### Curriculum Vitae

### Dr. SANJIV KUMAR JAIN

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# Objective:

To work with an organization where I can explore myself fully and realize my

# Work Experience:

- Presently working as Assistant Professor (S.G.) at Medi-Caps University, Indore. (Tenure duration: 20016- till date)
- Worked as Reader at Medi-Caps Institute of Technology and Management, Indore in EE department (Tenure duration: 2011-2016).
- Worked as Sr. Lecturer at Medi-Caps Institute of Technology and Management, Indore in EE department (Tenure duration: 2009-2011).
- Worked as lecturer at Lecturer at Medi-Caps Institute of Technology and Management, Indore in EE department (Tenure duration: 2007-2008)
- Contract Lecturer at S. G. S. I. T. S. Indore, in Electrical Engineering Department. (Tenure duration: Jan'2005- July'2006)
- Worked as lecturer at Mandsaur Institute of Technology, Mandsaur (Tenure duration: 2002- 2004)

# **Education Profile:**

- 1. Ph.D. in Electrical Engineering (Power System Security) from MANIT, Bhopal, an institute of National importance, in November '2020. Ph.D. thesis title, "Power System Voltage Security Event Classification and Corrective Action using Fuzzy Decision tree."
- 2. M.E. in Electrical Engineering, with specialization in Power Electronics from S.G.S.I.T.S., Indore affiliated to Rajiv Gandhi Proudyogiki Vishwavidhyalaya (M.P.) in 2008 with First Division. [Distinction] M.E. thesis title, "Line outage ranking based on line voltage stability index."
- 3. B.E. in Electrical Engineering from Lakshmi Narain College of Technology, Bhopal (M.P.) affiliated to Rajiv Gandhi Proudyogiki Vishwavidhyalaya (M.P.) in 2000 with First Division. Aggregate: 69% of all semesters. B.E. project title, "Software Controlled Single Phase Inverter." (Working model)
- 4. Higher Secondary Passed in First Class [79.50%] from M.P. Board Bhopal.

5. High School Passed in First Class [74.20%] from M.P. Board Bhopal.

## Responsibilities Undertaken:

- 1. MHRD, New Delhi Merit holder.
- 2. Headed the NBA (National Board of Accreditation) accreditation for the electrical department. This comprises department documentation, preparation and management etc.
- 3. Attended national workshops for preparation and documentation for inspection bodies.
- 4. Managed different inspections for the department as head viz AICTE etc.
- 5. Indian Society for Technical Education (ISTE) society Student Advisor in the Medi-Caps University, Indore. From 2011.
- 6. Worked as Head of Electrical department for five years (2011-2016).
- 7. Hold different positions i.e. lecturer, senior lecturer and associate professor in the institute.
- 8. Worked on the positions of Superintendent and Assistant superintendent in university (RGPV) examinations.
- 9. Attended numerous conferences and workshops regarding technical and non-technical.
- 10. Worked as class coordinator.
- 11. Worked on the positions of Superintendent and Assistant superintendent in other government examinations viz. GATE, PSC etc.
- 12. Worked as Time-Table, External practical exams coordinator.
- 13. Worked for different Laboratories Developments.
- 14. Advised and guided UG/PG students in different projects, also guiding PhD scholars.
- 15. Organized different Conferences (National and International), Workshops, Seminars, expert lectures etc.
- 16. Headed different activities in annual functions.
- 17. Organized Srijan's (NGO, Bhopal) Electrical model competitions at college (MITM, Indore).

### **Publications:**

## [A] Research Papers

Research papers have been published in various journals of reputed publishers like Inderscience, UGC (approved), Springer etc. and IEEE conferences. Some Publications are,

