

Information Technology Institute

GIS Education in Egypt

The ITI Experience

Eng. Manar Mahmoud
 mamahmud@iti-idsc.net.eg
 Dr. Ahmed Darwish
 adarwish@iti-idsc.net.eg
 Dr. Mohamed A. Salem,
 msalem@idsc.net.eg

Introduction

- Information Technology Institute is considered a pioneer in the field of IT training.
- ITI has supplied the local, regional and international markets with more than 2500 highly-trained professionals in various IT domains.
- Those graduates make-up the backbone of the IT workforce in Egypt.

Copyright © Information Technology Institute 2005

MISSION

Inspiring the Development of IT Industry in Egypt, Reaching Out to the Regional and International Markets

Copyright © Information Technology Institute 2005

Objectives

- Leading the Development of IT Training Industry in Egypt.
- Producing Top Quality Trained IT Professionals.
- Enriching Training Programs by Establishing Academic Links.
- Pursuing State-Of-The-Art Technologies and Disciplines.

Copyright © Information Technology Institute 2005

Objectives

- Partial Contributions in IT Projects of National Nature.
- Keeping Up IT Culture Building in Governmental Organizations.
- Providing Technical Support and Quality Control for IT Training in Egypt's Governorates.

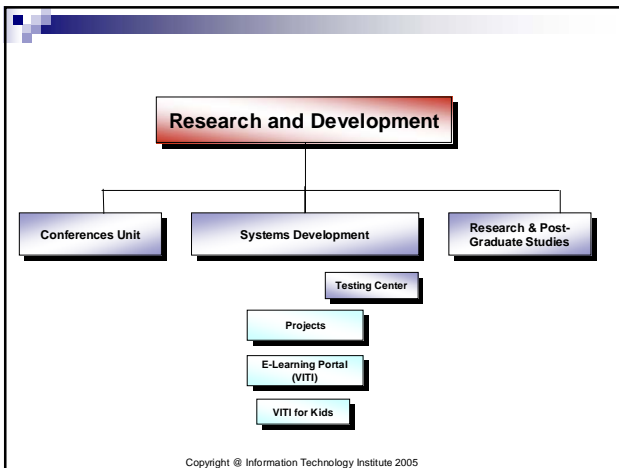
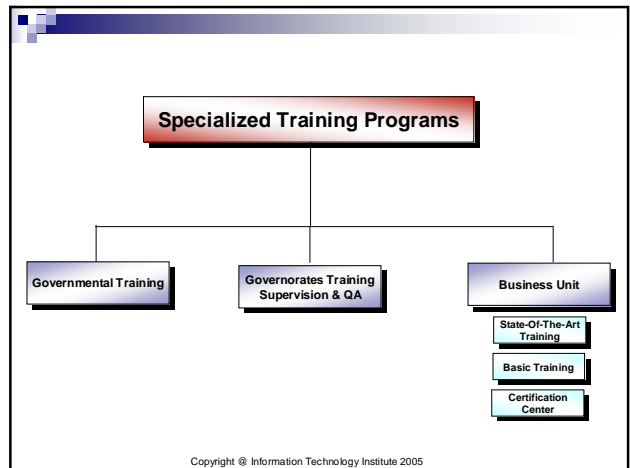
Copyright © Information Technology Institute 2005

ITI Programs

ITI mainly contains of three main programs

- **Professional Training**
 - Provides professional training in state-of-the-art technologies to fresh-graduates.
- **Specialized Tracks**
 - Spreads different training with various levels of course starting from basic courses to advanced one.
- **Research & Development**
 - Performs in-house development of software products.

Copyright © Information Technology Institute 2005



Professional Training Program

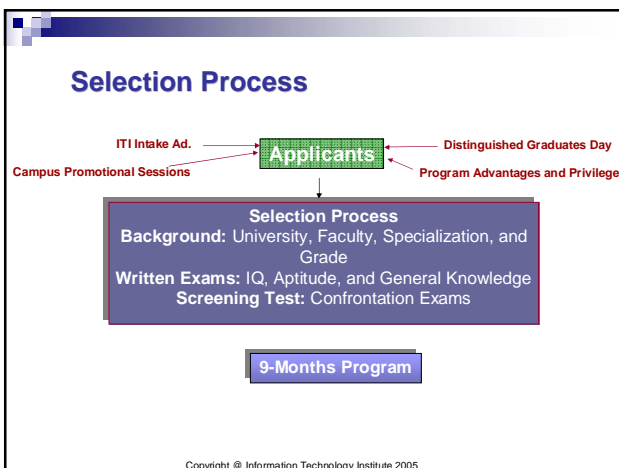
The 9-Months Diploma is Now 12 years old (24 Intakes), and has gained wide regional and international recognition.

The Program still maintaining an exclusive quality in the field of information technology.

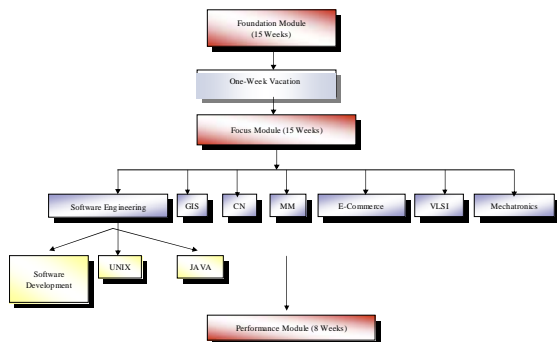
Objective

Produce World-Class Software Developers
Covering All IT Disciplines

Copyright © Information Technology Institute 2005



Program Design



Copyright © Information Technology Institute 2005

2. Program Design (cont.)

- a) **The Foundation Module – Fundamentals**
 - It introduces several courses concerning main concepts of fundamental computer skills.
- b) **The Focus Module – Specialization**
 - Every platform is mainly composed of theoretical courses in addition to some practical courses.
- c) **The Performance Module – Graduation Project**
 - The trainees develop a real case project with a prospective client. In many cases, these projects were made use of their potential customers -government or private sector.

