Profile of*Dr.Ramesh Konduri*

Name:*Dr. Konduri Ramesh*
Designation: Associate Professor
Department of CSE(Cyber Security)
Bapatla Engineering College, Bapatla.
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Professional Summary:

A **multidisciplinary academic and research professional with over 24 years of experience** in teaching, research, and applied engineering, currently serving in the **Department of Computer Science and Engineering (Cyber Security)** on deputation from the **Department of Electrical & Electronics Engineering**. Possesses a strong interdisciplinary foundation spanning **Electrical & Electronics Engineering, Power Systems, High Voltage Engineering, IoT, Machine Learning, Data Science, Artificial Intelligence, and Cyber Security**.

With a proven ability to bridge **engineering fundamentals with emerging computing and digital technologies**, actively engaged in integrating **AI/ML, IoT, Data Science, and Cyber Security** into contemporary engineering education, research, and real-world applications. Committed to developing technology-driven solutions that address emerging challenges in **secure intelligent systems, smart infrastructure, energy systems, and cyber-physical environments**.

A **proven multidisciplinary researcher** with a track record of **57 research publications** across diverse technological domains. Research interests focus on the convergence of **AI/ML, IoT, Cyber Security, Smart Energy Systems, Intelligent Fault Detection, and Data-Driven Engineering Applications**, with an emphasis on translating theoretical research into practical and socially relevant solutions. As an academic professional in **CSE (Cyber Security)**, committed to contributing to the development of **cybersecurity-aware, AI-enabled, and industry-relevant engineering education**, while mentoring students in emerging technologies and encouraging interdisciplinary research and innovation.

Educational Qualifications:

- PhD in Electrical **Power Systems**

Jawaharlal Nehru Technological University (JNTU), Kakinada
Awarded in October 2017

- **AICTE SponsoredQIP PG** in **IoT**

Indian Institute of Information Technology Design and Manufacturing **(IIITDM)**, Kurnool
AICTE Sponsered QIP PG in IoT with 8.5 GPA in January, 2025
https://www.youtube.com/watch?v=P_3qr3UEEpk&t=48s**(IoT M. Tech Project Link)**

- M.Tech in **High Voltage Engineering**

Jawaharlal Nehru Technological University (JNTU), Kakinada
Post Graduated with 77.16% in March 2008
Achieved First Class with Distinction

- B.Tech in Electrical & Electronics Engineering

Jawaharlal Nehru Technological University (JNTU), Kakinada
Graduated with 73.71% in June 2001
Achieved First Class with Distinction

- EAMCET Rank: **1202 (In the Academic Year:1996-97)**

- Intermediate (MPC)

Ramakrishna S. JKalasala, Guntur
Scored **90.4%** in April 1996

- *SSC

APResidential School, Tadikonda
Scored **86.83%** in April 1994
Achieved First Class with Distinction

Professional Experience:

- **Teaching &Research: More than 24 years in BEC, Bapatla.**

  As an Assistant Professor in EEE, BEC, Bapatla (From 16th Aug 2002 to 31st Nov 2017)

  As an Associate Professor in EEE, BEC, Bapatla (From 1st December 2017 to till date.)

Research Interests:

IoT,Electrical Machines,**Machine Learning (ML)**,Power systems,**Data Science**, Switch Gear and Protection, Power quality, High voltage Engineering, **Industry 4.0,** Renewable Energy, **Artificial Intelligence** and Deep Learning,

Awards & Honors:

- **Best Teacher Award,** Bapatla Engineering College (2023-24)
  https://www.youtube.com/watch?v=Gg25BHzsVbc
- **Best Faculty award** by MEDHAS TECHNOLOGIES, Telangana (2023-24)
- Received the prestigious **NPTEL STAR – Motivated Learner** distinction for maintaining consistent performance and successful course completion in consecutive NPTEL semesters.(Received in Jan-May semester of 2025-26)
- Awarded **NPTEL STAR – Believer** during the July–December 2025–26 semester by NPTEL.
- Recognized as **NPTEL DISCIPLINE STAR IN COMPUTER SCIENCE** for certified in courses of **COMPUTER SCIENCE**, more than 50 weeks of learning.
- Recognized as **NPTEL STAR BELIEVER** during the semester Jan-Apr 2025, for excelling in 5 courses.
- Recognized as **NPTEL STAR ENTHUSIAST** during the semester Jan-Apr 2025, for clearing 10 courses during the academic year 2024-25.

- Recognized as **NPTEL STAR BELIEVER** during the semester July-December 2024, for excelling in 5 courses.
- Numerous accolades in academic and extracurricular activities, including leadership roles in organizing workshops and conferences.

