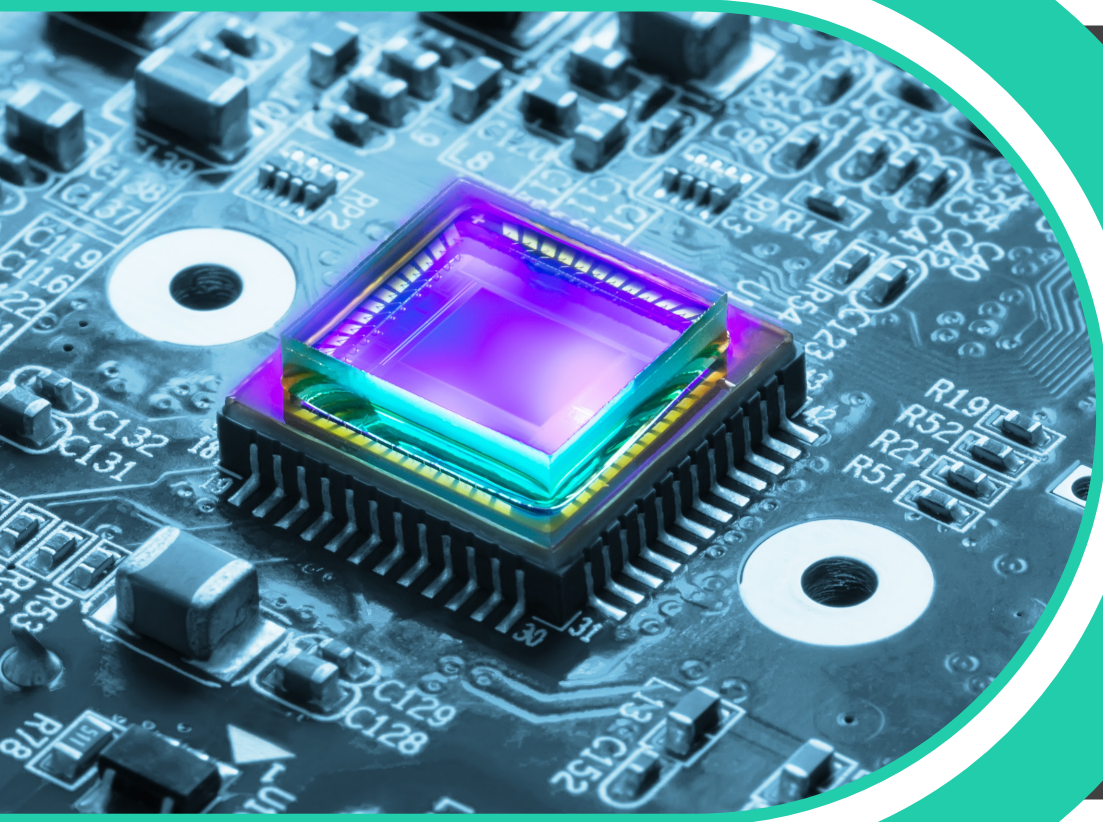
SKILL LYNC

PROGRAM OVERVIEW



Offline Post Graduate Program in Embedded Programming for Autonomous Vehicle Technologies

20th February 2023

6 days/week, Mon - Sat,
10:00 AM- 06:00 PM

Chennai Skill Centers

SKILL LYNC

WHO ARE WE?

Skill-Lync is among India's leading edtech platforms dedicated to transforming engineering education. We equip young engineers with the latest skill sets and cutting-edge tools in new-age technologies.

The brainchild of two engineers from Chennai, Skill-Lync is on a mission to bridge the skill gap between aspiring professionals and industry's demands through job-oriented courses.

