

# DHARMAMURTHI RAO BAHADUR CALAVALA CUNNAN CHETTY'S

HINDU COLLEGE

"LINGUISTIC (TELUGU) MINORITY STATUS CONFERRED BY THE GOVERNMENT OF TAMIL NADU"

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## **Department of Electronics with Artificial Intelligence**

in collaboration with



## Two Day Workshop on

#### "DEEP DRIVEN IOT FOR EMBEDDED SYSTEMS **USING ARDUINO AND ESP"**

(SDG 4: Quality Education)

Resource person

## Smt. M. DIVYA

Proprietrix, QMOS Technologies, Chennai.

Date: 29th & 30th September 2025

Time: 10.00 a.m. to 4.30 p.m.

Venue: Calavala Ramanujam Chetty Conference Hall

Dr. A. Gopinath Head of the Department

Dr. K. Sridhar

Dean (Academics)

Dr. N. Rajendra Naidu

Dr. G. Kalvikkarasi Sri M. Venkatesaperumal

Director Principal **Honorary Secretary** 

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## **About The Resource Person**



Mrs. Divya Mohanarangam, B.E. (Electronics and Communication Engineering), M.E. (Applied Electronics) our resource person for the workshop, a well expertise person in the fields of Embedded System Design, Internet of Things(IoT), Artificial Intelligence, Machine Learning and Chip Design. As the Proprietrix – QMOS Technologies, she has been a driving force behind the notable achievements and various projects. She has excellent exposure in various tools such as C, C++, Python, Embedded C, R Programming, MATLAB & Simulink, VHDL, Verilog, HDL & System Verilog.

She has been worked with various Embedded platforms, Chip design solution for GPS transponders, having 15+ years experience in the field of VLSI, Chip design, Physical design, Simulation and Synthesis. Dedicated and Passionate towards, mentoring, training job seekers, students in the field of Embedded systems, VLSI technology and Al. She has been mentoring young professionals and providing Research guidance to scholars in Image Processing, Data Science, Al and Neural Computing domains.

## **About the Workshop**

QMOS Technology offers a hands-on workshop focused on the development and prototyping of embedded systems within Internet of Things (IoT) configurations. The workshop provides practical experience and in-depth knowledge of the role embedded systems play in the Al-IoT ecosystem, preparing participants to build and innovate in this dynamic field.

#### KEY MODULES COVERED:

- Embedded Systems Basics: Introduction to embedded systems and Embedded C programming.
- Arduino Programming: Working with Arduino hardware, configurations, and open-source IDEs like Arduino Studio.
- Hardware Interfacing: Interfacing with LCDs, UART communication, and sensor modules (proximity, human detection, temperature, LDR, humidity).
- Project Development: Guidance on writing code and building real-time applications using various sensors.
- ESP32 and IoT Integration:
- I2C protocol: LCD, MEMS accelerometer, BMP280 oximeter interfacing.
- SPI protocol: SD card interfacing.
- Cloud Connectivity: Integration with ThingSpeak and Blynk cloud platforms.

This comprehensive training equips participants with the technical skills to develop intelligent, connected embedded systems.