

CURRICULUM VITAE
DR. AJAY KUMAR MAURYA



DR. AJAY KUMAR MAURYA
S/O SRI RAM BHAJAN MAURYA
CHANDRAGUPT NAGAR
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CAREER OBJECTIVES:

To work with the existing staff and facilities contributing the best of my ability, so As to improve Organizational objectives and achieve managerial goals. Continuous development and Upgrading of knowledge by execution of assigned responsibilities by the organization with loyalty and Integrity and be a part of the team that excels towards the growth of the Organization.

TEACHING EXPERIENCE: 16 YEARS (12 years in INDIA + 4 Years in ETHIOPIA)

EDUCATIONAL QUALIFICATIONS:

Ph.D.
(2022)

**DOCTOR OF PHILOSOPHY
ELECTRICAL ENGINEERING
IFTM University Moradabad, India**

M.Tech
(2006)

**Master of Technology (ELECTRICAL ENGINEERING)
(Specialization in CONTROL & INSTRUMENTATION)
Motilal Nehru National Institute of Technology, Allahabad
(Deemed University)**

*** Got 97.84 (Percentile) in GATE-2003: All India Rank- 99.**

B.Tech
(2003)

**Bachelor of Technology
(INSTRUMENTATION & ELECTRONICS ENGINEERING)
Meerut Institute of Engineering & Technology, Meerut, India**

WORKING EXPERIENCE:

WORKING EXPERIENCE

- Presently Working as an **Associate Professor & HOD** since **February, 2022** in department of **Electrical Engineering ,KIPM College of Engineering & Technology ,Gorakhpur, Uttar Pradesh, India**
- Worked as **Lecturer** from **October 2017 to October 2019** in department of **Electrical & Electronics Technology, Federal Technical and Vocational Education and Training Institute, Addis Ababa, Ethiopia**
- Worked as **Associate Professor** from **June 2017 to October 2017** in department of **Electrical Engineering , Poornima College of Engineering, Jaipur - Rajasthan, India**
- **Worked as Associate Professor** from **August 2016 to June 2017** in department of **Electronics and Communications Engineering , Nikhil Institute of Engineering & Management ,Mathura - Uttar Pradesh , India**
- **Worked as Lecturer** from **November 2014 to July 2016** in **Department of Electrical & Computer Engineering, Debre Tabor University, Ethiopia**
- Worked as **Assistant Professor** from **July 2006 to June 2014** in Department of **Electrical & Electronics Engineering, Shri Ram Murti Samarak College of Engineering and Technology, Bareilly, India**
- Also Worked as **Warden in S. M. Hostel** from **July 2010 – June 2013** at **S.R.M.S.C.E.T., Bareilly, India**

SUBJECTS TAUGHT:

SUBJECTS TAUGHT

- Linear Control System (In Msc, Federal TVETI , Addis Ababa)
- Network Analysis & synthesis
- Basic Electrical Engineering
- Signals and Linear System Analysis
- Instrumentation Engineering(In Msc, Federal TVETI , Addis Ababa)
- Electrical Measurement & Instrumentation
- Digital Control System
- Modern Control System (in M.Tech)
- Advanced Control System (In M.Tech)
- Non-Linear Control System(In Msc, Federal TVETI , Addis Ababa)
- Process Control System (In Msc, Federal TVETI , Addis Ababa)
- Analog Integrated Circuit
- Research methods and Presentation