My YouTube Channel:https://www.youtube.com/@Dr.K.Ramesh123
(Name of the Channel: LIFE SCIENCES AND ENGINEERING THROUGH NATURE)

NPTEL Certifications: 19

Other online certifications:

- Completed online certification on Neural network applications in deep learning during 21st April 2023 to 10th May 2023 conducted by **Codegnan IT Solutions OPC PVT.LTD.**
- Completed 100 Days online certification on Python from **Udemy.**

Patents [Total: 8 No's]

[1] A patent titled "Smart Blockchain-Based IoT Framework for Predictive Monitoring and Fault Detection in Industrial and Supply Chain Environments" with Application Number 202541111014 A, filed on 13th November 2025 and published on 28th November 2025.

[2] A patent titled "Modelling and Performance Optimization of a Solar-Integrated Wireless EV Charging System" with Application Number 202641031053, filed on 15th March 2026 and currently awaiting publication.

[3] A patent titled **"Power Transformer Life Span Assessment Using Machine Learning"** with Application Number 202541043121A, filed on 4th May 2025 and published on 30th May 2025.

[4] A patent titled **"Smart Energy Guard: An IoT-Based Embedded System for Monitoring and Protection of Electrical Systems with Multi-Mobile Notification Capability"** with Application Number 202541047138A, filed on 16th May 2025 and published on 6th June 2025.

[5] A patent titled**"System and Method for Monitoring Earthlike Environmental Conditions in Space Using Advanced Technologies for Universal Exploration and Peace"**was Published on October 25, 2024, with Application No.202441079535 A.

[6] A patent titled**"Remote Monitoring and Automatic Protection System for a Solar Plant Using IoT"** was Published on October 25, 2024, with Application No.202441077484 A.

[7] A patent titled **"A Key Management Protocol in Cipher Text Policy for Cloud Data Sharing"** (Application No. 202441044769 A) was Published on June 21, 2024, in India.

[8] A patent titled **"System and Method for GPS Integrated Smart Irrigation System with Farmer alerts and Automated Operation"**(Application No. 202441034385 A) was Published on May 3, 2024, in India.

Ongoing and Completed Research Project Proposals[Total: 10 No's]

[1] "Integrated Smart Energy Grid for Rural and Remote Areas Using IoT, Blockchain, and AI-Based Predictive Analytics" (Reference Number: **512024001308**) under the **Inclusivity Research Grant Scheme**in Electrical, Electronics, and Computer Engineering. The proposal, submitted on **20th July 2025**. Status: Awaiting Approval

[2] System and method for Monitoring Earth like Environmental conditions in Spaceusing Advanced Techniques for universal Exploration and Peace. Scheme: Inclusivity Research Grant, Date of Submission: 05/12/24, ReferenceNo: 512024001308.Status: Awaiting Approval

[3] Protection and Remote monitoring of Renewable Energy Battery Systems Using IoTScheme: Mission for Advancements in High impact Area (MAHA), Date of Submission:29/10/24, Reference No: 592024000164.Status: Awaiting Approval

[4] Remote Monitoring and Protection of Renewable Energy Systems using IoT,Funding Agency: ICSSR, Date of Submission: 22/10/24, Application Number: ICSSR-RMM-2024-4870,Status: Awaiting Approval

[5] "From Brain Drain to Brain Gain: Analyzing Migration Patterns of S & amp;T Professionals", Funding agency: DST, Date of Submission: 30/01/2025 with Temporary Registration No. : TPN / 124503, Status: Awaiting Approval.

[6] "Unveiling the Power of Superconducting Qubits in Quantum Computing", Funding agency: DST, Date of Submission: 17/02/2024 with Temporary Registration No. : TPN / 105312, Status: Awaiting Approval.

[7] Enhancing National Technological Capacities for Limiting Global Warming,Funding Agency: CASA2 Opportunity Fund, Date of Submission: 15/2/24 Status: Rejected

[8] Unveiling the Power of Superconducting Qubits in Quantum ComputingFunding Agency: DST, Temporary Registration Number: TPN/105312, Date of Submission: 20/2/24 Status:Awaiting Approval

[9] Direct Measurement of Baby Health Monitoring System Using Application of Internetof Things.Funding Agency: DST, Temporary Registration Number: TPN/91939, Date of Submission: 16/6/23 Status: Awaiting Approval

[10] Rural Electrification by Efficient Energy Storage System Using BlockchainFunding Agency: DST, Date of Submission: 23/12/20Status: Awaiting Approval

Reviewer:

- IEEE Access
- IET Science, Measurement & Technology.
- Journal of Agriculture and Ecology Research International

Memberships in Professional Bodies:

- ISTE (Lifetime) Indian Society for Technical Education
- ISOC (Lifetime) Internet Society
- IAENG (International Association of Engineers)
- IFERP Institute for Engineering Research and Publication

Administrative Experience:

- **Internship Co-Ordinator**, BECTAGON-2020 coordinator, Editor of BEC newsletter.
- **AQAR Co-Ordinator**for Criterion-III
- **Convener** of Department Admission Committee.
- Member of Academic monitoring committee, **Convener** of College OBC committee.
- Recognized as **Ph. D guide** for 4 students at Annamalai university.

