

DR. DIVYA ASIJA

Mobile: +91- 8527333099 | E-Mail: divyaasija83@gmail.com | LinkedIn: dr-divya-asija-4893536a | Google Scholar:

<https://scholar.google.co.in/citations?user=q1buWVAAAAAJ&hl=en>

Nationality: Indian

Address: B 1504, Sethi Max Royal, Sector 76, Noida, India

♦ ASSOCIATE PROFESSOR- ELECTRICAL & COMPUTER ENGINEERING ♦



PROFESSIONAL SNAPSHOT

- Intellectual Acumen offering 15+ years of experience in Teaching and Research
- Presently associated with Amity University Uttar Pradesh, Noida as an Associate Professor
- Experienced in teaching various core and software-based subjects to undergraduate and postgraduate students.
- Proven expertise in teaching, curriculum development, supervision, and program development.
- Possess resource management, time management and discipline management skills.
- Strengths include developing creative curricula, observing and evaluating student's progress, planning lessons, and creating favourable learning environments for students.
- Experienced university partnership manager with a background in both teaching and management at Amity University. Dedicated to promoting student-first initiatives and fostering collaborations with global universities.
- Demonstrated exceptional analysis, documentation, research, and advocacy expertise in designing, developing and implementing, safer processes as per regulatory requirement within stipulated time.
- Self-motivated professional with the ability to work under pressure and handle any kind of situation professionally

CORE COMPETENCIES

Teaching
Training & Development
Classroom Management
Curriculum Development
Student Progress
Student Performance Management
Lesson Planning
Coordination
Statutory Compliance
Personality and Professional
Development
Assessments & Instructional
Practices
Documentation
People Management



CAREER HIGHLIGHTS

- Received award for outstanding contribution in reviewing by Energy, Elsevier 2017-18, 2018-19, 2019-20.
- IEEE Student Branch Counsellor for Amity University Uttar Pradesh, Noida
- Edited 3 books of reputed publishers [02 published in (CRC, Taylor & Francis), 01 (Elsevier)]
- Gold award winner for Courseware creation using Moodle for Outcome based Education and Ethical commitment to complete the FDP run by Department of ECE under the aegis of Human Resource Development Centre (HRDC), Integral University Lucknow on 7 July 2019
- Reviewer of reputed International Journals like Energy Elsevier Science, SOCO Springer, IJSAEM Springer, IJEEPS Degruyter, IJECE laes, JEET Springer, ISA Transactions and IJRER.
- Ph.D. Guided- 01 (Ongoing), M.Tech Dissertation-15+, B.Tech Major Project- 50+
- Summary of the publications: The summary of all reputed International Journals and International Conferences are as follows:
 - Total summary: (80+ Published Papers)
 - All Citations: 254
 - h-index: 8
 - i10-index: 8



CAREER CONTOUR

July 2022 – Present; Amity University Uttar Pradesh as Associate Professor

Dec 2021- July 2022: Assistant Professor III

Nov 2017- Dec 2021: Assistant Professor II

July 2012- Nov 2017: Assistant Professor I

Aug 2007 – Apr 2012; Manav Rachna College of Engineering, Faridabad as Assistant Professor

Jan 2006- Aug 2006; Hindustan College of Science & Technology, Farah (Mathura) as Lecturer

Total Working Experience:

- 16 years 6 months (Teaching) and 6 Months (Industry)

Key Deliverables:

- Creating conducive classroom environment directing to maturity and interests of students
- Guiding the learning process toward achievement of curriculum goals & objectives
- Employing instructional methods to meet stated objectives.
- Maintaining elevated expectations of student performance and behaviour
- Responsible for setting question paper with answer key for final University exams
- Assessing & providing reports as per the performance & progress of the students
- Implementing specific instructions meeting individual needs, interests & abilities

- Diagnosing curricular weaknesses of pupil through assessment and differentiated instruction.
- Assisting the teachers by identifying appropriate areas needed for development.
- Enhancing instructional programs designed to support individual student needs.
- Maintaining regular communication with the parents about progress of the students
- Developing and communicating curricular and instructional plans and objectives



SCHOLASTICS

- **Advance Certification in AI & ML from IIT Kanpur (2023-2024)**
Specialization in advanced Artificial Intelligence and Machine Learning techniques in decision-making.
- **Ph. D.** from Department of Electrical Engineering, Amity University Uttar Pradesh, Noida, India in 2019
Thesis Title:
Congestion Management and Robustness Enhancement in Power System using Distributed Generators with Energy Storage Devices.
- **M. Tech Power System and Drives** from Department of Electrical Engineering, YMCA Institute of Engineering, Faridabad in 2008.
Thesis Title:
Speed Control of Induction Motor using Fuzzy PI Logic Controller.
- **B. Tech Electronics and Instrumentation Engineering** from Apeejay College of Engineering, Sohna, Gurgaon in 2005.
Major Project Title:
Ring Sensed Remote Switch.



COMPUTER SKILLS

- **ANALYTICAL TOOLS**
Python (with libraries like Pandas, NumPy, Matplotlib, and Scikit), Microsoft Excel, Power BI
- **PROGRAMMING LANGUAGES**
Python, SQL, Machine Learning Techniques
- **VISUALIZATION TOOLS**
Matplotlib, Seaborn, Pandas Visualization, Power BI, Excel Charts, Jupyter Notebook
- **GUI TOOLS AND SOFTWARES**
MS Office 93-2021, Ms-Visio-12-2021, Etap etc.
- **OTHER PROFESSIONAL SOFTWARES**
LabVIEW-08-19, Simulink/SPS, MATLAB-R09/10-22Ra, HOMER-2, 2.76/10, 2.81r3/14, HOMER Pro Version 3.1.0/15-19, Sci-Lab 5.4.0/11, 5.5.2/15, e-TAP, Tina-Pro, Optimization Solver Toolboxes etc.



