

**RKDF University, Bhopal**  
**Faculty Profile**



**Basic Information**

<b>Name</b>	<b>Dr. Chirag Gupta</b>
<b>Date of Birth</b>	<b>11.04.1986</b>
<b>Designation</b>	<b>Assistant Professor</b>
<b>Department</b>	<b>Electrical &amp; Electronics Engineering</b>
<b>Experience</b>	<b>15 Years</b>
<b>Email ID</b>	<b>cgupta.011@gmail.com</b>
<b>Contact No</b>	<b>9229427730</b>

**Educational Qualifications**

<b>Description</b>	<b>Year</b>	<b>%</b>	<b>Institute/University</b>
<b>(UG)-BE (EEE)</b>	2007	65.72 %	<b>SIRT, RGPV, Bhopal</b>
<b>(PG)-M.Tech. (Energy Technology)</b>	2010	64.70 %	<b>UIT, RGPV, Bhopal</b>
<b>M.Phil.</b>	NA	NA	
<b>(Ph.D.)-Electrical Engineering</b>	2024	-	<b>Dr. A.P.J. Abdul Kalam University, Indore</b>
<b>Post Doctorate</b>	-	-	-
<b>NET Qualified/GATE</b>	-	-	-

**Experience Detail**

<b>Experience (Teaching/Research)</b>	<b>Designation</b>	<b>Duration</b>		<b>Name of Institute/University</b>
		<b>From</b>	<b>To</b>	
<b>Teaching</b>	Lecturer	03.10.2007	04.08.2008	<b>Sri Satya Sai College of Engineering, Bhopal</b>
<b>Teaching</b>	Assistant Professor	29.06.2010	07.08.2018	<b>Vidhyapeeth Institute of Science and Technology, Bhopal</b>
<b>Research</b>	Ph. D. Scholar	08.08.2018	28.06.2024	<b>Dr. A.P.J. Abdul Kalam University, Indore</b>
<b>Teaching and Research</b>	Assistant Professor	29.06.2024	Till Now	<b>Vedica Institute of Technology. RKDF University, Bhopal</b>

**Publications**

<b>No. of Papers Published</b>	<b>73</b>		
<b>No. of Books Published</b>	<b>Nil</b>		
<b>Books Chapters Published</b>			
<b>No. of Patents Published/Grant</b>	01		
<b>Ph.D/ M.Phil Project supervised</b>			
<b>Research Program</b>	<b>Award</b>	<b>Under Supervision</b>	<b>Name of University</b>
<b>Ph.D (Provide detail i.e. name, title etc.) Ms. Namita Bharti, Mr. Vinod Meena</b>	-	02	RKDF University, Bhopal
<b>M. Phil</b>	-	-	-
<b>PG Thesis/Dissertation</b>	30	-	RGPV, Bhopal and RKDF University, Bhopal
<b>Area of Expertise (100 words)</b>			
<p>With over 18 years of academic and research experience, I specialize in power electronics, renewable energy systems, and hybrid energy solutions. My expertise includes designing and optimizing power converters, inverters, and multi-input DC-DC converters for efficient energy management. I have extensive experience in integrating wind and solar energy, electric vehicle technology, and smart grid applications. My research also focuses on harmonic reduction techniques, energy storage solutions, and AI-driven control systems. I have contributed to numerous research Publications, patents, and industry collaborations in sustainable energy systems.</p>			
<b>Award and Achievement</b>			
<b>Name of Award</b>	<b>Description</b>		
<b>National</b>	<ul style="list-style-type: none"> <li>• Awarded as <b>Young Researcher Award</b> (2019), Bhabha University, Bhopal.</li> <li>• Awarded as <b>Best Teacher Award</b> (2018), RKDF University, Bhopal.</li> <li>• Awarded for Working in <b>Electrical Power System, Generation, Transmission and Distribution</b> (2018 -19, RKDF University, Bhopal.</li> <li>• Awarded as <b>Best Project Award on Hybrid Car</b> (2017-18), RKDF University, Bhopal.</li> </ul>		
<b>International</b>	<ul style="list-style-type: none"> <li>• Editorial Team Member of <b>Journal of Integrated Science and Technology (Scopus Indexed)</b>.</li> </ul>		
<b>Conference/Seminar/Workshops/FDP</b>			

<b>Description</b>	<b>No.</b>
<b>Conference/Seminar paper presentation</b>	<b>Conference paper presentation-11</b>
<b>Conference/Seminar attended/organized</b>	<b>Conferenceorganized-02</b> <b>Conference attended - 09</b>