- M. Tech coordinator for EEE Department,
- Feedback coordinator
- Prime editor of Newsletter, EEE Department.
- B. Tech and M. Tech course Co-Ordinator.
- In Charge of power systems and Advanced Power systems labs.
- In Charge for criterion- I of **NAAC** and **NBA** in EEE Department.

Projects Guidance:

- Ph.D 01
- M. Tech 06
- B. Tech 28

International/National Conference Publications: [Total: 15 No's]

[1] **K. Ramesh**, P. Raju and MVSS. Sasank Presented a paper titled "Real-Time IoT and Machine Learning Framework for Fault Diagnosis and Monitoring in Solar Power Systems" at the 3rd IEEE International Conference on Power Electronics and Energy 2025 organized by KIIT Deemed to be University during 14th–16th December 2025**.[IEEE]**

[2] K. Ramesh, G. Sai Gautham, and M.V.S.S. Sasank presented a research paper titled "Smart Energy Guard: IoT-based Monitoring & Protection" at the 4th International Conference on Innovative Mechanisms for Industry Applications 2025 organized by Sasurie College of Engineering during 3rd–5th September 2025. **[IEEE]**

[3] Karimulla Polisetti, **K. Ramesh**, M. Syamala Devi, and M. Jayasree, "Artificial Intelligence and Machine Learning Applications in Power Systems: Fault Detection and Optimization," presented at the Hinweis Third International Conference on Advances in Electrical Measurements and Instrumentation (AEMI-2025), Online, February 21–22, 2025. Proceedings of the conference are yet to be published in a Scopus journal**.[PROCEEDINGS IN SCOPUS]**

[4] **K. Ramesh,** Sai Goutham Golive, and A. Durga Prasad, "Intelligent Fault Classification of Induction Motors Using Machine Learning," presented at the 8th International Conference on Innovative Computation and Communication (ICICC-25), going to organized by Shaheed Sukhdev college of business studies, university of Delhi, new Delhi in association with national institute of technology Patna &University of Valladolid Spain during 14-15 February 2025**.[PROCEEDINGS IN SCOPUS]**

[5] **K. Ramesh,** Hari Prasad CH, and M. Syamala Devi, "The Role of Machine Learning and Data Science in Enhancing Cybersecurity for Power Systems," presented at the **IEEE-Sponsored International Conference on Sustainable Power and Energy (ICSPE) 2024**, held on 28th–29th November 2024, organized by the Department of Electrical Engineering, O. P. Jindal University, Raigarh, Chhattisgarh, India**.[IEEE]**

[6] **K. Ramesh,** P. Raju, and M.V.S.S. Sasank, "AI-Driven Predictive Maintenance for Electric Motors: A Case Study of Electric Motor Scan Technology," presented at the **Hinweis Third International Conference on Advances in Electrical and Electronics Engineering (AEEE-2024)**, held on 26th October 2024, organized by **Hinweis Research Academy, India.[PROCEEDINGS IN SCOPUS]**

[7] **K. Ramesh**, M. Jayasri, and M. Syamala Devi, "Open Technology for Sustainable Development: Empowering Industries and Communities through Innovation," presented at the National Conference on Emerging Innovations in Electrical, Electronics, and Computing Technologies (NCEIEECT 2024), held on 25th October 2024, organized by the Department of

Electrical and Electronics Engineering, Bharath Institute of Higher Education and Research, Chennai, India.

[8] **K. Ramesh,** "Real time monitoring the smart meters based on Block chain Technology" 3rd international virtual conference on recent trends in Power systems and Power electronics (NECICPSPE 2K23) held at the Department of EEE, Narasarao Pet College of Engineering, Narasaraopet on 10th June 2023.

[9] **K. Ramesh,** "EV Charging standards and protocols" National conference on Bridging biomedical and electrical visions for limitless innovations conducted by Dr. MGR Educational and Research Institute at Chennai 95, Tamil Nadu.