RESEARCH INTERESTS

- Soft Computing Techniques in Power Systems
- AI based predictive maintenance, grid optimization, load forecasting, and renewable energy integration
- Renewable Energy Systems: Integration Issues, Planning and Optimization
- Smart Grid and Big Data Analytics, Cyber Security in Power System



EXTRA MURAL HIGHLIGHTS

- Counsellor, Amity University Student Branch of IEEE (AUSBI)
- Editor/ Series Editor for technical publications by reputed publishers (CRC Press, Elsevier, Springer and Apple Academic Press)
- Coordinated and mentored several technical events for Amity University Student Branch of IEEE
- Department coordinator for NBA Accreditation.
- Department Admission Coordinator, Website Coordinator, Placement Coordinator.
- Member of Different Advisory /Technical committees.
- Member of Organizing Committee "International Conference on Recent Developments in Control, Automation and Power Engineering 2023" Amity University Uttar Pradesh, India.
- Best Paper Award in International Conference on Electrical and Electronics Engineering (ICEEE 2020), held at NPTI Faridabad, India, 2020.
- Lab Coordinator of Circuit and System Lab in Electrical and Electronics Engineering Department, Amity School of Engineering and Technology, Noida
- Reviewer for RDCAPE 2015, 2017, 2019, 2021, 2023
- Lab Auditor for different labs at ASET, Noida
- Mentor Mentee In charge and Coordinator
- Paper Moderator for various MTech Power System and BTech Electrical and Electronics Engineering courses from 2014 till date
- Subject Coordinator for various MTech Power System and BTech Electrical and Electronics Engineering courses from 2012 till date
- Judge for Techex event in Amity Youth Fest held at Amity University Uttar Pradesh (2015, 2016, 2017, 2023)

- Judge for Happy Amitiens event in Amity Youth Fest held at Amity University Uttar Pradesh (2020)
- Organized Webinar/Online Guest Lecture on "Smart Grid" by Dr. C.S. Azad, Chartered Engineer, Govt. of India, Apr 20, 2020.
- Organized several Admission/ Career Counselling Webinars in each academic session.
- Coordinated a five-day online FDP on "Advances in Renewable Energy and Smart Grid Integration", EEE, ASET, Noida, 31st May-04th Jun 2021.
- Organized Webinar/Online Guest Lecture on "EVS- The next big revolution and are you prepared for it?" by Mr. RAJEEV YSR, Chief Mentor, EV Master class, 13 Jan 2022.
- Served as resource person in a five-day online FDP on "Recent Advancement in Electrical and Allied Engineering", organized by EED, BIT, Sindri, Dhanbad, Jharkhand, India on "Big Data Analytics and smart grids" on 12 Jul 2021.
- Coordinated online Industry Guest lecture on "Power Plant Engineering and Construction Methodologies", Mr. Abrar Moshin, ASW Projects Ltd, New Delhi, India, 08 Sep 2021.
- Coordinated online Industry Guest lecture on "Basic Energy Management & Energy Audit", Mr. Aneesh Rajendran M.Tech - Power Systems, C.Eng(I), MIE BEE Certified Energy Auditor -REG NO - EA24652, India, 1 Nov 2021.
- Organized an online International Guest lecture on "Advances on High Power, Energy Density Materials for Electric Vehicles", Dr. M. V. Reddy, Senior Professional Researcher, New Graphite World (NMG), Montreal, CANADA, 01 Feb 2022.
- Organized an online International Guest lecture, "Grid Modernization: Technological Advancements Beyond Smart Grid," John Mc Donald PE, 17 Feb 2022.
- Coordinated online Virtual Alumni Meet-2022 on Challenges in Electrical Based Industry with Amalgamation of Latest Technologies, EEE, ASET, Noida, 28th May 2022.
- Coordinated online FDP on "Opportunities and Challenges in Evolving Power and Energy Sector", EEE, ASET, Noida, 29th Jun 2022.
- Coordinated Two days student visit for India e-Mobility show, India Expo Mart, KP-II, Greater Noida, 23-24 March, 2023
- Reviewer and Session Chair for several international journals and conferences of repute.
- Supervised 14 M.Tech candidates and more than 50 B.Tech candidates for dissertation/ major project.



