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**Dr. KORRA CHEENA**  
**B.Tech (K.U), M.Tech (NIT), PhD (IIT)**  
**Assistant Professor, Chairperson BoS, TPO**  
**Department of Electrical & Electronics Engineering**  
**UNIVERSITY COLLEGE OF ENGINEERING**  
**KAKATIYA UNIVERSITY**  
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*Presently working as Assistant Professor in the Department of Electrical & Electronics Engineering, University College of Engineering, Kakatiya University, since May-2010. Awarded PhD from I.I.T.(I.S.M.) Dhanbad on 08-08-2022 on the title “Design of Efficient techniques for Wireless Sensor Networks Based Smart Grids”. Received M.Tech Degree from N.I.T. Calicut in “Electrical Instrumentation and Control Systems” specialisation in the year 2006. Obtained B.Tech Degree in “Electrical & Electronics Engineering” from Kakatiya University in the year 2002.*

*Prior to my joining into Kakatiya University, I was attracted into the teaching with the objective of Early Faculty Induction Programme (EFIP – 2004) initiated by AICTE during PG program (**EFIP Objective:** Aims at attracting by identifying bright young meritorious and motivated candidates pursuing PG Programme in identified host institutions of Engineering & Technology to take up teaching career by providing certain incentives) coordinated by the seven IITs and IISc Bangalore on behalf of AICTE, New Delhi in the year 2003. Upon the recommendations of the EFIP selection committee of IIT Madras with reference to the letter No/CCE/EFIP/132/05 dated 02-03-2005, I was selected as EFIP candidate through the selection process from IISc Bangalore. After completion of my M.Tech from N.I.T. Calicut, I have executed a tripartite agreement by expressing willingness to take up teaching position under EFIP and joined in Kakatiya Institute of Technology & Science, Warangal, on 26-06-2006.*

*Kakatiya University, Warangal released the notification no. 02/2009 dated 31-12-2009, consequently after completion of due selection process, On the recommendation of the Selection Committee constituted in terms of Government Orders in force and with the approval of the Executive Council given at its 87<sup>th</sup> meeting held on 30-04-2010, the Vice-Chancellor has accorded approval for my appointment as Assistant Professor in Electrical & Electronics Engineering Department, vide order no. 339/A2 / KU/2010/RECT-10 dated 30-04-2010 and joined in the Kakatiya University on 05-05-2010.*

### ***Focused Areas:***

Smart Grid Technologies, Wireless Sensor Networks (WSN), Self-Healing Techniques in Smart Grids (Emperor Penguin Optimized Self-Healing (EPOSH), Harris Hawks Optimized Self-Healing (HHOSH) Techniques), Control Systems Engineering, Deep Q-probabilistic Algorithm, Multi-Agent System, Cognitive Radio Sensor Networks, Deep Probabilistic Neural Network (DPNN), Rock Hyraxes Swarm Optimization (RHSO) algorithm, Deep Learning, Bayesian theory, Deep Recurrent Neural Networks (DRNN), and Grasshopper Optimization Algorithm (GOA) based Control Algorithms in Electrical Power System Operation and Control.

## **Publications:**

- [1] Cheena, Korra, Tarachand Amgoth, and Gauri Shankar. "Proportional-integral-derivative controller-based self-healing of distribution system using wireless sensor networks in smart grid." *International Journal of Communication Systems* 35.7 (2022): e5095.  
DOI : <https://doi.org/10.1002/dac.5095>
- [2] Cheena, Korra, Tarachand Amgoth, and Gauri Shankar. "Deep Q-probabilistic algorithm-based rock hyraxes swarm optimization for channel allocation in CRSN smart grids." *Wireless Networks* 28.6 (2022): 2553-2565.  
DOI: <https://doi.org/10.1007/s11276-022-02985-z>
- [3] Cheena, Korra. "Self-isolation of faulted section from closed loop distribution system using HHO for WSN-based smart grids." *Electric Power Components and Systems* 51.13 (2023): 1207-1218.  
DOI: <https://doi.org/10.1080/15325008.2023.2180813>
- [4] Cheena, Korra, Tarachand Amgoth, and Gauri Shankar. "Deep Learning-Based Black Hole Detection Model for WSN in Smart Grid." *Computational Intelligence: Select Proceedings of InCITe 2022*. Singapore: Springer Nature Singapore, 2023. 19-30.  
DOI: [https://doi.org/10.1007/978-981-19-7346-8\\_2](https://doi.org/10.1007/978-981-19-7346-8_2)
- [5] Cheena, Korra, Tarachand Amgoth, and Gauri Shankar. "Emperor penguin optimised self-healing strategy for WSN based smart grids." *International Journal of Sensor Networks* 32.2 (2020): 87-95.  
DOI : <https://doi.org/10.1504/IJSNET.2020.104924>
- [6] Korra Cheena, "Modeling, Analysis and Simulation of Active Magnetic Bearing for two axis position control of Shaft," *International Journal of Advances in Electrical Power System And Information Technology (IJAEPSIT) ISSN (ONLINE): 2395-6151, VOLUME-2,ISSUE-2, vol. 25, no. 5, pp. 21–27, Feb. 2016.*
- [7] Kalakotla, Sumalatha, and Cheena Korra. "Emerging Power Quality Challenges due to Integration of Renewable Energy Sources in AC/DC Microgrids." *International Conference on Intelligent Manufacturing and Energy Sustainability*. Singapore: Springer Nature Singapore, 2023.
- [8] Korra Cheena, "Research Review: Self-healing Techniques in Smart Grid Environment" *International Journal of Research (IJR), VOLUME-8, ISSUE-6-June-2019-1, DOI:16.10089.IJR.2019.V8I6.285311.236444.*