RESEARCH TOPIC

Ph.D. RESEARCH TOPIC

- **MODELLING AND DESIGN OF ANFIS CONTROLLER FOR NON-LINEAR SYSTEMS (LOAD FREQUENCY CONTROL)**

PUBLICATIONS

PUBLICATIONS

- S. Agarwal, A. K. Mishra, **A. K. Maurya**, P. Sen, and A. Yadav, “**Fault Detection in Transmission Line using Arduino Uno**”, International Conference on Frontiers in Desalination, Energy, Environment and Material Sciences for Sustainable Development, pp. 197-201, 2023. (<https://doi.org/10.21467/proceedings.161>)
- S. Agarwal, V. Sharma, **A. K. Maurya**, P. Sen, and A. Mishra, “**A Review of Solar Cells and their Applications**”, International Conference on Frontiers in Desalination, Energy, Environment and Material Sciences for Sustainable Development, pp. 230-240, 2023. (<https://doi.org/10.21467/proceedings.161>).
- **Ajay Kumar Maurya**, Dr. Anil Kumar , Dr. Piush Kumar, “**Application of Fuzzy and Adaptive Fuzzy Controllers for Load Frequency Control**” International Journal of Advanced Science and Technology (IJAST) , ISSN No: 2005-4238 ,Volume – 29, No. 4, (2020), pp. 8259-8270.
- **Ajay Kumar Maurya**, Dr. Anil Kumar, Dr. Piush Kumar, “**Load Frequency Control of Hybrid Power System with LQR based Controller**” International Journal of Advanced Science and Technology (IJAST), ISSN No: 2005-4238, Volume – 29, No. 9s, (2020), pp. 174-191.
- **Ajay Kumar Maurya**, Dr. G. K. Banerjee, Dr. Piush Kumar, “**Performance Evaluation of Neuro-Fuzzy Clustering for Hydro Thermal Power System**” International Journal of Engineering and Advanced Technology (IJEAT), ISSN No: 2249-8958, Volume – 9 Issue-1, October 2019, pp. 5986-5994.
- **Ajay Kumar Maurya**, Dr. G. K. Banerjee, Dr. Piush Kumar, “**Design Fuzzy-PI Based Controller for Load Frequency Control of Thermal - Thermal Area Interconnected Power System**” International Journal of Trend in Scientific Research and Development (**IJTSRD**) International Open Access Journal , ISSN No: 2456-6470 | Volume - 3 | Issue– 1 |Nov –Dec 2018, pp. 928-934
- Sandeep Kumar Sunori , **Ajay Kumar Maurya** , Shweta Shree , Pradeep Kumar Juneja , “**Design of neural network based controllers for juice clarification process in sugar industry**” IEEE Sixth International Conference on Communication Systems and Network Technologies , 2016 , pp. 704-707.
- Sandeep Kumar Sunori , Shweta Shree , **Ajay Kumar Maurya** and Pradeep Juneja , “**Neuro-Fuzzy Controller Design for MIMO Boiler Turbine Process**” Springer Conference 2016
- **Ajay Kumar Maurya** , Piush Garg and Mohd Azhar, “**Modelling and Controller Design Using ANFIS Method for Non-Linear System**” National Conference on Application of mathematics in science, Technology and Management, 24th – 25th Jan 2014
- Sanjeev Kumar, , Piush Garg and **Ajay Kumar Maurya** “**Avoiding Nonlinear Phenomena in Power Inverter**” National Conference on Application of mathematics in science, Technology and Management, 24th – 25th Jan 2014

BOOK CHAPTER PUBLICATIONS

BOOK CHAPTER

- Nitesh Tiwari, **Ajay Kumar Maurya**, A. K. Mishra, S. Gupta, and A. Chaurasiya, “**Solar Power Based Wireless Electric Vehicle Charging Station**”, Accepted in Electric Motor Drives for Electric Vehicle Applications (Bentham Science Publishers).
- **Ajay Kumar Maurya**, Dr. Anil Kumar , Dr. Piush Kumar,Dr. G.K. Banerjee “**Design of Adaptive Neuro-Fuzzy Controller for Load Frequency Control of Two-Area Power System Using Clustering Algorithm**”Chapter-12 ,Emerging Trends Engineering Research and Technology ,Vol. 3 ,Book Publisher International , India.United Kingdom, **FIRST EDITION 2020, ISBN 978-93-90149-55-1 (Print), ISBN 978-93-90149-00-1 (eBook), DOI: 10.9734/bpi/etert/v3, pp. 111-122.**

PATENT PUBLISHED

PATENT -1 PUBLICATION

- Dr. T. Jesudas , Dr. John Rajan A , **Mr. Ajay Kumar Maurya** ,Mrs.S.Vidhya , Mrs. V. K. R. Santhi, Dr. Jerin Leno , Manjula Devarakonda Venkata,Dr.R. Suganthini Rekha, Mr. M. Babu, Mr.C. Prabhu, “**IRRIGATION SYSTEM AND METHOD THEREOF** ” Filed Application Number: 202041017193, Date of filing of Application :21/04/2020 , **The Patent Office Journal No. 23/2020, Publication Date :05/06/2020** , Intellectual Property India , Government of India.

Abstract: An irrigation system includes a moisture sensor, a process control unit, a water tank, a piping assembly, and a solar power unit. The moisture sensor detects a moisture level of the soil and generates a signal on detecting the moisture level in the soil is reduced than a threshold value. The process control unit initiates the operation of a piping assembly. The water tank is positioned at a median strip that separates an opposing lane of a divided roadway to store water for irrigation. The piping assembly irrigates plants planted on the divided roadway. The process control unit stops the operation of the piping assembly on receiving the signal from the moisture sensor indicative to the moisture level more than the threshold value. The solar power unit supplies power to the moisture sensor, the process control unit, and the piping assembly.