PROFESSIONAL ENHANCEMENTS – WORKSHOPS AND FDP ATTENDED

- Application of MATLAB in Teaching and Research, 29-30 April 2006, Sharda Group of Institutions, Department of Electronics and Instrumentation Engineering, Hindustan College of Science and Technology, Farah, Mathura.
- Faculty Development Program on "Innovations in Artificial Intelligence & System Modelling", 27 November 2012, Amity University Uttar Pradesh.
- Two Weeks Faculty Development Program on "Training the trainers on Entrepreneurial Skills", 29 April-10 May 2013, ASET and National Science & Technology Entrepreneurship Development Board, Department of Science & Technology.
- Faculty Development Program on "Artificial Intelligence and its Applications", 5-7 June 2013, Amity University Uttar Pradesh.
- MATLAB and Simulink for Engineering Education, 23 April 2014, MathWorks India.
- Short Term Training Program on Computer Aided Power System Analysis, 12-16 May 2014, NITTTR Chandigarh.
- Short Term Training Program on FACTS and Smart Grid Technologies, 25-29 September 2017, NITTTR Chandigarh.
- Engineering Education and Research Seminar, 23 February 2017, Ajay Kumar Garg Engineering College, Ghaziabad conducted by National Instruments India.
- MHRD-GIAN course on Controls for Renewable Energy and Microgrids, 29 May- 3 June 2016, Department of Electrical Engineering, Jamia Milia Islamia, New Delhi.
- One Week Short Term Training Programme on "Applications of Techniques/Tools in Engineering" organized by Department of Electrical Engineering and Department of Applied Mathematics, 25th-30th March 2019 at Gautam Buddha University, Greater Noida, India.
- Workshop on Intellectual Property Rights for Startups and Innovators held on 26th April 2020, Amity Innovation Incubator.
- Science Leadership Workshop organized by Central University of Punjab, Bathinda from 22 June to 28 June 2020.
- One-week International FDP on Recent Strategies on Micro and Smart Grid Technologies organized by Department of Electrical & Electronics Engineering of GMR Institute of Technology, Rajam, during June 15 - 19, 2020 (Received A+ during continuous assessment).
- Attended one day FDP on "Power Quality Issues & Emerging Trends", EEE-ASET, Noida, India, 12 Sep 2020.
- Short Term Training Program on Solar PV and Storage System conducted by Department of Electrical & Electronics Engineering, JSSATE, Noida from 7th to 12th December 2020.
- Session on Women in Engineering: Challenges and Opportunities during 7th International Conference on Signal Processing and Integrated Networks (SPIN-2020) held on 27th February 2020 at Amity University, Noida Campus, India.
- Received Researcher Academy On-Campus Certificate of Attendance "Publishing Webinar- Tips from the Editors" at Indian Council of Medical Research, on Tuesday 30 March 2021.
- E Faculty Development Programme on Wireless Sensors Networks and Internet of Things organized by the Department of Electrical Electronics and Communication Engineering, School of Engineering and Technology, Sharda University, Greater Noida, Uttar Pradesh from 18th to 22nd January 2021.
- Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Electric Vehicles" from 1st to 5th February 2021 at Manipal University Jaipur.
- Participated and completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Energy Storage" from 22nd to 26th February 2021 at Malviya National Institute of Technology Jaipur.
- Participated and completed successfully Three- Days Online Faculty Development Program on "Written Communication for Digital Teaching, Administration & Research" from 22nd March 2021 to 24th March 2021.
- Participated in Webinar with Taylor & Francis: Publishing in academic journals on 8th April 2021.
- Attended online "India Energy Conclave 2021 and SEEM National Awards 2020," Centre for Science & Technology of the Non-Aligned and other Developing Countries (NAM S&T Centre) SEEM India, June 26, 2021.
- Attended an International Training Workshop on "Industry 4.0 and Energy Management," Centre for Science & Technology of the Non-Aligned and other Developing Countries (NAM S&T Centre), 19-20 January 2022.
- Attended One Week Online FDP, "FEM & its Applications in Recent Material Technology," Department of Mechanical Engineering, Government Engineering College, Bikaner, Rajasthan, India, 10-14 March 2022, TEQIP-III.
- Attended online FDP on "Opportunities and Challenges in Evolving Power and Energy Sector", EEE, ASET, Noida, 29th Jun 2021.
- Attended online FDP on "Green Technologies for Sustainable Development: Impact, Challenges and Future Aspects", EEE, ASET, Noida, 12-16 Jun 2023.
- Attended online International FDP on "Smart-Future Technologies in AI/ML & Data Analytics" from 03 April to 07 April 2023 organised by Amity University in Tashkent.

**International Journals:**

1. Abhilasha Pawar, Rajkumar Viral, Divya Asija, and Mohit Bansal, "An AQ-SCS Optimization Assisted Optimal Expansion Planning with Fixed and Switchable Capacitors for Distribution System," *Journal of Electrical Systems*, Vol. 20-7s (2024), pp. 1346-1369, May 2024, DOI: <https://doi.org/10.52783/jes.3708>.
2. Shiv Kumar Singh, A. K. Verma, Rajkumar Viral and Divya Asija, "An AI Based Self Cleaning System for Split Air Conditioners," *International Journal of Engineering Research in Electrical and Electronic Engineering (IJEREEE)*, Vol.11, No.1, pp.1-4, Jan. 2024. ISSN (Online) 2395-2717. <https://ijerееe.com/AIbased-self-cleaning.php>.
3. Abhilasha Pawar, Rajkumar Viral, Divya Asija, and Mohit Bansal, "An AQ-SCS Optimization Assisted Optimal Expansion Planning with Fixed and Switchable Capacitors for Distribution System," *Journal of Electrical Systems*, Vol. 20-7s (2024), pp. 1346-136, May 2024, DOI: <https://doi.org/10.52783/jes.3708>.
4. Ningthoujam Anita Devi, Viral Rajkumar and Asija Divya, "A review on Intelligent Control Strategies for accomplishment of high performance SynRM Drive," *Journal of Engineering Science and Technology Review*, School of Science (Kavala Campus), located in Kavala, Greece, Vol. 15, No.3, pp.129-138, Jul 2022, ISSN: 1791-2377, DOI: 10.25103/jestr.153.13.
5. Asija Divya, Viral Rajkumar, Choudekar Pallavi, Bakhsh Farhad I., and Ahmad A. "Transmission Network Congestion Control by DESS Through Interval Computation and Capacity Optimization via Hybrid DE-PSO Technique," *IET Generation, Transmission and Distribution*, John Wiley & Sons Ltd, pp. 1-22, 2022, DOI: 10.1049/gtd2.12577, ISSN: 1751-8695.
6. Ningthoujam Anita Devi, Viral Rajkumar and Asija Divya, "Design and Analysis of High-Performance Synchronous Reluctance Machines on Different Load and Fault Conditions," *Journal of Energy Storage*, Elsevier, (Submitted May 2023).
7. Viral Rajkumar and Asija Divya, "COVID'19 Pandemic: Major Impacts of Digital Learning on Students & Teachers Psyche in Indian Education Sector (All Level)," *Asian Journal of Pschye*, Wiley, (Submitted Jun 2023).
8. D. Asija, P. Choudekar, "Congestion management using multi-objective hybrid DE-PSO optimization with solar-ess based distributed generation in deregulated power Market", *Renewable Energy Focus*, Vol. 36, pp. 32-42, 2021; <https://doi.org/10.1016/j.ref.2020.10.006>
9. Choudekar, P., Sinha, S., Asija, D., Ruchira, Siddiqui, A., "Transmission congestion management and techno economic analysis using placement of TCSC" *International Journal of Innovative Technology and Exploring Engineering*, Vol. 8, No.9S, 237-242, 2019
10. Singh, B., Arvind, M., Asija, D., Choudekar, P., Ruchira, "Driver alert system for hilly roads at hair pin bends" *International Journal of Innovative Technology and Exploring Engineering*, Vol. 8, No.9S, 85-90, 2019.
11. Choudekar, P., Asija, D., Gaur, U., "Power transmission lines congestion control with proper placement of smart wire" *International Journal of Innovative Technology and Exploring Engineering*, Vol. 8, No.9S, 617-621, 2019.
12. Asija, D., Soni, K.M., Sinha, S.K., Yadav, V.K., "Congestion management through determination of congestion zones in price-based electricity markets", *Journal of Advanced Research in Dynamical and Control Systems*, Vol.10. No.7, pp.95-102, 2018
13. Asija, D., Soni, K.M., Sinha, S.K. et al. multi-objective optimization and network security enhancement for congestion management in wholesale electricity market. *Int J Syst Assur Eng Manag*, Vol.8, pp. 1775–1782, 2017
14. M. Chauhan, U. Joshi, D. Asija, "Features and design concepts of gas insulated switchgear", *International Journal of Advance Research in Science and Engineering*, vol. 8354, no. 3, pp. 60-67, 2014
15. P. Choudekar, D. Asija, "Overview of Smart Grid System" *International Journal of Electrical and Electronics Engineering Research*, Vol. 3, No.1, 259-264, 2013
16. D. Asija, P. Choudekar, "Current Scenario for power line carrier communication technology" *International Journal of Electrical and Electronics Engineering Research*, Vol. 3, No.1, 265-272, 2013