- [9] Korra Cheena, "Modeling, Analysis and Simulation of Active Magnetic Bearing for two axis position control of Shaft", in: 2016 in 15<sup>th</sup> International Conference on Instrumentation , Electrical and Electronics Engineering (ICIEEE 2016), pp. 20–25.
- [10] Korra Cheena, "Self-Healing Besides Restoration Methods in Smart Grid Distribution Networks" *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, ISSN: 2278–3075 (Online), Volume-9 Issue-6, April 2020, Page No. 1123-1128.  
<http://www.ijitee.org/wp-content/uploads/papers/v9i6/E2938039520.pdf>
- [11] Korra Cheena, "Relative Performance of PI and MFFN Based IPFC on Damping of Power System Oscillations", "International Journal of Research" p-ISSN: 2348-6848 e-ISSN: 2348-795X Volume 02 Issue 03 Page837-843, March 2015.  
<https://edupediapublications.org/journals/index.php/IJR>
- [12] Velishala Ramu, Korra Cheena, "THD Analysis of Three Phase Cascaded Multilevel Inverter with Different PWM Techniques", *International Journal for Science and Advanced Research in Technology (IJSART)-Volume 4 Issue 3 – MARCH 2018 ISSN [ONLINE]: 2395-1052.*

### **Patent:**

*Title of the invention:*

*Fault diagnosis in induction motors employing measured current and vibration signals based on ai and machine learning.*

Application No: 202321009096

### **PhD Scholar:**

*Mrs. K. Sumalatha (Pursuing PhD)*

### **Subjects Taught:**

- |                                   |  |
|-----------------------------------|--|
| 1. Control System Engineering     | 5. Electrical Measurements & Instrumentation |
| 2. Network Analysis and Synthesis | 6. Circuit Theory                            |
| 3. Power Electronics              | 7. Power System Operation and Control        |
| 4. Digital Control Systems        | 8. Basic Electrical Engineering              |

### **Laboratories handled:**

- |                                |  |
|--------------------------------|--|
| 1. Control Systems Lab         | 4. Electrical Measurements & Instrumentation lab |
| 2. Electrical Circuits Lab     | 5. Digital Simulation Lab                        |
| 3. Power Electronic Drives Lab | 6. Basic Electrical Engineering Lab              |

**1. Academic Qualifications:**

Examination / Degree	Name of the Board/University	Month & year of award of the degree	Division	% of Marks
SSC	ZPPS Kamepalli	March 1996	First	75.83
Intermediate	BIE / APRJC	April 1998	First	72.50
B.Tech	VSCE / K.U.	May 2002	First	64.48
M.Tech	NIT Calicut / NIT	May 2006	First	7.20 CGPA
Ph.D	IIT(ISM) Dhanbad	08-08-2022	--	--

**2. Research Degree**

Degree	Title	Date and Year of Award	University
Ph.D	Design of Efficient techniques for Wireless Sensor Networks Based Smart Grids	08-08-2022	IIT(ISM) Dhanbad

**3. Appointments held prior to joining in the Kakatiya University**

Designation	Name of Employer	Date of		Salary with Grade	Reason of leaving
		Joining	Leaving		
Assistant Professor	KITS Warangal	26-06-2006	04-05-2010	8000-15600	University Job

**4. Posts held after appointment in the Kakatiya University:**

Designation	Department	Date of actual joining		Grade
		From	To	
<b>Assistant Professor with Academic Level – 11 – Pay Scale: Rs.68,900-2,05,500</b> [Corresponding to Asst. Professor with AGP Rs. 7000/- under UGC RSP 2006]	EEE	04-05-2015	05-05-2020	Grade Pay-11
<b>Assistant Professor with Academic Level – 12 – Pay Scale: Rs.79,800-2,11,500</b> [Corresponding to Asst. Professor with AGP Rs. 8000/- under UGC RSP 2006]	EEE	05-05-2020	04-05-2023	Grade Pay-12

