itida
IT INDUSTRY DEVELOPMENT AGENCY

itac
program

Information Technology Academia Collaboration (**ITAC**)

Amr Safwat, PhD
ITAC Manager

2022

Topics

1. Programs, Schedule and Management
2. Collaborative Funded Projects
3. Students Support
4. Cultural activities

قانون رقم ١٥ لسنة ٢٠٠٤

بتنظيم التوقيع الالكترونى

وبإنشاء هيئة تنمية صناعة تكنولوجيا المعلومات

مادة ٢ - تنشأ هيئة عامة تسمى " هيئة تنمية صناعة تكنولوجيا المعلومات " تكون لها الشخصية الاعتبارية العامة وتتبع الوزير المختص ، ويكون مقرها الرئيسى محافظة الجيزة ، ولها إنشاء فروع فى جميع أنحاء جمهورية مصر العربية .

مادة ٣ - تهدف الهيئة إلى تحقيق الأغراض الآتية :

(أ) تشجيع وتنمية صناعة تكنولوجيا المعلومات والاتصالات .

(ب) نقل التكنولوجيا المتقدمة للمعلومات وتحقيق الاستفادة منها .

(جـ) زيادة فرص تصدير خدمات الاتصالات وتكنولوجيا المعلومات ومنتجاتها .

(د) الإسهام فى تطوير وتنمية الجهات العاملة فى مجال تكنولوجيا المعلومات والاتصالات .

(هـ) توجيه وتشجيع وتنمية الاستثمار فى مجال صناعة تكنولوجيا المعلومات والاتصالات .

(و) رعاية المصالح المشتركة لأنشطة تكنولوجيا المعلومات .

(ز) دعم البحوث والدراسات فى مجال تكنولوجيا المعلومات والاتصالات وتشجيع الاستفادة بنتائجها .

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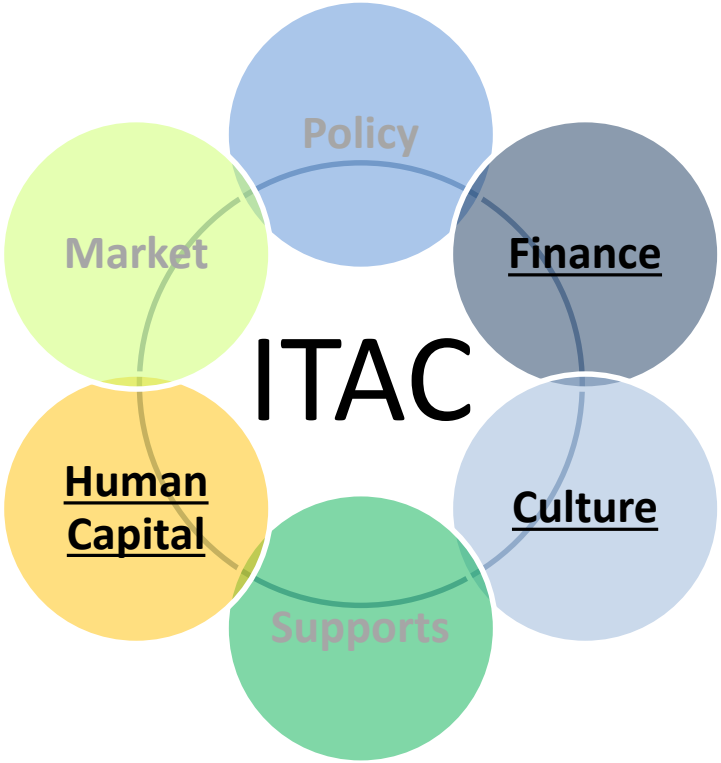
Programs and Services



Collaborative funded projects

- Preliminarily research (250 KEGP)
- Advanced research (1.5 MEGP)
- Product development (2.5 MEGP)
- Collaboration with Spain (2.5 MEGP)
- PDP Electronics (5 MEGP)
- Patents filing (10 K US$)

Students

- Digital Egypt Builders Initiative (DEBI)
- Graduation projects support (10 KEGP/Project)

Newsletters and workshops

- Tech Days
- Write IT
- ICT R&D news

Calendar

ITAC Yearly Calls

Jan. – Feb.	Call for graduation projects
Mar. – Apr.	Call for CFPs
Sep. – Oct.	Call for CFPs

ITAC Special Calls

Nov.– Mar.	CFP with Spain

Programs Breakdown (2006 – Present)

Collaborative Funded Projects (CFPs) (2006-

- 198 Projects
- 135.6 MEGP
- 23 Universities
- 99 Companies

Graduation Project Support (GPS) (2006 -

- 1230 Projects
- 5.49 MEGP
- 33 Universities

Digital Egypt Builders Initiative (DEBI) (2021 -

- 143 Students
- 1.23 M$
- 4 Universities

Management: Steering Committee

Dr. H. Othman
ITIDA VP

Dr. A. Safwat
ITAC Manager

Dr. F. Daigham
NTRA

Prof. S. Elkhamy
Alexandria Univ.

Dr. H. Elshishiny
IBM

Prof. M. Elsoudani
Cairo Univ.

Dr. H. Eltahawy
Mentor Graphics

Prof. Aly Fahmy
Cairo Univ.

Eng. W. Gad
Telecom Expert

Dr. H. Hamza
ITIDA SECC

Dr. A. Ibrahim
Orange Lab.

Dr. T. Nabhan
ITworx.

Prof. M. Fahmy
Ain Shams Univ.

Management: Team

Heidi Hussien
Senior projects manager

Tamer Aly
Operations Manager

Shaimaa Kamal
Senior projects specialist

Mostafa Hadi
Senior operations specialist

Mahmoud Ezzdine
operations Specialist

Ghada Yasser
Operations specialist

“Not only has ITAC stimulated collaboration between academia and industry but has ***in many cases led to the development of very successful products on the international level***.”

“***The ITAC program is one of the most flexible and efficient programs supporting innovation,*** however its scope is limited to ICT industry and the amount of funding is also limited compared to the STDF for example.”

