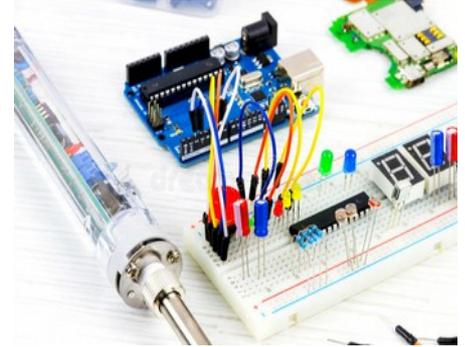


Course: EEE0120

# Electronics with Microcontrollers Programming



Course duration  
660 hours



EE01010  
Introduction to Electrical Engineering

### Why Electronics with Microcontrollers is a very good choice ?

As you can see electronics applications are used everywhere in everyday life in our modern world. We have many electronic devices in our homes, at work places, and in every walk of life. So as you can see life without electronics will be very hard nowadays.

EE01020  
Introduction to Electrical Machines

### What are your opportunities as Digital Electronics Professional on job market ?

Aerospace, automotive, energy, IT and telecommunications are just some of the many sectors you can work in with a degree in electronic engineering. As an electronics specialist, you can find a job in many places. You can work as maintenance staff. You can design and install electronics systems. You can work in electronics service, repair damaged equipment and swap on new ones, etc.

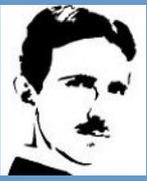
EE02010  
Electronics Essentials

EE02020  
Digital Electronics

EE04010  
Microcontrollers

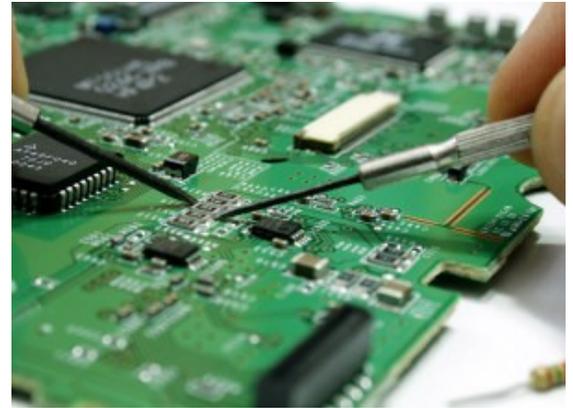
EE01040  
Safety at Work with Electricity





### Why learning Microcontrollers is a good idea ?

A microcontroller is a self-contained system with peripherals, memory and a processor that can be used as an embedded system. Most programmable microcontrollers that are used today are embedded in other consumer products or machinery including phones, peripherals, automobiles and household appliances for computer systems. Due to that, another name for a microcontroller is "embedded controller." Some embedded



systems are more sophisticated, while others have minimal requirements for memory and programming length and a low software complexity. Input and output devices include solenoids, LCD displays, relays, switches and sensors for data like humidity, temperature or light level, amongst others.

Programmable microcontrollers contain general purpose input/output pins. The number of these pins varies depending on the microcontroller. They can be configured to an input or an output state by software. When configured to an input state, these pins can be used to read external signals or sensors. When they are configured to the output state, they can drive external devices like LED displays and motors.

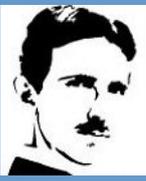
#### **Microcontrollers from Future Electronics**

Future Electronics has a wide range of programmable microcontrollers, including pic, low power, LCD, USB and wireless microcontrollers from several manufacturers. Once you decide if you need 8 bit, 16 bit general purpose, 16 bit digital signal controllers or 32 bit microcontrollers.

#### **Applications for Microcontrollers**

Programmable microcontrollers are designed to be used for embedded applications, unlike microprocessors that can be found in PCs. Microcontrollers are used in automatically controlled devices including power tools, toys, implantable medical devices, office machines, engine control systems, appliances, remote controls and other types of embedded systems.