Book Chapters:

1. Divya Asija and R. K. Viral, "Cyber security: Emerging trends best practices," *Cyber Security Solutions for Building and Protecting the Future Smart Grid*, Elsevier, Aug 2024, ISBN: 9780443140679.
2. Divya Asija, R. K. Viral, Tushar Tomar, Manoj Chuhan, and Aman Kumar., "Emerging Smart Grid Technologies and their Impact on Grid Operations", *Cyber Security Solutions for Building and Protecting the Future Smart Grid*, Elsevier, Aug 2024.
3. R. K. Viral and Divya Asija, "Advanced Machine Learning Methods for Big Data Analytics used in Smart Grid, CRC Press, Taylor Francis, Dec 2023, pp.25., <https://doi.org/10.1201/9781032665399>. ISBN:9781032665399.
4. Divya Asija, and R. K. Viral, "Renewable energy integration in modern deregulated power system: challenges, driving forces, and lessons for future road map", *Advances in Smart Grid Power System*, Academic Press, Oct 2020, pp. 365-384, e-ISBN 9780128243374, <https://doi.org/10.1016/B978-0-12-824337-4.00013-8>.
5. R. K. Viral and Divya Asija, "Regulatory Framework for Smart Charging in Hybrid and Electric Vehicles: Challenges, Driving Forces, and Lessons for Future Roadmap," Book Chapter in Series entitled 'Smart Charging Solutions for Hybrid and Electric Vehicles', Wiley Scrivener Publishing, 15 Feb 2022, Online ISBN: 9781119771739, <https://doi.org/10.1002/9781119771739.ch8>.
6. Anita Devi Ningthoujam, Divya Asija and Rajkumar Viral, "Smart grid with RES, EVs and storage systems: operational and economical aspects", Book chapter in *Smart Grids for Renewable Energy Systems, Electric Vehicles and Energy Storage Systems*, 1st Edition, CRC Press, Taylor and Francis group, Aug 2021, eBook ISBN: 9781003311195 (In-press) <https://www.chegg.com/etextbooks/smart-grids-for-renewable-energy-systems-electric-vehicles-and-energy-storage-systems-1st-edition-9781003311195-1003311199>.
7. Divya Asija, Rajkumar Viral, and Tarannum Bahar, "Expanding Electricity Access in Rural Uttarakhand by Mobilization of Local Resources", *International Conference on Computational Intelligence & Sustainable Technologies (ICoCIST-2021)*, NIT Sikkim and NIT Silchar, India, 28-30 Oct 2021, Part of the Algorithms for Intelligent Systems book series (AIS), Springer, Singapore, pp. 395-405, Feb 2022, Springer, Singapore. https://doi.org/10.1007/978-981-16-6893-7_36, ISBN: 978-981-16-6893-7.

