DELLTechnologies

AI CAPACITY BUILDING INITIATIVE

Dell Technologies collaborates with the Egyptian government; Ministry of Communication and Information Technology, Ministry of Higher Education, and five universities in Egypt to expand the capacity of AI talents in the local job market, provide hands on practical experience using real life use cases addressing societal challenges, and sharpen the AI knowledge for AI community.

CAIRO UNIVERSITY

ARAB ACADEMY FOR SCIENCE, TECHNOLOGY & MARITIME TRANSPORT

AUC

AMERICAN UNIVERSITY IN CAIRO

AIN SHAMS UNIVERSITY

MEMBER UNVERSITIES

GUC
German University in Cairo

الجامعة الألمانية بالقاهرة

OBJECTIVES

- Establish solid working Artificial Intelligence (AI) Use Case
- Address domains applicable to country wide challenges
- Open data and open-source technologies in AI for practical scenarios
- Industry-Academic collaboration to bridge the gap between academia and industry
- Speeding up digital knowledge and market capacity in Egypt

DELIVERABLES

TOT Courses (40 Hrs Each)
-Data Science and Big Data Analytics
-Advanced Methods in Data Science and Big Data Analytics
-Data Engineering

3 Use Cases Including Sample Datasets
-Smart Agriculture
-Smart Traffic
-Smart Government

4 Examples
-Accident Severity Prediction
-Smart Cities Review Classification (NLP)
-Accident Classification
-MNIST Example

Technical Workshops Delivery to University Professors & Students

Mentorship Bi-Weekly Sessions to students
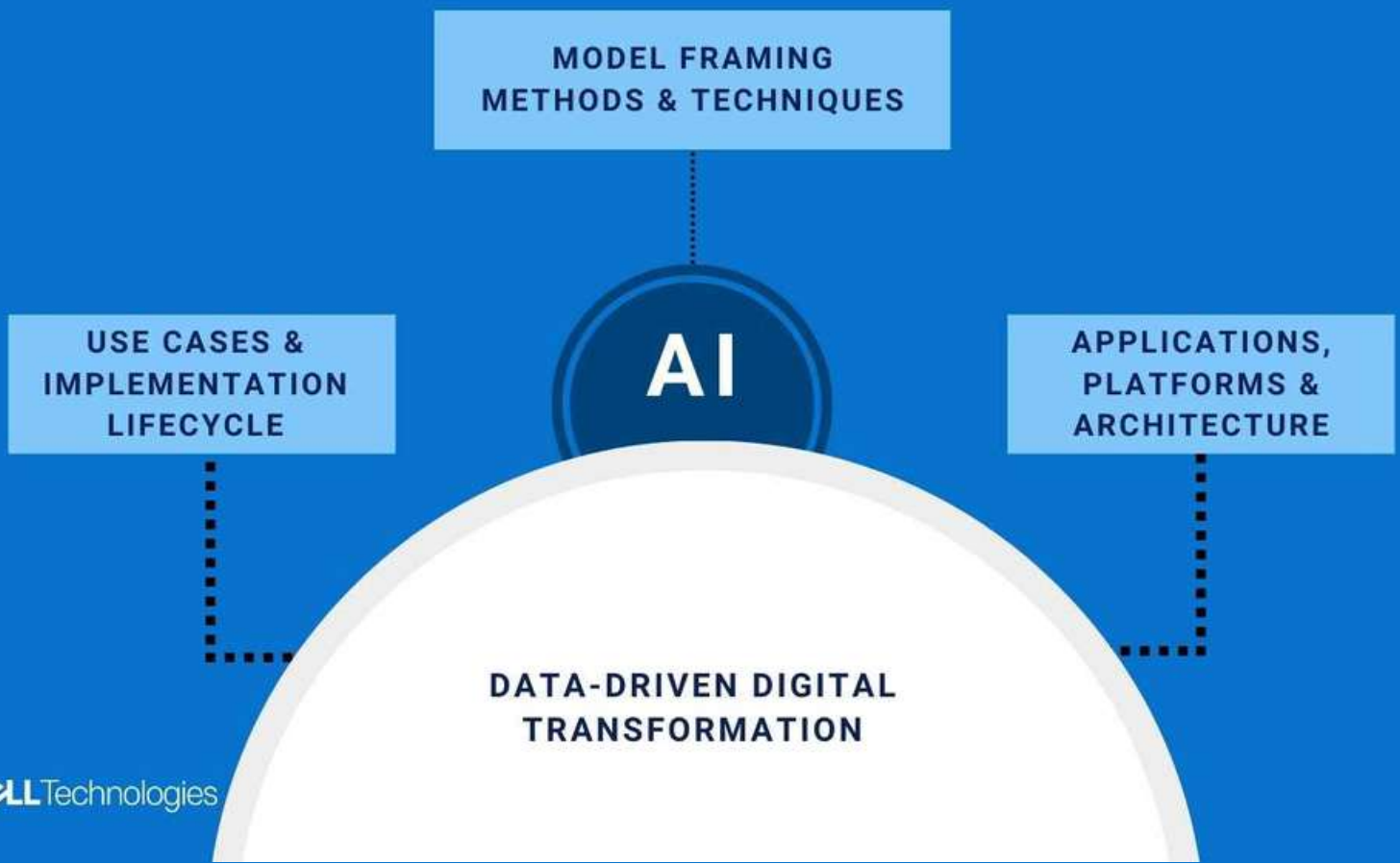
Organizing Hackathon Competition