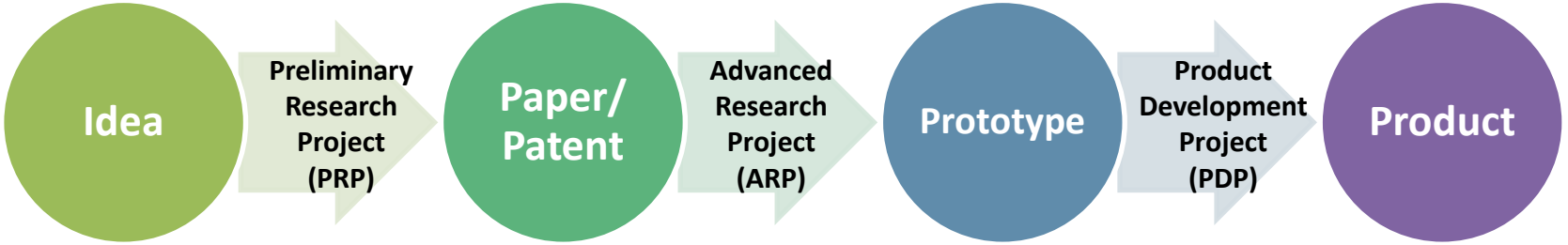
United Nations Economic and Social Commission for Western Asia (ESCWA), National Technology Development and Transfer System in Egypt, 2017

The European Commission selected the ESITIP program to be presented in the best practices session in ***EXPO-Dubai 2020***.

Topics

1. Programs, Schedule and Management
2. **Collaborative Funded Projects**
3. Students Support
4. Cultural activities

CFP: Funding Schemes



PRP

Fund: up to **250 KEGP**
Applicant: Faculty member (Univ. or research institute).
Letter of interest from a company is a plus.
+100K for electronics fabrication

ARP

Fund: up to **1.5 MEGP**
Applicants: Faculty member and a company.
+250 KEGP for electronics fabrication

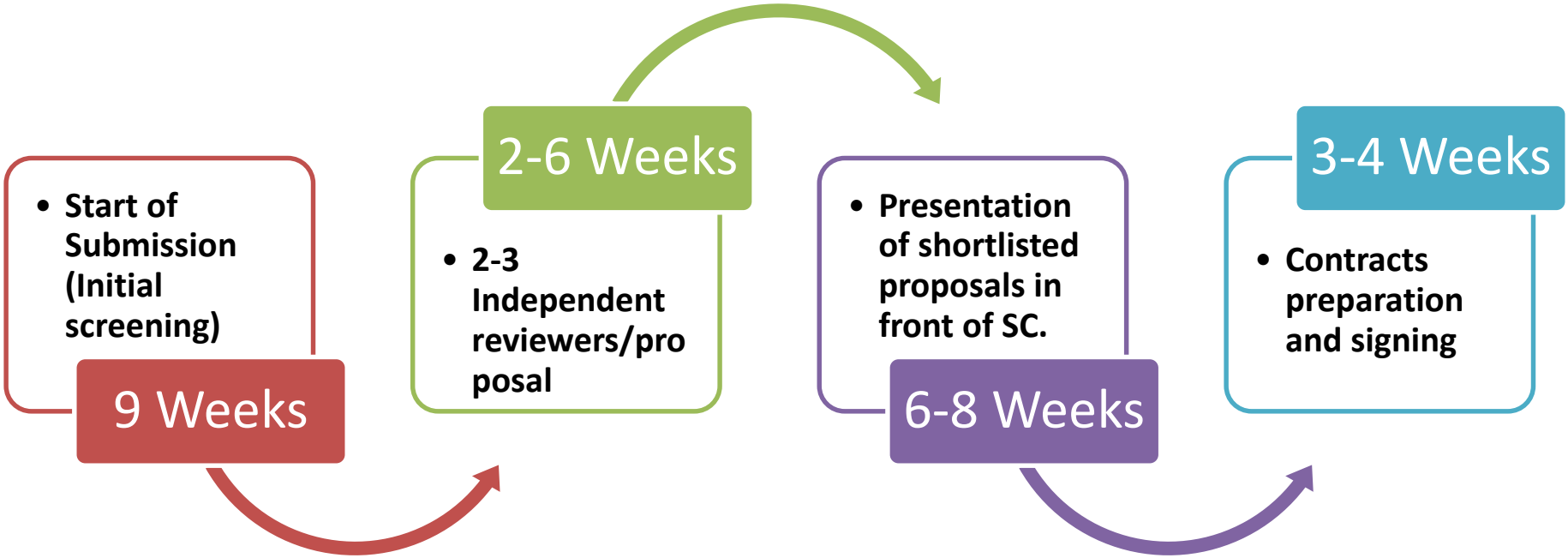
PDP

Fund: up to **2.5 MEGP**
Or Fund: up to **5 MEGP (TRL9 electronics)**
Applicants: Faculty member and a company.
Or Applicant: Company with R&D
+250 KEGP for electronics fabrication