8. Divya Asija, Rajkumar Viral and Ata Mohammad, "Low-cost home automation system exploiting power line carrier communication architecture", Part of the Lecture Notes in Electrical Engineering book series LNEE, vol. 1026, pp 547–564, DOI: https://doi.org/10.1007/978-981-99-1410-4_45.
9. R. K. Viral, Divya Asija, & Tarannum Bahar, "Electrification Planning of an Isolated North-Eastern Indian Village Using Mini Hydro Power Project and its CDM Benefits", Springer Book Proceedings in Energy, Springer, April 2023 (Accepted).
10. Divya Asija, and R. K. Viral, "Big Data Analytics: A Holistic Assessment of Paradigm Shift Challenges and Opportunities for Future Smart Grid", Big Data Analytics Framework for Smart Grid, CRC Press, Taylor Francis, Jul 2022. (Accepted).
11. Anita Devi Ningthoujam, Divya Asija, and R. K. Viral, "Necessities of Big Data in Smart Grid", Big Data Analytics Framework for Smart Grid, CRC Press, Taylor Francis, Jul 2022. Pp.25, <https://doi.org/10.1201/9781032665399>. ISBN:9781032665399.
12. Bhaumik, K., Asija, D., "Analysis of Hybrid Vehicle Battery Models for Real-Time Parameter Estimation" (2021), Lecture Notes in Electrical Engineering, 748, pp. 315-326.
13. Sehgal, J., Asija, D., Singh, P., Bhatnagar, T., "Single Inverter Control to Resolve Power Quality Issues in Fuel Cell Grid Integration" (2021) Lecture Notes in Electrical Engineering, 748, pp. 289-304.
14. Asija D., Choudekar P. (2021) Power Transfer Loadability Enhancement of Congested Transmission Network Using DG. In: Agrawal R., Kishore Singh C., Goyal A. (eds) Advances in Smart Communication and Imaging Systems. Lecture Notes in Electrical Engineering, vol 721. Springer, Singapore. https://doi.org/10.1007/978-981-15-9938-5_20
15. Asija D., Viral R.K. (2021) Renewable energy integration in modern deregulated power system: challenges, driving forces, and lessons for future road map, In: Tomar A., Kandari R., Advances in Smart Grid Power System, Academic Press, pp. 365-384. <https://doi.org/10.1016/B978-0-12-824337-4.00013-8>.
16. Choudekar P., Asija D. (2021) Transmission Congestion Management Using Multi Objective Hybrid Flower Pollination and Particle Swarm Optimization Algorithm by Optimal Placement of TCSC. In: Malik H., Iqbal A., Joshi P., Agrawal S., Bakhsh F.I. (eds) Metaheuristic and Evolutionary Computation: Algorithms and Applications. Studies in Computational Intelligence, vol 916. Springer, Singapore. https://doi.org/10.1007/978-981-15-7571-6_26
17. Asija D., Choudekar P. (2021) Application of Multi-objective Hybrid DE-PSO Optimization Technique for Network Congestion Management Through Distributed Energy Storage System. In: Malik H., Iqbal A., Joshi P., Agrawal S., Bakhsh F.I. (eds) Metaheuristic and Evolutionary Computation: Algorithms and Applications. Studies in Computational Intelligence, vol 916. Springer, Singapore. https://doi.org/10.1007/978-981-15-7571-6_16
18. Chaurasia R., Viral R., Asija D., Bahar T. (2021) Performance Analysis of Self-Excited Induction Generator (SEIG) with ELC for the Wind Energy System. In: Favorskaya M., Mekhilef S., Pandey R., Singh N. (eds) Innovations in Electrical and Electronic Engineering. Lecture Notes in Electrical Engineering, vol 661. Springer, Singapore. https://doi.org/10.1007/978-981-15-4692-1_17
19. Singhal P. et al. (2020) Real-Time Smart Volumetric Fuel Estimation System for Automobiles Under All Road Conditions. In: Bhoi A., Sherpa K., Kalam A., Chae GS. (eds) Advances in Greener Energy Technologies. Green Energy and Technology. Springer, Singapore
20. Rani N., Choudekar P., Asija D., Vishnu Astick P. (2019) Mitigation of Congestion in Transmission Line Using Series Smart Wire. In: Nath V., Mandal J. (eds) Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017). Lecture Notes in Electrical Engineering, vol 476. Springer, Singapore.
21. Asija D., Astick P.V., Choudekar P. (2018) Minimizing Fuel Cost of Generators Using GA-OPF. In: Somani A., Srivastava S., Mundra A., Rawat S. (eds) Proceedings of First International Conference on Smart System, Innovations and Computing. Smart Innovation, Systems and Technologies, vol 79. Springer, Singapore.
22. Asija D., Sai V.N. (2018) Power Flow Management in Multiline Transmission System Through Reactive Power Compensation Using IPFC. In: Somani A., Srivastava S., Mundra A., Rawat S. (eds) Proceedings of First International Conference on Smart System, Innovations and Computing. Smart Innovation, Systems and Technologies, vol 79. Springer, Singapore
23. Asija D., Soni K.M., Sinha S.K., Yadav V.K. (2018) LMP Difference Approach for Management of Transmission Congestion. In: Garg A., Bhoi A., Sanjeevikumar P., Kamani K. (eds) Advances in Power Systems and Energy Management. Lecture Notes in Electrical Engineering, vol 436. Springer, Singapore.
24. Abhishek, Asija D., Choudekar P., Manganuri Y. (2017) Series Smart Wire—Managing Load and Congestion in Transmission Line. In: Satapathy S., Bhateja V., Udgata S., Pattnaik P. (eds) Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications. Advances in Intelligent Systems and Computing, vol 516. Springer, Singapore.
25. Pallavi Choudekar, Divya Asija, Ruchira (2017) Prediction of Voltage Collapse in Power System Using Voltage Stability Indices. In: Singh R., Choudhury S. (eds) Proceeding of International Conference on Intelligent Communication, Control and Devices. Advances in Intelligent Systems and Computing, vol 479. Springer, Singapore.
26. Divya Asija, Pallavi Choudekar, Ruchira, Malvika Chouhan, "Performance Evaluation and Improvement in Transient Instability of IEEE 9 Bus System Using Exciter and Governor Control," Procedia Computer Science, Volume 70, 2015, Pages 733-739, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2015.10.111>.

International Conferences:

1. Harsh R. Jogolekar, R. K. Viral and Divya Asija, "Fabrication of Universal Socket Driver on Various Threaded Fasteners," IEEE 3rd International Conference for Advancement in Technology (ICONAT), GOA 2024, 13th Sept – 14th Sept 2024 (Submitted).
2. Anmol Mishra, R. K. Viral and Divya Asija, "Energy Management Analysis using AMIs: Case of Multiplex in Delhi/NCR", First International Conference on Advance Communication & Computational Devices (ICACCD -2024), Acharya Institute of Technology, Bangalore - 560107 Karnataka, India. 04th-05th Oct, 2024 (Submitted).
3. Ata Mohammad, Divya Asija, and Rajkumar Viral, "Speed Control via ACPWM-Based Single Speed Controlle,," In: Kumar, R., Phanden, R.K., Tyagi, R.K., Ramkumar, J. (eds) Advances in Manufacturing and Materials. FLUTE 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore, Jul 2024. https://doi.org/10.1007/978-981-97-3173-2_30.
4. Kashish Singh, Anant Mishra, Rajkumar Viral and Divya Asija, "IoT Enabled Rover with Wireless Camera and Metal Detecting Sensor for Identification of Camouflaged Mines," In: Kumar, R., Phanden, R.K., Tyagi, R.K., Ramkumar, J. (eds) Advances in Manufacturing and Materials. FLUTE 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-3173-2_33, Jul 2024.
5. Rijul Thakur, R. K. Viral, Divya Asija and Akarshit Thakur, "Automated Gas Burner Control Mechanism for Milk Boiling Process Using Arduino", International Conference on Innovative Trends in Electrical, Electronics and Bio-Technology Engineering (ICITEEB2024), 3rd-4th July 2024, Chandigarh University, Chandigarh, Mohali, Punjab (INDIA) (Presented).