Copyright © Information Technology Institute 2005

GIS Platform

- Since 1993, GIS platform had supplied the local, regional, and the international market with nearly 200 top quality GIS specialists.
- The GIS Focus module introduces GIS theories and practical tools in addition to several supporting courses.
- The GIS curriculum is being updated periodically to meet the changing demands of the GIS market in addition to couple with the international universities.

■ GIS Candidates

- Candidates are of Engineering backgrounds preferably from Civil, Urban Planning and Architecture.

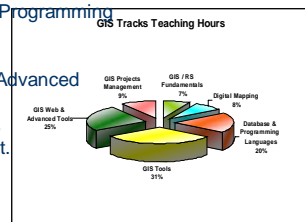
Copyright © Information Technology Institute 2005

The GIS Focus Module

It mainly consists of six tracks:

1. GIS / Remote Sensing Fundamentals.
2. Digital Mapping.
3. Database & Programming Languages.
4. GIS Tools.
5. GIS Web & Advanced Tools.
6. GIS Projects Management.

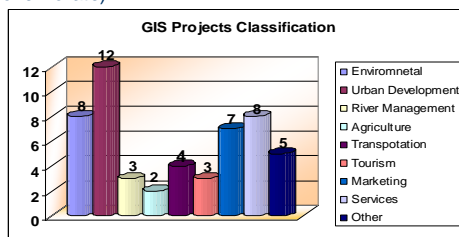
The Distribution of the courses within the GIS platform. →



Copyright © Information Technology Institute 2005

The GIS Performance Module

After studying the GIS courses, the trainees develop a real case project (e.g. Giza Atlas System, for the Giza Governorate).



The classification of GIS graduation projects in ITI

Copyright © Information Technology Institute 2005

Online GIS Courses

- ITI has published several programs, one of these was the GIS, that consists of 4 main tracks:
 - GIS Fundamentals
 - Spatial Data Acquisition
 - GIS Analysis & Design
 - GIS Applications.



Copyright © Information Technology Institute 2005

Online GIS Courses

Copyright © Information Technology Institute 2005

GIS Graduates and Market Needs

ITI makes the main skeleton of the GIS professional market in Egypt.

Year	Number of Graduates
GIS1	18
GIS2	16
GIS3	12
GIS4	17
GIS5	15
GIS6	14
GIS7	11
GIS8	17
GIS9	20
GIS10	22
GIS11	12
GIS12	20

Number of GIS Graduates annually

Copyright © Information Technology Institute 2005

GIS Graduates and Market Needs

The biggest GIS Companies/organizations in Egypt, ITI graduates represent between 70% and 40% of their staff.

Company	No. of ITI/ GIS Specialists	Total No. of Employees
Quatly	40	60
Globe Telecom	10	15
ERSS	5	10
Global Gadgets	10	20

Organization	No. of ITI/ GIS Specialists	Total No. of Employees
E.A.I.S	2	8
GOPP	5	10
MOHP	2	4
WHO	2	4
CULTNAT	4	6

Copyright © Information Technology Institute 2005

Academic Links with Foreign Universities

ITI offers the following two Master degrees in GIS:

- University of Nottingham - UK**
ITI graduates to continue their study for three months in the university to write-up the dissertation.
- University of Calgary - Canada**
MGIS program allow GIS graduates to enroll into the M.Sc. program and obtain a master degree after studying for one academic year in Canada.

Copyright © Information Technology Institute 2005

ITI Contribution to the National & Regional IT Industry

- ITI Graduates
- Projects
- International & Regional Conferences

Copyright © Information Technology Institute 2005

1. Graduates

ITI has given the local and international Markets nearly **2465** highly-trained professionals in different computer fields.

Market Sector	Percentage
Local Market	60%
Regional Market	2%
Governmental Sector	9%
Governmental Projects	8%
Banking Sector	7%
International Market	6%
Information Centers	4%
Universities and Academic entities	4%

Copyright © Information Technology Institute 2005

2. Projects

ITI has contributed significantly in developing different applications & websites, such as:

- The Giza Investment Atlas
- Powering A Cleaner World



Copyright © Information Technology Institute 2005

3. Conferences

ITI had organized several regional & International conferences in several IT fields namely;

- ITI 5th Arab Conference on Geographic Information Systems.



- ITI 2nd International Conference on Information & Communication Technology



- ITI 2nd International Conference on Digital Media



Copyright © Information Technology Institute 2005

Recommendations & Future Work

- Produce multiplier of current products but without any compromise on quality to accommodate the continuous demand of the market.
- Establishing post-grad research and degrees in GIS in collaboration with local Universities.
- Initiating co-operation in the field of GIS professional training to exchange experiences between different countries.

Copyright © Information Technology Institute 2005

Thank You for your Attention

Copyright © Information Technology Institute 2005