

Curriculum Vitae

Dr. Rahul Agrawal

Present Designation: Professor

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1. Objective: -

I aspire to work for an institution which offers career growth, chances to learn and improve my knowledge and unleash my skills and contribute to the growth of the organization.

Ph.D. + 19 Years Teaching Experience

2. Educational Qualification:-

Degree/ Examination	Discipline	Name of the Institute	Name of the Board / University	Year of Passing	% of Marks	Division
Doctor of Philosophy (PhD)	Energy	Maulana Azad National Institute of Technology, Bhopal	Maulana Azad National Institute of Technology, Bhopal	2017	8.7 Grade	First
Master of Engineering (ME)	Power Electronics	Shri G.S. Institute of Technology and Science, Indore	Rajiv Gandhi Proudyoogiki Vishwavidyalaya, Bhopal	2008	74.54	First
Bachelor of Engineering (BE)	Electrical Engineering	Jawaharlal Institute of Technology, Borawan, Khargone, M.P.	Rajiv Gandhi Proudyoogiki Vishwavidyalaya, Bhopal	2001	74.34	First

3. Professional Experience: - (Total 19 Years)

Sr. No.	Name of the Institute/ College with address	Post Held	Service Period		Nature of duties	Experience in Year
			From	To		
1	Sandip University, School of Engineering & Technology, Mahiravani, Trimbak Road, Dist. Nashik 422213	Professor	1.9.2021	Till date	Teaching, Research	3 Years, 11 Months
		Associate Professor	13.3.2018	26.7.2019		
2	S.B. Patil College of Engineering (SBPCOE) Indapur, GAT No. 58, Village Vangali, Pune Solapur Highway, Indapur, Dist. Pune- 413106	Associate Professor, Dean R & D	01.7.2016	12.3.2018	Teaching, Research	1 Years, 8 Months
3	Vindhya Institute of Technology and Science (VITS) Indore, Umrikheda, Khandwa Road Indore- 452020	Asst. Prof. & Head	16.7.2007	30.6.2016	Teaching, Research	8 Years, 11 Months
4	Swami Vivekanand College of Engineering (SVCE) Indore, Umrikheda, Khandwa Road Indore- 452020	Sr. Lecturer	19.6.2006	16.7.2007	Teaching	1 Years, 1 Months

5	Jawaharlal Institute of Technology (JIT), Borawan Dist. Khargone, Vidhya Vihar, Borawan, Khargone-451228	Lecturer	01.8.2001	16.6.2005	Teaching	3 Years, 10 Months
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4. Job Responsibilities:-

Duties Performed at Sandip University, Nashik (SUN).

- Work as a NAAC co-coordinator for criterion 1.
- Worked as a PhD coordinator of the Electrical Department.
- Work as a BOS Chairmen and BOS member of the Electrical Department.
- Worked as *head of the department from 27 July 2019 to 16.2.2022*.
- Organized workshop, seminar, online webinar, expert lecture, industry visit.
- Department Academic and website updates coordinator for the academic year 2018-2019, 2019-2020.
- Worked as a Senior Supervisor in the examination.

Duties Performed at S.B. Patil College of Engineering (SBPCOE) Indapur

- Worked as a Dean R & D and Academic Research Coordinator (ARC).
- Worked as a NAAC coordinator for criterion 3.
- Contribution in NAAC work and preparation of SSR.

Duties Performed at Vindhya Institute of Technology and Science (VITS) Indore

- Worked as a HOD of Electrical & Electronics Engineering Department in VITS Indore from July 2007 to June 2016.
- Worked as an academic coordinator in VITS Indore for the session 2014-2015.
- Library in-charge from July 2008 to September 2014.
- Exam Centre Superintendent & Deputy Superintendent.
- Guided Project at graduate and post graduate level.
- Policy planning, monitoring & evaluation at departmental level.
- Member of purchase committee, Modernization and maintenance of laboratory.
- Organized workshop, seminar, conference, expert lecture, short term course, industry visit.

5. Subject Taken:-

Control System, Network Analysis, Power Electronics

6. Research Interest:-

Optimization Techniques, Power System, Power Electronics.

Ph.D. Thesis:-

Title- Optimal Location of Multi Type Flexible AC Transmission System Using Evolutionary Optimization Techniques
Supervisor- Dr. S.K. Bharadwaj, Professor, Department of Electrical Engineering, Maulana Azad National Institute of Technology, Bhopal

Date of Admission-15.03.2012, Date of Notification-2.8.2017, Date of Degree Award-9.9.2018

M.E. Thesis:-

Title- Neural Network Based Selective Harmonic Elimination in Single Phase Inverter.

Supervisor- Dr. Shailendra Sharma, Professor, Shri G.S. Institute of Technology and Science, Indore

7. PhD Thesis Guidance:-

Guide for the following PhD scholars at Sandip University Nashik.