**Other Administrative/ Academic Posts held after appointment in  
the Kakatiya University**

Designation	Department	Date of actual joining	
		From	To
Officer-in-charge	Building Maintenance	01-08-2010	31-07-2012
Nodal Officer Finance	TEQIP - II	05-09-2014	Till Date
Joint Director Hostel	Hostels	09-12-2016	08-12-2018
Head of Department	EEE	21-01-2017	18-10-2020
Officer-In-Charge Electrical Maintenance	Total Campus	04-07-2017	06-08-2018
Joint Director	Girls Hostel	27-01-2021	07-01-2022
Training & Placement Officer	Training & Placement Cell	07-01-2021	Till Date
Chairperson BoS	EEE	05-07-2022	Till Date
Coordinator	Unnat Bharat Abhiyan (UBA)	06-04-2021	Till Date
Coordinator	AMIE Lab Classes	30-11-2022	10-11-2023
Convener-Admissions	TSECET & TSEAMCET- 2020	05-10-2020	04-10-2021
Officer-In charge	Games & Sports	02-01-2024	Till Date
Member	BOS in EEE	24-07-2018	04-07-2022

**5. Awards Received:**

**1. BEST PLACEMENT OFFICER AWARD**

*[Knowledge Research Academy*

*International Award ceremony on Star Performers in Engineering, Management, Arts and Science [SPEMAS-2023]*

**2. ACADEMIC EXCELLENCE AWARD-2022**

*[ Institute of Researchers*

*The research unit of ISPL, Registered with Ministry of MSME, Govt. of India]*

## Other responsibilities in College Development Committees:

1. Hostel Advisory Committee : Member-Convener
2. Admissions Committee : Member
3. House Allotment Committee : Member
4. Enquiry Committee : Member
5. Research Projects & Consultancy Works Committee : Member
6. Disposal of Scrap Committee : Member
7. Anti-Ragging Committee : Member
8. Committee for Identification & Disposal of Teakwood in College Campus: Chairman

### 1. Orientation/Refresher Courses attended during May – 2020 to April-2023

Name of the Course / Summer School	Place	Duration	Sponsoring Agency
Swayam ARPIT Online Course	Online	Two Week	AICTE
Faculty Development Program	NIT Warangal	One Week	CCE, NIT Warangal
Quality Improvement Program	Online	Two Week	NITTTR
Orientation Workshop	NIT Warangal	Three Days	UBA
Two-Day Online workshop	Online	Two Days	KU
IEI Technical Webinar	Kothagudem	One Day	IEI
One Day Webinar	Online	One Day	IST Pune
Two-Day Online workshop	KITS Warangal	Two Days	C-i <sup>2</sup> RE

### Programmes participated:

#### **a. Orientation Course:**

Participated in a 4 weeks (24 Working days) UGC Sponsored “**36<sup>th</sup> Orientation Course**” from 18-11-2013 to 14-12-2013 and obtained “A” Grade at UGC-Academic Staff College, **JNTU Hyderabad**.

#### **b. Refresher Courses:**

Participated in a 3 weeks (18 Working days) UGC Sponsored “*Integration Programme under Refresher Course Scheme of UGC on **Research Methodologies***” from 10-11-2014 to 29-11-2014 and obtained “A” Grade at UGC-Academic Staff College, **JNTU Hyderabad**.

#### **c. Faculty Development Programmes:**

- [1]. Attended MHRD-TEQIP-II Sponsored Faculty Development Programme on “**Security Assessment and Power management in Smart grid (SAMPS-2015)**” conducted during 15<sup>th</sup> to 19<sup>th</sup> June, 2015(One Week) in Department of Electrical Engineering at **NIT Calicut**, Kerala.

- [2]. Participated in AICTE Sponsored Two Week Faculty Development Programme on “***Micro Grid & Distributed Generation***” Organized by the Department of Electrical & Electronics Engineering during 28-10-2013 to 09-11-2013 at **KITS Warangal**, TELANGANA.

