Technocation Freelancing Training Institute & Software House

Applied Robotics Training Certification Course Outline

MODULE 1: Introduction to Robotics

- Robots are smart machines.
- They help people in work and play.
- Learn what robots can do.

MODULE 2: Basic Parts of Robots

- Robots need sensors, motors, and brain.
- Sensors see and feel the world.
- Motors move the robot's body.

MODULE 3: Power and Energy in Robots

- Robots need power like humans need food.
- They can run on battery or solar.
- Without power, robots can't work.

MODULE 4: Robot Brain – Microcontrollers

- Microcontroller is robot's mini brain.
- It gives commands to all parts.
- Kids will learn simple coding for it.

MODULE 5: Coding for Robots

- Coding tells robot what to do.
- Small programs make big actions.
- Practice step-by-step coding.

MODULE 6: Sensors and Input Devices

- Sensors are robot's eyes and ears.
- They sense light, touch, sound.
- Robots act after sensing things.

MODULE 7: Robot Movements

- Robots can roll, walk, or fly.
- Motors and wheels make motion.
- Learn simple move commands.

MODULE 8: Everyday Uses of Robots

- Robots help in homes and schools.
- They clean, teach, or even play.
- Think about robot helpers in life.

MODULE 9: Building Simple Robots

- Use kits or Lego for practice.
- Connect parts to make it work.
- Test and fix like an engineer.

MODULE 10: Robots in the Real World

- Robots work in space and oceans.
- Doctors use robots for surgery.
- Factories use robots to build cars.

MODULE 11: Creative Robotics Projects

- Kids design their own robot ideas.
- Use sensors and code together.
- Share projects with friends.

MODULE 12: Certification & Future Path

- Review all lessons of robotics.
- Complete a small final robot task.
- Earn "Junior Robotics Engineer" Certificate.