

FACULTY PROFILE



Dr.A.Ferminus Raj, M.E., Ph.D.
Assistant Professor (S.G.) – EEE

HIGHLIGHTS:

- Journals: 7 (WoS/ScI: 1; Scopus: 4)
- Conferences: 5 (Scopus: 5)
- Patents Published: 2
- h-Index: 2

PROFESSIONAL LINKS:

- Scopus ID: 57815750200
- Google Scholar ID:
<https://scholar.google.com/citations?user=Fh-2C6QAAAAAJ&hl=en>
- AICTE ID: 1-509674215
- Researcher ID: KFB-5932-2024
- ORCHID ID: 0009-0004-3870-6284

PROFESSIONAL BACKGROUND:

- Teaching Experience (till date): 16 years and 6 months
- Industrial Experience: 1 year

QUALIFICATION:

Degree	Specialization	University/Institute
Ph.D.	Faculty of Electrical Engineering	Anna University, Chennai
M.E.	Power System	KLN College of Engineering, Madurai
B.E.	Electrical and Electronics Engineering	St Xaviers Catholic College of Engineering, Nagercoil

AREA OF SPECIALIZATION:

- Power System
- FACTS Devices
- Soft Computing

AREA OF INTEREST:

- Power System
- Embedded Programming
- PLC Automation
- PCB Design
- Embedded C
- MicroPython
- Assembly Language

SOFTWARE EXPOSURE:

- MATLAB 2024
- Keil C Compiler (μ Vision7)
- Easy EDA
- Ki cad
- Altium
- Proteus 7.7
- Arduino Ide
- MPLab X Ide
- WPL Soft
- Blynk IoT Platform

INDUSTRY EXPERIENCE:

DSP Microtechnics, Madurai

Designation: Embedded Engineer

Duration: From April 2005 to April 2006.

- 1 Years of full time work experience.
- Good experience in understanding user requirements and translating into prototype design.
- Knowledge in Testing.
- Excellent interpersonal and learning skills to adapt the rapid changing technologies and implementing the same at work.
- Ability to interact with people at all levels, good communication and presentation.

OTHER PROJECTS:

- **Project Name** : Servo Feeder for cutting Machine

Programming Language : Keil C & Assembly level language

Description : Cutting the stainless steel at fixed length.
Feeder is driven by the BLDC motor.

Responsibility : Reading the signals from the Hall sensors
and Switching the appropriate winding with
respect to the encoder output. Assembling
and testing of the entire Unit.

• **Project Name : Lathe Automation**

Programming Language : Keil C & Assembly level language

Description : Reading the signal from the limit switch, the
driver will break the motor when the process is
completed. For breaking the 3 phase AC motor
plugging method is used.

Responsibility : Complete Circuit Design using AT89C51 and Embedded C
Programming.

• **Project Name : Bottle Crushing Machine**

Programming Language : Embedded C

Description : Reading the signal from the bottle sensing device, When the bottle
enter in to the machine bottle crushing motor will start to crush the
bottle after that one rupee coin will given to the customer for
compliment.The entire process will display in LCD display.

Responsibility : Complete Circuit Design using Atmega Microcontroller and
Programming using Arduino IDE.

• **Project Name : Bottle Filling Plant**

Programming Language : PLC

Description : Reading the signal from the bottle sensing device, When the bottle
enter in to the conveyor the actuators fill the bottle with water.Once
the bottle was filled the conveyor start moving to the capping section
after the bottle reach the capping area another actuator provide a
cap.at the end of the process the bottle will move to the packing
section.The entire process will monitor using wonder ware software.

Responsibility : Complete Circuit Design and programming using PLC and
SCADA.

• **Project Name** : **Automatic Sanitizer**

Programming Language : Embedded C

Description : Reading the signal from the PIR Sensor and Non contact Temperature sensor. If the temperature value is greater than threshold value ESP32 CAM took the concern person image and send the person image to the management to isolate the person.

Responsibility : Complete Circuit Design and programming using Atmega Microcontroller and Programming using Arduino IDE.

- Hardware assembly of microprocessor programming kit
- 8085 biasing program
- Power supply unit using PWM technique
- Digital Tachometer
- Dot matrix display programming
- Temperature and Level control
- RPM Measurement
- Frequency Measurement

JOURNAL PUBLICATIONS:

Sci/WoS:

1. Ferminus Raj, A. GnanaSaravanan, A 2023, 'An optimization approach for optimal location & size of DSTATCOM and DG', Applied Energy, vol. 336, article no. 120797. Impact Factor: 11.2.

Scopus:

1. Dr.A.Ferminus Raj, Sangaman R, Thirulokeshh. S,' Design and Implementation of a TinyML-based Predictive Hybrid MPPT System for Photovoltaic Application', 7th International Conference on Smart Systems and Inventive Technology (ICSSIT-2026), DOI: 10.1109/ICSSIT69151.2026.11656454.
2. Dr.A.Ferminus Raj, R. AKASH, S. KARTHIKEYAN,' A Hybrid Spline-ANN based Maximum Power Point Tracking Technique for Photovoltaic Systems Under Partial Shading Conditions', 7th International Conference on Smart Systems and Inventive Technology (ICSSIT-2026), DOI: 10.1109/ICSSIT69151.2026.11656579.
3. Dr.A.Ferminus Raj, SHASHUNK G, ABDUL HAMEED J,' IoT-Enabled Coordinated Control of Unbalanced Low-Voltage Microgrids for Enhanced Renewable Integration and Power Quality Improvement', 7th International Conference on Smart Systems and Inventive Technology (ICSSIT-2026), DOI: 10.1109/ICSSIT69151.2026.11656646.