1. Swati Gade – Optimal Design and Performance Analysis of Renewable Integrated UPQC for Minimum VA Loading and to Improve Reliability of System (Date of Registration-4 May 2018, Thesis Submitted - 10 Dec.2021, Date of Public Viva Voce-19.3.2022, Notification-28.3.2022)
2. Pratik Ghutke

8. P.G. Thesis Guidance :-(Total 19 M.E./ M. Tech. Thesis)

1. “Soft Computing Technique for Short Term Load Forecasting”, Manish Shah (2013-VITS Indore)
2. “Transient Stability Enhancement of Single Machine Infinite Bus System using TCSC based Controller”, Neha Maithil (2013-VITS Indore)
3. “Voltage Stability Limit Enhancement and Transmission Loss Minimization in Power System with SVC using Particle Swarm Optimization”, Sourabh Kothari (2013-VITS Indore)
4. “Modelling & Simulation of Cascaded H Bridge Multilevel Inverter with Equal DC Voltage Source Using MATLAB-Simulink”, Ramakant Shukla (2014-VITS Indore)

5. "Reliability Evaluation of Composite Power System", Ankur Malhotra (Joint Guidance-2014-VITS Indore- Jointly supervised with Dr. Atul Koshti)
6. "Selective Harmonic Elimination in Multilevel Inverter Using Particle Swarm Optimization", Himanshu Joshi (2014-VITS Indore)
7. "Transmission Line Loss Minimization and Voltage Stability Enhancement with TCSC using Heuristic Optimization Technique", Anil Bodhe (2015-VITS Indore)
8. "Particle Swarm Optimization and Teaching Learning Based Optimization for optimal location and Sizing of SVC considering Transmission Loss and Installation cost", Shweta Jain (2015-VITS Indore)
9. "Modeling, Design and Analysis of Multi Pulse Converter Using MATLAB Simulation", Nidhi Kurpia (2015-VITS Indore-Jointly supervised with Dr. R. S. Tare)
10. "Artificial Bee Colony Algorithm for Transmission Loss Minimization Considering Wind Power", Vineet Mishra (2016-VITS Indore)
11. "Calculation of Switching Angle for Minimization of Harmonics using Particle Swarm Optimization", Shyam Barade (2016-VITS Indore)
12. "Transient Stability Enhancement of SMIB System with Fuzzy based PSS controller and UPFC using MATLAB-Simulink", Manish Bhardwar (2016-VITS Indore)
13. "Modelling and Simulation of Optimal Power Generation of Wind Turbine using Particle Swarm Optimization Algorithm with MATLAB software" Tejal Garg (2016-VITS Indore)
14. "Modeling, Simulation and Analysis of Flexible AC Transmission System Devices using MATLAB", Farheen Khan (2016-VITS Indore)
15. "Evolutionary optimization technique for demand side management for industrial sector", Nikita Medhane (2019-Sandip University Nashik)
16. "Continuous monitoring system for earth pits", Vrushali Chitte (2019-Sandip University Nashik)
17. "Optimal bidding strategy in competitive electricity market using Evolutionary optimization technique", Pratik Bhalerao (2019-Sandip University Nashik)
18. "Improvement of Solar PV Connectivity with Smart PV Inverter PV-STATCOM", Karan Temgire (2020-Sandip University Nashik)
19. "Power Quality Improvement Using Dynamic Voltage Restorer (DVR)" Shivani Rajendra Kurhe (2020-Sandip University Nashik)

9. List of Paper Publications details

SCI/ Scopus Index Journal Publications	07
Journals Publications	15
International Conference	14
National Conference	04
Book Chapter	04
Total Publication	46

a. SCI/ Scopus Index Journal Publications: - (Total 06 Papers)

1. Rahul Agrawal, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, "Population Based Evolutionary Optimization Techniques for Optimal allocation and Sizing of Thyristor Controlled Series Capacitor", Journal of Electrical Systems and Information Technology, Vol. 5, pp. 484-501, 2018, Published by **Elsevier**, ISSN:2314-7172, <https://doi.org/10.1016/j.jesit.2017.04.004>
2. Rahul Agrawal, S.K. Bharadwaj, Kishor C. Muley, Optimal Location of Static VAR Compensator using Evolutionary Optimization Techniques, International Journal on Emerging Technologies, Vol. 11, Issue 1, pp. 245-256, 2020, E-ISSN No: 2249-3255, ISSN:0975-8364, Published by **Research Trend**
3. Rahul Agrawal, D D Changan, Anil Bodhe, Small Signal Stability Analysis of Stand-Alone Microgrid with Composite Load, Journal of Electrical Systems and Information Technology, Vol. 7, pp. 1-20, 2020, <https://doi.org/10.1186/s43067-020-00020-9>, Published by **Springer**
4. Vaishali Shirsath, Rahul Agrawal, "Design Parameter and reliability Analysis for effective energy conversion in wind farm management", Annual Technical Volume of Electrical Engineering Division (ELDB) IE India, Vol. 5., pp 29-36, 2020, Published by **Springer**
<https://www.ieindia.org/webui/IEI-Publication.aspx#annual-technical-volume>
5. Swati Gade, Rahul Agrawal, Ravindra Munje, Recent Trends in Power Quality Improvement: Review of Unified Power Quality Conditioner, ECTI Transactions on Electrical Engineering, Electronics, and Communications (ECTI-EEC) (Online ISSN: 1685-9545), Vol. 19, issue 3, pp. 268-288, 2021 , DOI: <https://doi.org/10.37936/ecti-eeec.2021193.244936>, link- <https://ph02.tci-thaijo.org/index.php/ECTI-EEC/article/view/244936>

6. Swati Gade, Rahul Agrawal , Optimal utilization of unified power quality conditioner using JAYA optimization algorithm, Engineering Optimization, pp.-1-18, Oct. 2021 , Print ISSN: 0305- 215X, Online ISSN: 1029-0273, Published by **Taylor & Francis**
Link of this article: <https://doi.org/10.1080/0305215X.2021.1978440>
7. Pratik Ghutke, Rahul Agrawal, An Automated Irrigation System for Efficient Water Utilization in the Indian Agriculture System, Design Engineering, Issue: 1 Pages: 296 - 310, Year 2022, ISSN: 0011-9342
link- <http://thedesigengineering.com/index.php/DE/article/view/8808>

b. Journal Publications: - (Total 15 Papers)

