## **Bio-Data**

Name in Full :K. NAGABHUSHANAM

Father's Name :K. Venkatesh Mother's Name :K. Balamma

Address : 3/57, M. Kothapalli (Village),

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https://www.scopus.com/authid/detail.uri?authorId=57202639962

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https://scholar.google.co.in/citations?user=H9d45wUAAAAJ

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# Qualifications :

S.No.	Qualification	Year of Passing	Board/University	Division
1	SSC	2001	State board of secondary education A.P	First Class
2	Intermediate/Diploma	2005	State Board of technical Education, A.P.Hyderabad	First Class with Distinction
3	B. Tech/B.E.	2008	J.N.T.U Hyderabad	First Class with Distinction
4	M. Tech/M.E	2011	J.N.T.U. Anantapur.	First Class

### Work Experience:

S.No.	Name of the	Position held	Years of	Nature of
	Organization		Experience	work done
1	JNTUA College of	Assistant	14	Teaching
	Engineering.	Professor		
	Anantapur	Adhoc		

#### **Publications**

#### a) International Journals: 23

- 1. S. Anusha and K. Nagabhushanam "Designing Of Multifunctional Ev Charger Based On Solar Pv Array" ShodhKosh: Journal of Visual and Performing Arts DOI https://doi.org/10.29121/shodhkosh.v5.i7.2024.4307
- 2. Venkatesh, K. Nagabhushanam, R. Kiranmayi and M. rathaiah "Performance Analysis of Fuzzy Logic Controller Fed EV Charging Station with FRT Capability" Journal of Systems Engineering and Electronics https://jseepublisher.com/wp-content/uploads/1-JSEE2159.pdf
- **3.** V. Salini Rubi, R. Kiranmayi, K. Nagabhushanam & N. Swathi "ANFIS Control for Solar PV fed Modular Multilevel Inverter for Marine Water Pumping Applications" International Journal of Membrane Science and Technology, Vol:10, Issue-4, **DOI:** <a href="https://doi.org/10.15379/ijmst.v10i4.2241">https://doi.org/10.15379/ijmst.v10i4.2241</a>
- 4. D.Daniyelu, K. Nagabhushanam, Dr. R. Kiranmayi & M.Rathaiah "A Novel ANFIS Controller Based Distributed Power Flow Controller for Grid Interfaced Hybrid System" GIS SCIENCE JOURNAL, VOLUME 10, ISSUE 7, 2023 https://gisscience.net/volume-10-issue-1-2023/
- 5. M. Prathap Reddy, K. Nagabhushanam & Dr. R. Kiranmayi "An Independent Controller Design for Multivariable Systems based on Gain and Phase Margin Specifications" Design Engineering, Issue-9, Dec-2021, 15516-15524 ISSN: 0011-9342 http://www.thedesignengineering.com/index.php/DE/article/view/8788
- 6. P. Karunya N. Swathi Dr. R. Kiranmayi & K. Nagabhushanam 'Adaptive Droop Control Method by Using Fopid Controller to Implement Grid Regulation for Industrial Microgrid' Design Engineering, Issue-9, Dec-2021, ISSN: 0011-9342
- 7. P. Sunel Kumar, Dr. R. Kiranmayi, K. Nagabhushanam & K. Firdose Kowser Ahamadia 'An Equivalent Transfer Function based PID Controller Design for Waste Water Treatment Plant' Design Engineering, Issue-8, Nov-2021, ISSN: 0011-9342
- 8. R Hemanth Kumar, Dr. R. Kiranmayi, K. Nagabhushanam & N. Swathi 'Cascaded multilevel Inverter with Output Voltage Regulation Techniques to Reduce Harmonic Distortion and Power Quality Improvement in Solar Panel' Design Engineering, Issue-8, Nov-2021, ISSN: 0011-9342
- S Sarvani, K. Nagabhushanam, Dr. R. Kiranmayi 'Robust Centralized Controller Design for Time Delayed TITO Processes with RHP Poles' Design Engineering, Issue-8, Oct-2021, 6298-6312 ISSN: 0011-9342, http://www.thedesignengineering.com/index.php/DE/article/view/5595
- 10. M. Anil Kumar, Dr. R. Kiranmayi, K. Nagabhushanam & 'Development of a fuzzy Logic Control System to Improve Performance of a PMSG based Wind Energy Conversion System