- 1. Jain, Sanjiv Kumar, N. P. Patidar, and Yogendra Kumar. "Corrective load shedding using fuzzy decision tree approach for real time voltage security enhancement of power system." International Journal of Renewable Energy Technology, **Inderscience** (2018): 273-290.
- 2. Jain, Sanjiv Kumar, Ashish Bhargava, and R. K. Pal. "Three area power system load frequency control using fuzzy logic controller." 2015 International Conference on Computer, Communication and Control (IC4). IEEE, 2015. (Scopus indexed)
- 3. Jain, Sanjiv Kumar, N. P. Patidar, and Yogendra Kumar. "Voltage Security Events Classification of Power System Using Machine Learning Techniques." ISSN-, International Journal of Scientific Research Engineering & Technology (2017).
- 4. Dubey, Samiksha, Anmol Gambhir, Sanjiv K. Jain, Aditya Ved Jha, Aman Jain, and Shubham Sharma. "IoT application for the design of digital drug administration interface." In 2017 International Conference on Information, Communication, Instrumentation and Control (ICICIC), pp. 1-5. IEEE, 2017. (Scopus indexed)
- 5. Tiwari, Salil, Vatsal Agrawal, Sanjiv Kumar Jain, and Piyush Kumar Shrivastava. "Observation and Control of Smart Grid Using IoT and Cloud Technology." In Intelligent Computing in Control and Communication, pp. 559-575. Springer, Singapore, 2021. (Scopus indexed)
- 6. Sanjiv Kumar Jain, Arundhati Vajpayee, "Islanding Operation of DG Integrated Distribution System: A Survey", International Journal of Emerging Technologies and Innovative Research, 6(1), 2019, 657-665. (UGC approved journal)
- 7. Sanjiv Kumar Jain, Arundhati Vajpayee, "Novel Grid Connected PV System Model with Anti-Islanding Elimination", International Journal of Emerging Technologies and Innovative Research, 6(5), 2019, 22-31. (UGC approved journal)
- 8. Sanjiv Kumar Jain, Kaustubh Yawalkar, Prakhar Singh, Advait Apte "Real time prediction of solar radiation of Indore region using Machine Learning Algorithms", Int. J. of Engineering Systems Modelling and Simulation, 2021(Accepted for publication, indexed in **Scopus and ESCI**)
- 9. Agrawal S., Jain S., Ibeke E. (2021) 'An orchestrator for networked control system and its application to collision avoidance in multiple mobile robots,' International Journal of Engineering Systems Modelling and Simulation, Vol.12 No.2/3, pp.103 110. (Scopus and ESCI)
- 10. Sanjiv Kumar Jain, Kaustubh Yawalkar, Prakhar Singh, Advait Apte "Solar Power Prediction in Real Time Utilizing Supervised Machine Learning Algorithms considering Madhya Pradesh Region", Int. J. of Engineering Systems Modelling and Simulation, 2021(Accepted for publication, indexed in **Scopus and ESCI**)
- 11. Sanjiv Kumar Jain, N.P. Patidar, Y. Kumar, Shweta Agrawal, "Real time voltage security assessment using adaptive fuzzified decision tree algorithm", Int. J. of Engineering Systems Modelling and Simulation, 2021(Accepted for publication, indexed in **Scopus and ESCI**)
- 12. Sanjiv Kumar Jain, Shweta Agrawal, Prashant Kumar Shukla, Piyush Kumar Shukla, Anurag Jain, "A Decision Tree C4.5 based Voltage Security Events Classifier for Electric Power Systems", Int. J. of Engineering Systems Modelling and Simulation, 2021(Accepted for publication, indexed in **Scopus and ESCI**)
- 13. Ayan Banik, Anurag Shrivastava, Ravindra Manohar Potdar, Sanjiv Kumar Jain, Santosh Gopal Nagpure, Mukesh Soni, Design, Modelling, and Analysis of Novel Solar PV

- System using MATLAB, Materials Today: Proceedings, 2021. (In press, **Scopus indexed**)
- 14. B. Prabha, Sandeep Kaur, Jaspreet Singh, Praful Nandankar, Sanjiv Kumar Jain, Harikumar Pallathadka, Intelligent predictions of Covid disease based on lung CT images using machine learning strategy, Materials Today: Proceedings, 2021. (In press, **Scopus indexed**)
- 15. Moti Lal Rinawa, V. Shanmugasundaram, Rajneesh Sharma, Sanjiv Kumar Jain, Ankit, Ravindra Manohar Potdar, Design, Development and Performance Testing of a Novel Utility Solar Cooker with Highlighting Its Significance in Current Scenario, Materials Today: Proceedings, 2021. (In press, **Scopus indexed**)