1. Rahul Agrawal, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, “An Educational and Professional Simulation Tools in Power Systems and FACTS controllers- An Overview”, International Journal of Electrical, Electronics and Computer Engineering, Vol.2, issue 2, pp. -91-96, September 2013, ISSN NO. Online : 2277-2626
2. Rahul Agrawal, Neha Maithil, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, “Simulation Tools for Power Electronics-An Overview”, International Journal on Emerging Technologies, Vol. 4, issue 1, pp. -104-107, 2013, ISSN No. (Print): 0975-8364, ISSN (Online): 2249-3255.
3. Rahul Agrawal, Manish Shah, “A Review on Classical And Modern Techniques with Decision Making Tools for Load Forecasting ”, International Journal of emerging trends in engineering and development (IJETED), Vol. 6, issue 3, pp. 174-184, Nov. -2013, ISSN No:2249-6149
4. Rahul Agrawal, Ankur Malhotra, Reena Jharaniya, “Some Aspect of Reliability of Composite power System”, International Journal of Pure and Applied Research in Engineering and Technology (IJPRET), Vol. 2, issue 5, pp. 21-35, 2013, ISSN: 2319-507X
5. Anwesha Bhattacharya, P. Singh, A. J. Siddiqui , Rahul Agrawal , “A Comparative Review on Minimizing Transmission Losses Using Genetic Algorithm, Particle Swarm Optimization and Coordinate Aggregation Particle Swarm Optimization”, International Journal of Electrical, Electronics and Computer Engineering, Vol.2, issue 2, pp. 127-133, September 2013, ISSN NO. Online : 2277-2626
6. Sourabh Kothari, Rahul Agrawal, Dr. S.K. Bharadwaj, “ Enhancement of Voltage Stability using FACTS Controllers : A State of The Art Review”, International Journal of advanced Scientific and Technical Research, Vol. 1, issue 4 , pp. 262-271, January-February 2014, ISSN 2249-9954
7. Ramakant Shukla, Rahul Agrawal, “Simulation of Cascade H-Bridge Multilevel Inverter with Equal DC Voltage Source”, International Journal of Advanced Research in Electrical , Electronics and Instrumentation Engineering (IJAREEIE), Vol.3, issue-8, pp. 11547-11551, August-2014, ISSN (Online): 2278-8875, ISSN (Print):2320-3765
8. Sourabh Mehto, Rahul Agrawal, Manish Shah, “ A Comparative Study Based on PI and Fuzzy Control of Inverter fed Induction Motor Drive”, International Journal of Research (IJR) Vol-2, issue-2, pp. 75-79, February 2015, ISSN 2348-6848
9. Neha Maithil, Rahul Agrawal, Sourabh Kothari, “Transient Stability Enhancement of Single Machine Infinite Bus (SMIB) System using TCSC based Controller”, Canadian Journal of Basic and Applied Science, Vol. 03, issue 2, pp. 67-77, February 2015, ISSN:2292-2381
10. Juhi Nagpal, Rahul Agarwal, Manish Shah, “A Comparative Study on Different Speed Control Methods of D.C. Drives for Electric Vehicle”, International Journal of Research (IJR), Volume 2, Issue 07, July 2015, ISSN(online): 2348-6848, ISSN (print): 2348-795X
11. Rahul Agrawal, Neha Maithil, Manish Bhardwar, “Transient Stability Enhancement of SMIB System with Fuzzy Based PSS Controller and UPFC Using MATLAB Simulink”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 5, Issue 1, pp. 122-129, January 2016, ISSN (Online): 2278-8875, ISSN (Print):2320-3765, doi-[10.15662/IJAREEIE.2016.0501018](https://doi.org/10.15662/IJAREEIE.2016.0501018)
12. Nidhi Khurpia, R.S. Tare, Rahul Agrawal, “Modeling, Design and Analysis of Multi Pulse Converter Using MATLAB Simulation”, International Journal of Software & Hardware Research in Engineering, Vol. 4, issue 2, pp. 7-13, February 2016, ISSN:2347-4890
13. Rahul Agrawal, Dr. S. K. Bharadwaj, Dr. D. P. Kothari, “Transmission Loss and TCSC Cost Minimization in Power System using Particle Swarm Optimization”, International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering , Vol. 4, Issue 3, pp. 226-231, March 2016, ISSN (online):2321-2004, ISSN(Print):2321-5526, DOI [10.17148/IJIREICE.2016.4360](https://doi.org/10.17148/IJIREICE.2016.4360)
14. Rahul Agrawal, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, “Simulation Tool for FACTS Controllers- A Review”, International Journal of Development Research, Vol. 6, Issue, 04, pp. 7409-7416, April, 2016, ISSN:2230-9926
15. Madhuri Sharma, Manish Shah, Rahul Agrawal, “Transmission Losses Minimization Considering Wind Power Using Teaching-Learning-Based Optimization”, International Journal of Engineering Science and Computing, Vol. 7, issue 6, June 2017, pp. 13118- 13128

c. International Conference: - (Total 14 Papers)