POWERED BY

Y Combinator

IRON PILLAR

LEADING COMPANIES THAT HAVE HIRED OUR STUDENTS

nexteer AUTOMOTIVE

TATA TECHNOLOGIES

expleo

TATA ELXSI

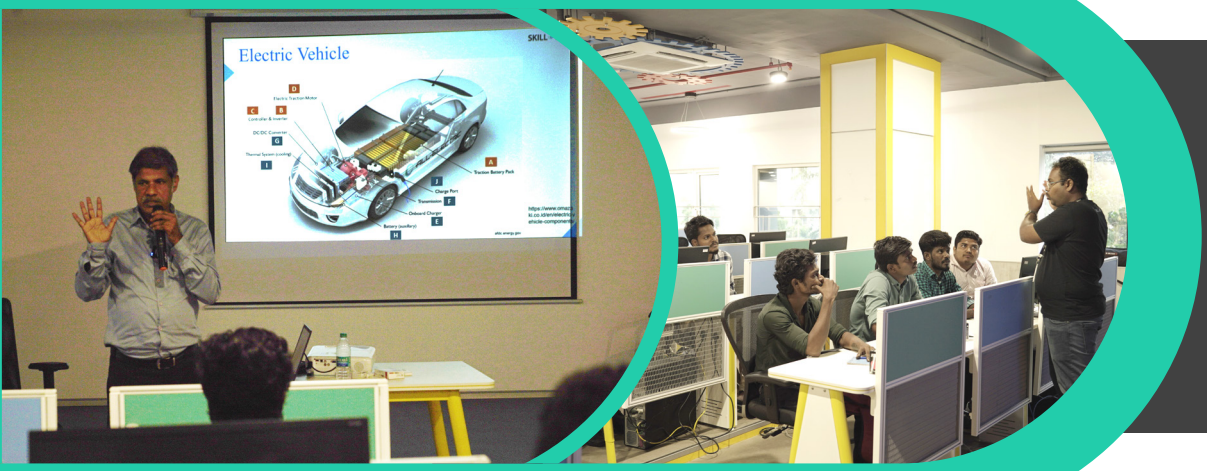
CYIENT

AXISCADES

VOTARYTECH Mobility. Digital. Solutions.

TCS TATA CONSULTANCY SERVICES

SKILL LYNC



WHY LEARN WITH SKILL-LYNC?

JOB ASSISTANCE

for up to 10 interview opportunities; with technical assessments, mock interviews, and resume preparation

CO-CERTIFIED BY N.S.D.C AND SKILL-LYNC

PROJECTS FOR YOUR PORTFOLIO

that are implementations of real large-scale projects

FORUM SUPPORT

for interaction with mentors & peers to get your doubts cleared

INDUSTRY-RELEVANT CURRICULUM

drafted by subject-matter experts in the latest hardware & software tools

LIFETIME VIDEO ACCESS

for all lectures from Learning Management System (LMS)

EXPERT MENTORSHIP

by domain specialists who will personally guide you with your coursework

Know more about Skill-Lync

Take a look at our placements

SKILL LYNC

ABOUT THE PROGRAM

Duration: Six months

The Offline PG Program in **Embedded Programming for Autonomous Vehicle Technologies** is a perfect amalgamation of Embedded & ADAS concepts from the basics to the advanced level.

It includes real-time embedded/ADAS projects with hardware demonstration. The learners will learn how to deploy an ML model in the hardware and work in real time. They will also get access to the **LDRA Test Suite** tool for the course duration & learn C programming in a Linux environment. It offers project-based learning with **13+ industry-level projects** that learners can showcase on LinkedIn. On completion, the student can master the functionality of the tools like **GCC, GDB, Linux (Ubuntu 20.04), Raspberry Pi 4** and many more.

COURSES

The syllabus comprises **8 courses** drafted by industry experts:

Course 1: C Programming under Linux

Get introduced to the core of Linux, C language for embedded programming, C control statements, function prototypes, & C compilation process. It also covers topics like stack & stack operations, process management in C, concepts of Signal Handling, IPC basic and many more.

Course 2: Embedded Drivers and OS

Gain an understanding of how to compile with Makefiles. Learn about targets, rules, shortcuts, pinout & features of ATmega32 & AVR micro-controller architecture. This course also covers bare metal tools setup, open OCD debugging, building FREERTOS applications in ATmega32, etc.

Course 3: Introduction to ADAS Systems

Gain insights into an overview of ADAS/AV technology, ADAS software stack, sensors, actuators, ADAS EE architecture and software stacks in the market.

Course 4: Software Verification and Validation and System Testing for Hand Code

Gain expertise in verification, validation & system testing; static analysis & MISRA-C guidelines with LDRA. Also, learn about unit testing & integration testing, test automation, and intro to CI/CD.

Course 5: Modern C++ & Python Programming

This course will walk you through the environment setup & fundamentals in C++, constructors, and destructors and OOPS in modern c++. You will also get exposure to topics like Python, Strings, decision control statements in Python and many more.

Course 6: Embedded Machine Learning for AD Applications

Gain hands-on experience in machine learning on embedded devices, machine learning pipeline, & introduction to TensorFlow/TensorFlow-Lite. Also, learn how to deploy a trained model to RPI/Arduino.