	<b>Seminar attended -21</b>	
<b>Workshop attended/ organized</b>	<b>Workshop attended-03</b>	
<b>FDP Attended/organized</b>	<b>FDP Attended -13</b>	
<b>Research Project</b>		
<b>Name of Project</b>	<b>Funding Agencies</b>	<b>Amount</b>
A Design Analysis of Energy Saving through Regenerative Braking in Diesel Locomotive with Super-capacitors	Ayushmati Education Society	4,75,000/-
Reduction Techniques of Harmonics in Wind Energy System	Ayushmati Education Society	2,00,000/-



**Signature**

## List of Publications

S. No	Title of paper/ Book/ Patent	Name of the author/s	Name of Journal/ Conference/Book Publisher/ Patent Country	Year of publication	ISSN number	Link to article / paper /
1.	Synergy of AI and PMBLDC Motors: Enhancing Efficiency in Electric Vehicles	Sanatankumar; Abhimanyu Kumar; <b>Chirag Gupta</b> ; AbhayChaturvedi; AmbrishPatiTripathi	IEEE Conference	07-08 February 2025	ISBN:979-8-3315-1296-5	<a href="#">Link</a>
2.	Optimizing BLDC Motor Control in Electric Vehicles Using Hysteresis Current Controlled Boost Converters	Sanatan Kumar; AbhayChaturvedi; Abhimanyu Kumar; <b>Chirag Gupta</b>	IEEE Conference	22-23 December 2024	ISSN: 2472-7555	<a href="#">Link</a>
3.	Future Trends in Fault Detection Strategies for DC Microgrid	Sanatan Kumar; Abhimanyu Kumar; <b>Chirag Gupta</b> ; AbhayChaturvedi	IEEE Conference	22-23 December 2024	ISSN: 2472-7555	<a href="#">Link</a>
4.	Performance enhancement of grid connected inverter with input of two PV array under different environmental conditions using ANFIS control	Noor Alam, <b>Chirag Gupta</b>	ResearchJournal of Engineering Technology and Medical Sciences	Vol-7 Issue-1, Mar 2024	ISSN:2582-6212	<a href="#">Link</a>
5.	Comparative performance evaluation of multi level inverter for power quality improvement	Chandra Bhushan Singh, Abhimanyu Kumar, <b>Chirag Gupta</b>	Journal of Integrated Science and Technology	Vol. 12 No. 2 (2024)	ISSN 2321-4635	<a href="#">Link</a>
6.	GWO based Model Predictive Control in Vehicle-to-Grid Systems	Rajesh Kumar, Abhimanyu Kumar, <b>Chirag Gupta</b>	Research Journal of Engineering Technology and Medical Sciences	Vol-6Issue-4, Dec.2023	ISSN: 2582-6212	<a href="#">Link</a>
7.	Design and simulation of Multi-Input Converter for Renewable energy sources	<b>Chirag Gupta</b> , Vikas Kumar Aharwal	Journal of Integrated Science and	Vol. 11 No. 3 (2023)	ISSN 2321-4635	<a href="#">Link</a>

			Technology			
8.	Design of Multi Input Converter Topology for Distinct Energy Sources	<b>Chirag Gupta</b> , Vikas Kumar Aharwal	Journal of Integrated Science and Technology	Vol 14 No 04 (2022)	ISSN 2454-5767	<a href="#">Link</a>
9.	Optimizing the performance of Triple Input DC-DC converter in an Integrated System	<b>Chirag Gupta</b> , Vikas Kumar Aharwal	Journal of Integrated Science and Technology	Vol. 10 No. 3 (2022)	ISSN 2321-4635	<a href="#">Link</a>
10.	Shunt Active Filters: A Review on Control Techniques	Ankit Raj, Abhimanyu Kumar, <b>Chirag Gupta</b>	Research Journal of Engineering Technology and Medical Sciences	Vol-5Issue-2, Jun. 2022	ISSN: 2582-6212	<a href="#">Link</a>
11.	Controlling of Variable Structure Power Electronics for Self-Contained Photovoltaic Power Technologies	Ashutosh Kumar Singh, <b>Chirag Gupta</b>	Research Journal of Engineering Technology and Medical Sciences	Vol-5Issue-2, Jun. 2022	ISSN: 2582-6212	<a href="#">Link</a>
12.	A Comprehensive Review on Selection of Hybrid Vehicles and Power Converters for Hybrid Electric Vehicles	MdShahbaz Khan, <b>Chirag Gupta</b> , Abhimanyu Kumar	Research Journal of Engineering Technology and Medical Sciences	Vol-4Issue-4, Dec. 2021	ISSN: 2582-6212	<a href="#">Link</a>
13.	An Analysis of Electric Vehicles Charging Technology and Optimal Size Estimation	MdShahnawaz Khan, <b>Chirag Gupta</b> , Abhimanyu Kumar	Research Journal of Engineering Technology and Medical Sciences	Vol-4Issue-4, Dec. 2021	ISSN: 2582-6212	<a href="#">Link</a>
14.	Harmonic Investigation Analysis of Cascade H Bridge Multilevel Inverter with Conventional Inverter using PSIM	BipinBihariKhatua, <b>Chirag Gupta</b> , Abhimanyu Kumar	Research Journal of Engineering Technology and Medical Sciences	Vol-4Issue-3, Sep. 2021	ISSN: 2582-6212	<a href="#">Link</a>
15.	Methods for Reducing Harmonics in Wind Energy Conversion Systems: A Review	Ravikant Kumar, <b>Chirag Gupta</b>	Research Journal of Engineering Technology and Medical Sciences	Vol-4Issue-2, Jun. 2021	ISSN: 2582-6212	<a href="#">Link</a>