6. Rijul Thakur, R. K. Viral, Divya Asija and Akarshit Thakur, "Smart Wireless Device Design for Milk Popping and Spilling Prevention", 2nd International Conference on Optimization Techniques in Engineering and Technology Engineering (ICOTET 2024), June 14 - 15, 2024, Dronacharya Group of Institutions, Greater Noida (Presented).
7. Rijul Thakur, R. K. Viral, Divya Asija and Akarshit Thakur, "An AI Based Wearable Visual Impairment System for Blind and People with Least Reading Capabilities", 8th Students' Conference on Engineering & Systems (SCES-2024), 8th Students' Conference on Engineering & Systems (SCES-2024), Department of Electrical Engineering, MANIT, Allahabad, India, June 21-23, 2024 (Presented)
8. Yogesh Varshney, R. K. Viral, Divya Asija, "Lighting Design and Energy Simulation of a Residential House," In Proceedings of the 1st International Conference on Intelligent and Sustainable Power and Energy Systems (ISPES2023) – Vol. 1, pp. 15-23, 2023, 26-27th Sep, 2023, Department of Electrical and Electronics Engineering, Dayananda Sagar College of Engineering, Bengaluru, India, ISBN: 978-989-758-689-7, DOI: 10.5220/0000180100003808, <https://www.scitepress.org/ProceedingsDetails.aspx?ID=6vVn2E0/5pl=&t=1>.
9. Adnan Yusuf, Divya Asija and R K Viral, "Enhancing Road Safety: An IoT Based Driver Sleep Detection and Alarming System for Accident Prevention", In Proceedings of the 1st International Conference on Intelligent and Sustainable Power and Energy Systems (ISPES2023) – Vol. 1, pp. 131-135, 2023, 26-27th Sep, 2023, Department of Electrical and Electronics Engineering, Dayananda Sagar College of Engineering, Bengaluru, India, ISBN: 978-989-758-689-7, DOI: 10.5220/0000180100003808, <https://www.scitepress.org/ProceedingsDetails.aspx?ID=6vVn2E0/5pl=&t=1>.
10. Loveleen Sharma, R. K. Viral, and Divya Asija, "Clean Development Mechanism: Case Assessment of Wind Power site at Maharashtra", In Proceedings of the 1st International Conference on Intelligent and Sustainable Power and Energy Systems (ISPES2023) – Vol. 1, pp. 51-58, 2023, 26-27th Sep, 2023, Department of Electrical and Electronics Engineering, Dayananda Sagar College of Engineering, Bengaluru, India, ISBN: 978-989-758-689-7, DOI: 10.5220/0000180100003808, <https://www.scitepress.org/ProceedingsDetails.aspx?ID=6vVn2E0/5pl=&t=1>.
11. Yogesh Kumar Varshney, R K Viral and Divya Asija, "A Comparative Lighting Design Energy Simulation of Residential Houses" The International Conference SIGMAA-2023, Springer, 15-16, Dec 2023, (presented).
12. Shiv Kumar Singh, A. K. Verma, Rajkumar Viral and Divya Asija, "An AI Based Self Cleaning System for Split Air Conditioners," International Conference on Engineering & Technology (ICET-23), Association for Scientific And Academic Research (ASAR), 02 Sep 2023, Bhilai, India, (Presented).
13. Divya Asija, Rajkumar Viral, Tarannum Bahar, "Expanding Electricity Access in Rural Uttarakhand by Mobilization of Local Resources", International Conference on Computational Intelligence & Sustainable Technologies (ICoCIST-2021), NIT Skkim and NIT Silchar, pp 395–405, 28-30 Oct 2021, https://doi.org/10.1007/978-981-16-6893-7_36, ISBN: 978-981-16-6893-7.
14. Divya Asija, Rajkumar Viral and Ata Mohammad, "Low-cost home automation system exploiting power line carrier communication architecture", 2nd International Conference on Signal & Data Processing (ICSDDP2022), June 10-11, 2022, School of Electrical and Electronics Engineering (SEEE), VIT Bhopal University, Bhopal, M.P., INIDA, Proceedings of the 2nd International Conference on Signal and Data Processing. CSDP 2022. Lecture Notes in Electrical Engineering, vol 1026. Springer, Singapore. https://doi.org/10.1007/978-981-99-1410-4_45.
15. Anita Devi Ningthoujam, Divya Asija and Rajkumar Viral, "High-Performance Synchronous Reluctance Machines: Analysis and Design Configuration", 7th International conference on Computing in Engineering & Technology-2022, Lonere, Tq. Mangaon, India, February 12-13, 2022.
16. Anita Devi Ningthoujam, Rajkumar Viral and Divya Asija. "State-of-control techniques to improve the performance of High-Performance Synchronous Reluctance Machines." 7th International Conference on Microelectronics, Computing & Communication Systems (MCCS), 9-10th Jul 2022, ISVE & IETE ARTTC, BSNL Hazaribag Road, Ranchi, India, (Presented online).
17. D. Asija, R. Viral, S. Hooda. "Design and Development of ACPWM based dominant speed controller for Multiple Induction Motors," 1st International Conference on Sustainable Technology for Power & Energy Systems (STPES 2022), 4-6 July 2022, Department of Electrical Engineering, NIT Srinagar & IIT Jammu. SRINAGAR, India, 2022, pp. 1-6, doi: 10.1109/STPES54845.2022.10006611.
18. Anita Devi Ningthoujam, Rajkumar Viral and Divya Asija. "Performance Analysis of Synchronous Reluctance Machine Drive for possible applications in e-mobility," Advancement in Electronics & Communication Engineering (AECE), 14-15th Jul 2022, Electronics and Communication Engineering (ECE) Department, RKGIT, Ghaziabad, India, Available at SSRN: <https://ssrn.com/abstract=4157475> or <http://dx.doi.org/10.2139/ssrn.4157475>.
19. Manoj Kumar, Aman Kumar, Tushar Tomar, Anuj Dixit, Divya Asija, and Rajkumar Viral, "Design and development of an inexpensive intelligent device for sag measurement for overhead transmission lines," 2nd International Conference on Renewable Power (ICRP-2023), 28-29 Mar 2023, Mewat Engineering College (Wakf), Nuh, Mewat, Haryana, India, (Presented)
20. Rajkumar Viral, Divya Asija, & Tarannum Bahar, "Electrification Planning of an Isolated North-Eastern Indian Village Using Mini Hydro Power Project and its CDM Benefits," 2nd International Conference on Innovations in Clean Energy Technologies, 7-8 Apr 2023, Energy Centre, MANIT Bhopal (MP), India, Apr 2023 (Presented).
21. Manoj Kumar, Anuj Dixit, Divya Asija, and Rajkumar Viral, "State of art on Design and Development of An On-board Alignment for four Wheelers," International Conference on Emerging Technologies in Engineering and Science (ICETES-2023), 11th -12th Aug 2023, DVR & Dr. HS MIC College of Technology, Kanchikacherla, A.P., India, Jun 2023, (Accepted).
22. Aman Kumar, Tushar Tomar, R. K. Viral and Divya Asija, "State of art on Automatic Cleaning System for Split Air Conditioners," International Conference on Power Engineering and Intelligent Systems (PEIS2023), 11th -12th Aug 2023, DVR & Dr. HS MIC College of Technology, Kanchikacherla, A.P., India, Jun 2023, (Accepted).
23. Manoj Kumar, Anuj Dixit, Divya Asija, and Rajkumar Viral, "Design of Implementation of Onboard Warning for Suspension Measurement System for Four Wheelers," 7th International Joint Conference on Computing Sciences (ICCS-2023), 5th May 2023, School of Computer Science and Engineering, under the aegis of Lovely Professional University, India, Apr 2023 (Presented).
24. Tushar Tomar, Aman Kumar, R. K. Viral and Divya Asija "Design and Development of Automatic Cleaning System for Split Air Conditioners," 7th International Joint Conference on Computing Sciences (ICCS-2023), 5th May 2023, School of Computer Science and Engineering, under the aegis of Lovely Professional University, India, Apr 2023 (Presented).
25. Ata Mohammad, Divya Asija, and Rajkumar Viral, "Group Induction Motors Speed Control via ACPWM Based Single Speed Controller," The 2nd Biennial International Symposium on Fluids and Thermal Engineering, 20-21 Jul 2023, Department of Mechanical Engineering, Amity School of Engineering & Technology, Amity University Uttar Pradesh, Noida, India (Accepted).
26. R. Viral, D. Asija, T. Bahar, M. Bansal and H. P. Singh, "SPV System Monitoring with Wireless Data Acquisition System Employing LAB VIEW," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 458-462, doi: 10.1109/RDCAPE52977.2021.9633459.