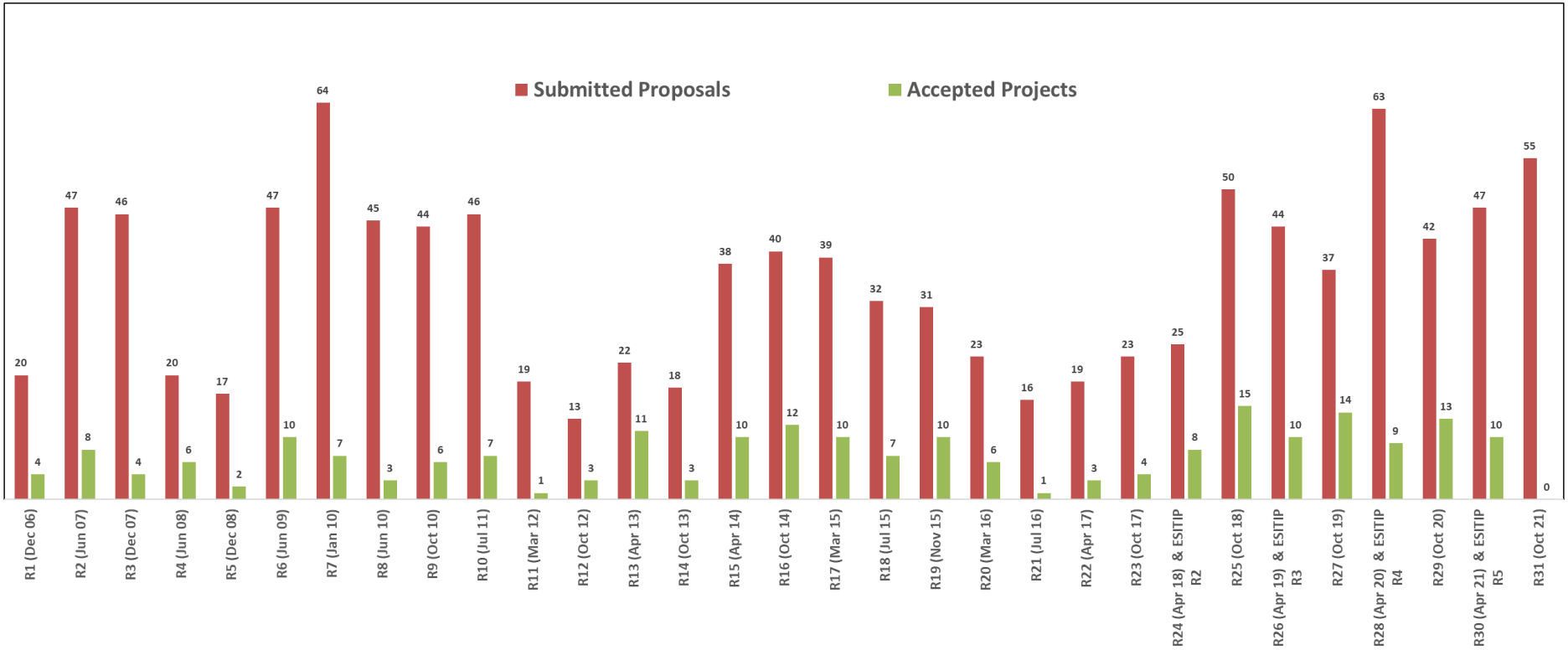
TRL 2 → TRL 7 (TRL 9 EME)

