Basic Electronics 101

THEORY & PRACTICAL

IMPROVED
NEW UPDATED

Building electronic products is extremely rewarding, whether you do it professionally or just as a hobby. Communica will host a Basic Electronic Training Course for young students without prior knowledge of electronics. The course will introduce students to the basic concept of electronics and cover the most important electronic components to familiarize them with its operation and usage. The Basic Electronics 101 includes both theory and practical. It will form the baseline for the next training: Arduino Workshop 101 which is a practical hands-on training session over two Saturday mornings. We cover a large variety of items during all the training sessions and a high level of concentration is needed.

Target Group
- Students with an interest in electronics and microcontrollers.
- Hobbyists looking to learn about electronics and microcontrollers

Requirements
- No prior knowledge needed.

Objective
The training course will introduce students to electronics and electronic components and also enable them to enter into the next hands-on workshop based on the Arduino microcontroller. This will be a step forward to become part of the new IOT and Industry 4.0 Smart Factory of Tomorrow.

Price:
R800-00 Per Student

Dates:
As per Communica Website: www.communica.co.za

Time:
Saturday, 8H00 – 13H00

Includes:
- Certificate of Attendance

So, get plugged in and register for this training course today! Limited Seating.

TRAINING ONLY AVAILABLE @
COMMUNICA SAMRAND BRANCH
HEAD OFFICE - SAMRAND

Communica Building
53 Landmarks Avenue, Samrand, Centurion
Send your enquiries to
✉ training@communica.co.za

For More Information Call:
☎ 061 940 8143 - Theunis

Course Content

What is Electronics?
What is Electricity?
- Electricity
- Cu Atoms
- Voltage
- Electrical Charges
- Electric Current
- Electric Current flow direction
- Resistance
- OHM's Law
- Serial Resistors + calculations
- Parallel Resistors + calculations
- Electric Power + calculations
- Alternating Current
- Root Mean Square
- Magnetic Field

Electronic Components
- resistors, capacitors, inductors, impedance, RLC circuits, inductive reactance, capacitive reactance, passive filters, crossover filters, transformers, switches, relays
- Semiconductors – diode, half wave rectifier, full wave rectifier, LED, transistors + calculations, voltage regulators.
- Power Supply

Digital Electronics
- Logic levels
- Number systems – binary
- Digital Components (74 series logic gates)
- Microprocessor & Microcontroller

Workshop
- Tools
- Equipment
- Breadbord

Practical
- step by step **5V PSU**

Brought to you by
COMMUNICA
A World Of Electronics

TRAINING FOR AGES 12 AND UP