

IMT School (I Make Technology School) is not a place where you can take some courses; it is a place in which you practice technology. We believe that listening to someone speaking about something is not a good way of learning, so, "Do it yourself" is our way. Our learning methodology totally depends on hands on labs that transfers the knowledge you get from being just information to be an experience. Our staffs are engineers from leading companies in the same field. In other words, if you want to go Professional, IMT School is your destination! Let's meet the experts, let's practice technology.

Contact us

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Facebook: imaketechnologyschool

Website: www.imtschool.com



Introduction

IMT is an Egyptian company that started in 2015 by embedded systems engineers based in Egypt and Germany who have graduated from ITI 9-month program, Embedded Systems and currently working in Multinational Companies. Total graduates until the date of releasing this document is more than 8000 Engineers. The following, are some of the recommendation letters we honored to have:

1- United Nations Development Program.

United Nations Development Programme



10th September, 2017

To Whom It May Concern,

In the efforts to implement cooperation projects within the work of the United Nations Development Programme (UNDP), and within the cooperation between the programme and the Information Technology Institute (ITI) under the "Supporting ITI Activities" project.

This letter is to acknowledge that "IMT School" has been one of the technical implementation partners within the aforementioned project starting the year 2015 and until moment. "IMT School" has designed and implemented distinguished technical programs in several areas in cooperation with the UNDP and ITI. These programs included:

- Embedded systems diplomas for university instructors and seniors through the EDUTronics program in collaboration with several Egyptian Universities.
- Robotics diplomas for juniors and young adult learners.

It is worth noting that "IMT School" has continuously demonstrated an outstanding level of quality, flexibility and excellence throughout their work with project partners.

This letter is issued with no liability on project the Programme Office and/or project partners.

Best Regards,

adine Abou Elgheit elen Leader in charge

priovation for Development

UNDP-Egypt



2- Canadian International College.



Cairo Campus of

Cape Breton University

Letter of Recommendation

TO WHOM IT MAY CONCERN

It is with great pleasure that we the Canadian International College take the opportunity to write this letter of recommendation and reference for IMT School for providing our Engineering Students their Annual Technical Training Programs.

They have associated with the Student Development Office - SDO to conduct the Training programs in November 2018 for Communication Engineering Students, and they showed a very professional performance. Without a doubt their instructor's level of skills, expertise, and delivery methods exceeded our expectations. Their level of professionalism and passion for empowering and developing people is very evident.

The Feedback (Written and Oral) that we received during and after their Training has been exceptional. The participants expressed their gratitude for the exposure they received during the sessions of Arduino Programming, Embedded C, and Mobile Robots, and have requested IMT to provide further training in the future.

As a quality and experienced Training Provider with high levels of excellence and Professionalism. We would therefore like to give our highest recommendation to IMT. Without doubt their instructor's level of expertise will be a major benefit and a great asset to any company as it is to CIC.

Dean of Engineering School

Head of Student Development Office

Students' Development Office CIC

New Cairo Campus:

Sheikh Zayed Campus:

Land # 6, Center Services, South of Police Academy, Fifth Settlement, New Cairo.

Land # 12, Continental Gardens, Behind El Yasmen Resort, Sheikh Zayed City, 6th of October.

www.cic-cairo.com Hotline: 16242

3- Modern Academy.



Modern Academy for Engineering and Technology Electronic Engineering and Communication Department

To Whom It May Concern

We would like to inform you that our cooperation with *IMT School* through students training was a great experience in Embedded system field. Such training center is characterized by professional team of instructors, accurate procedure of evaluation, and up to date lab equipments.

Communication department in Modern Academy for Engineering and Technology have sent hundreds of students through past two years into *IMT School* for summer training and will continue in coming years.

Industrial Training in charge
Dr. Nelly Muḥammad Hussein

Manager of Training Office

Dr. Hoda Abo Ḥamza

Modern Agadamy

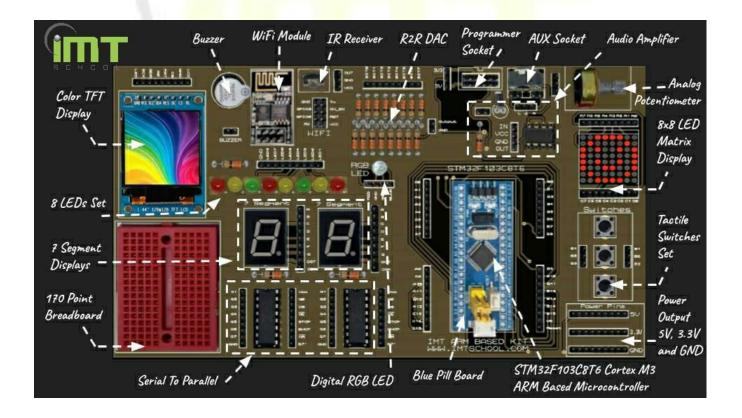
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ARM Programming Diploma

IMT is offering professional ARM Programming Full Diploma with total duration 120 hours. By the end of the diploma, students shall deliver a professional graduation project utilizing all the concepts learned during the course on the presence of high-level committee from the industry.

Our instructors are well qualified to teach and have a long experience in teaching Embedded Systems. All of them with no exception are teaching in ITI. We use a unified content selected carefully and ensure all technical and practical aspects.