- Under Normal and Grid Fault Conditions' PENSEE, Volume-51, Issue-4, 2021, ISSN: 0031-4773S.
- 11. K Naveen Kumar, Dr. R. Kiranmayi, K. Nagabhushanam & N. Swathi 'PI/PID Controller Design for Multi-Loop Processes Based on Their Minimum Phase Transfer Function Model' PENSEE, Volume-51, 2021, Issue-4, ISSN: 0031-4773S.
- 12. Venkataramana, K. Nagabhushanam, Dr. R. Kiranmayi & M. Rathaiah 'Maximum Power Point Tracking of PV Array Using Hybrid Controller' PENSEE, Volume-51, Issue-4, 442-453, ISSN: 0031-4773, https://app.box.com/s/17fk7di5j261t22ky2nj7vuabcukwnfl
- 13. B.HariSankar Reddy, K..Nagabhushanam, R.Kiranmayi' Intelligent Algorithm Based Maximum Power Point Tracking of Photovoltaic Solar Pump' International Journal of Recent Technology and Engineering (IJRTE)Volume-8 Issue-4, November 2019, 5114-5122 ISSN: 2277-3878. https://www.ijrte.org/portfolio-item/D8319118419/
- 14. R. Sandeep, Dr. R. Kiranmayi and K. Nagabhushanam 'Direct Synthesis Based Controller Design For Interacting Process Using Etf', International Journal of Engineering Development and Research, Volume 5, Issue 4, December 2017, ISSN: 2321-9939.
- 15. CH. Yogasree and K. Nagabhushanam 'Mppt Control Methods In Wpgs Based On Anfis Method', Journal of Advanced Research in Dynamical and Control Systems, Vol. 9. Sp– 14 / 2017.
- 16. M. ArunTejaReddy ,K.Nagabhushanam and Praveen Shankar Jambholkar 'Comparing The Performances Of Controllers For Inverted Pendulum In Lqr, Pid And Fuzzy Techniques', Journal of Advanced Research in Dynamical and Control Systems, Vol. 9. Sp– 16 / 2017.
- 17. V. Madhavi& K. Nagabhushanam, 'Cascaded Two-Level Inverter-Based Multi-Level Inverter for High power applications by using STSTCOM with Fuzzy Logic Control', International Journal of Scientific Research in Science, Engineering and Technology, Volume. 3/Issue 1/2254 on February-2017, 397-406.ISSN: 2394-4099 DOI: 10.32628/IJSRSET173194
- 18. D. Alekhya & K. Nagabhushanam, 'Implementation of Solar PV & Battery Storage System of a three Level NPC Inverter Using Fuzzy Logic Controller', International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, Vol.6, Issue 2, February-2017, 779-789 ISSN 2278 8875 http://www.ijareeie.com/upload/2017/february/46 Imp Alekya NC.pdf
- 19. G. Jahnavi& K. Nagabhushanam, 'Power Quality Improvement Under Stiff Source Using Multifunctional DSTATCOM', International Journal of Scientific Research in Science, Engineering and Technology, Volume 3/ Issue 1, 2127,39-46, January-2017. https://ijsrset.com/PDF.php?pid=2127&v=3&i=1&y=2017&m=January-February
- 20. P. VenkataPrasanthi& K. Nagabhushanam, 'Implementing Droop Controlled DFIG Units In Microgrid', International Journal of Innovative Research and Advanced Studies (IJIRAS), Volume 3 Issue 12, November 2016.326-333 https://www.ijiras.com/2016/Vol\_3-Issue 12/paper 57.pdf
- 21. N. Viswanath, Dr. R. Kiranmari and K Nagabhushanam 'Multi Scale Control Scheme for Designing of Feedback-Feedforward Control System', International Research Journal of Engineering and Technology (IRJET)" Volume:03 Issue:1 Oct-2016.

