnership with some of Egypt's top entities in the market to help them attract and train recent graduates on top technologies enabling them to be hired. These partnerships were with

- IBM
- National Instruments
- ABB
- Schneider
- Oracle
- SAP-EOH
- Dell EMC
- Siemens
- NTL
- Banque Misr
- Americana
- Hassan Allam
- EG Bank



7. Infrastructure:

1400 square meters were dedicated on the university's main campus and a temporary 500 square meters were dedicated at the Faculty of Engineering Campus. These spaces are being transformed to become innovation coworking spaces to enable our students to do more. This in addition to administrative iHub office in the Faculties of Engineering, Pharmacy. Computer Science, Dentistry and Commerce.

8. Marketing Efforts

6.1. ASU Industry Day, Egypt

6.2. Presidential Innovation Conference, Egypt

6.3. Phi Innovation Summit, Jordan