Most of our diploma is about making your own embedded system (Set your HW environment and start developing your projects). Each student gets a very professional kit developed by our team and its components are listed below.





IMTARM Box

Lectures	Outline	Hours
IMT ARM Kit	ARM Based Programming kit that has many interfaces such as: 1. STM32 Blue Pill board based on STM32F103C8T6 Microcontroller 2. Color TFT Display ST7335 3. WiFi Module 8266 4. 8 Bit R2R DAC with LM386 Audio Amplifier and AUX Socket 5. 8x8 788BS LED Matrix Dispay 6. Digital Universal Standard IR Receiver 7. Digital RGB LED 8. Serial To Parallel 74HC595 9. Buzzer, LEDs and Tactile Switches 10. Breadboard 170 Points	
ST Link V1 ARM Debugger	STD ARM Debugger supports SW and JTAG with 10 Pin Flat Cable	man (CELL) of the stand of the
IR Remote Control	NEC Compatible Remote Control	
AUX Speaker	Stereo AUX standard Speaker	
USB To TTL Converter	PL2303 USB to TTL Module	

Jumper Wires	- 40 F-F Jumper wire - 10 M-F Jumper wire - 10 M-M Jumper wire	
IMT Box	Plastic Box for keeping all components	

Couse Content

Chapter 1 – ARM Architecture Basics

Number	Title	Outlines
Lecture 1	ARM Architecture	 ARM History Power Factors in ARM ARM Processor Design ARM Core Peripheral AMBA Bus definition Bus Matrix Harvard To Von Neumann Conversion Register Definition and Driver Setup
Lecture 2	RCC Peripheral	 IMT SDK for ARM Setup Code Naming Convention Microcontroller Clock Types PLL and FLL Different Reset Types Reset and Clock Control Peripheral Driver
Lecture 3	DIO Peripheral	 Digital Input/Output peripheral Basics Different Input and Output modes Building DIO Driver for ST Microcontroller Interfacing LEDs Interfacing 7-Segment Displays Interfacing Tactile Switches



<u>Chapter 2 – ARM Interrupts</u>

Number	Title	Outlines
Lecture 4	NVIC	 Interrupts Basics Interrupt Handling Techniques The Nested Vectored Interrupt Controller Interrupt Priority Grouping
Lecture 5	NVIC Driver	NVIC Registers definitionBuilding NVIC DriverSimulating Interrupts Feature
Lecture 6	EXTI	External Interrupt BasicsAFIO PeripheralBuilding EXTI driver



Chapter 3 – Real Time

Number	Title	Outlines
Lecture 7	SysTick	 Timer Basics SysTick Core Peripheral Interval Vs Busy Wait delay Synchronous Vs Asynchronous Design Callback Function Building Systick Driver
Lecture 8	OS Scheduler	 Operating Systems Basics Building Real Time Scheduler Time Triggered Design Patter and Real Dynamic Design Aspects
Lecture 9	LED Matrix	 POV Concept 7-Segment Displays in POV Pattern Interfacing LED Matrix Display



Chapter 4 - Audio Processing

Number	Title	Outlines
		- Digital To Analog Converter Basics
Lecture 10	DAC	- R2R DAC
		- Building DAC Driver
		- Human Voice Characteristics
		 Sampling and Quantization
Lecture 11	Audible Signals	 Dealing with audio files
		- Mono Vs Stereo
		 Using PICAXE and AUX Speaker
		- Playing Sounds over DAC



<u>Chapter 5 – Communications</u>

Number	Title	Outlines
Lecture 12	Serial To Parallel	 Serial Vs Parallel Communication Extending DIO Pins to unlimited number Interfacing LED Matrix Serially
Lecture 13	IR Communication	Communication Over light basicsNEC IR ProtocolBuilding IR Receiver Driver
Lecture 14	UART	 Serial Communication Characteristics UART Basics Building UART Driver Interfacing USB TTL Module
Lecture 15	SPI and TFT	 SPI Basics Building SPI Driver Pixel Color Modes Display Types and Comparison Interfacing TFT Displays Bit Map Images Playing Video Samples
Lecture 16	DMA	 Direct Memory Access Definitions and Basics DMA Authorities against processor DMA Driver Build



Chapter 6 – IOT

Number	Title	Outlines
	VACET NA - de de	- WiFi Basics
Lecture 17	WiFi Module	- WiFi Module Interfacing
		- Networking
		- Client and Server Model
		- HTML Basics
Lecture 18	Web Development	- PHP Basics
		- HTTP Requests
		- Building Simple Web Page
		- Building Free Server with a simple web
Lecture 19	IOT	page
		 Connecting Microcontroller to web server
		- Microcontroller Communication over
		НТТР





Chapter 7 – Bootloader

Number	Title	Outlines
Lecture 20 Lecture 21	Story of Flashing Hex Parser	 C Build Process Memory Sections Startup Code Flashing Sequence and Burner types HEX File Format Building HEX Parser Driver File Transfer over UART
Lecture 22	Bootloader Implementation	Flash Driver SoftwareBootloader sequence

<u>Chapter 8 – Graduation</u>

Number	Title	Outlines
Lecture 23	Wo <mark>rksho</mark> p	- Final Project Idea Submission
Lecture 24	Project Defense	- Final project presentation in front of High level technical Panel