1. Rahul Agrawal, Himanshu Joshi, “*Topologies of Multilevel Inverter–A Review*”, Proceeding of International Conference on Emerging Trends in Instrumentation, Communication, Electrical & Electronics, Organized by SVITS Indore, 23-24 Jan. 2014. Published by World Academics Journal of Engineering Sciences, Vol. 01, Issue 01, Page No. 1009, 2014, DOI: <http://dx.doi.org/10.15449/wjes.2014.1009>,
2. Rahul Agrawal, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, “*Optimal location and Sizing of SVC considering Transmission loss and Installation cost using TLBO*”, pp. 1-6, Proceeding of 1st IEEE INDICON, Jamia Millia New Delhi, India, 17-20 December 2015, doi: [10.1109/INDICON.2015.7443110](https://doi.org/10.1109/INDICON.2015.7443110), (SCOPUS Indexed), Link- <https://ieeexplore.ieee.org/document/7443110>
3. Rahul Agrawal, Dr. S.K. Bharadwaj, Dr. D. P. Kothari, “*Optimal Position and Setting of SVC using Heuristic optimization techniques*”, pp. 569-575, Proceeding of 2th IEEE I2CT Pune, India, 7-9 April 2017, DOI: 10.1109/I2CT.2017.8226194 (SCOPUS Indexed), Link- <https://ieeexplore.ieee.org/abstract/document/8226194>
4. Pramod M. Gadge, Rahul Agrawal, “*DC Microgrid - A Review on Advantages and Challenges in Protection*”, Proceeding of International Conference on Emerging Trends in Management, Engineering, Law, Technology and Science (ICEMELTS -'18), December 3rd to 5th 2018, Sandip University Nashik.
5. Pavan Patil, Kishor C. Muley, Dr. Rahul Agrawal, “*Identification of Power Quality Disturbance Using Neural Network*”, 3rd International Conference on Electronics Communication and Aerospace Technology (ICECA 2019) Coimbatore, India, 2019, pp. 990-996. (SCOPUS Indexed) doi: [10.1109/ICECA.2019.8822214](https://doi.org/10.1109/ICECA.2019.8822214), Link- <https://ieeexplore.ieee.org/document/8822214>
6. Vaishali Shirsath, Rahul Agrawal, Optimization Through Wind Modeling by Means of Mechanical Design to Enhance Wind Power Generation and System Reliability, 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE) 2020, Organized by Poornima College of Engineering, Jaipur, India December 1-3, 2020. (IEEE Indexed), DOI: [10.1109/ICRAIE51050.2020.9358353](https://doi.org/10.1109/ICRAIE51050.2020.9358353), Link-<https://ieeexplore.ieee.org/document/9358353>
7. Vaishali Shirsath, Rahul Agrawal, A Review of Wind Station Data Modeling For Wind Turbine Reliability Enhancement To Optimize Wind Energy Considering Turbine Design, 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE) 2020, Organized by Poornima College of Engineering, Jaipur, India December 1-3, 2020. (IEEE Indexed), DOI: [10.1109/ICRAIE51050.2020.9358335](https://doi.org/10.1109/ICRAIE51050.2020.9358335), Link- <https://ieeexplore.ieee.org/document/9358335>
8. Swati Gade, Rahul Agrawal, Dipak Patil and, Svetlin Antonov, Optimal utilization of UPQC at different operating condition using TLBO, 56th IEEE International Scientific Conference on Information, Communication and Energy Systems and Technologies ICEST 2021, June 16-18, 2021, Sozopol, Bulgaria. (IEEE Indexed), DOI: [10.1109/ICEST52640.2021.9483567](https://doi.org/10.1109/ICEST52640.2021.9483567), Link- <https://ieeexplore.ieee.org/document/9483567>
9. Swati Gade, Rahul Agrawal, Optimal utilization of UPQC during steady state using evolutionary optimization techniques, IEEE International Conference for Intelligent Technologies (CONIT 2021), Hubballi, Karnataka, India, 25-27 June 2021. (IEEE Indexed), DOI: [10.1109/CONIT51480.2021.9498479](https://doi.org/10.1109/CONIT51480.2021.9498479), Link- <https://ieeexplore.ieee.org/document/9498479>
10. Swati Gade, Rahul Agrawal, Optimal Utilization of UPQC During Voltage Sag and Steady-State Using Particle Swarm Optimization, in the book 'Intelligent Computing in Information Technology for Engineering System' Proceedings of the International Conference on Intelligent Computing in Information Technology for Engineering System (ICICITES-2021), chapter 37, 25-26 June, 2021, Pandharpur, India Book Edited By Kailash J. Karande, Sampat G. Deshmukh, Parikshit N. Mahalle, ISBN 9781032270807, Published January 15, 2022 Published by CRC Press (Taylor & Francis Indexed)
11. Pratik Ghutke, Rahul Agrawal, The utilization of IoT and remote sensor organizations and their application in agriculture for the improvement of yield productivity in India, IEEE Sponsored 2nd Global Conference on Advancement in Technology (GCAT -2021)”. Bengaluru, Karnataka, India, October 1-3, 2021 (IEEE Indexed), Link- <https://ieeexplore.ieee.org/document/9587826>, DOI: [10.1109/GCAT52182.2021.9587826](https://doi.org/10.1109/GCAT52182.2021.9587826)
12. Supriya. R. Patil, Rahul Agrawal, "Study of Unknown Five parameters of Single Diode Model of PV cell and PV module using Analytical and Optimization method with different manufacturing data," 2021 International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON), 29- 30 October 2021, pp. 1-9, DOI: [10.1109/SMARTGENCON51891.2021.9645777](https://doi.org/10.1109/SMARTGENCON51891.2021.9645777), Link- <https://ieeexplore.ieee.org/document/9645777>
13. Swati Gade, Rahul Agrawal, Optimal VA Loading of UPQC using Rao-1 Algorithm, International Conference on “Sustainable Technology and Advanced Computing in Electrical Engineering” held on 11th and 12th November 2021, hosted by Department of Electrical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat. (Springer Indexed Conference)
14. Supriya. R. Patil and R. Agrawal, "Extraction of 5 Parameters of Single Diode Model with and without Optimisation Method Along With I-V And P-V Characteristics Behavior," 2022 International Conference for Advancement in