NASA TRL Scale

CFPs: Review Phase



CFPs: Submission Statistics

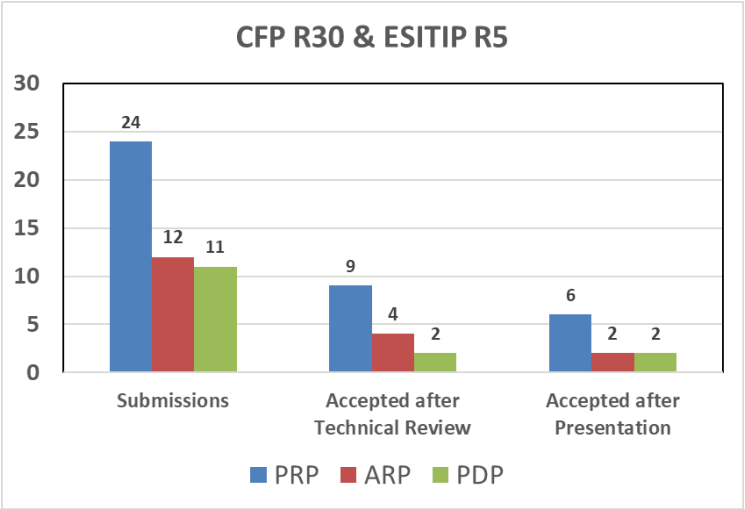


CFP Round 30 & ESITIP R5

22 Universities and Research Institutes

23 Companies

ESITIP: Nov. 20 – Mar. 21
CFP: Mar. 21- Apr. 21

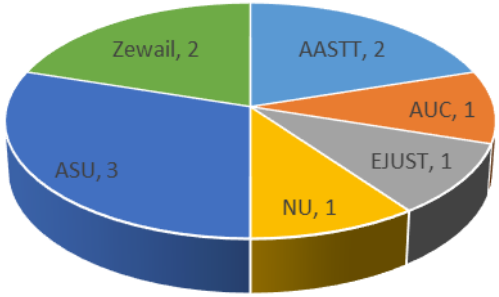


50 reviewers, 63 review reports

70 pres. evaluations

Review Process

6 Universities and Research Inst.