16.	Economic Feasibility Analysis of Hybrid Energy Systems for Remote Area Electrification	PriyaranjanMahapatra , <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	2020		
17.	Simulation of Continuous Mode Hybrid Power Station with Hybrid Controller	PrashantAhirwar, <b>Chirag Gupta</b>	Research Journal of Engineering Technology and Medical Sciences	Vol-3Issue-2, Jun. 2020	ISSN: 2582-6212	<a href="#">Link</a>
18.	Multilevel Current-Source Inverter Grid-Connected Analytical Control Approach	Dilmohan Kumar, <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Special Issue 2, 2020	ISSN No. 2581–5806	
19.	Three Phase Grid Connected Solar Photovoltaic System with Power Quality Analysis	PriynkaVerma, <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Aug-2018	ISSN No. 2581–5806	<a href="#">Link</a>
20.	A Critical Survey on Efficient Energy Techniques for DC Drives based System	Kamal Jagwani, <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Aug-2018	ISSN No. 2581–5806	<a href="#">Link</a>
21.	A Review of Design, Development, Control and Applications of DC– DC Converters	VinodMeena, <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Vol.–01, No.–02, Aug–2018	ISSN No. 2581–5806	<a href="#">Link</a>
22.	A Survey on Grid Connected Solar Photovoltaic System	PriynkaVerma, <b>Chirag Gupta</b>	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Aug–2018	ISSN No. 2581–5806	<a href="#">Link</a>
23.	AN OVERVIEW OF COMPENSATION SCHEMES OF TIME DELAY IN NETWORK CONTROLLED SYSTEMS	SauravBajpai, <b>Chirag Gupta</b>	INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & MANAGEMENT	Vol.5 Issue 4, 2015	ISSN: 2277-5528	<a href="#">Link</a>
24.	Harmonics Elimination of Induction Motor by SVPWM Effective Technique	SHILPA SONI, <b>CHIRAG GUPTA</b>	International Journal of Advanced Research in Electrical, Electronics	Vol.4 Issue 3, 2015	ISSN: 2278 - 8875	<a href="#">Link</a>

			and Instrumentation Engineering			
25.	A DESIGN OF CONTROLLER WITH LOW GAIN INCLUDING CONSTRAINTS OF POLE PLACEMENT	JitendraPrajapati, <b>Chirag Gupta</b>	International Journal of Engineering Sciences & Management	Vol.5 Issue 4, 2015	ISSN: 2277-5528	<a href="#">Link</a>
26.	Hybrid Optimization Technique Used for Economic Operation of Microgrid System	AdityaHridaya, <b>Chirag Gupta</b>	International Journal of Advanced Technology & Engineering Research (IJATER)	Vol.5 Issue 5, 2015	ISSN No: 2250-3536	<a href="#">Link</a>
27.	An Optimization Technique Used For Analysis Of A Hybrid System Economics	AdityaHridaya, <b>Chirag Gupta</b>	International Journal of Current Trends in Engineering & Technology	Vol.1 Issue 6, 2015	ISSN: 2395-3152	<a href="#">Link</a>
28.	An optimization techniques used for economic load dispatch	Shazia Khan, <b>Chirag Gupta</b>	International Journal of Advanced Technology & Engineering Research (IJATER)	Vol.4 Issue 4, 2014	ISSN No: 2250-3536	
29.	Simulation Design and Analysis of Power Converters for Hybrid Electric Vehicle Applications	MdShahbaz Khan , <b>Chirag Gupta</b> , Abhimanyu Kumar	SHODH SANGAM – A RKDF University Journal of Science and Engineering	Vol.-04, No.-06, 2021	ISSN No. 2581–5806	<a href="#">Link</a>