4. Arul Jose R, A. Ferminus Raj, P. Munish Kumar, S. Murugeswari, C. Kalaiselvi, J. Relin Francis Raj, 'Engineering a Privacy-Aware Federated Deep Ranking Framework for Personalized Electric Vehicle Recommendation Systems', 5th International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN-2025), DOI: 10.1109/ICECMSN68058.2025.11383176.
5. A. Ferminus Raj; R. Santhana Krishnan; S. Abarna; M.S. Abinaya; S. Antony Micheal Jenifer; P. Jemila Reshma Fathima, 'Smart FuelGuard: RFID-Based Protection Against Wrong Fueling', 2024 8th International Conference on I-SMAC, DOI: 10.1109/I-SMAC61858.2024.10714780
6. Ferminus Raj. A, Mari Santhosh. A, Muthukumar. K, Peria Ganaga Sabapathi R, Raja P 2024, 'Product Sorting Machine by Using PLC', International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, vol. 13, no. 5, pp:1491-1494. Impact factor:8.317.
7. Ferminus Raj .A,'Smart Trolley'International Journal of Advance Research in Electricals,Electronics and Instrumentation Engineering'vol 13,issue 5,May2024.Impact factor 8.317.
8. A. Ferminus Raj, R. Santhana Krishnan, C. Antony Vasantha Kumar, S. Sundararajan, K. Lakshmi Narayanan & E. Golden Julie, 'IoT-Based Safe College Management System', Lecture Notes on Data Engineering and Communications Technologies, vol 131, pp 603–614, July 2022.
9. Ferminus Raj, A. GnanaSarvanan, Mr.S.Asik Meeran Mohideen 2020,' GWO OPTIMIZATION BASED LOCATION SELECTION OF D-STATCOM', Journal of Integrating Concepts, vol. . 5, no. 4, pp :1-8.
10. A. Ferminus Raj, K.Irulappa Pandian, S. Murugan, T. Nalayiramuthu, J.Velladurai 2019,'Wireless E-Notice Board Using Bluetooth Technology', International Journal of Advanced Research in Management, Architecture, Technology and Engineering (IJARMATE), vol. 5, no. 4, pp:88-86.
11. A. Ferminus Raj, Ajay Babu, S.Kandasaamy, D.Beatrick King 2019, 'Design and Fabrication of Bottle crushing machine using PLC and SCADA', International Journal of Recent Trends in Engineering & Research, DOI: 10.23883/IJRTER.CONF.20190304.032.UV6FO
12. 1. Ferminus Raj, S. Arun Pandi, S. MariSelvam, R. Muruganathan, M. Sathish 2019, 'Embedded based Real Time Fingerprint Attendance system used IoT and GSM', International Journal of Recent Trends in Engineering & Research, pp: 198-202. DOI: 10.23883/IJRTER.CONF.20190304.034.RU3JQ

13. A. Ferminus Raj, R. Santhana Krishnan, S. Abarna, M.S. Abinaya, S. Antony Micheal Jenifer, P. Jemila Reshma Fathima,' Smart FuelGuard: RFID-Based Protection Against 'Wrong Fueling', International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC 2024) IEEE Xplore Part Number: CFP24OSV-ART; ISBN: 979-8-3503-7642-5,pp:454-459.

PATENTS PUBLISHED/GRANTED:

- 1) M.Mary Sumitha, A.Ferminus Raj. 2024. Automatic Rescue Robot for deep Bore Well. Patent 202441013007A, filed February 23, 2024, and publication March 8, 2024.
- 2) A.Ferminus Raj.2024. System and Method for Preventing Incorrect Vehicle Fueling Using RFID Technology.filed September 03,2024.

ONLINE COURSES:

- Completed NPTEL Course on “Electronic Systems Design: Hands-on Circuits and PCB Design with CAD software” on Oct 2026.
- Completed NPTEL Course on “Microprocessor and Microcontroller” on Oct 2025.
- Completed ALTIUM Designer Certification on “Basic Embedded System Design” on September 2026.
- Completed ALTIUM Designer Certification on “Altium Designer Essentials: Component Library Creation and Management” on August 2026.
- Completed ALTIUM Designer Certification on “Altium Designer Essentials: Mastering the Fundamentals” on August 2026.
- Completed UDEMY Certification on “Microcontroller and the c programming language MSP430” on Dec 2025.
- Completed UDEMY Certification on “Automation and SCADA Mastery” on Dec 2025.
- Completed Schneider Electric Online Certification on “Energy Audit ” on Oct 2025.

PROFESSIONAL MEMBERSHIPS:

- Life time Member of ISRD (International Society for Research and Development)

SPECIAL LAB:

- Delta PLC Control Panel Design and Manufacture kit-1
- Siemens PLC Control Panel Design and Manufacture kit-2

CONTACT DETAILS:

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