Technology (ICONAT), 2022, pp. 1-8, doi: [10.1109/ICONAT53423.2022.9726046](https://doi.org/10.1109/ICONAT53423.2022.9726046). Link-
<https://ieeexplore.ieee.org/abstract/document/9726046>

d. Book Chapter: - (Total 4 Papers)

1. Rahul Agrawal, Dr. S.K. Bharadwaj, Anil Bodhe, Dr. D. P. Kothari, Bhupendra Deshmukh, “*Optimal location of TCSC using Evolutionary Optimization techniques*”, Proceedings of the International Conference on Advanced Technologies for Societal Applications, Techno-Societal 2016, organized by SVERI Pandharpur, 20-21 December 2016, pp. 389-397, chapter 38, Edited by Prashant M. Pawar, Babruvahan P. Ronge, R. Balasubramaniam, Sridevi Seshabhattachar, Published by **Springer**, online ISBN- 978-3-319-53556-2, DOI- https://doi.org/10.1007/978-3-319-53556-2_38 (**SCOPUS Indexed**)
2. Krupali Devendra Kanekar, Rahul Agrawal, Dhiraj Magare, "Different Meta-Heuristic Optimization Techniques and Their Application in Solar Photovoltaic Field : A Renewable Energy Source." in the book-Optimal Planning of Smart Grid With Renewable Energy Resources, edited by Naveen Jain, published by IGI Global, 2022, Chapter 1 pp. 1-37. <https://doi.org/10.4018/978-1-6684-4012-4.ch001>
3. Swati Gade, Rahul Agrawal, Optimal Utilization of UPQC During Voltage Sag and Steady-State Using Particle Swarm Optimization, in the book 'Intelligent Computing in Information Technology for Engineering System' Proceedings of the International Conference on Intelligent Computing in Information Technology for Engineering System (ICICITES-2021), **chapter 37**, 25-26 June, 2021, Pandharpur, India Book Edited By Kailash J. Karande, Sampat G. Deshmukh, Parikshit N. Mahalle, ISBN 9781032270807, Published January 15, 2022 **Published by CRC Press (Taylor & Francis Indexed)** link- <https://www.routledge.com/Intelligent-Computing-in-Information-Technology-for-Engineering-System/Karande-Deshmukh-Mahalle/p/book/9781032270807>
4. Swati Gade, Rahul Agrawal, "An elitism-based self-adaptive multi-population Jaya algorithm for optimal VA loading of Unified Power Quality Conditioner", in the book-Artificial Intelligence Techniques in Power Systems Operations and Analysis, edited by Dr. Nagendra Singh, **Published by CRC Press (Taylor & Francis Indexed)**

e. National Conference: - (Total 4 Papers)

1. Rahul Agrawal, Dr. D. P. Kothari, Abhishek Dubey, “*Speed Control of Fan Using Fuzzy Logic Control*” ECOMM-11, National conference on Recent Trends in Electronics & Communication Technology Organized by SD Bansal College of Technology Indore, April 8-9, 2011.
2. Rahul Agrawal, Dr. D. P. Kothari, A. J. Siddiqui, Vishal Sharma, “ *Study of Room Temperature Control using Fuzzy Logic*” RTFST-2011, National conference on Recent Trends in the field of Science & Technology Organized by Mahakal Institute of Technology & Science, Ujjain, April 16-17, 2011.
3. Rahul Agrawal, Manish Shah, “*Recent Trends in Design of Lightning for Sports Broadcasting*” RASTM-2011, 1st IEEE sponsored, National Conference on recent Advancement in Science, Technology and Management, Vindhya Institute of Technology & Science Indore, 12-13 Nov.2011.
4. Rahul Agrawal, Ankur Malhotra, Dr. Atul Koshti, “*Capacity outage Probability Table Determination for Evaluation of System Reliability*”, Proc. National Conference on Advances in Electrical and Communication Engineering, Organized by SVCE Indore, 15 Feb. 2014.

10. Conference/ Workshop/ Seminar Organized: - (Total 6)

1. Coordinator of a two day workshop on “Fuzzy logic in MATLAB” on 10-11 April 2010 at Vindhya Institute of Technology and Science Indore.
2. Organize three day workshop on “*Power System Study & Analysis using Mi Power*” on 13-15 September 2011 at Vindhya Institute of Technology & Science Indore in association with PRDC Bangalore.
3. Co-Coordinator of a 1st IEEE sponsored national conference National Conference on recent Advancement in Science, Technology and Management, Vindhya Institute of Technology & Science Indore, 12-13 Nov.2011.
4. Organize one day workshop on “*Advances in Power System*” on 2 April 2012 at Vindhya Institute of Technology & Science Indore.
5. Convener of Two day workshop on “*Optimization Techniques for Engineering Application*” on dated 23-24 December 2016 at S.B. Patil College of Engineering Indapur sponsored by SPPU Pune.
6. Committee member for the Short Term Training Program on “Hardware in loop Technologies”, September 25-29, 2019 organized by the Department of Electrical Engineering , Sandip University Nashik

11. Workshop Attended :- (Total 34)

1. One day workshop on “*Accreditation Awareness*”, November 1, 2002 organized by Jawaharlal Institute of Technology Borawan, Khargone Sponsored by AICTE New Delhi.