***TAKE YOUR FUTURE NOW !***



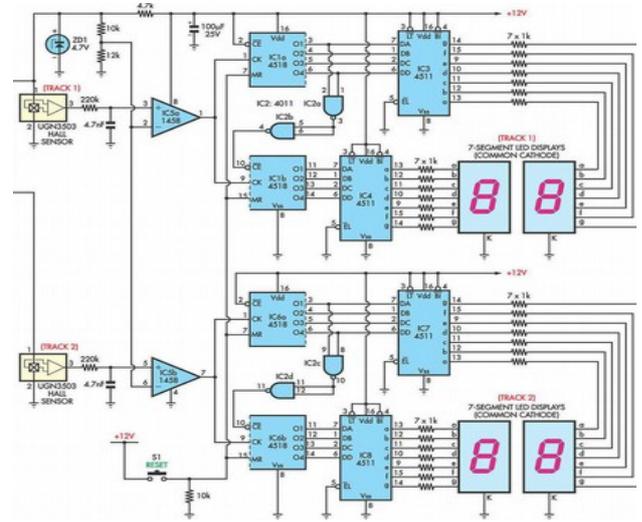
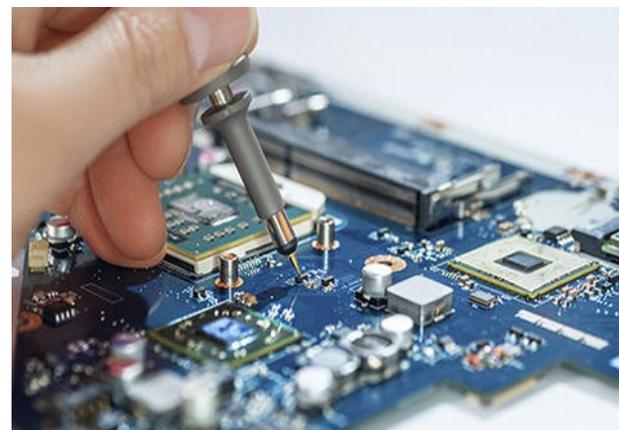
### What yet ?

In TESLA INSTITUTE school model, we focus more on practical knowledge and usable skills in future work. We base on the best experience from German's industry and German's service companies. We can give you maximum knowledge and more skills in shorter time in comparison to regular and formal colleges.

We will teach you the most basic knowledge, what you really need to be able to do the best work, besides we will teach you the latest knowledge from German industry. You will acquire knowledge, skills and feel more comfortable working in the international environment. We guarantee that your course of studying and practising will be extremely practical and useful for you. We help you to fulfill your dreams and passions. Help you open the big door for the future of your life.

You will be able to study in your own country at a reasonable cost (only 1/25 if you have to go to Germany).

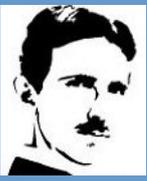
In your country but you will learn and work with a teacher with the expert experience that you really have to respect. Formerly managing Bosch's advanced auto system; Siemens; Teaching German and Finnish technical colleges.



With less expensive tuition fees than your extra classes in Maths and Literature in your local school yet, you will have access to advanced science and extremely practical to help you stand on your own feet.

We look forward to helping you with your dream. Let us build and develop your knowledge !