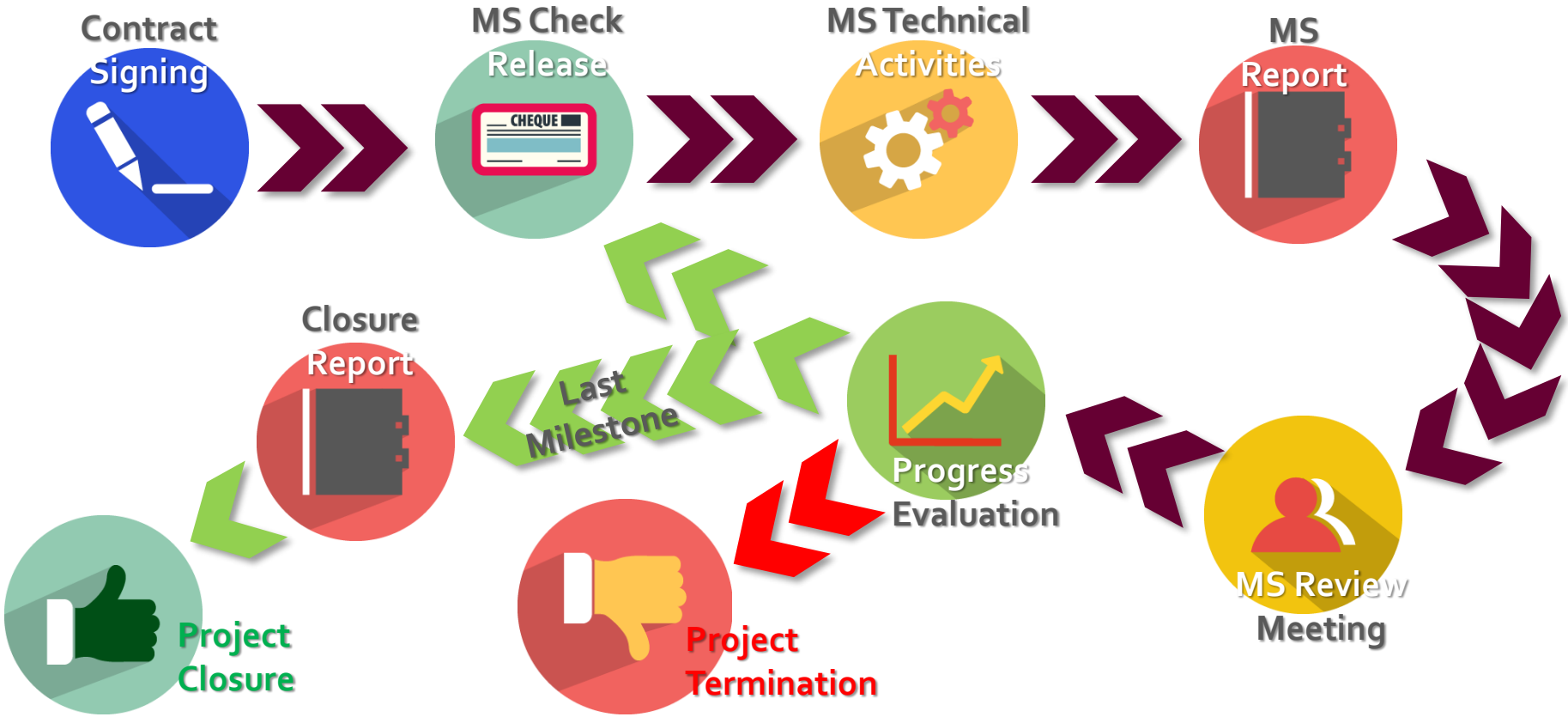


4 Companies:
Master Micro; Disruptive Mobility; Mogassam Labs; Pulse for integrated solution

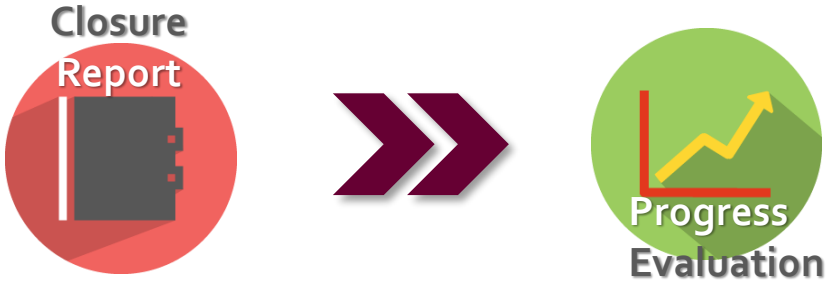
9.6 MEGP

Results

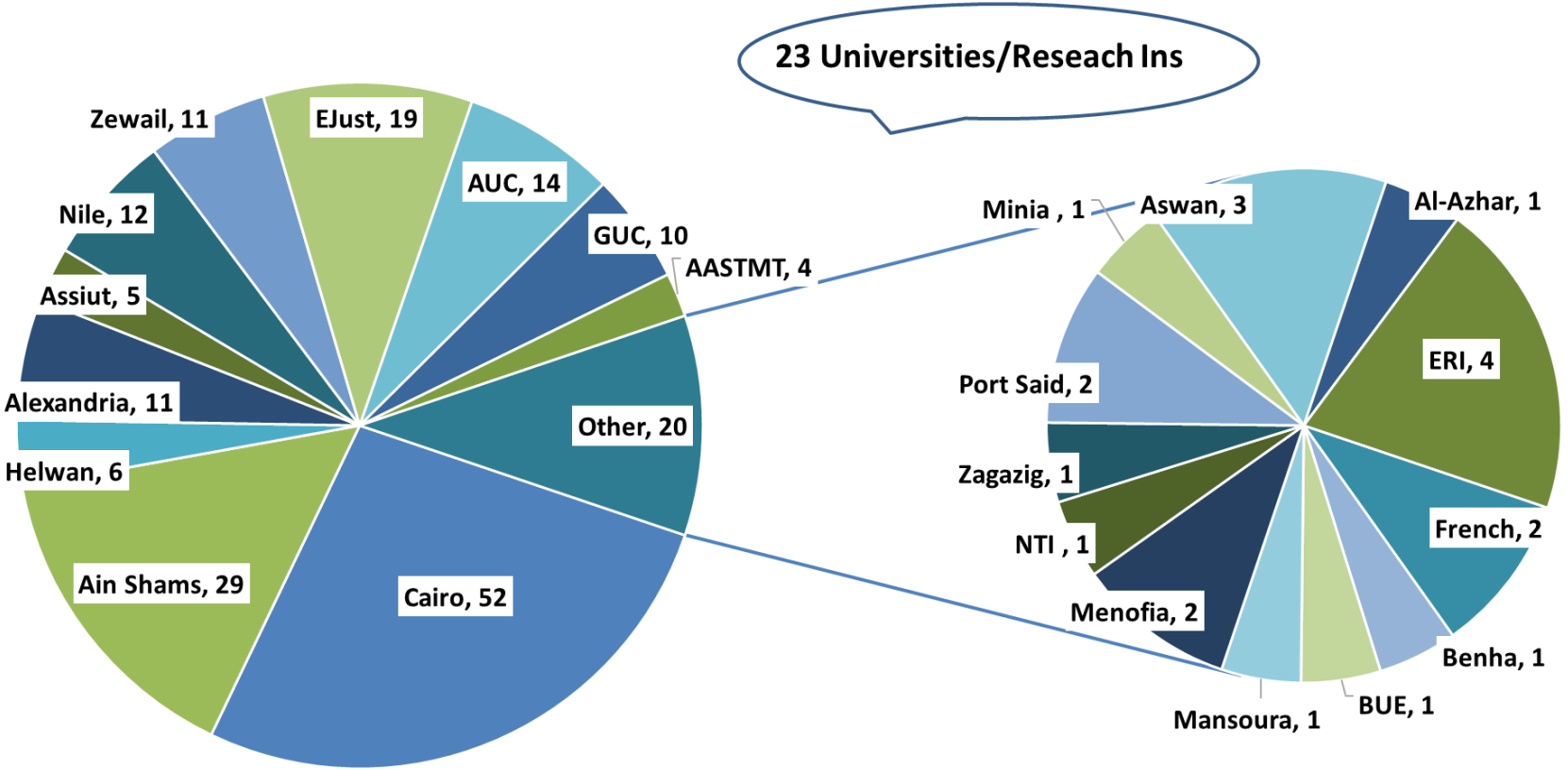
CFPs: Execution Phase



CFPs: Follow-up Phase



CFPs: Beneficiaries – Academia



CFPs: Beneficiaries – Industry

Alfa electronics

Wasiela

AvidBeam

Brightskies;