2. Two day workshop on “*Personality Development*”, April 14-15, 2003 organized by Jawaharlal Institute of Technology Borawan, Khargone.
3. Two day workshop on “*Advances in Power System*”, February 23-24, 2007 organized by Department of Electrical Engineering, Shree G.S. Institute of Technology & Science, Indore.
4. Three days workshop on “*MATLAB application in modeling & simulation of Engineering System*”, February 19-21, 2010, organized by Swami Vivekanand College of Engineering Indore.
5. One Week QIP Short Term Course on “*Intelligent System application to the Smart Grid System*”, November 15-19, 2010, organized by Department of Electrical Engineering, **IIT Kanpur**.
6. Three days workshop on “*Power System Study & Analysis Using Mi Power*”, September 13-15, 2011, organized by Department of Electrical & Electronics Engineering, Vindhya Institute of Technology & Science, Indore in association with PRDC Bangalore.
7. One Week QIP Short Term Course on “*Operation and Management of Emerging Power System*”, November 21-25, 2011, organized by Department of Electrical Engineering **IIT Kanpur**.
8. Two day national workshop on “*Emerging Technologies for Conversion of Biomass to Bio-fuels*”, September 22-23, 2012, organized by Department of Energy, Maulana Azad National Institute of Technology, Bhopal (M.P.).
9. Two day national workshop on “*Technical Innovations and Reforms in energy Sector*”, 30 Nov.-1 Dec., 2012, organized by Department of Electrical Engineering, Maulana Azad National Institute of Technology, Bhopal (M.P.).
10. Two day national workshop on “*MATLAB*”, February 27-28, 2013, organized by Department of Mathematics and MCA, Maulana Azad National Institute of Technology, Bhopal (M.P.).
11. One Week QIP Short Term Course on “*Intelligent Informatics*”, July 15-19, 2013, organized by Department of Electrical Engineering **IIT Kanpur**.
12. Two day workshop on “*Genetic Algorithm using MATLAB*”, March 29-30, 2014, organized by Department of Electrical & Electronics Engineering, Vindhya Institute of Technology & Science, Indore.
13. Two day workshop on “*Effective teaching learning practices*”, August 26-27, 2017, organized by S.B. Patil College of Engineering Indapur.
14. One Week workshop on “*Recent Trends in Electrical Power system and Modern Electrical Drive and its control*”, April 24-28, 2018 organized by S.B. Patil College of Engineering Indapur.
15. Two day workshop on “*Power Electronics Application in Renewable Energy System*”, January 10-11, 2019 organized by S.N.D. College of Engineering and Research, Yeola.
16. One Week workshop on “*Artificial Intelligence and Optimization through ICT*”, January 21-25, 2019 organized by National Institute of Technical Teachers Training and Research (**NITTR**) Chandigarh at Sandip University Nashik.
17. One week FDP on “*Advance Power Electronics and Control*”, Jan.-March-2019, organized by **NPTEL-AICTE**.
18. One day workshop on “*Interest Exploration Meeting for Respond*”, July 11, 2019 organized by Space Application Centre (SAC), **ISRO**, Ahmadabad and KTHM College Nashik.
19. One week FDP on “*Leadership development*”, August 26-30, 2019 organized by Sandip University Nashik.
20. One week FDP on “*Research Methodology & Writing Paper*”, April 21-25, 2020 organized by Sandip University Nashik.
21. Three day webinar on “*Webinar on Demystifying Data Science Artificial Intelligence and Machine Learning*”, April 27-29, 2020 organized by Sandip University Nashik.
22. One week Online FDP on “*Concept Mapping in Teaching Learning*”, April 27-May 1, 2020, organized by National Institute of Technical Teachers Training and Research (**NITTTR**) **Kolkata**.
23. One week Online FDP on “*Revolution in Engineering Education*” May 4-8, 2020 organized by Sandip University Nashik.
24. One week Online FDP on “*New Challenges & Issue of Indian Electricity Market for Upcoming Decade-2030*”, May 11-15, 2020, organized by Sandip Institute of Technology & Research Centre, Nashik
25. One week Online FDP on “*Renewable Energy Sources and Emerging Technologies (ICT28)*”, May 26-30, 2020, organized by National Institute of Technical Teachers Training and Research (**NITTTR**) **Kolkata**.
26. One Week Online Short-Term Training Program on “*Optimal Operation of Power System incorporating Renewable Energy Sources*”, 27 July- 1 August 2020, organized by Department of Electrical & Electronics Engineering Sagar Institute of Research & Technology Bhopal.
27. One Week Faculty Development Programme on “*Advancements and Research Opportunities in Electronics & Telecommunications*”, 04 to 08 Aug 2020, organized by E&TC Department of Bharati Vidyapeeth Deemed to be University College of Engineering, Pune in association with S. B. Patil College of Engineering- Indapur.
28. One Week Faculty Development Programme on “*IoT & Advanced Power Electronics Applications in Smart Grid*”, 10 to 14 August 2020, organized by Department of Electrical Engineering, K. K. Wagh Institute of Engineering Education & Research, Nashik.
29. One Week Online Short-Term Training Program on “*Electric Vehicles- Challenges and Opportunities*”, 24 to 29 August 2020, organized by Department of Electrical & Electronics Engineering Sagar Institute of Research & Technology Bhopal.
30. Online Six-Day Short Term Training Programme (STTP) on “*Smart Grid and Big Data Analysis*”, sponsored by AICTE & organized by the Department of Electrical & Electronics Engineering, IPS Academy, Institute of Engineering & Science, Indore, during 02-11-2020 to 07-11-2020.
31. Online Six-Day Short Term Training Programme (STTP) on “*Smart Grid and Big Data Analysis*”, sponsored by AICTE & organized by the Department of Electrical & Electronics Engineering, IPS Academy, Institute of Engineering & Science, Indore, during 14-12-2020 to 21-12-2020.
32. Online Five-Day Faculty Training Programme (FDP) on “*Energy Engineering*”, sponsored by AICTE training and Learning Academy (ATAL) & organized by the **NIT Delhi** during 25-12-2020 to 29-12-2020.
33. Online Five-Day Faculty Training Programme (FDP) on “*Computer Science & Biology*”, sponsored by AICTE training and Learning Academy (ATAL) & organized by the Sandip Institute of Technology and Research Centre, Nashik during 10-01-2021 to 14-01-2021.