2 Environments
-Tensorflow
-PyTorch

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SELECTED AI USE CASES FOR 2022/2023 ACADEMIC YEAR

1

SMART AGRICULTURE TRANSFORMATION

2

SAFE INTELLIGENT TRANSPORTATION IN DIGITAL CITIES

3

CITIZEN SERVICES QUALITY MONITORING FOR SMART GOVERNMENT

KEY ELEMENTS OF A USE CASE

MODEL FRAMING METHODS & TECHNIQUES

USE CASES & IMPLEMENTATION LIFECYCLE

AI

APPLICATIONS, PLATFORMS & ARCHITECTURE

DATA-DRIVEN DIGITAL TRANSFORMATION

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DELL TECHNOLOGIES MENTORSHIP

Dell Technologies mentors are data scientists who are expert in the field of Artificial Intelligence with industry practical experience, and they will be working with mentees on any questions they might need throughout the academic year.

DELL Mentor Roles

CONSULTANT

Offering support and providing supplementary resources, and awareness about latest industry tools and methods if needed.

COLLABORATOR

Creating challenge and encouraging growth.

COACH

Facilitating professional/industrial vision based on real-life market experience and bridging the gap between academia and industry.

GOVERNMENT COLLABORATION

DELLTechnologies

The government is the main sponsor for the program bringing all parties together (Industry and Academia):

- Providing access to key/strategic national projects

- Providing access to Industry-grade High Performance Computing data center which is supported by Applied Innovation Center (AIC)

- Provide all needed information for real-life use cases to let the students apply the AI techniques on solving the problem
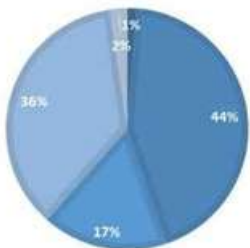
AI HACKATHON 5 UNIVERSITIES

- AI Hackathon to take place in July
- Ideation Hackathon, each team comes up with an innovative idea
- 15 teams from 5 universities will participate in AI Hackathon: 3 teams from each university
- Dell Technologies to provide technical team and judges to run the competition and judge the presented ideas
- Top 3 winners to receive certificates of recognition presented from the government & Dell Technologies
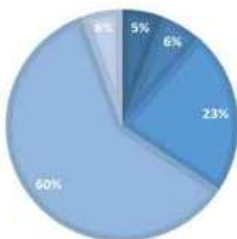
AI CAPACITY BUILDING 2022 IN NUMBERS

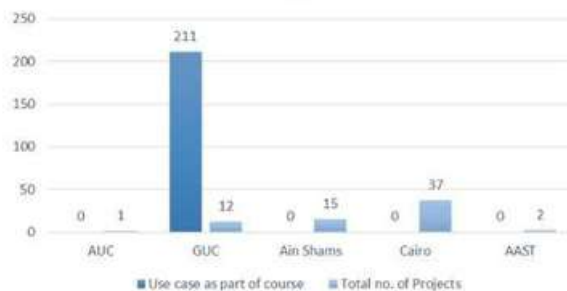## TOTAL NO. OF STUDENTS

Legend: AUC · GUC · Ain Shams · Cairo · AAST

44%, 17%, 36%, 2%, 1%

TOTAL NO. OF PROFESSORS

Legend: AUC · GUC · Ain Shams · Cairo · AAST

23%, 60%, 6%, 6%, 5%

Delivery Model

	AUC	GUC	Ain Shams	Cairo	AAST
Use case as part of course	0	211	0	0	0
Total no. of Projects	1	12	15	37	2

Legend: Use case as part of course · Total no. of Projects

TOTAL NO. OF PROJECTS/USE CASE

Legend: Digital Cities · Smart Agriculture · Smart Government
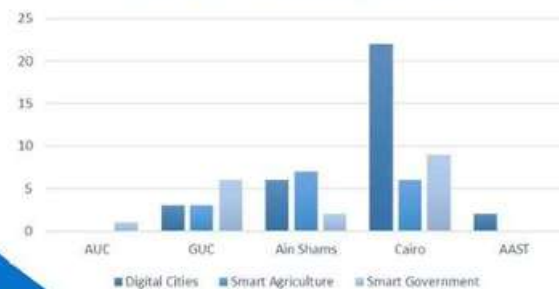
AI CAPACITY BUILDING 2022 AGREEMENT SIGNING