[10] **K. Ramesh**, M. Sushama, "Power Transformer Protection using Wavelet Packet Transform" International Conference on Computer Communication and Informatics (ICCCI 2014) at Sri Shakthi Institute of Engineering and Technology, Coimbatore, India during January 03 05, 2014. [**IEEE]**

[11] **K. Ramesh**, M. Sushama, "Power Transformer Protection using Fuzzy Logic Based Relaying" International Conference on Advances in Electrical Engineering (ICAEE 2014) at VIT University, Vellore, India during January 9 11, 2014.[**IEEE]**

[12] **K. Ramesh**, M. Sushama, "Inter turn fault detection in power transformer using fuzzy logic" ICSEMR 2014, conducted during November 27 29 at Avadi, Chennai. [**IEEE]**

[13] **K. Ramesh**, M. Sushama, "Incipient fault detection in Power Transformer using wavelets" EEECOS 2014 scheduled to be conducted during September 11-12 at Dhanekula Institute of Engineering and Technology, Vijayawada.

[14] **K. Ramesh**& Sk. Abdul Gafoor, "Wavelet Based Transformer Protection" PIK 2K7 (Pick Innovative Creations), pg. 33 37.

[15] G. Ravi Kumar&**K. Ramesh**, "Fuzzy set based contingency ranking algorithm and digital simulation" in AECT 2008 (Advances in Energy Conversion Techniques) at Manipal University, Manipal.

International/National Journal Publications:[Total: 23 No's]

[1] Atla Somila Varshitha Reddy, Chintala Akhila, Galeti Nandu, Athota Hema Rayudu, and K. Ramesh, "An Enhanced Protection Scheme for Transformer Integrating Alpha Plane Analysis," *International Research Journal of Engineering and Technology (IRJET)*, vol. 13, no. 04, Apr. 2026.

[2] **K. Ramesh,** K. Sriharshadinarayana, B. Rajeev, K. Yedukondalu, "ArduinoBased MOSFETBased Three Phase Inverter Suitable for Micro Grid Systems," published in International Journal of Engineering Research & Technology (IJERT), ISSN: 22780181, Vol. 13, Issue 4, April 2024, EEE, Bapatla Engineering College, Bapatla.

[3] **K. Ramesh,** B. Rajeev, G. Vinay Kumar, K. Sri Harshadinarayana, K. Yedukondalu, "Predicting Individual Energy Consumption Using Machine Learning Models," published in International Journal of Engineering Research & Technology (IJERT) , ISSN: 2278-0181, Vol. 12, Issue 12, December 2023.

[4] K. Ramesh, SK. Rufiya, P. Dinesh, S. Venkat, M. Ramesh, "IoTBased Smart Farming System for Enhanced Agricultural Productivity," published in Gradiva Review Journal, ISSN No: 0363-8057. **[SCOPUS]**

[5] **K. Ramesh,** P. Raju, CH. Susmitha, B. Swathi, J. Malleswari Bai, D. Sai, "Power System Stability Enhancement by Controlling PV Inverter Output Voltage at 400V: A Parameter Analysis," published in Gradiva Review Journal, pp: 0363-8057. **[SCOPUS]**

[6] Satya Dinesh Madasu,**K. Ramesh,**& CH. Susmitha, "Solar Power 2.0: Futuristic Technologies Paving the Way for Green Energy Evolution," published in Grenze International Journal of Engineering and Technology, June Issue**.[SCOPUS]**

[7] **K. Ramesh,** "Convergence of Artificial Intelligence & Internet of Things (IoT)," published inGradiva Review Journal, Volume 9, Issue 9, pages 218-223, 2023.**[SCOPUS]**

[8] **K. Ramesh,** "Blockchain Technology in RealLife Situations," published in International Research Journal of Modernization in Engineering Technology and Science (IRJMETS), Volume 5, Issue 5, May 2023.

[9] **K. Ramesh**, K. Lohith, "World's Top Most Renewable Power Projects," published in Vidyabharati International Interdisciplinary Research Journal,17(1), pages 1822, 2023.

[10] **K. Ramesh**, "Power Quality Enhancement for Cost Reduction in Plastic Industry," published inVidyabharati International Interdisciplinary Research Journal, 16(2), pages 1419, 2023.

[11] **K. Ramesh**, "Future Trends of Data Science with Machine Learning and Deep Learning Technologies," published in Vidyabharati International Interdisciplinary Research Journal, 16(2), pages 17, 2023.

[12] **K. Ramesh**, "A Review on Asexual Reproduction Systems in Plants," published in International Research Journal of Education, Technology and Science (IRJET), Volume 5, Issue 6, pages 95101, June 2023.