34. Online Five-Day Faculty Training Programme (FDP) on “Industry 5.0: Next Wave of Technology”, sponsored by ISTE organized by the Department of Mechanical Engineering, Sandip University Nashik during 10-01-2022 to 14-01-2022.
35. Online Five-Day Faculty Training Programme (FDP) on "AI in Electrical Signal Analysis", sponsored by AICTE – ISTE, 28th December, 2021 to 03rd January, 2022 on dated 31.1.2021, organized by Department of Electrical Engineering, R. C. Patel Institute of Technology, Shirpur Dist. Dhule (M.S.) Maharashtra, India - 425405.
- 36.

12. Conference Attended : - (Total 03)

1. National Level Conference on “*New advances in Electrical & Electronics Engineering*” September 25-26, 2010, organized by Department of Electrical Engineering Jawaharlal Institute of Technology Borawan Khargone sponsored by AICTE New Delhi.
2. National conference on Advances in Electrical & Electronics Engineering “*AEEE-2011*”, February 24 & 25, 2011, Swami Viveknand college of Engineering Indore. **(Session Judge)**.
3. International Conference on Emerging Trends in Management, Engineering, Law, Technology and Science (ICEMELTS -'18), December 3rd to 5th 2018, Sandip University Nashik **(Session Chair and Session Co-Chair)**.

13. Seminar / Online webinar Attended : - (Total 09)

1. One day seminar on “*MATLAB and Simulink for Engineering Education*”, November 15, 2011 organized by Mathworks India Pvt. Ltd. at Indore.
2. One day Faculty development seminar on “*Being a Great Teacher*”, August 8, 2015, organized by Vindhya Institute of Technology and Science, Indore.
3. One day workshop on “*Research Opportunities in Geo-spatial technology and Application*”, September 19, 2018 organized by Sandip University Nashik.
4. One day online technical session on “*How to Improve the Citation and Write Research Papers*”, May 1, 2020 organized by Computer Engineering Department, SVIT, Nashik.
5. One day webinar on “*Effective use of OBS studio software to capture video lectures*”, May 21, 2020, organized by Sandip University Nashik.
6. One day webinar on “*Online Training/Learning through IEEE Xplore*”, May 23, 2020, organized by Oriental University Indore.
7. Completed online certified program “*Certified peer review course*”, May 19, 2020 of **Elsevier research academy**.
8. Attended the Webinar on the topic “*Advanced techniques for Energy Efficient Devices and MATLAB coding*”, Organised by Shri G.S. Institute of Technology and Science, Indore held on 7 June 2020.
9. Attended the Webinar on the topic “*E-Vehicle and it's Adaptability Challenges*” Organised by School of Energy & Environment Management, UTD, RGPV Bhopal under TEQIP-III held on 13 June 2020.

14. Expert Lecture Delivered: - (Total 14)

1. Expert lecture in two day workshop on MATLAB & SIMULINK “*MATSIM-2010*” on 25-26 Nov. 2010 at Lakshmi Narain College of Technology Indore
2. Expert lecture on “*Particle Swarm Optimization*” in Two day workshop on “*Optimization Techniques for Engineering Application*” on dated 23-24 December 2016 at S.B. Patil College of Engineering Indapur.
3. Expert lecture on “*Closing of thesis & writing findings*” in one week workshop on “*Effective Thesis writing and Research Methodology for Researcher / PhD Aspirants*” during 31 Oct.-4 Nov. 2017 at S.B. Patil College of Engineering Indapur.
4. Expert lecture on “*Jaya Optimization*” in two day workshop on “*Optimization techniques in Electrical Engineering*” on dated 22-23 December 2017 at SKN Sinhgad College of engineering Pandharpur.
5. Expert lecture on “*Recent trend in Electrical Power System*” in one week workshop on “*Recent Trends in Electrical Power system and Modern Electrical Drive and its control*” on dated 27 April 2018 at S.B. Patil College of Engineering Indapur.
6. Expert lecture on “*Power Electronics Application in Wind Energy Conversion System*”, in two day workshop on “*Power Electronics Application in Renewable Energy System*”, on dated January 11, 2019 at S.N.D. College of Engineering and Research, Yeola, **Sponsored by SPPU Pune.**
7. Expert lecture on “*Power Electronics Converter in Electric Vehicle*”, in two day workshop on “*Emerging Trends in Hybrid Electric Vehicles*”, on dated January 11, 2020 at S.N.D. College of Engineering and Research, Yeola. **Sponsored by SPPU Pune.**
8. Expert lecture on “*Power Electronics Converter topologies used in Electric Vehicle*”, on dated 14 May 2020 in one week FDP on “*New Challenges & Issue of Indian Electricity Market for Upcoming Decade-2030*”, May 11-15, 2020, organized by Sandip Institute of Technology & Research Centre, Nashik.
9. Expert lecture on “*Introduction to Optimization and Jaya Algorithm*”, in one day online webinar on 24 May 2020, organized by Lakshmi Narain College of Technology Indore.
10. Expert lecture on “*Power Electronics Converter used in Electric Vehicle*”, on dated 4 June 2020 in one week FDP on “*Opportunities & Challenges in Electricity Market for the upcoming Decades*”, June 1-5, 2020 organized by Anjuman College of Engineering & Technology, Nagpur.
11. Expert lecture on “*Introduction of Optimization techniques and Jaya Optimization*”, in online webinar on dated June 6, 2020, organized by Department of Electrical Engineering, S. B. Patil College of Engineering Indapur.
12. Expert lecture in Session 3 on October 20, 2020 on the topic “*Alignment of Assessment with Course Objectives and Course Outcomes*” in Six Days Short Term Training Programme (STTP) under **AICTE AQIS** on “*Developing R&D culture in*