**WE CREATE YOUR FUTURE**



### How we teach ?

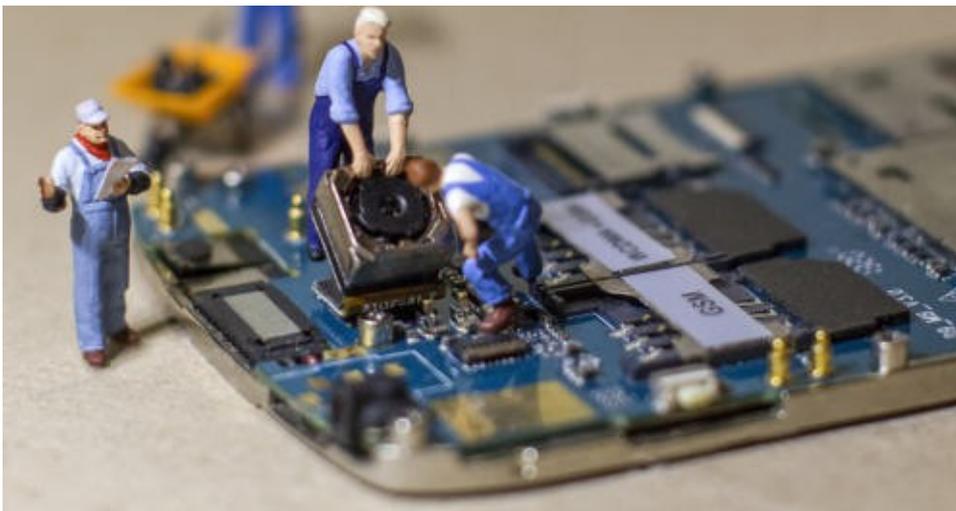
- ✓ Necessary theory lectures
- ✓ Educational videos
- ✓ Practical exercises
- ✓ Experiments in a Virtual Laboratory
- ✓ Actual circuits in Laboratory
- ✓ Actual projects



**WE WILL SAVE YOUR TIME AND MONEY !**

### Who is this course for ?

No matter who you are and how old you are. You can be a student of secondary school, high school, university or you can be already an employee, who thinks about a new better job. If you want to get a new profession or change the current one, this course is exactly for you. You do not need any special starting knowledge. We will teach all what you need in it.



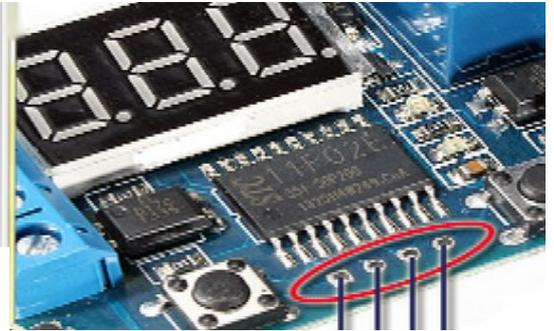
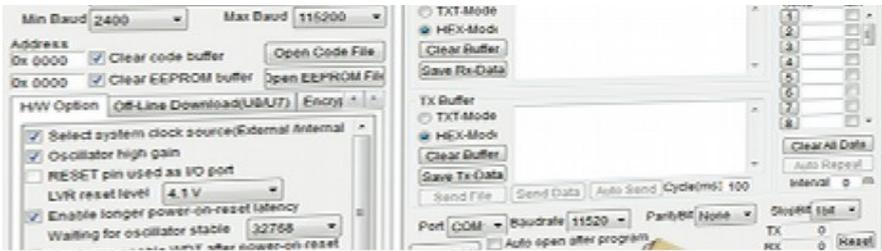
**But you have to know this course is not for all.** You must be a person who likes the technique and is interested in it. You like and want to tinker. You always wanted to know how things work and how they are built..You can think logically and draw correct

conclusions. Mathematics and physics did not scare you at school. You like to solve technical problems. If you think that you meet the criteria above, **this course is for you.**

**TAKE YOUR NEW FUTURE NOW !**



### Check whether this profession is for you



### Answer the following questions:

- ✓ Do you like science subjects such as physics and mathematics ?
- ✓ Is the accuracy of your strong point ?
- ✓ Do you like working alone ?
- ✓ Are you an ingenious person ?
- ✓ Are you characterized by perseverance in finding solutions to problems ?
- ✓ Do you like to follow the instructions ?
- ✓ Are you interested in the technique ?
- ✓ Do you like to tinker ?
- ✓ Would you like to work with modern machines and devices ?
- ✓ Is design work, coming up with something new interesting for you ?

#### Calculation of results

You receive 1 point for each YES answer. Count your points and find out if this is the profession for you.

#### Scoring 7-10

Your predisposition indicates that this is a profession that you can take into account in your choices.

#### Scoring 6-4

You can consider this choice, but think about it - there may be professions better suited to your abilities and predispositions.

#### Scoring 3-0

Work on your skills or talk with a career counselor about which job you would feel best at.

**WE CREATE YOUR FUTURE**