



Ministry of Communications and
Information Technology



Information Technology Institute



Embedded Systems

Intake 35

Historical Background

- The Embedded Systems department was established in 2006
- The total number of graduates was 192

Track Purpose

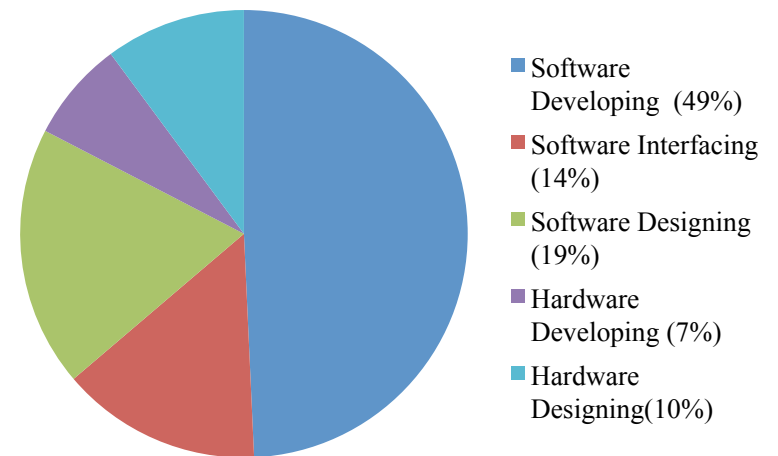
- Embedded Systems Platform aims to graduate professional, world-class, and well educated Embedded Systems graduates.
- The embedded systems engineer will be able to:
Design and develop in devices "Hardware" and write their own programs "Software" to reach the best model possible performance.

Graduate Profile

Graduates of this track should be able to:

- Design the hardware component of Embedded microcontroller-based, DSP-based, or SoC systems.
- Develop the Embedded software needed for any of these systems.
- Configure an embedded system for a given application.
- Make an initial selection of the tools needed to complete an embedded system design.
- Select a suitable processor for a given computational task.
- Design and develop device drivers for use with custom application specific hardware.

Technical Skills



List of Courses

■ Essential Courses:

- Operating Systems Fundamentals
- C Programming Language
- Data Structures and Algorithms
- Object-Oriented Programming Using C++
- Embedded Java Programming
- Java Programming For Industrial Engineering

List of Courses Cont'd

- **Embedded Systems Software:**
 - Microcontrollers Assembly Programming
 - Introduction to Embedded Systems
 - Embedded C Programming
 - Real Time Systems and RTOS
 - Embedded Java Programming
 - Introduction to Software Engineering
 - VLSI Design: Programmable Devices
 - MATLAB for Embedded Engineers

List of Courses Cont'd

- **Embedded Hardware:**
 - Uniprocessor Architecture
 - Computer Interfacing
 - Microprocessors and Microcontrollers
 - Advanced Microprocessor
 - PCB Design
- **Embedded Systems Knowledge:**
 - Embedded System Development Tools
 - Verification and Testing of Embedded Systems
 - Embedded Linux

List of Courses Cont'd

- **Automotive Application:**
 - Automotive Bus Technology Standards
 - Device Drivers
 - Real Time Control Systems
- **Consumer Appliances:**
 - Wireless Communication Systems
 - Digital Signal Processing for Embedded Systems

List of Courses Cont'd

■ Soft Skills:

- Effective Communication Skills
- Effective Presentation Skills
- Interviewing Skills
- Creative Thinking
- Marketing Management
- Time and Stress Management
- Leadership and Motivation
- Team Building

Graduate Domain



Our Staff

- **Staff Members**

Department staff consists of 1 well-qualified Teaching Assistant.

- **Technical Committee**

Includes:

Dr. Serag El-Den Habeb (Cairo University Professor).

Embedded Systems Committee (ESC).

Contact Us

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<http://www.iti.gov.eg/en-gb/services/capacitybuilding/9monthprofessionaldiploma.aspx>

ITI Links



Common FAQs

URL: <http://www.iti.gov.eg/faq>



Connect with ITI : Ask iTi

URL: <http://www.facebook.com/Ask.iTi.gov>



Tracks Information

URL: <http://www.iti.gov.eg/students/53/9-month-professional-diploma>

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Thank You