## List of Seminar/Workshops/FDPs

- Participated in MongoDB Academic Leaders Connect - Madhya Pradesh organized by ICT Academy & MongoDB, Bhopal held on 12 June 2024.
- Participated and completed successfully Faculty Development Program on Constructing Tomorrow: Advancements in Construction Engineering & Structural Design at Poornima college of Engineering, Jaipur from 08<sup>th</sup> to 13<sup>th</sup> March 2024.
- Participated and completed successfully AICTE Training And Learning (ATAL) Academy Faculty Development Program on Clean Energy Technologies for Sustainable Development at School of Energy and Environment Management, RGPV Bhopal from 12/02/2024 to 17/02/2024.
- Coordinator of One Day Model Exhibition “iNOVATE: The Model Expo-23” at Vedica Institute of Technology (RKDF University), Bhopal (M.P.) on 1st November, 2023.
- Participated and completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Introduction to Electric Vehicles; Challenges and Opportunities in Future" from 20/09/2021 to 24/09/2021 at Oriental Institute of Science & Technology.
- Participated in webinar on “Development of Micro-Sensors and their Applications Using Artificial Intelligence” organized by Amity School of Engineering and Technology (ASET), Gwalior on 08<sup>th</sup> May 2020.
- Participated and completed successfully Online One Week “Faculty Development Program (FDP)” on LibreOffice Suite Calc organized G. M. R. D. College, Mohanpur (Samastipur) in association with IIT–Bombay through Spoken Tutorial on 13<sup>th</sup>May to 18<sup>th</sup>May, 2020.
- Participated in online workshop on “Advance Mathematics & Its Applications in Engineering” organized by IPS Academy, Institute of Engineering & Science, Indore on 15<sup>th</sup>& 16<sup>th</sup> May 2020.
- Participated in a webinar on 'Microgrid Technology' organized by the Chennai Institute of Technology, Chennai, on 16th May 2020."
- Participated in one day Faculty Development Program on “Effective Research Planning and Technical Writing for Engineers” organized by Indore Institute of Science & Technology, Indore under TEQIP-III, RGPV Bhopal on 19<sup>th</sup> May 2020.

- Participated successfully in TechQui– A National Level Technical E Quiz series Season-1 on “Basic Electronic Circuits & Devices” organized by Sri Venkatesa Perumal College of Engineering & Technology, Puttur on 22 May 2020.
- Participated in a Webinar on “Renewable Energy& Energy Management towards Mitigation of Climate Change” organized by RKDF University on 05 June 2020.
- Participated in two days Faculty Development Program on Innovation & Research in Data Science With Visualization Using Python organized by RGPV, under TEQIP-III Bhopal on 06<sup>th</sup> and 07<sup>th</sup> June 2020.
- Participated in the International Virtual Conference on "Role of Technology in the Era of Covid-19 for Education” organized during 07<sup>th</sup>& 08<sup>th</sup> June2020.
- Coordinator for 4 days National Level online eQuiz – EXTechQuiz-2020 from 05<sup>th</sup> to08<sup>th</sup> June 2020.
- Participated in Webinar on “Energy Storage and Electric Vehicle Technology” organized by IEEE Educational Activities on 09 June 2020.
- Participated in the webinar on “Real Time Simulation of Electric & Hybrid Electric Vehicle” organized by Bansal College of Engineering on 07 July 2020.
- Participated and completed successfully Online One Week Faculty Development Program (FDP) on “LaTeX” organized L.N.C.T. College, Bhopal in association with IIT–Bombay through Spoken Tutorial on 06<sup>th</sup>May to 10<sup>th</sup> July, 2020.
- Participated in the University Distinguished Lecture titled “ Atma Nirbhar Bharat: The Role of Collaborations ” by SRM University-AP held on 07th Nov 2020.
- Participated the short term course on “Innovative solar thermal storage technologies” in collaboration with RPI, USA with financial sponsorship of Ministry of New &Renewable Energy (MNRE) at RKDF University, Bhopal on 27 – 28 September 2019.
- Coordinator for 2nd International Conference on "Contemporary Technological Solutions Towards Fulfillment of the Social Needs", RKDF University, Bhopal on 28 to 29 September 2019.
- Coordinator for Conference on "Contemporary Technological Solutions Towards Fulfillment of the Social Needs", RKDF University, Bhopal on 31 August 2018.
- Participated in a workshop on “Virtual Labs” organized by SRK University, Bhopal on27 August 2016.