[13] **K. Ramesh**, C. Mamatha, "ANNBased Hybrid Renewable Energy Generation System," published in International Journal of Engineering Research & Technology (IJERT), Volume 8, Issue 16, 2020.

[14] **K. Ramesh**, G. Krishna Reddy, "Modeling and Simulation of DFIG Against Disturbance Condition," published in International Journal of Engineering Research & Technology (IJERT) , Volume 8, Issue 16, 2020.

[15] **K. Ramesh**, M. Sushama, "Classification of Transformer Faults Using WaveletBased Entropy," published in International Journal of Advance Research in Science and Engineering, Volume 2, Issue 09, September 2013.

[16] **K. Ramesh**, M. Sushama, "Transformer Protection Using MLE Approach," published inInternational Journal of Innovative Research in Electrical, Electronics, Instrumentation, and Control Engineering, Volume 1, Issue 6, September 2013.

[17] **K. Ramesh,** Y. Mallikharjuna Rao, "Power Transformer Protection Using Wavelets," publishedin International Journal of Electrical and Electronic Engineering & Telecommunications, Volume 3, No. 4, October 2014.

[18] **K. Ramesh,** M. Sushama, "Power Transformer Protection Using WaveletBased Fuzzy Logic," published in Journal of Electrical Engineering, Politechnica Publishing House.

[19] **K. Ramesh,** M. Sushama, "A Novel Scheme for InterTurn Fault Detection in Power Transformers Using Wavelets and Fuzzy Logic," published in International Journal of Electrical and Electronics Engineering (IJEEE).

[20] **K. Ramesh,** M. Sushama, "InterTurn Fault Detection in Power Transformer Using Fuzzy Technique," published in Journal of Electrical Engineering, Politechnica Publishing House.

[21] D. Chaitanya, J. Ravindra&**K. Ramesh**"A Novel PV System Constructed with 5Level Inverter Using SPWM Technique," published in International Journal for Technological Research in Engineering (IJTRE).

[22] **K. Ramesh,** S. Dinesh Madasu, I. Kasireddy, "RealTime Monitoring of Smart Meters Based on Blockchain Technology," published by IGI Global.**[SCOPUS]**

[23] **K. Ramesh,** "Power Transformer Protection Using WaveletBased Fuzzy Logic," published in Journal of Electrical Engineering, Politechnica Publishing House.

Books/Book chapters

[1] Published a book chapter titled "Non-Invasive Monitoring System for Glucose and Blood Pressure Using Sensor Signal Analysis and Short-Time Fourier Transform" in the book *Microbial Frontiers: Advances in Microbiology and Biotechnology* (ISBN: 978-81-923182-9-8).

Events Attended (FDPs / Workshops / Seminars : 39

Guest Lectures Delivered / Training Classes Conducted

- Delivered a Guest Lecture on "How to write a research paper" in the department of EEE, BEC, Bapatla on 7th March 2026
- Delivered a Guest Lecture on Switch gear and Protection at PACE Engineering College, Ongole on 29th March 2025.
- Presented A guest lecture on POWER QUALITY at BEC, Bapatla on 19th March 2021.
- Presented A guest lecture on POWER QUALITY at CIET, Mothadaka on 19th June 2021.
- Acted as E-conference chair for online E-conference NCSMSD-2020.
- Training sessions are given on Basics of electrical engineering and power factor correction during 11th December 2019 to 12th December 2019.

***Achievements During School Years**

Academic Achievements:

- Multiple merit certificates (37) in sports and games also includingPrathama, Dwiteeya, Thritiyaa, Prathamika Pariksha, State level General Knowledge, TTD Conducted Purana Prabodha Examination and Pre-Seniorand Senior level examinations conducted by UNO and other recognized organizations.
- Secured **2nd rank**in district-level academic rankings in **7th standard**.

Sports Achievements:

Excelled in athletics with multiple prizes:

- 1st place in shot put, broad jump,and 200m running in inter school tournaments.
- Secured 1st and 2ndpositions in various running events, including 100m, 200m, and 800m.
- 2nd prize in the 400m relay at school annual celebrations.
- 1st prize in the long jump and discus throws at district level competitions.
- Winner's trophies in dodgeball and softball events and many more.

Cultural Achievements:

- Participated in cultural competitions, receiving merit certificates for dance performances and quiz competitions.

Recognition:

- Received a merit certificate for participation in the InterDistrict **Hockey Championship** conducted by the Andhra Hockey Association.
- Achieved individual honors such as the **Junior Championship** at the Guntur North Zone Sports Meet.
- Secured 1st prize in the "**National Bhagavad Geeta Chanting Competition".**At IX standard.



(Dr. K. Ramesh)