Course 7: Applying CV using Python for Autonomous Vehicles

This course will introduce you to simulation for ADAS/AV, generating scenes for ADAS/AV simulations, scene creation for ADAS simulation, and introduction to sensor modeling for ADAS/AV simulations. Also, it will cover topics like designing sensor suites for common ADAS features, etc.

Course 8: ADAS Simulation-based Testing

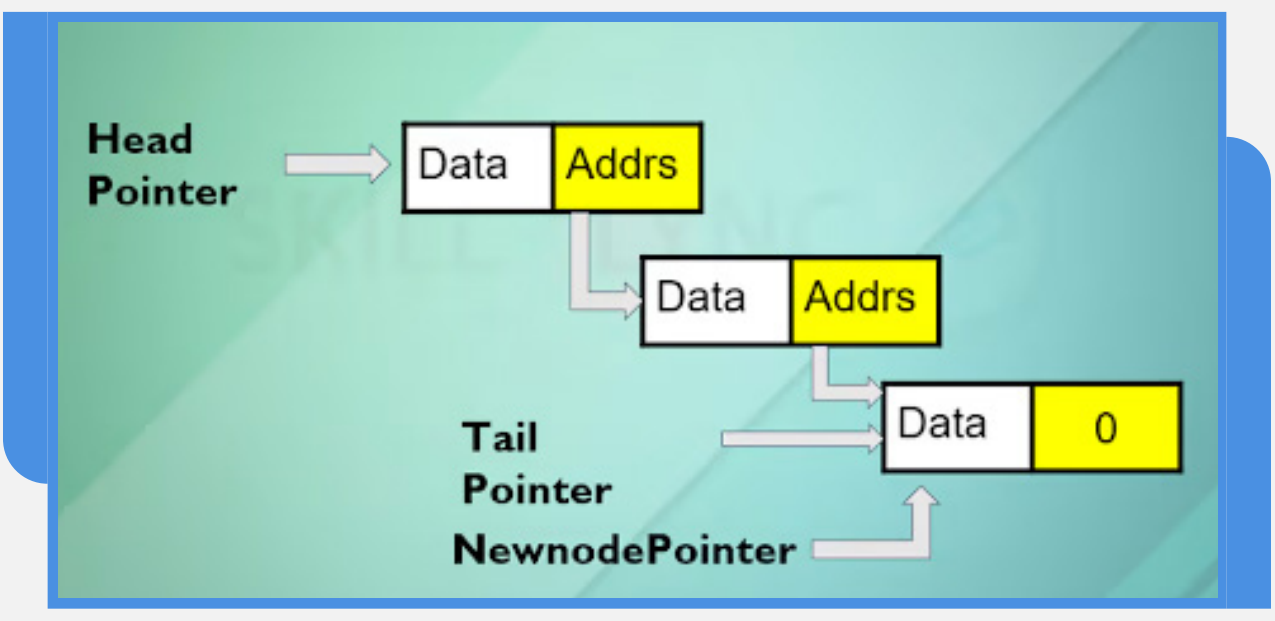
Learn and become proficient in the ADAS systems by understanding the core of autonomous vehicles, computer vision, & computer vision applications. You will also learn projective and stereo geometry, 3D computer vision basics, feature extraction, object tracking and more.