Dileny tech

IBET (Almashrak CU)

IT-Worx

Mixel

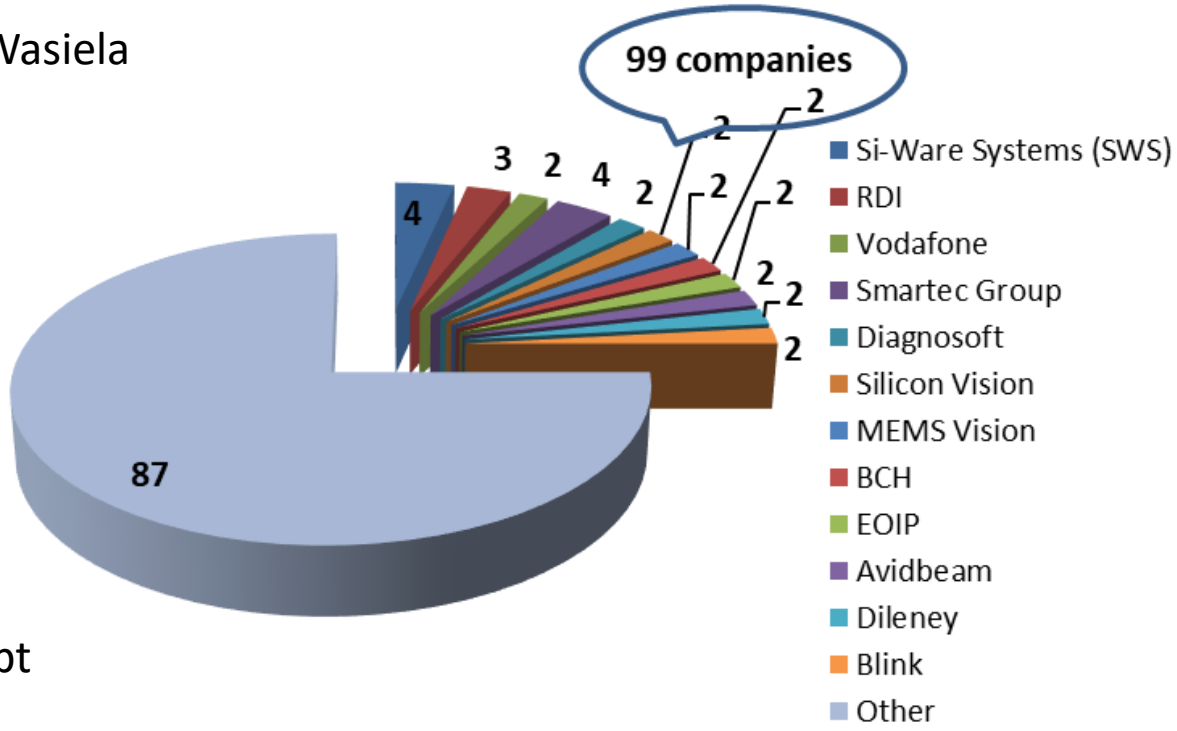
Biobusiness

Vidatronic Egypt

Link Development

ITQAN

SpimeSenseLabs



CFPs: Success Stories - PDPs

Si-WARE SYSTEMS

Optical Coherence Tomography

2007- 2018

Crystal-Less LC-Based Reference Clock

Inertial Stabilization Platform Product Development

Partial IP Acquisition

GOODiX EGYPT

Virtual Tutor

2007- 2019

A Product for Arabic Optical Character Recognition

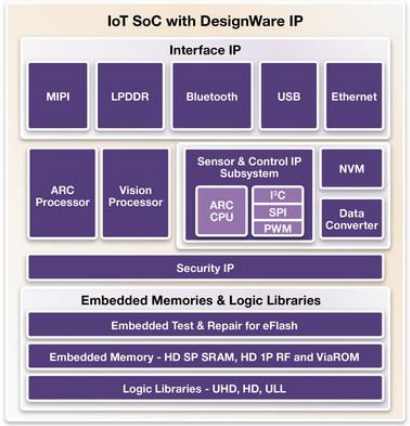
Sentiment Analysis Tool for Arabic

CFPs: Success Stories - PDPs

Silicon Vision
Innovative IC Solutions

2011- 2016

Ultra Low Power Bluetooth Transceiver Chip



A Fully Integrated Silicon IP for Wireless Zigbee Applications

IP Acquisition

SYNOPSYS®

MEMS VISION

2012- 2018

MEMS Based Timing Chips for IT/Mobile Applications

Fully Integrated Weather Station Chips for Smart Phones & Tablets

CFPs: Success Stories - PDPs

AvidBeam

2015- 2017

IVISIA : Intelligent Video IP Surveillance Integrated Analytics

Edge Technology

2008- 2009

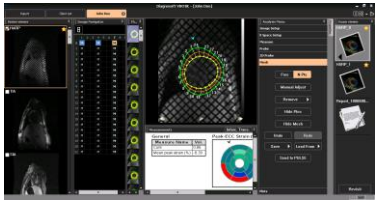
Web-based Power Meter

diagnosoft

2008- 2016

Advanced Platform for Processing Medical Images of the Heart

Cloud-Based Platform for Advanced Processing of Cardiac Imaging



CFPs: Success Stories - ARPs

Smartecs Systems

2010- 2017

Tool for Extensive Management and Performance Optimization (TEMPO) for 3G

TEMPO 3G Optimization Tool

Information Theoretic Cyber Security for Emerging Wireless Networks

Proactive Content Delivery for Mobile Networks

Energy Harvesting for Self-Powered Wireless Tire Pressure Monitoring System

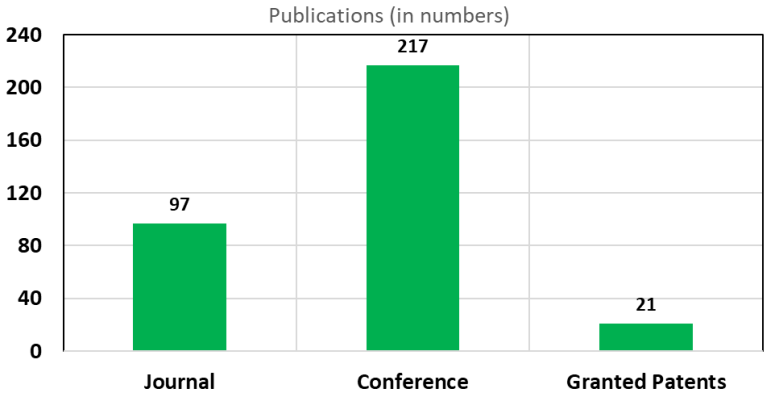
ibe TECHNOLOGIES

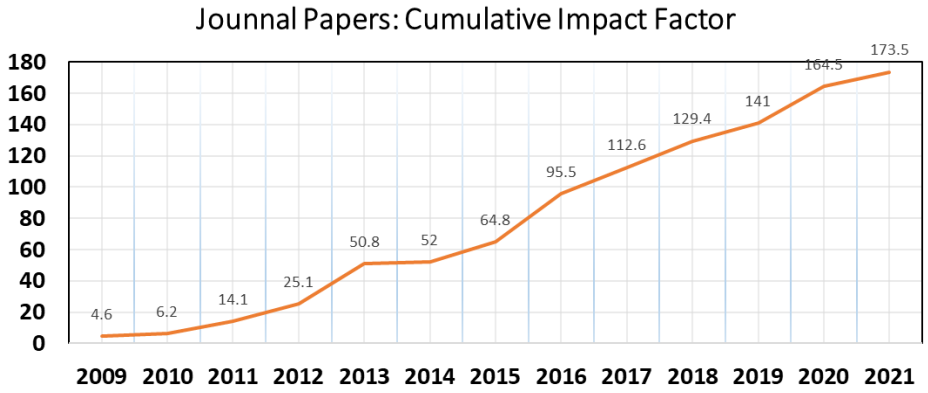
2009- 2012

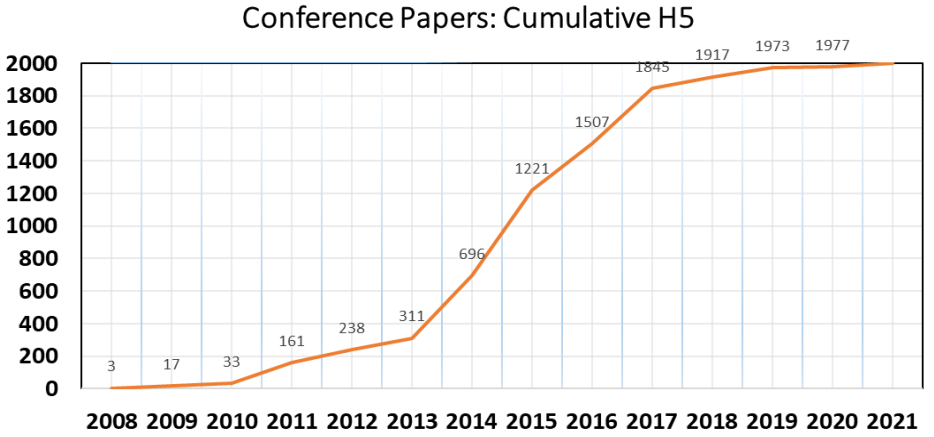
DIGISON-Q

AL-MASHREQ Medical Care

Impact- Academic







Impact: ROI

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Silicon Vision
Innovative IC Solutions

MEMS
VISION

RDI

AvidBeam

Edge
Technology

Si-WARE
SYSTEMS

TECH

TEMPO
3G Optimization Tool

BLINK!