27. R. Viral, D. Asija, T. Bahar, A. D. Ningthoujam, M. Bansal and H. P. Singh, "Small Hydro Power Projects and CDM Benefits: A Case Study of 2x50 kW, Gaundar MHP, Uttarakhand, India," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 454-457, doi: 10.1109/RDCAPE52977.2021.9633711.
28. C. Bali, P. Choudekar, D. Asija and R. Ruchira, "Power Converters for DC Microgrids Modelling and Simulation," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 38-42, doi: 10.1109/RDCAPE52977.2021.9633383.
29. A. D. Ningthoujam, D. Asija and R. Viral, "A predictive analysis of upgradation and maintenance works at BSNL Telephone Bhawan, Imphal, Manipur," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 581-586, doi: 10.1109/RDCAPE52977.2021.9633751.
30. Ravi Chaurasia, R. K. Viral, Divya Asija and Tarannum Bahar, "Performance Analysis of Self Excited Induction Generator (SEIG) With ELC for a Wind Energy System", Springer International Conference on Electrical and Electronics Engineering (ICEEE 2020), NPTI Faridabad, 28-29, Feb 2020 pp 219-236.
31. A. Chikara, P. Choudekar, Ruchira and D. Asija, "Smart Bank Locker Using Fingerprint Scanning and Image Processing," 2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS), Coimbatore, India, 2020, pp. 725-728, doi: 10.1109/ICACCS48705.2020.9074482.
32. Chikara, D. Asija, P. Choudekar and S. Kumar, "Load Management and Techno Economic Analysis of Grid-Connected Power System," 2019 3rd International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), NOIDA, India, 2019, pp. 408-412.
33. S. Kumar, D. Asija, P. Choudekar and A. Chikara, "A novel approach for detection and removal of High Impedance Faults in power system based on voltage parameter," 2019 3rd International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), NOIDA, India, 2019, pp. 563-568.
34. P. V. Astick, D. Asija, P. Choudekar and N. Rani, "Transmission line efficiency enhancement with inclusion of smart wires and controllable network transformers," 2017 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Delhi, 2017, pp. 1-6.
35. N. Rani, P. Choudekar, D. Asija and P. V. Astick, "Congestion management of transmission line using smart wire & TCSC with their economic feasibility," 2017 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Delhi, 2017, pp. 1-5.
36. D. Asija, K. M. Soni, S. K. Sinha and V. K. Yadav, "Assessment of congestion condition in transmission line for IEEE 14 bus system using D.C. optimal power flow," 2016 7th India International Conference on Power Electronics (IICPE), Patiala, 2016, pp. 1-6.
37. D. Asija, K. M. Soni, S. K. Sinha and V. K. Yadav, "Optimal placement of distributed generator for maximum load allowability and reduced losses mitigating congestion of transmission system," 2016 7th India International Conference on Power Electronics (IICPE), Patiala, 2016, pp. 1-6.
38. Y. Manganuri, P. Choudekar, Abhishek, D. Asija and Ruchira, "Optimal location of TCSC using sensitivity and stability indices for reduction in losses and improving the voltage profile," 2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), Delhi, 2016, pp. 1-4.
39. D. Asija, P. Choudekar, K. M. Soni and S. K. Sinha, "Power flow study and contingency status of WSCC 9 Bus test system using MATLAB," 2015 International Conference on Recent Developments in Control, Automation and Power Engineering (RDCAPE), Noida, 2015, pp. 338-342.
40. D. Singh, N. Afzal, D. Asija and S. K. Yadav, "Low frequency digitally programmable universal filter for communication system," 2014 International Conference on Signal Processing and Integrated Networks (SPIN), Noida, 2014, pp. 311-315.
41. D. Asija, "Speed control of induction motor using fuzzy-PI controller," 2010 2nd International Conference on Mechanical and Electronics Engineering, Kyoto, 2010, pp. V2-460-463.