- 22. N C L. Deepthi& K. Nagabhushanam, 'A Transformerless Hybrid Series Active Filter for Enhancing Power Quality of Electric Transportation Systems', International Journal of Research in Advanced Engineering Technologies, Vol. 5, Issue. 4-11, September-2016.
- 23. R. Sireesha, Dr. R. Kiranmayi, K. Naga Bhushanam, Dr. Seetha Chaithanya, 'Design of an Inverted Decoupled PID Controller for Rejection of Loop Interaction in Two-Input-Two-Output Processes' "Design Engineering" Vol-2021, Issue -8, ISSN: 0011-9342, 17583 17596 http://www.thedesignengineering.com/index.php/DE/article/view/6959

### b) Conferences/Workshops:62

- One week Professional Development Program on "EV Design and Applications to Aerospace Systems" organized by JNTUACEA, Ananthapuramu from 25<sup>th</sup> – 29<sup>th</sup> November 2024
- 2. One week Faculty Development Program on "Electric Vehicle Technology" Organized by AICTE Training and Learning (ATAL) Academy from 26<sup>th</sup> 31<sup>st</sup> August 2024
- One week Faculty Development Program on "Next-Gen Smart Grid Technologies with Power Electronics Innovations" organized by Malla Reddy Engineering College for Women, Secunderabad from 15<sup>th</sup> – 20<sup>th</sup> July 2024
- 4. One day workshop on "How to Write A Proposal for the Funded Projects?" organized by Pantech e Learning on 2<sup>nd</sup> June 2024
- One week Faculty Development Program on "Viksit Bharat 2047- Role of Engineering Faculty" organized by RGUKT RK Valley Campus & Anantha Lakshmi Institute of Technology & Sciences Ananthapuramu from 29<sup>th</sup> 02<sup>nd</sup> February 2024
- 6. One Week Faculty Development Program on "IoT with Machine Learning" organized by PVKK Institute of Technology Ananthapuramu from  $27^{th}$  Nov  $-02^{nd}$  Dec-2023
- 7. Attended one week faculty development program on "Recent Trends in Green Energy Initiatives and Soft Computing Techniques" organized Mahatma Gandhi Institute of Technology Hyderabad from 11<sup>th</sup> 15<sup>th</sup> July 2023
- 8. Attended one week faculty development program on "Machine Learning in Big Data Applications and Security Challenges" organized by Department of Computer Science and Engineering, MLR Institute of Technology. from 24<sup>th</sup> 29th April, 2023.
- Pollai Asha, K. Nagabhushanam, R. Kiranmayi and M.Rathaiah "Multiple Renewable Sources Integrated Micro Grid with ANFIS Based Charge and Discharge Control of Battery for Optimal Power Sharing" Second International Conference Electrical, Electronics, Information and Communication Technologies (ICEEICT), 5-7 April 2023. Trichirappalli, India DOI: 10.1109/ICEEICT56924.2023.10157007