DILENY
TECH
RADIOLOGY SOLUTIONS

ibe
TECHNOLOGIES

AL-MASHREQ
Medical Care

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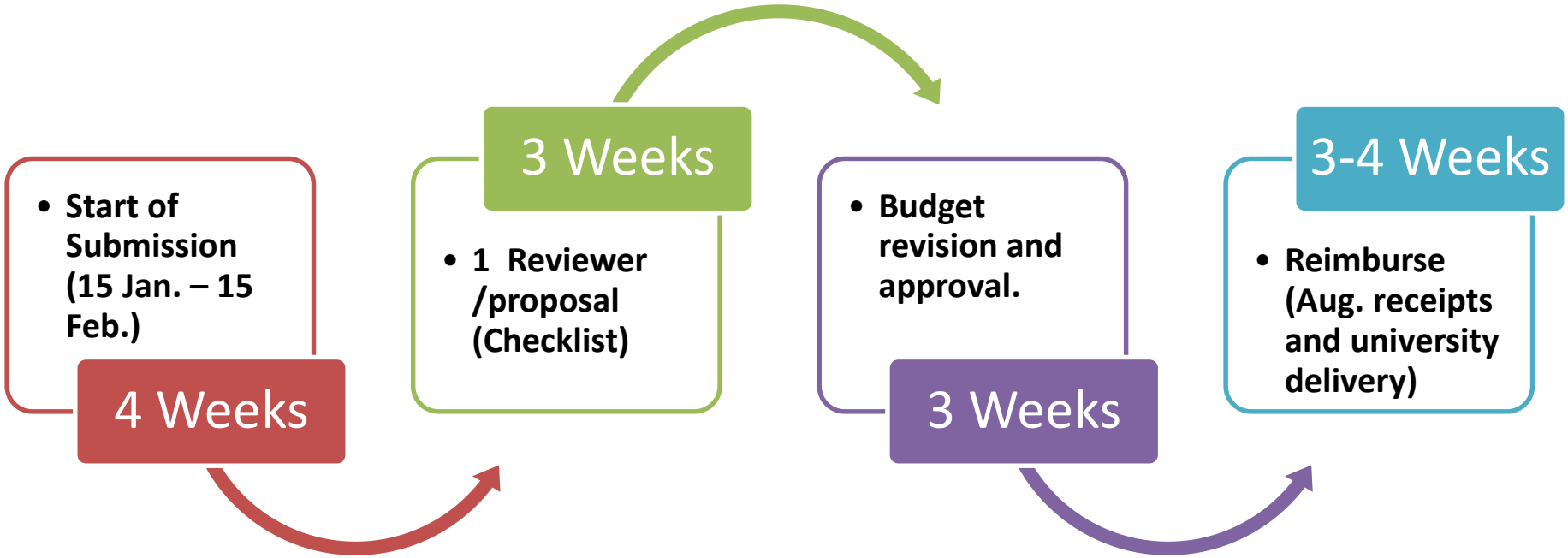
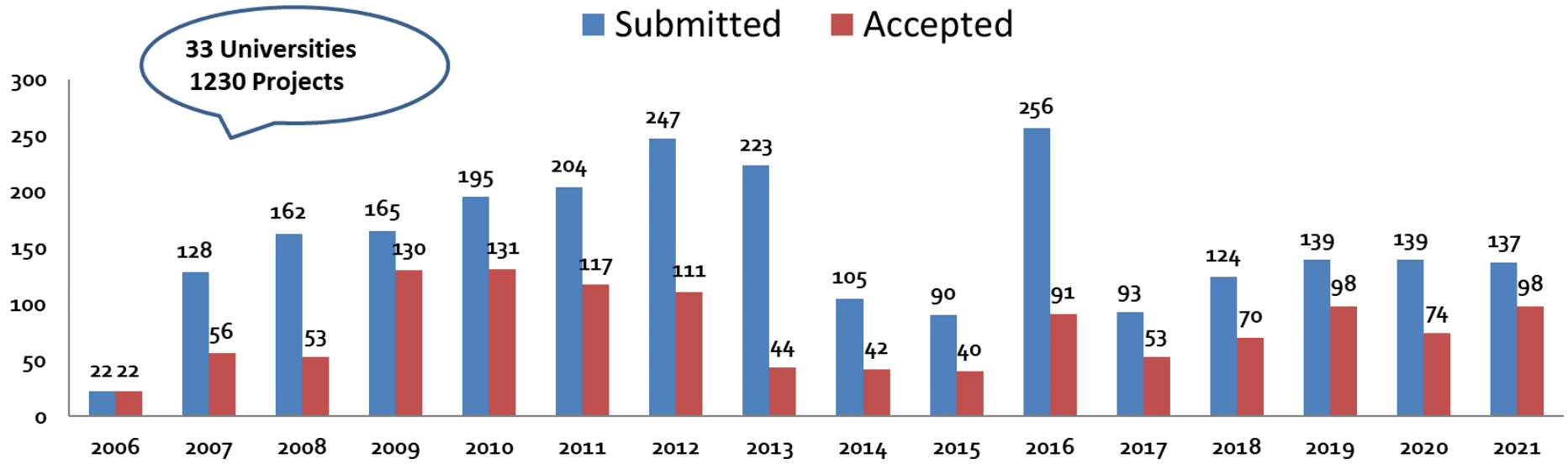
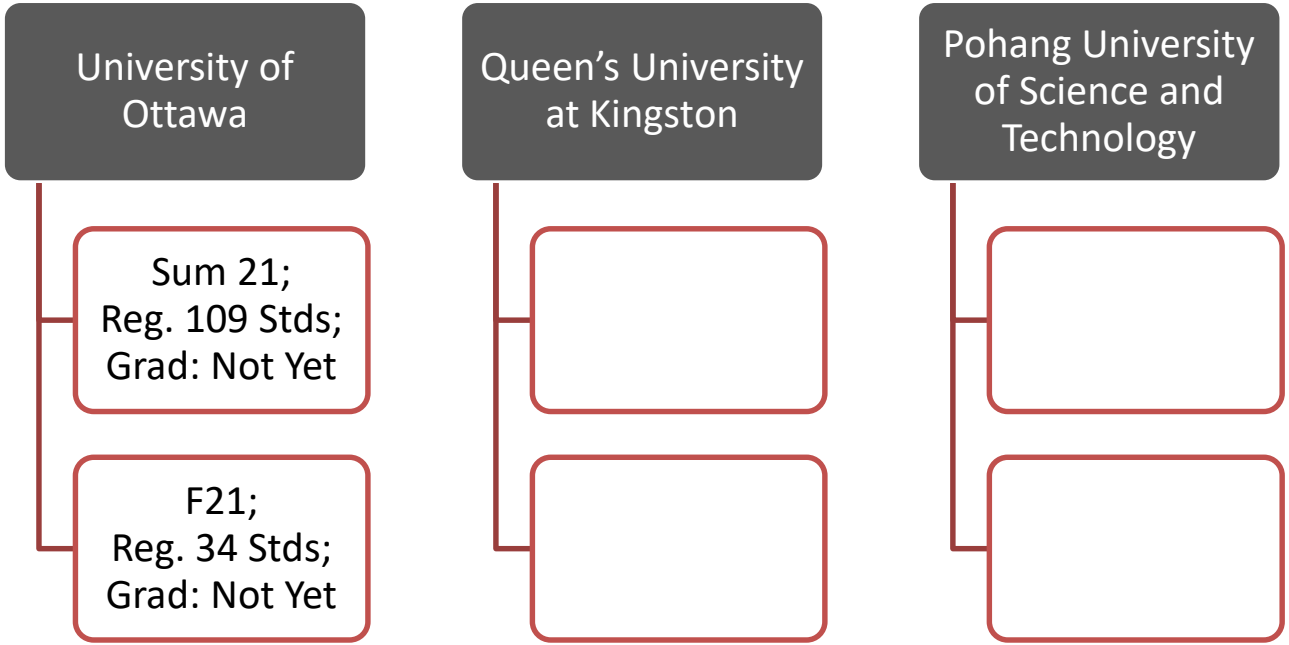
GPs Process


• Start of Submission (15 Jan. – 15 Feb.)
4 Weeks
3 Weeks
• 1 Reviewer /proposal (Checklist)
• Budget revision and approval.
3 Weeks
3-4 Weeks
• Reimburse (Aug. receipts and university delivery)

Graduation Projects



Digital Egypt Builders Initiative



ITAC administers the financial agreement with international universities.

