Internet of Everything



The Internet of Everything (Unit 17)

This is a unit of coursework that you can get a head start on!

M = Mandatory O = Optional				App	Tech Level															
					Certificate In IT 180 GLM	Introductory Digitoma Foundation Diploma In IT 540 GLH							ema	Diploma in III 770 GLH				Extended Diploma in IT 1080 GLH*		
		Number of units needed			2	5	5								11				12	
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	2	Global Information	19401	-	100	IMI.	M	M	IMI	566	M	IMI	IMI	ING	566	IM.	IM.	IM.	DATE:	IMI
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	cc.	Cloud Technology	19401	-	_	-			-	-									DATE	15/0
	4	Computer Networks	660		-		M			-	M				DA.				IMI.	
	55	Virtual and Augmented Reality	-660		_			546				M				M			M	
	-64	Application Design	4000		_	_			1840	_			1840	_			DATE:			546
	7	Data Analysis and Design	(640)		_	-			-	DM.				IMI.				IMI		366
	-	Project Management	(600)	- 11	_	-	0	100	(0)	0	(0)	100	(0)	-	0	0	0	-	-	-0
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	10	Business Computing	(6.0)		_	_			-	•				(0)				0		(0)
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	12	Mobile Technology	(600)	-	_	_	0	(0)	(0)	_	(0)	(0)	(0)	-	0	0	0		-	-0
	13	Social Media and Digital Marketing	(600)	-	_	-		(0)	(0)	0		(0)	(0)	(0)		0	0	-	-	-0
	144	Software Engineering for Business	(600)	-	_	_			(0)	0			(0)	(0)			0	-		-0
	15	Games Design and Prototyping	(600)	-	_	-			(0)	-			(0)				0			(0)
	16	Developing a Smarter Planet	(640)	- 11	-		0	-(0)		-	(0)	-			0	0			0	
	107	Internet of Everything	(640)	- 11	-	0	0	(0)	(0)	0	(0)	(0)	(0)	(0)	0	0	0	-	0	0
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	200	IT Technical Support	660	-	_	-	0	-	-	-	0	-	-		0	-			0	-
	201	Web Design and Prototyping	60	-11	_	-	-	-	0	-			0		-		0			0
	200	Big Data Analytics	660	-	_	-		0	0	0		0	0	0		-0	0	0	0	0
	200	Cognitive Computing	200	-11	_	-		-	-	-		-	-	-					0	(0)
	246	Enterprise Computing	660		_	_			_	_		-	-						M	1840

Please watch the following clips on the Internet of Everything. They explain how it works and methods devices connected to the Internet can be used. The last clip is about cybersecurity issues that need to be considered.

Overview

https://www.youtube.com/watch?v=c-Ekz2kK7J4

How it works

https://www.youtube.com/watch?v=QSIPNhOiMoE

Use in a Car

https://www.youtube.com/watch?v=HuuC4uu9Wlk

Further detail on how the technology works and its costs

https://www.youtube.com/watch?v=mzy84Vb Gxk

Security issues

https://www.youtube.com/watch?v=mzy84Vb_Gxk

After watching the clips, over to you.....

From the next 5 slides pick an area of lifestyle or the environment to develop an Internet of Everything device. In the past we've had gaming chairs, security devices, road pot hole sensors, smart contact lenses and even a diagnostic toilet!

body/health, e.g.:

- o sensors, e.g. wearable thermometer
- o social safety wearables
- Wi-Fi mattress cover
- Bluetooth stethoscope
- biometric patch
- o running analytics
- Bluetooth weather sensor
- Bluetooth maps for visually impaired
- o Bluetooth sunglasses



home/garden, e.g.:

- o smart air conditioner
- o Bluetooth tape measure
- o smart locks
- o smart lights
- o smart batteries
- o global location devices
- Bluetooth measurement jars
- Bluetooth flower pots
- o wireless water shutoff
- Wi-Fi shopping lists
- o solar powered window blinds
- Wi-Fi gas and carbon monoxide detectors



city/neighbourhood, e.g.:

- o real-time air traffic
- o smart signage
- o bicycle barometer
- o city dashboard
- o intelligent street lights
- o taxi locator
- o surveillance systems
- o wearable air quality sensor
- o smart urban furniture
- o connected car safety devices



industry, e.g.:

- o industrial smart helmet
- o smart glasses for warehouses
- o wireless pest monitoring
- o smart paving capturing kinetic energy
- o intelligent packaging
- o smart luggage/cargo
- workforce driving monitors
- o connected e-paper displays
- Wi-Fi cold storage monitoring
- o smart noise sensors
- o smart bottle labels



the environment, e.g.:

- o environmental monitoring
- o wildlife tracking
- o flood detection network
- o illegal deforestation monitoring
- o landslide detection systems



Your Challenge



Make a sales pitch presentation for your own idea for a future technological development to join the 'Internet of Everything'

INCLUDE IN YOUR SALES PITCH:

A link to a Dragon's Den Pitch for a SMART bath

What is the device?

https://www.youtube.com/wat ch?v=dI7yH9xa2nY

- **❖** A drawn design/image for the device
- **❖** Who are your target market (e.g. age, lifestyle, disposable income)?
- **❖** Why would they want to buy your device?
- What technology/hardware would you device use (e.g. sensors, Bluetooth, wi-fi, GPS, etc.)
- ❖ An estimate of how much your device would cost based on the technology/hardware used
- Would you have any competitors in the market?
- * How will you market your device?
- ***** What potential security issues would your device have?
- How would you protect against these?

You should aim to have <u>at least</u> 12 slides in PowerPoint to pitch your device to the rest of the class. Also create speaker's notes to support your delivery. In these speaker's notes reference information sources you have used to get facts and figures (e.g. website addresses)