## [B] Book/ Book Chapters

- 1. Agrawal, Shweta, and Sanjiv Kumar Jain. "Medical Text and Image Processing: Applications, Issues and Challenges." Machine Learning with Health Care Perspective. Springer, Cham, (2020): 237-262. (Book Chapter, Scopus indexed)
- 2. 'Electrical Vehicle: Future of Mobility,' with ISBN 978-1-956102-35-2, IIP publications. (Co-authored **Book**)

#### Patents:

### [A] Two Australian Patents (granted):

- (i) 'IoT enabled solar power monitoring system,' (A.No.2021101848).
- (ii) 'A system for controlling traffic based on artificial intelligence and machine learning,' (A.No.2021102346).

## [B] Two Indian Patents (published):

- (i) 'MatLab Modelling of Electrical Car with Lithium Ion Battery and Induction Motor,' (A.No.202121033067A).
- (ii) 'A system for electric terrain vehicle dynamics analysis and optimization,' (A.No.202111036381A).

### Participation:

Attended FDP on "Artificial Neural networks and Deep Learning" Indian Institute of
Information Technology, Design and Manufacturing, Jabalpur (IIITDM), Indore, June 11-
15, 2018.
COURSERA online certification in Neural Networks and Deep Learning (4 weeks), Improving
Deep Neural Networks: Hyper parameter tuning, Regularization and Optimization (3 weeks) in
March-April, 2020.

□ NPTEL online certification in Data Mining (8 weeks), Practical Machine Learning with Tensor flow (8 weeks) in Jan-April 2020.

 $\square$  ...and many more.

## Computer Skills:

Operating Systems : MS-Windows.

Packages : Microsoft Office, Power Point, LabVIEW, MATLAB.

Languages Known: Hindi, English.

## Trainings:

- Three weeks Training at Bharat Heavy Electricals Ltd. Bhopal.
- Five months Training at Centre for Advanced Technology, Indore [M.P.] (Worked on Lab View language)

## Strength:

Sincere and result driven, highly inquisitive, like to work in challenging environment and enjoy teamwork.

### Achievements:

- Delivered expert talk in one week STTP on "Application of Artificial Intelligence in Electrical and Electronics Engineering" organized by the Electrical & Electronics Department, LNCT, Bhopal under AQIS, All India Council for Technical Education (AICTE) scheme on 05, December 2020.
- Delivered expert talk in one week Faculty Development Program on "IOT Application in Renewable Energy" organized by the Electrical & Electronics Department, LNCT, Bhopal under AICTE Teaching And Learning (ATAL) Academy, on 15, December 2020.
- Delivered expert talk in one week ATAL FDP on IOT applications in Renewable Energy, "Applications of IOT in Smart Grids", organized by the Electrical & Electronics Department, LNCT, Bhopal, on 21, December 2020.
- Delivered an expert talk on 'Internet of Things Technology and Renewable Energy Systems' in the AICTE-FDP program organized by Pravara Technical Education Campus, Nashik on 6<sup>th</sup> July 2021.
- Delivered an expert talk on 'Internet of Things Applications to Renewable Energy Systems' in one week AICTE ATAL FDP program on 'AI and IoT applications in Energy Sector' organized by Electrical & Electronics Dept., LNCT, Bhopal on 7<sup>th</sup> September 2021.
- GATE score card with 97 percentile.(2007-08)
- Best Project Mentor Award, SRIJAN, Bhopal (M.P.).
- Taught almost all the subjects of Electrical and Electronics Engg.
- Topper in 8<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup> standard also received the merit scholarship.
- Member of winning team of Quiz Competition (General and Technical both)
   in college (LNCT, Bhopal).

Best Faculty Award, Medi-Caps University, Indore (2018).

# Personal Profile:

Date of Birth : 12.07.1977

Father's Name : Shri Nirmal Kumar Jain

Marital Status : Married

Nationality : Indian

Correspondence Address : 621, Shiv City,

Near Silicon City,

Indore [M.P.]- 452012

Reference : C/o, Mr. Akhilesh Jain,

Senior Scientific Officer, RRCAT,

Indore [M.P.].

Date: 10/08/2021

Place: Indore [Dr. SANJIV KUMAR JAIN]