**d. Short Term Courses:**

- [1]. Participated in Intensive Continuing Education Course on “***ENGINEERING PEDAGOGY***” conducted by Centre for Continuing Education at **I.I.Sc. (Indian Institute of Science) Bangalore** conducted during 28<sup>th</sup> and 29<sup>th</sup> April 2006 under EFIP of AICTE.
- [2]. Participated in AICTE Recognised TEQIP-II Sponsored Short-term Course on “***PEDAGOGY TRAINING (Basic Module)***” conducted by Education and Educational Management Department from 30-09-2013 to 04-10-2013(One Week) at **NITTTR Chandigarh**.
- [3]. Participated in AICTE Recognised TEQIP-II Sponsored Short term Training Programme on “***MATLAB Software with Control System***” conducted by Department of Electrical & Electronics Engineering from 02-11-2015 to 06-11-2015 (One Week) at **NITTTR Bhopal**.
- [4]. Attended a Short-Term Course on “***Applications of Power Electronics to Renewable Energy (APERE-2k16)***” under the aegis of National Mission on Power Electronics Technology, an initiative by the Department of Electronics and Information Technology, Govt. Of India, and organized by the department of Electrical & Electronics Engineering, **NIT Goa** during 12<sup>th</sup> to 14<sup>th</sup> May 2016.

**e. Workshops:**

- [1]. Participated the “***Awareness Workshop on OUTCOME BASED EDUCATION AND ACCREDITATION***” Conducted by National Board of Accreditation and Jawaharlal Nehru Technological University Hyderabad on 14<sup>th</sup> September 2015 held at **JNT University Hyderabad**, Kukatpally, Hyderabad under TEQIP-II, JNTUHCEH.
- [2]. Participated in a Five-Day Workshop on “***POWER ELECTRONIC APPLICATIONS***” Organized by Department of Electrical Engineering under TEQIP-II DURING 14<sup>th</sup> - 18<sup>th</sup> October, 2013 at **NIT Warangal**, TELANGANA.
- [3]. Participated in the TEQIP-II Sponsored Two-Day National Workshop on “***Model-Based Digital PWM Control Techniques for Power Electronics Applications***” Conducted by Department of Electrical Engineering, National Institute of Technology, Warangal during 25<sup>th</sup> - 26<sup>th</sup> October, 2013 at **NIT Warangal**.
- [4]. Attended a Two-Day National Workshop on “***Recent Trends in METERING & CALIBRATION***” Organized by the Department of Electrical Engineering, National Institute of Technology Calicut during 6<sup>th</sup> - 7<sup>th</sup> January 2006 at **NIT Calicut**, KERALA.
- [5]. Attended a Workshop on “***Soft Skills for Engineers***” held on 30<sup>th</sup> October, 2004 in the National Institute of Technology Calicut under the auspices of IEEE Student Branch at **NIT Calicut**, KERALA.

**f. Question Paper Settings:**

**(i) Kakatiya University:**

*Control system Engineering, Digital Control System, Network Theory, Power Electronics, Network Analysis & Synthesis, Electrical Technology and Electrical Measurements*

**(ii) Osmania University (Autonomy)**

*Advanced Control System, Electrical Measurements, Electrical Circuits-I, Electrical Circuits-II,*

**(iii) Osmania University:**

*Control system Engineering, Network Theory, Power Electronics, Network Analysis & Synthesis, Electrical Technology and Electrical Measurements*

**(iv) KITS Warangal:**

*Control system Engineering, Digital Control System, Circuit Theory, Power Electronics, Network Analysis & Synthesis*

**(v) M.G. University:**

*Advanced Control System, Electrical Measurements, Electrical Circuits-I, Electrical Circuits-II,*

**(vi) MLRIT:**

*Control system Engineering, Circuit Theory, Power Electronics, Network Analysis & Synthesis.*

**(vii) Sri Indu College:**

*Control system Engineering, Measurements & Instrumentation, Circuit Theory, Power Electronics, Network Analysis & Synthesis.*

**(viii) Vagdevi College:**

*Control system Engineering, Circuit Theory, Power Electronics, Network Analysis & Synthesis*

**g. Industries Visited: KTPS, BTPS, NTPC, TSGENCO, ITC**

**h. Special Officer:**

Worked as Special officer for one year to 'KothaSuraram' Grampanchayath in Paloncha Mandal.

**i. Coordinator:**

Working as Participating Institute Coordinator for a National programme "Unnath Bharat Abhiyan" (UBA).

Website: [https://kakatiya.ac.in/faculty\\_details/54/dept/305](https://kakatiya.ac.in/faculty_details/54/dept/305)



## BIO-DATA

1. Name : Dr. KORRA CHEENA
2. Father's Name : KORRA BALYA
3. Date of Birth : 10-06-1980
4. Qualifications : B.Tech, M.Tech (NIT Calicut),  
Ph.D (IIT Dhanbad)
5. Department & College : Electrical & Electronics Engineering  
University College of Engineering  
Kothagudem
6. Date of appointment : 26-06-2006
7. Place of Birth : Kamepalli
8. Gender (Male/Female) : Male
9. Marital Status : Married
10. Community : ST
11. Nationality : INDIAN
12. Address for correspondence : H.No: 5-1-12/3/21  
Harsha Township,  
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