SKILL LYNC

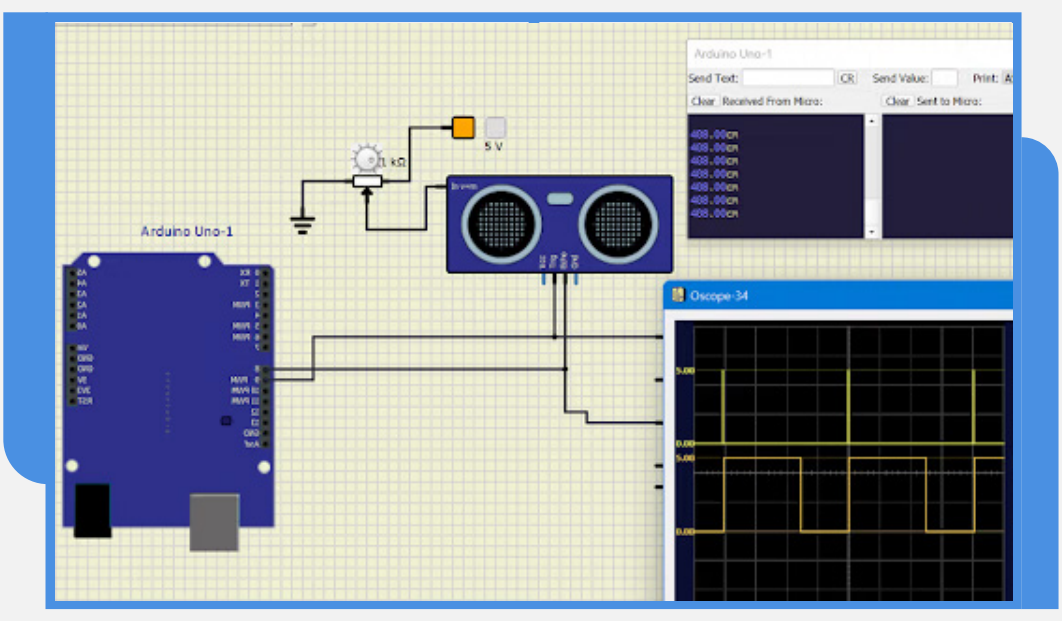
TOP PROJECTS

The syllabus is supplemented with **13+ industry-relevant projects**, a few of which are mentioned below:

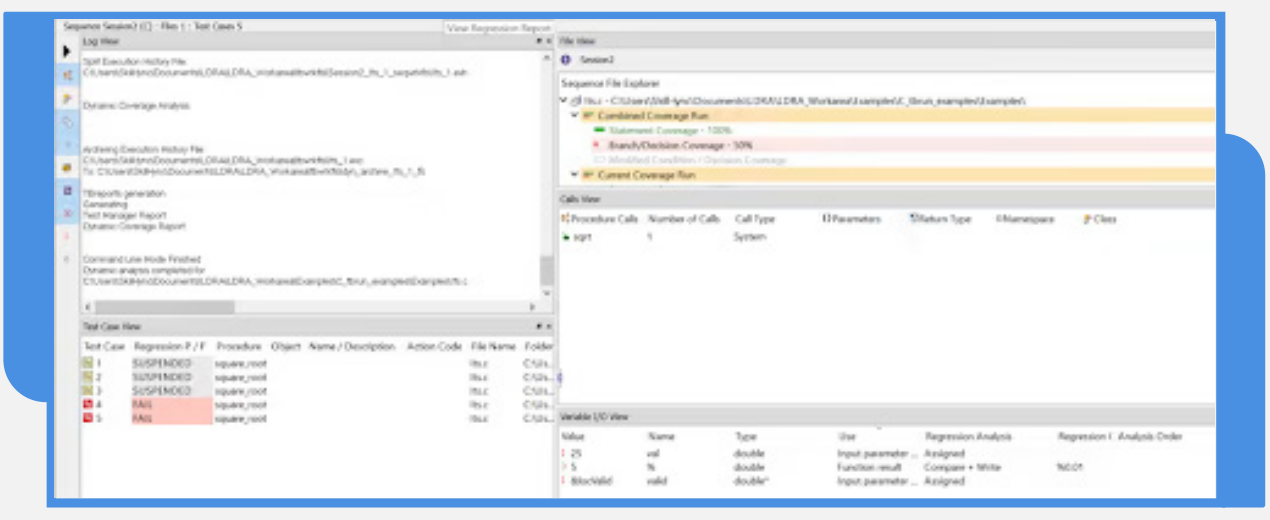
- User interfaces for working with “Sets”



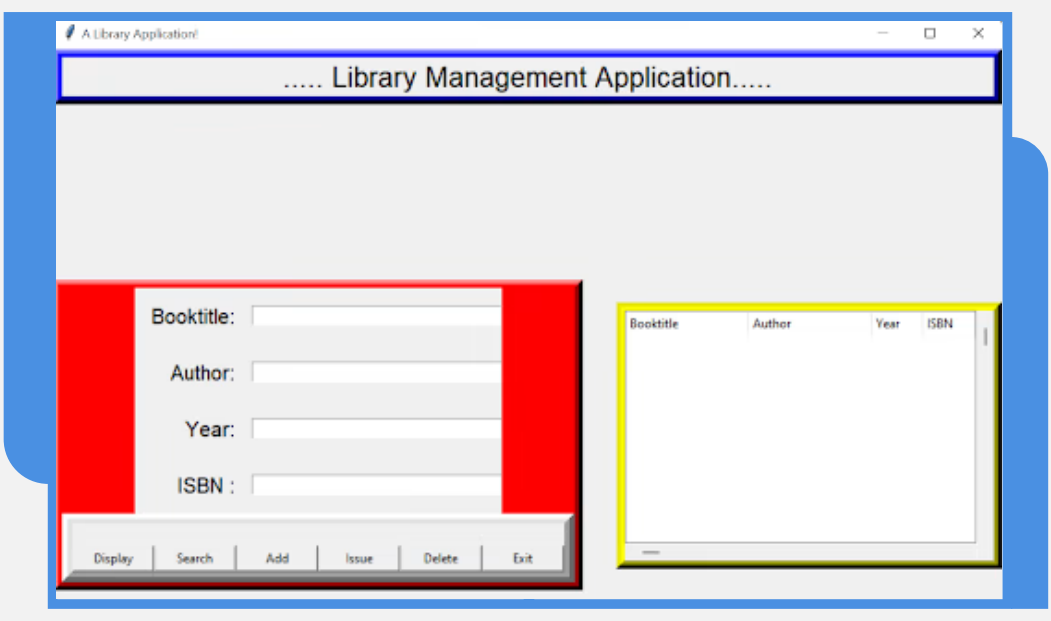
- Interfacing HC-SR04 ultrasonic sensor with ATmega328p