BOOKS EDITED/ BOOKS PUBLISHED

1. R. K. Viral, Divya Asija, Anuradha Tomar, Ungarala Mohan Rao, and Adil Sarwar, "Smart grid with RES, EVs and storage systems: operational and economical aspects", CRC Press, Taylor and Francis Group, ISBN 9781003311195, <https://doi.org/10.1201/9781003311195>
2. R. K. Viral, Divya Asija, and Surender Reddy Salkuti, "Big Data Analytics Framework for Smart Grid", CRC Press, Taylor and Francis Group, ISBN 9781032392905 <https://www.routledge.com/Big-Data-Analytics-Framework-for-Smart-Grids/Viral-Asija-Salkuti/p/book/9781032392905>
3. Edited Book entitled "Cyber Security Solutions for Protecting and Building the Future Smart Grid", Elsevier. Editors: Divya Asija, R. K. Viral, and Resul Daş, <https://shop.elsevier.com/books/cyber-security-solutions-for-protecting-and-building-the-future-smart-grid/asija/978-0-443-14066-2>



PATENTS AND PATENT APPLICATIONS

1. **A smart and intelligent all-in-one universal screw drivers [Indian Patent No- 202011028305, Complete Filed]**
The present invention proposes a new design and development of an intelligent and advanced universal screwdriver that can be utilized to open and close any type of screw shape and size and then complete the screwing and unscrewing process.
2. **An Automated Motor Controlled Self-Cleaning System for Split Ac Filters/Fins of Evaporator and Condenser Cleaning [Indian Patent No- 202011033410, Complete Filed]**
The proposed invention aims to develop a motor operated automatic self-cleaning system that can clean the dirt collect over the surface of air filter and fins with help of a movable cleaning arms.
3. **A Low Cost and Feasible Automated Wireless Controlled Device to Avoid Milk Popping and Spilling [Indian Patent No- 202011055227, Complete Filed]**
The proposed invention overcome the common problem of popping and spilling of milk when it boils if we do not turn off the knob. An automated wireless intelligent device is required to sense the temperature and level of boiling milk and turn off the stove knob without the intervention of attending person.
4. **An Automatic Car Seat Belt and Two-Wheeler Helmet Detection System [Indian Patent No- 202111025279, Complete Filed]**
The proposed invention able to detect whether two-wheeler riders are riding without helmets and whether four-wheel drivers are wearing a seat belt or not. In the proposed technology, RFID tags are being installed on seat belts which are used to identify person without seat belt.

5. **An agile revelation system for unmoving vehicles to abstain possible accident and security [Indian Patent No- 202111023334, Complete Filed]**
The proposed system can use for detection of animal or human, sensed by the sensors and the alarm signal or alert message would be sent to automatic alarm device located on the dashboard of vehicle or directly to the individual mobile through GSM Module.
6. **A Surveillance System for Penstocks Water Hammer estimation in Small hydro Power Plants [Patent No- 202211050821, Complete Filed]**
The proposed system can use for detection of animal or human, sensed by the sensors and the alarm signal or alert message would be sent to automatic alarm device located on the dashboard of vehicle or directly to the individual mobile through GSM Module.
7. **An Ingenious Supervisory System for Remotely Located Small/Mini/Micro/Pico Hydro Power Plants [Patent No- 202211053736, Complete Filed]**
The proposed system can monitor the non-electrical and electrical parameters of a remotely located small hydro power plant wirelessly.



FUNDED PROJECTS AND PROJECT APPLICATIONS

- Submitted the proposal entitled "Design and performance investigation of self-cleaning system for split AC filters/fins for evaporator and condenser" under the scheme SERB-SURE, DST.
Inventors: Rajkumar Viral, Divya Asija ASET, Amity University Campus, Sector125, Noida Mail id: rviral@amity.edu, dasija@amity.edu
- Submitted the proposal entitled "Design and development of Smart Micro-Grid (SMG) with Integrated Renewable Energy Systems for rural energy applications" under the scheme SERB-SURE, DST.
Inventors: Divya Asija, Rajkumar Viral, ASET, Amity University Campus, Sector125, Noida Mail id: dasija@amity.edu, : rviral@amity.edu
- Submitted the proposal entitled "A Network based Integrated Intrusion Detection System (IIDS) For Security of Power System in Real-time Coordinated Attacks" under the scheme SERB-SURE, DST.
Inventors: Divya Asija, Rajkumar Viral, ASET, Amity University Campus, Sector125, Noida Mail id: dasija@amity.edu, : rviral@amity.edu
- Submitted the proposal entitled "An Autonomous Solar Irrigation Pumping System for Sustainable Water Use, Wireless Monitoring & Control, Energy Management, and Scalable Business Model for Rural Community Empowerment" under the scheme Solar Irrigation for Agricultural Resilience (Solar) Innovation Fund (IF) Grants, issued by International Water Management Institute (IWMI), a CGIAR Research Center supported by Swiss Agency for Development and Cooperation (SDC).
Inventors: Rajkumar Viral, Divya Asija ASET, Amity University Campus, Sector125, Noida Mail id: rviral@amity.edu, dasija@amity.edu
- Submitted the proposal entitled "Real-time Monitoring System for Measurement of Parameters & Efficiency of Remotely Located Generator-Turbine Unit's, National Perspective Plans (NPP), Central Power Research Institute, Bangalore, India.
Inventors: Rajkumar Viral, Divya Asija ASET, Amity University Campus, Sector125, Noida Mail id: rviral@amity.edu, dasija@amity.edu
- Submitted the proposal entitled "A Network based Integrated Intrusion Detection System (IIDS) For Security of Power System in Real-time Coordinated Attacks", Central Power Research Institute, Bangalore, India. (Under second revision).
Inventors: Rajkumar Viral, Divya Asija, H. P. Singh, ASET, Amity University Campus, Sector125, Noida Mail id: rviral@amity.edu, dasija@amity.edu, hpsingh2@amity.edu

REFERENCES AVAILABLE ON REQUEST