Educational Institutes through Project Based learning” from October 19-24, 2020 through Online mode organized by Department of Electrical Engineering, Poornima College of Engineering, Jaipur.

13. Expert lecture on “Optimization tool for Power System Analysis”, in AICTE-ISTE One Week Online Refresher Programme on "Advances in Power Generation from Renewable Energy Sources", 6th December,2021 to 11 December 2021 on dated 9.12.2021, organized by Department of Electrical Engineering, Poornima College of Engineering, Jaipur.
14. Expert lecture on “Optimization techniques in renewable Energy Sources”, in AICTE - ISTE, Sponsored Induction/Refresher Programme "AI in ElectricalSignal Analysis", 28th December,2021 to 03rd January,2022 on dated 31.1.2021, organizes by Department of Electrical Engineering, R. C. Patel Institute of Technology, Shirpur Dist. Dhule (M.S.) Maharashtra, India - 425405.

15. Book Publication: - (Total 01)

1. Rahul Agrawal and Amit Shrivastava, “Basic Electrical Engineering”, Satya Prakashan, New Delhi 2009.

16. Patent :- (Total 01)

Name of patentee(s): Pratik Ghutke, Rahul Agrawal, Pravin Sonwane

Title of invention: A Solar Power Enabled Automated Irrigation System and Method

Patent number: 2021107049

Filing date-24.8.2021, Publication date-24.11.2021, Status- Published

17. Awards/ Honour/Fellow/ Membership/Others: -

1. “Winner of Faculty Development Program” at VITS Indore for the academic year 2010-2011.
2. Under my leadership department has won the “Best Department” at VITS Indore for the academic year 2010-2011.
3. Life Time Member of Indian Society for Technical Education, Membership no.-LM 76094.
4. Student Member, IEEE during the year 2015-2016, Membership no.-92361467.
5. Participated in National Coded Corps Combined (NSC) Annual Training Camp at Hoshangabad, M.P., From 21.9.1992 to 30.9.1992.
6. Cleared **GATE** in 2001 with AIR-984 and in 2003 with AIR-1906.
7. Member of International Association of Engineers (IAENG), Membership no. 205949

18. Software/Simulation: -

1. MATLAB
2. PSIM

19. Invited Reviewer

1. Energy (Elsevier Journal)
2. Applied Energy (Elsevier Journal)
3. Journal of Electrical Systems and Information Technology (Springer Journal)
4. International Journal on Emerging Technologies (Scopus Indexed Journal).

20. Technical ID :-

1. Scopus Author ID: 57191867774
Profile URL : <https://www.scopus.com/authid/detail.uri?authorId=57191867774>
2. ORCID ID: 0000-0001-8429-5069
Profile URL : <https://orcid.org/0000-0001-8429-5069>
3. Google Scholar id: EnEes88AAAAJ
Profile URL: <https://scholar.google.co.in/citations?hl=en&user=EnEes88AAAAJ>
4. Research gate URL: https://www.researchgate.net/profile/Rahul_Agrawal33
5. Linkdin URL: <https://www.linkedin.com/feed/>
6. Vidwan id-137507
Vidwan URL: <https://vidwan.inflibnet.ac.in/profile/137507>

21. Personal Detail:-

Name	: Dr. Rahul Agrawal
Date of Birth	: 20 October 1978
Father Name	: Madanlal Agrawal
Nationality	: Indian
Language Known	: English, Hindi, Marathi
Marital Status	: Married
Permanent Address	: 126 Shree Krishna Avenue Phase-II Limbodi, Khandwa Road, Indore, M.P. 452020

22. Responsible Persons related Academic and Professional work

Reference 1 (PhD supervisor)

Dr. S. K. Bharadwaj, Retired Sr. Professor, Department of Electrical Engineering, Maulana Azad National Institute of Technology, Bhopal -462003
Mob. -9893004821
Email-skbaradwaj.2010@gmail.com

Reference 2 (Worked with him at VITS Indore)

Dr. D.P. Kothari, Director Research - Wainganga College of Engineering and Management Nagpur-441122, Former Director i/c, IIT Delhi, Former Vice Chancellor, VIT University, Vellore, Mob.-7972723202, 8308802218
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Reference 3

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Date: 11.2. 2022
Place: Nashik



Dr. Rahul Agrawal