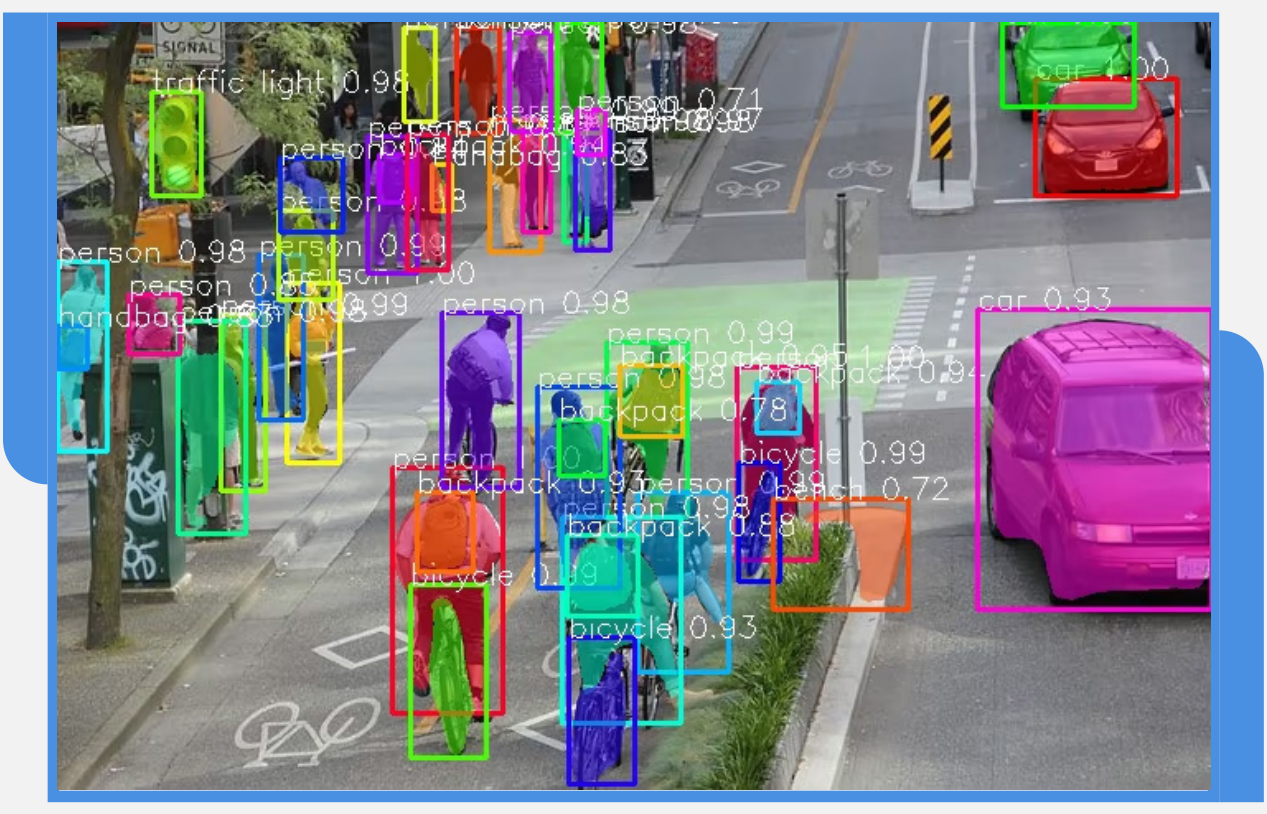
- Perform static code review analysis



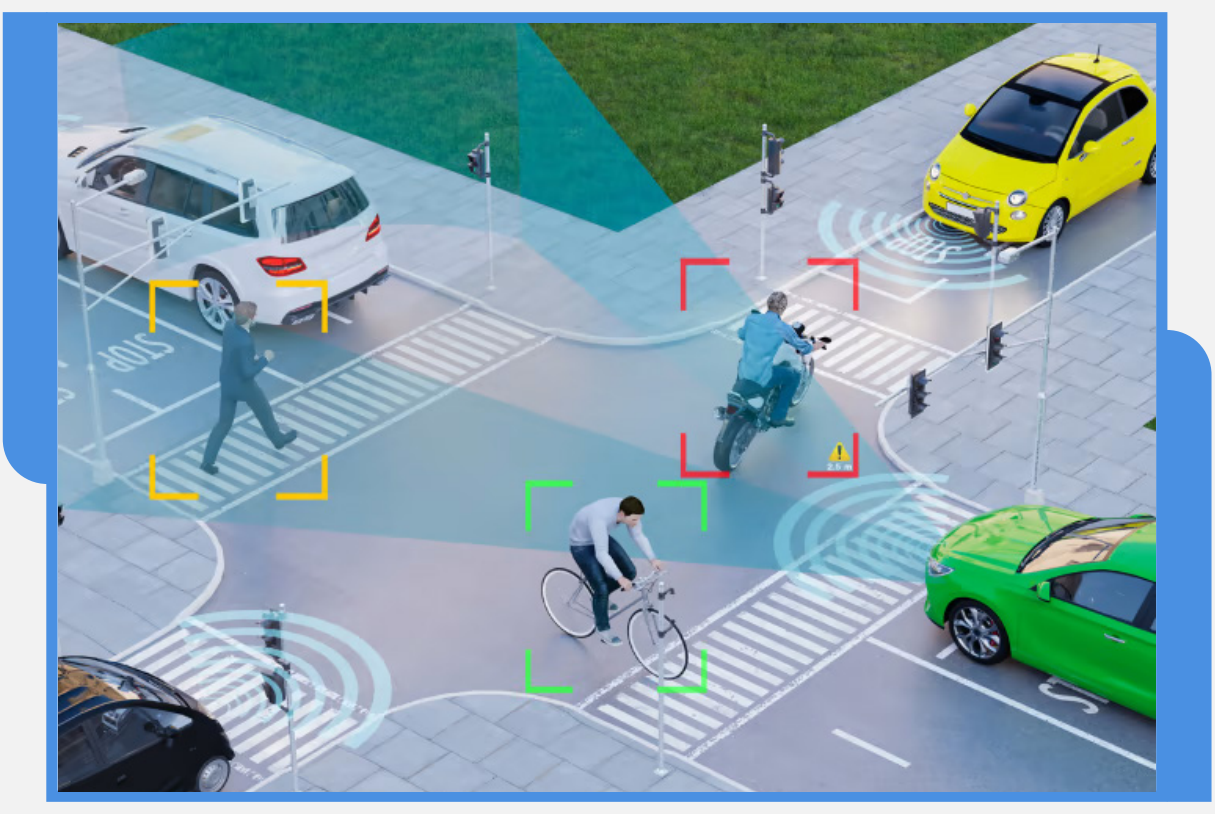
- Library book management system



- CNN-based object detection for Embedded Systems



- Autonomous vehicle scenario creation for testing



More details about the program

SKILL LYNC

Tools you will learn:
GCC, GDB, LINUX, SimulIDE, Microchip Studio, FreeRTOS, STM32CubeIDE, Python, CARLA, LDRA Test Suite

JOB OPPORTUNITIES FOR YOU

Our program prepares you for top job roles in **Embedded Programming** for Autonomous Vehicle Technologies:

- Embedded Firmware Developer
- Embedded Application Engineer
- Graduate Engineer Trainee - Embedded
- Verification and Validation Engineer

SKILL LYNC

Premium (Lifetime Access)

₹13,636 per month for 22 months

Eligibility criteria for job assistance

- B.E. / B. Tech freshers in E&E from 2021 batch or later, without any educational gap
- Highest level of educational qualification should be a BE/BTech in the relevant domain.
- Should have scored above 60% marks in classes X, XII and B.E. / B. Tech degree.
- During the program, should score at least 80%

Get in touch with us

+91 91222-91222 www.skill-lync.com info@skill-lync.com