PATENT -2 PUBLICATION

- Sobhana Mummaneni, Vivek Gehlot, ,Sriram V.P., Dwarakanath B, Usha D. , **Ajay Kumar Maurya** ,Naarisetti Srinivasa Rao ,Subramani T., Ravikumar R N, “**Artificial Intelligent System for Predicting the Hard Disk Failure** ” Filed Application Number: 2021100156, Date of filing of Application : 12/01/2021 , **Patent number: 2021100156 , Publication Date :24/03/2021, Intellectual Property Australia , Australian Government.**

➤ **Abstract** : An electromechanical data storage system that uses magnetic storage to store and retrieve digital data using one or more rigid, rapidly rotating platters is a hard disk drive (HDD), hard disk, hard drive or fixed disk. For modern HDDs, the two most popular form factors are 3.5-inch, for desktop computers, and 2.5-inch, mostly for notebooks. The good thing about them is that they are inexpensive compared to SSDs, but the bad thing is that because of power problems (power surges result in data loss when read/write heads malfunction), firmware corruption (cause disk to become unreadable), heat (disk expansion and contraction), unwanted vibrations (destroy the data stored in the disks) and many more, they are much more likely to fail. One of the commonly used methods to eliminate data corruption is to use the disks in a RAID configuration that, to some degree, solves the problem but limits the overall storage space. This invention suggest a machine learning model in this invention that uses SMART data from the drive and predicts a potential forthcoming failure that gives the user time to backup and save his/her data elsewhere. The dataset used for this model is the back blaze data for 2019 in which 2,068 out of 1,22,507 disk failures account for 1.89 percent of the annualized failure rate. Three models of machine learning were tested (namely XGB classifier, Logistic Regression and Random Forest Classifier). The final results of all three were compared and the highest precision of 98.66 percent was obtained by the XGB classifier. So, it is possible to build a more advanced version of this invention into a real application that data keeping organizations and even individuals can use to help protect their valuable data.

TRAINING / SUMMER TRAINING ATTENDED

TRAINING / SUMMER TRAINING

ATTENDED

- Attended the **One Day Training Program** on “**INTELLECTUAL PROPERTY RIGHTS**” organized under the initiative of the “**National Intellectual Property Awareness Mission (NIPAM) of the government**” on **22/02/2023** at **KIPM College of Engineering & Technology Gorakhpur , Uttar Pradesh India.**
- Completed the **One-Week Short Term Training Program** on “**RECENT ADVANCES IN CONTROL SYSTEMS (RACS-2022)**” from **25/11/2022 to 29/11/2022** at **MMM University Gorakhpur** sponsored by **AICTE, New Delhi and MMMUT, Gorakhpur, India**
- Completed the **3 Months, Training Program** on “**AI and Machine Learning (Python, Data Science, Deep Learning, Machine Learning, Tableau)**” from **08/02/2021 to 12/05/2021** at **Think NEXT Technologies Private Limited, Mohali, Punjab, India**
- Completed the **3 Months, Advance Training Course** in “**PLC AUTOMATION TRAINING**” from **15/01/2021 to 20/04/2021** at **Krishna Automation Industrial Training Centre, Gurgaon, Haryana, India**
- Attended the **40 Hours Industrial Training Program** on “**Industrial Pneumatics, Industrial Hydraulics & Industrial Controllers (PLC)**” from **27.06.2020 to 18.08.2020** conducted by **CREATIVEGENIC SOLUTIONS , India**
- Attended the **Two Days, Training Program** on “**Instrumentation Engineering Lab**” from **12/08/2018 to 13/08/2018** at **TESCA Technology Pvt. Ltd, Jaipur, Rajasthan, India**
- Attended the **Six Week, Summer Training Program** from **15/07/2002 to 26/08/2002** at **Indian Telephone Industries Limited, Mankapur, Gonda, Uttar Pradesh, India.**

WORKSHOP / CONFERENCE / SHORT TERM COURSES ATTENDED:

WORKSHOP /COURSES ATTENDED

- Participated in the **One Week Workshop** on “**Real-Time Industrial Solutions and Analysis in Analog Circuit Design**” jointly organized by **Sri Venkateswara Institute of Science & Technology, Kadapa** and **Ekalavya Group of Technologies** from **08th Aug 2020 to 13th Aug 2020.**
- Attended the **One Week** online course on “**SCADA from Scratch – Design , Program and Interface**” from **10.06.2020 to 16.06.2020** conducted by **Udemy**
- Attended the **National Conference** on “**Emerging Technology & System Design**” organized by “**SRMS College of Engg. & Tech. Bareilly**” on **15th April, 2012.**
- Participated in the **Workshop** on “**Circuit Designing & Simulation**” jointly organized by **Silicon Nano Technology Pvt. Ltd. and SRMS College of Engg. & Tech. Bareilly,** on **8th October, 2011.**
- Participated in the **Workshop** on “**IT Infrastructure Management**” Sponsored by **IBM,** organized by **SRMS College of Engg. & Tech. Bareilly,** during **February 20-22, 2008**
- Participated in the **Workshop** on “**Circuit Simulation Using SPICE & VHDL**”, from **April 8-10, 2006** at **M.N.N.I.T, Allahabad.**
- Attended the **Short term course** on “**Energy Management**” from **27.03.2006 to 31.03.2006** Conducted by **N.I.T.T.T.R, Chandigarh** and **M.N.N.I.T, Allahabad**
- Attended the **Short term course** on “**Power Electronics Laboratory Practices**” from **28.03.2005 to 02.04.2005** Conducted by **N.I.T.T.T.R, Chandigarh** and **M.N.N.I.T, Allahabad**
- Attended the **Short term course and exposition** on “**Virtual Instrumentation**” from **17.01.2005 to 21.01.2005** conducted by **N.I.T.T.T.R, Chandigarh** and **M.N.N.I.T. , Allahabad**

WEBINAR / FACULTY DEVELOPMENT PROGRAM ATTENDED

WEBINAR / FDP ATTENDED

- Participated & completed **AICTE Training And Learning (ATAL) Academy Faculty Development Program on *Challenges of Autonomous, and Electric Vehicle*** at **MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY** from **27/01/2025 to 01/02/2025**.
 - Participated & completed **AICTE Training And Learning (ATAL) Academy Faculty Development Program on *Principles of Space Engineering and Space Vehicle Design*** at **NEHRU INSTITUTE OF ENGINEERING AND TECHNOLOGY** from **06/01/2025 to 11/01/2025**
 - Participated & completed **AICTE Training And Learning (ATAL) Academy Faculty Development Program on *Advanced Strategies for Optimizing Drone Networks and Operational Efficiency*** at **HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY** from **16/12/2024 to 21/12/2024**.
 - Participated & completed **AICTE Training And Learning (ATAL) Academy Faculty Development Program on *ROLE OF POWER ELETRONICS IN ELECTRIC VEHICLE TECHNOLOGY*** at **KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES** from **25/11/2024 to 30/11/2024**.
 - Participated & completed **AICTE Training And Learning (ATAL) Academy Faculty Development Program on *Advanced Functional Materials for Clean Energy*** at **KIPM-COLLEGE OF ENGINEERING & TECHNOLOGY** from **05/08/2024 to 10/08/2024**.
 - Participated in the **AICTE Recognized Faculty Development Programme on “Research Scope in Electric Vehicles (In collaboration with ANSYS)”** from **05.12.2022 to 09.12.2022** Conducted by Department of Electrical Engineering , **National Institute of Technical Teachers Training and Research (NITTR) Chandigarh, India**
 - Participated in One Week Online **International FDP on “Machine Learning and Computer Vision: Application, Research Challenges (MLCV 2020)”** from **24.08.2020 to 28.08.2020** ,Jointly Organized as twinning programme by **National Institute of Technology Silchar, Assam ,Technical Education Quality Improvement Program (TEQIP) and Gawahati University Institute of Science & Technology ,Guwahati , Assam, India**
 - Participated in **6 days International Faculty Development Program on “Recent Trends in Electrical Engineering and Applications”** from **08.08.2020 to 13.08.2020** Organized by Department of Electrical Engineering ,**M.J.P. Rohilkhand University, Bareilly ,Uttar Pradesh, India**
 - Participated in **Webinar on “Electrical Vehicle Technology ”**Organized by Department of EEE, **Rajalakshmi Engineering College , Chennai , India on 04th August , 2020**
 - Participated in **Five-day Virtual International Faculty Development Program on “Research Orientations in Engineering with Effective Outcomes”** from **26.07.2020 to 30.07.2020** Organized by Department of EEE , **KIET Group of Institutions, Ghaziabad ,Uttar Pradesh, India**.
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**WEBINAR / FDP
ATTENDED**