Topics

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ICT R&D News in Egypt

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ICT R&D Newsletter in Egypt

eCervello: A Prototype for Scalable IoT Systems based on Joint Edge, Fog and Cloud Intelligence

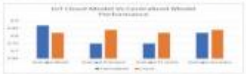
American University in Cairo and IoTBlue

Teams from the American University in Cairo and IoT Blue have collaborated to design and demonstrate a prototype for a novel multi-tier machine-learning model for IoT that spans the edge, fog, and cloud. The developed technology is a key enabler for scalable IoT systems in diverse verticals in Egypt and worldwide, e.g., smart cities, ITS, Industry 4.0, and healthcare. State-of-the-art computing architectures are predominantly single-tier where intensive data processing tasks take place only in the cloud. The eCervello technology hinges on i) a multi-tier system with a joint edge, fog and cloud machine learning (ML) model, ii) Distributed ML model hosting light-weight Logistic Regression at the edge working in concert with more sophisticated Neural Network models at the fog and cloud tiers and iii) a data alignment mechanism to handle asymmetric data from multiple sensors (cameras) for a multi-vehicle tracking use case. "eCervello, supporting edge intelligence, addresses keys problems in state-of-the-art cloud-based IoT ML systems, namely limited scalability, large round-trip delays from pushing raw data to the cloud to feeding the decisions back to edge devices, imminent network congestion attributed to IoT big "raw" data, lack of data privacy and costly cloud investments/maintenance, to name a few" Says Prof. Tamer ElBatt, Professor at AUC in Dept. of Computer Science and Engineering and the principal investigator of the project.

As shown, we demo a prototype for a three-tier IoT system using actual hardware and networking technologies. Using the AI City Challenge 2020 public dataset, eCervello demonstrates comparable performance to the centralized ML baseline, yet, with a significant reduction in the training data up to 80% of the whole data set used to train the centralized model

Distributed Machine Learning Model

eCervello Prototype



eCervello's Distributed ML Model Performance (Cloud) vs. the Centralized ML Model (Baseline)

Soft Exoskeleton Glove for hand rehabilitation and assistance with automated assessment features

Ain shams University

Researchers from Ain Shams University introduce an instrumented wearable glove, which is actuated using soft robotics. This glove helps patients with impaired hand motion secondary to weakness as seen in patients with stroke. This glove is designed to enable patients to move their hands and regain control through rehabilitation exercises. In other words, this glove can assist both the patient and the therapist to have more effective rehabilitation sessions. The actuators in this glove are modeled and fabricated based on using silicon rubber to develop mechanically programmable fiber-reinforced actuators. Finite element modeling software and sensitivity analysis of the actuator parameters were used during the design and modeling process to develop an actuator capable to achieve the desired movement and performance. "This developed instrumented system provides force and finger range of motion feedback using force, bending, and pressure sensors. This system can perform set of exercises for rehabilitation like finger bending and pinching and monitor the bending angle and force acting on the finger, which are shown on an LCD display to provide feedback for the therapist and patient" stated Dr. Mohamed Awad — associate professor at Ain Shams University and project principal investigator. In addition, smart objective assessment methods have been developed to assess and evaluate patient performance based on Gradient Boosting, Self-Organizing Maps, and XGBoost. A Supervisory machine-learning algorithm using XGBoost was developed to automatically assess the patients based on Fugl-Meyer's assessment of motor recovery. This automated assessment system can help in automated in-home rehabilitation and assessment especially during COVID-19 as this automated assessment system can be utilized to reduce the number of visits to a physician for assessment.

Figure 1: A soft robotic actuated glove

Figure 2: An instrumented passive glove

https://itida.gov.eg/English/Programs/ITAC-CFP/Pages/default.aspx

2021 CFPs in the News

startup SCENE

HOME NEWS BEHIND THE STARTUP ENTREPRENEUR LIFE MENA ECOSYS

Previous Post Next Post

EGYPT'S DILENYTECH SECURES GRANT TO SCALE AI-POWERED PLATFORM FOR BREAST CANCER DETECTION

The grant, from the ITIDA-affiliated ITAC programme, comes off the back of the startup receiving its third US patent as it looks to expedite breast cancer detection.

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13/02/2021 10:56

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BlinkApp raises six-figure pre-Seed

News - 11 November, 2021

- Egypt-based mobility road assistance startup BlinkApp has raised a six-figure pre-Seed round, led by investors located in UAE and KSA.
- Founded in 2017 by Wael Noufal and Ahmed El-Mahdy, BlinkApp is a phone app thay aims to achieve better general driving behaviour, faster roadside assistance and safer roads for both drivers and passengers.
- BlinkApp captures and analyses thousands of miles of data, using smartphone's sensors and AI technology, to monitor drivers' behaviour, detect collisions, and generate insightful reports to guide and assist customers.
- BlinkApp has already raised $210,000, equity-free grants from ITIDA through the ITAC programme to develop research incorporation with Egypt Japan University for science and technology (EJUST). BlinkApp and EJUST registered and filed two patents.

المصري اليوم

مشاركة أرسل لصديق طباعة

بتمويل من «صناعة تكنولوجيا المعلومات».. تطوير جهاز PCR لرصد كورونا بالجامعة اليابانية

الأربعاء 04-08-2021 13:43 | كتب: رجب رمضان |

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https://thestartupscene.me/INVESTMENTS/Egypt-s-DilenyTech-Secures-Grant-to-Scale-AI-Powered-Platform-for-Breast-Cancer-Detection
https://www.wamda.com/2021/11/blinkapp-raises-figure-pre-seed?fbclid=IwAR2zBX3vWR8su98O_4nNOjcvkwz0nRLgxHQowzZfspe9TjWAWzAyPD_ytSE
https://www.almasryalyoum.com/news/details/2390573

ITAC CFP Round 32

Mark your calendar for the opening of CFP Round 32! The submission will start on Mar. 1, 2022 and will close by Apr. 28, 2022.

- The deadline varies depending on the CFP type, the deadlines are as follows:

  - **PRP** submission deadline: **Apr. 14, 2022** at **3 PM.**
  - **ARP** submission deadline: **Apr. 21, 2022** at **3 PM.**
  - **PDP** submission deadline: **Apr. 28, 2022** at **3 PM.**

THANK YOU