National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Brief Profile:

Dynamic and dedicated electrical engineering professional with over 5 years of experience in teaching undergraduate and postgraduate courses, combined with strong hands-on expertise in power electronics. My core competencies include the design, analysis, modeling, and debugging of power electronic systems such as DC-DC and DC-AC converters, multilevel inverters with carrier reassignment techniques, and solid-state DC circuit breakers. I have significant experience in designing high-performance motor controllers, particularly for electric vehicle applications, integrating both silicon and wide bandgap (SiC/GaN) devices for enhanced efficiency and power density. My technical proficiency spans analog and digital controller development using MCUs and DSPs, embedded firmware design, and PCB layout for switched-mode power supplies (SMPS) and drive systems. I have also developed a MATLAB-based high-density converter design methodology, incorporating EMI and thermal considerations.. I am enthusiastic about working in a challenging atmosphere that facilitates ample opportunities for learning and growth.

1. Name: Dr. Venkata Raghavendra I
2. Designation: Assistant Professor (Grade-II)
3. Office Address: A2F3, EEE- Annex-2, NIT Trichy
4. Telephone (Direct) (Optional): +91 - 9505055884

   Telephone : Extn (Optional):

   Mobile (Optional):
5. Email (Primary): raghavendra@nitt.edu Email (Secondary) : raghavendra.iv@gmail.com
6. Field(s) of Specialization: Power Electronics, DC Circuit breakers, Electric Vehicles
7. Employment Profile

Job Title	Employer	From	To
Sr. Project Research Scientist	IIT BOMBAY	13-06-2024	29-12-2025
Research Associate – I	University of Tennessee	30-11-2022	23-01-2024
Assistant Professor	Bapatla Engineering College	22-10-2013	25-07-2019

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	IIT Dharwad	2023	First	Electrical Engineering
M.Tech	IIT Madras	2012	First	Power Systems and Power Electronics
B.Tech	Bapatla Engineering College	2010	First	Electrical and Electronics Engineering
Intermediate	Board of Intermediate Education	2006	First	Maths. Physics, Chemistry
Secondary	Board of secondary education	2004	First	Maths,Science,Social

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Faculty Advisor – EEE Association, Mentor Mentee Coordinator	EEE NIT Tiruchirappalli	05-01-2026	30-04-2026
Department Infrastructure Committee	EEE NIT Tiruchirappalli	05-01-2026	30-04-2026

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

13. Details of Academic Work
(i) Curriculum Development
(ii) Courses taught at Postgraduate and Undergraduate levels
(iii)Projects guided at Postgraduate level
(iv)Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
NIL	NIL	NIL	NIL

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
19-21 Feb 2026	Advances in Resilient DER, Microgrid, and Electric Vehicle	International Workshop	Speaker	IIT Bhubaneswar	IIT Bhubaneswar, Orissa

	Technologies for Smart Grids				
18-21 Dec 2025	Power Electronics Smart Grid and Renewable Energy	International Conference	Participant	IIT Dharwad	IIT Dharwad, Hubli, Karnataka

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
NIL	NIL	NIL	NIL	NIL

18. Invited Talks delivered

Topic	Date	Inviting Organization
NIL	NIL	NIL

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
NIL	NIL	NIL

20. Academic Foreign Visits

Country	Duration of Visit	Programme
NIL	NIL	NIL

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
I. V. Raghavendra, S. N. Banavath and S. Thamballa,	Modified Z-Source DC Circuit Breaker With Enhanced Performance During Commissioning and Reclosing,	IEEE Transactions on Power Electronics	37,	910-919	2021	
I. V. Raghavendra, S. N. Banavath, C. N. M. Ajmal and A. Ray	Modular Bidirectional Solid-State DC Circuit Breaker for Next-Generation Electric Aircrafts	IEEE Journal of Emerging and Selected Topics in Power Electronics	10	5486-5497	2022	
C. N. M. Ajmal, I. V. Raghavendra, S. Naik, A. Ray and H. S. Krishnamoorthy	A Modified Hybrid DC Circuit Breaker With Reduced Arc for Low Voltage DC Grids	IEEE Access,	9	132267-132277,	2021	
S. Nandakumar, I. V. Raghavendra, C. N. M. Ajmal, S. N. Banavath and K. Rajashekara,	A Modular Bidirectional Solid-State DC Circuit Breaker for LV and MVDC Grid Applications,	IEEE Journal of Emerging and Selected Topics in Power Electronics	10	7760-7771	2022	
V. Raghavendra I, B. S. Naik, T. Sreekanth and A. Chub	Controlled Bidirectional DC Circuit Breaker With Zero Negative Current for High Load Shift Applications,	IEEE Transactions on Industry Applications	58	6942-6951	2022	

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
R. I. Venkata, A. Ray and N. B. Satish	A Snubberless Hybrid Circuit Breaker for Medium Voltage DC grids,	2020 IEEE 9th International Power Electronics and Motion Control Conference (IPEMC2020-ECCE Asia)	1175-1180		Nanjing, China,	2020
V. Raghavendra I, B. S. Naik and T. Sreekanth,	Modified Z-Source DC Circuit Breaker with Zero Negative Current in the Load,	2021 IEEE 12th Energy Conversion Congress & Exposition - Asia (ECCE-Asia)	1548-1553,		Singapore, Singapore	2021
A. Pogulaguntla, V. Raghavendra I, S. N. Banavath, A. Chub, T. Sreekanth and H. S. Krishnamoorthy,	Bidirectional DC Circuit Breaker with Improved Performance during Commissioning and Reclosing,	2022 24th European Conference on Power Electronics and Applications (EPE'22 ECCE Europe),	1-9		Hanover, Germany,	2022
C. N. Muhammed Ajmal, R. I. Venkata and B. Satish Naik,	Enhancement of DC MCB Performance using Power Semiconductor Devices,	IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society,	1-5		Toronto, ON, Canada	2021
P, Aditya and I, Venkata Raghavendra and Banavath, Satish Naik and Chub, Andrii and Song, Xiaoqing and Vinnikov,	Modified Q-Z-Source DC Circuit Breaker for Next-Generation Electric Aircrafts,	2023 IEEE Applied Power Electronics Conference and Exposition (APEC),	1049-1056		Orlando, FL, USA	2023

Dmitri and Wang, Fred						
Aditya. P, V. I. Raghavendra, S. N. Banavath, X. Song, A. Lidozzi and L. Piegari,	Modified O-Z-Source DC Circuit Breaker for Electrical Power System Protection of Future Aircrafts	IEEE Applied Power Electronics Conference and Exposition (APEC),	1042-1048		Orlando, FL, USA,	2023
V. Raghavendra I, B. S. Naik and T. Sreekanth	H-bridge Based Bidirectional Z-Source DC Circuit Breaker with Improved Device Stress and Automatic Reclosing Capability,	IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society	1-6,		Toronto, ON, Canada,	2021
V. Raghavendra. I, Y. Lyu, F. Wang, D. Chatterjee and P. Cairoli	Determination of Suitable Heats ink Layout for a High-Density Integrated Motor Drive Through an Effective Comparison Method,	2024 IEEE Energy Conversion Congress and Exposition (ECCE)	6600-6607		Phoenix, AZ, USA	2024

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number