

TRICHY ENGINEERING COLLEGE
Sivagnanam Nagar, Trichy-Chennai NH, Konalai, Trichy - 621 105.

FACULTY PROFILE

Name (in BLOCK LETTERS)	Dr.K.JAYASUDHA
Present Designation & Dept:	HoD, EEE
Subject Area of Interest	Power Electronics, Electric Circuit Analysis, Control system, Electrical Machines, Transmission & Distribution, High Voltage Engineering
Passport photo	
Address (for communication)	Dr.K.JAYASUDHA 5/167 Thiruvengadanagar Thiruverumbur, Tiruchirappalli-620013. TamilNadu, INDIA. Mobile No. : 8870135098 Email ID : jayasudha676@gmail.com
Address (Office)	Dr.K.JAYASUDHA HoD, EEE, TRICHY ENGINEERING COLLEGE Sivagnanam Nagar, Konalai, Trichy - 621 105. Mobile No.: 0431-2763136 Email ID : hod.eee@trichyengg.ac.in
Date and Place of Birth	11.07.1980, Tiruchirappalli
Gender	Female
Marital Status	Married
Nationality	Indian
Membership in Professional Bodies	Life Member(s) : LM67221 ISTE .

01) Research & Educational Degree(s):

Research Degrees	Dept./Subject (Specialization)	Title of the Dissertation/ Thesis	Year of award	University	
Ph.D.	EEE Dept., Inverters, converters, Renewable Energy.	CASCADED MULTILEVEL BOOST CONVERTER FED H-BRIDGE INVERTER FOR HIGH POWER & RENEWABLE ENERGY APPLICATIONS	2025	Anna University, Chennai	
Educational Degrees/ Exams	Name of the Board/ Institution / University	Subject/ Specialisation	Year of Passing	% of Marks / CGPA	Division/ Class/ Grade
M.E.	JJ College of engineering & technology, Trichy. Anna University Chennai	Power Electronics & Drives	2012	8.51	First Class with Distinction
B.E.	K.S.Rengasamy college of engineering & technology, Tiruchengode. Periyar University Salem	Electrical & Electronics Engineering	2002	70%	First class
H.S.C	Boiler plant girls HSS, Trichy. TN State Board	Maths, Physics, Chemistry, Biology.	1998	73%	First class
S.S.L.C	Boiler plant girls HSS, Trichy. TN State Board	General Sciences	1996	84%	First class

02) Teaching Experience/Post(s) held :**Total Teaching experience : P.G. for M.E./M.Tech & MCA : 6 years****& Teaching experience : U.G. Classes for B.E./B.Tech : 19 years 6 Months****Teaching experience in Trichy Engineering College : 6 years 2Months**

College/ Institution	Designation	Duration		Experience	
		From	To	Year	Month
Trichy Engineering College, Trichy	HoD, EEE Dept	20.08.2025 to till date		1 Month	
Trichy Engineering College, Trichy	AP, EEE Dept	08.07.2019 to 19.08.2025		06years 01month	
Government College of Engineering, Srirangam, Trichy	AP, EEE Dept	08.02.2018 to 20.10.2018		8 Month	
J.J.College of Engineering & Technology, Trichy	AP, EEE Dept	01.07.2010 to 07.02.2018		07years 07months	
J.J.College of Engineering & Technology, Trichy	Lecturer	18.12.2006 to 31.06.2010		03years 06months	
MIET Engineering College, Trichy	Lecturer	17.07.2004 To 17.05.2006		01 year 10 months	

03) Administrative experience(s)

Description	Role(s)	Duration	From To Dates
HoD: EEE(TEC)	Coordinating EEE department activities.	01 month	21.8.2025 to till date
ISO : EEE (JJCET)	Documentation	2 years	02.01.2016 to 07.02.2018
Exam Cell: EEE (JJCET)	Exam schedule, hall plan, duty list etc.	1year	01.06.2013 to 30.05.2014
Library in charge: EEE (JJCET)	Maintaining records regarding issuing & returning of books.	1year	01.06.2014 to 30.05.2015

05) Research Papers in Peer-Reviewed or UGC listed Journals**INTERNATIONAL JOURNALS/ CONFERENCES**

“A Novel Cascaded Multilevel Boost Converter fed Multilevel Inverter with Reduced Switch Count”, International Journal of Electronics (2023),
Volume: 110, Issue12 (Impact Factor: 1.86)
DOI: <https://www.tandonline.com/10.1080/00207217.2023.2248665>.

“Solar Powered Asymmetric Cascaded Multilevel Converter fed Multilevel Inverter”, – Journal of Electrical Engineering & Technology (2024)

DOI: https://doi.org/10.1007/s42835-024-01994-6 CorpusID:271778562
A Cascaded Boost Converter with Fuzzy Logic Control for Battery Power Amplifier Applications. Conference
Smart Power Meter Integrated with Solar Panels for Charging Electric Vehicles. Conference
Robust Swarm: Empowering Microgrid Unit Commitment under Uncertainties. Conference
Battery Monitoring & Security system for Electric Vehicle from remote places without Human intervention using IoT. Conference

06) NATIONAL JOURNALS/CONFERENCES

Quasi-Z Source Based Isolated DC/DC Converters for Distributed Power Generation Conference
Multilevel Boost Converter fed Multilevel H-Bridge Inverter for High Power Applications Conference

07) Books authored & published

nil

08) Patents / Awards/Certificates

Efficient residential load scheduling through a demand response multi objective optimization model. Application Number- 202341030908
Opportunity to protect the Intellectual Property Rights outside India through PCT System and Mailreference-PATRMID4PCTIN-17576. Application Number- 202441086713

09) Workshop / FDP / Seminar / Conference Attended

Advancement of Artificial Intelligence in the Present and Future. FDP
Recent advancement in AI & Iot in industry perspective FDP
Next -Gen AI & data analytics FDP
Emerging Trends in Wireless Charging of Electric Vehicles FDP
Fostering Research& developmental drive to technological progress & innovation for sustainable growth. FDP
Solar PV Systems FDP
PCB Design & Fabrication FDP
Testing & Commissioning of Substation Equipment FDP
Mastering graph theory with advanced tools FDP
Modeling & Simulation of Power Electronics Circuits Workshop
Leveraging Gen AI for CO-PO mapping and research writing Workshop

10) Workshop/FDP/ Seminar/ Conference Organised/GUEST LECTURE DELIVERED

PLC SCADA in industrial automation Seminar Organized: Trichy engineering college.
INCEPTRA'25 : Symposium Organized: Department Coordinator in Trichy engineering college.
Advancement of Artificial Intelligence in the Present and Future. FDP: Department Coordinator in Trichy engineering college.