- Participated in **5 Days** Faculty Development Program on “ **Nurturing Research and Innovation in Higher Education Institutions** ” from **29.06.2020** to **04.07.2020** Organized by **IQAC and Department of Financial Planning of Dr. M.G.R. Educational and Research Institute , Tamilnadu ,India**
- Participated for **Five Days** National Faculty Development Program on “ **Applications of Machine Learning and Deep Learning** ” from **24.06.2020** to **28.06.2020** conducted by **RKGIT , Ghaziabad, India**
- Participated for **5 Days** Faculty Development Program on “**Document Typesetting and Processing Using Latex for Manuscript Writing**” from **22.06.2020** to **26.06.2020** conducted by **KIET Group of Institution, Ghaziabad, India**
- Participated for **One Week** Faculty Development Program on “**Harnessing Solar Energy for Reducing Carbon Footprint**” from **16.06.2020** to **20.06.2020** conducted by **IEEE Student branch and Institute of Engineers**
- Participated in **One Week** Faculty Development Program on “**Emerging Technologies: Research Issues and Challenges**” from **10.06.2020** to **16.06.2020** Organized by **Seth Vishambhar Nath Institute of Engineering & Technology, Barabanki, India**
- Participated in **Ten Days Webinar cum Workshop** on “**Performing and Designing Experiments on Virtual Platform** ” from **08.06.2020** to **17.06.2020** conducted by **M.J.P. Rohilkhand University Bareilly and IIT Roorkee ,India**
- Participated in **One Week** Faculty Development Program on “ **Recent Innovations in Renewable Energy Technologies and smart Grids** ” from **08.06.2020** to **12.06.2020** Organized by **B.I.E.T , Lucknow ,India**
- Participated in **One Week** Faculty Development Program on “ **Computational Tools on Engineering & Research: Opportunities & Challenges** ” from **01.06.2020** to **06.06.2020** Organized by **R.R. Institute of Modern Technology , Lucknow, India**

PRACTICALS LAB CONDUCTED:

LAB CONDUCTED

- Control System Lab
- Network Analysis & Synthesis Lab
- Basic Electrical Engineering Lab
- Instrumentation Engineering Lab
- Process Control Lab
- Digital Electronics Lab
- Simulation Lab (Using MATLAB & PSPICE)
- PCB Laboratory
- PLC Programming Lab

SUBJECT OF INTEREST

1. Control System
2. Network Analysis
3. Measurement and Instrumentation
4. Basic Electrical Engineering
5. Fuzzy Logic
6. Neural Network

ADDITIONAL ACHIEVEMENTS:

- Received Certificate of Appreciation for **extraordinary** and **commendable efforts** during the process of obtaining **NBA Accreditation** in KIPM College of Engineering & Technology in 2024.
- Presented a seminar on “**Fuzzy Logic Controller for Load Frequency Control**”, in a seminar held at **Debre Tabor University, Ethiopia**.
- **Got 97.84 (Percentile) in GATE-2003: All India Rank- 99.**
- Worked as **Deputy Chief Proctor** since **2008 to 2014**.
- Worked as **Extra Nodal Officer** in **G.B.T.U. Entrance Examination 2012-2013**.
- Work as a **Center Observer** in **G.B.T.U. Entrance Examination 2011-2012**
- Worked as **Senegy Club Incharge** Since **2008-2012**.
- Presented a seminar on “**Satellite Launch Technology**”, in a seminar held at **M.I.E.T, Meerut**.

PERSONAL DATA

Date of Birth - 07/07/1981
Sex - Male
Nationality - Indian
Marital Status - Married
Languages - English, Hindi
Hobbies - Reading books, Singing Song
Permanent Address - CHANDRAGUPT NAGAR, H.NO. 584/A
POST: AAROGYA MANDIR, DIS: GORAKHPUR
UTTAR PRADESH, PIN – 273003

Passport Details - **Passport No: S5831384**
Place of Issue: Addis Ababa
Date of Expiry: 29/02/2028

Aadhaar Number - **4838 2856 7603**
PAN Number - **APKPM2329F**

Declaration:

I hereby declare that the information given in these Curriculum Vitae is true and correct to the best of my knowledge and belief.

Date: 03/02/2025

Place: Gorakhpur

Ajay Kumar Maurya

Signature

(DR. AJAY KUMAR MAURYA)