- 10. B. Naga Siresha, N. Swathi, R. Kiranmayi & K. Nagabhushanam "Speed Control of Brushless DC Motor Using Hybrid ANFIS FOPID Controller" Second International Conference Electrical, Electronics, Information and Communication Technologies (ICEEICT), 5-7 April 2023. Trichirappalli, India **DOI**: 10.1109/ICEEICT56924.2023.10156982
- 11. M Venkata Lakshmi Narayana, K. Nagabhushanam, R. Kiranmayi and M.Rathaiah "A Novel Variable Step Incremental Conductance Maximum Power Point Tracking Algorithm Based on ANFIS Controller for Grid Photovoltaic Systems" Second International Conference Electrical, Electronics, Information and Communication Technologies (ICEEICT), 5-7 April 2023. Trichirappalli, India **DOI**: 10.1109/ICEEICT56924.2023.10157876
- 12. S. Roopa, K. Nagabhushanam, R. Kiranmayi & M. Rathaiah "Switched Capacitor Integrated Electric Vehicle for Energy Recovery During Regerative Mode Using Dual Sliding Mode-Proportional Integral Controller" Second International Conference on Electronics and Renewable Systems (ICEARS 2023) organized by St. Mother Theresa Engineering College, Tuticorin, Tamil Nadu, India. Held on 24 March 2023. **DOI:** 10.1109/ICEARS56392.2023.10085659
- 13. Naveen Kumar Peelam, R. Kiranmayi, K. Nagabhushanam & N. Swathi "Wind Turbine Integrated Generator Rectifier System with Fuzzy Logic Controller based on MPPT" 2023 International Conference on Recent Trends in Electronics and Communication (ICRTEC) 10-11 Feb 2023 Mysore, India DOI: 10.1109/ICRTEC56977.2023.10111867
- 14. K. Nagabhushanam "Improved Fractional Filter IMC-PID Controller Design for SISO and MIMO Process" in the 2023 Fifth IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT 2023) held at Velalar College of Engineering & Technology, Erode, Tamil Nadu, India during 22 24, February 2023. ICECCT 2023
- 15. K Nagabhushanam "Design of Tilted Integral Derivation Control Method for a Process with an Uncertain Parameter" 2023 Fifth IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT 2023) held at Velalar College of Engineering & Technology, Erode, Tamil Nadu, India during 22 24, February 2023. ICECCT 2023
- 16. S. Anitha, R. Kiranmayi, K Nagabhushanma & K. Firdose Kowser Ahamadia "Improved Centralized PID Controller with Disturbance Rejection for LTI Multivariable Processes" International Conference on Artificial Intelligence for Smart Community, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 758) Springer. 14/11/2022 DOI: https://doi.org/10.1007/978-981-16-2183-3\_5
- 17. P. Keerthi, R Kiranmayi, K. Nagabhushanam & K Firdose Kowser Ahamadia "Tuning of PID Controller using SIMC Method for Systems with Time Delay and RHP Poles" **International Conference on Artificial Intelligence for Smart Community**, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 758) Springer. 14/11/2022 DOI: https://doi.org/10.1007/978-981-16-2183-3 6
- A. Parvathi, M. Rathaiah, R. Kiranmayi & K. Nagabhushanam "Design of PID Controller for Integrating Processes with Inverse Response" International Conference on Artificial Intelligence for Smart Community, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 758) Springer. 14/11/2022 DOI: https://doi.org/10.1007/978-981-16-2183-3\_1

- 19. C. Venkatasuresh, M. Rathaiah, R. Kiranmayi & K. Nagabhushanam "Independent Controller Design for Non-minimum Phase Two Variable Process with Time Dealy" "International Conference on Artificial Intelligence for Smart Community, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 758) Springer. 14/11/2022 DOI: https://doi.org/10.1007/978-981-16-2183-3\_7
- 20. A. Divya Teja, R. Kiranmayi, K. Nagabhushanam & N. Swathi "Simplified Decoupler Based Fractional Order PID Controller for Two Variable Fractional Order Process" "International Conference on Artificial Intelligence for Smart Community, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 758) Springer. 14/11/2022 DOI: https://doi.org/10.1007/978-981-16-2183-3\_4
- 21. Completed Microsoft Certified "Azure Fundamentals" Course on 28 Oct. 2022
- 22. A one Weak on line Faculty Development Program on "Recent Advances in Electrical Engineering" Organized by G. Pulla Reddy Engineering College Autonomous, Kurnool. During 17-21 Oct. 2022.
- 23. Attended International Online Webinar on "Upcoiming Trends in Wearable Electronics and Internet of Things (IoT)" Conducted by National Institute of Technical Teachers Training and Research Chennai on 15 Oct. 2022.
- 24. A one Weak on line Faculty Development Program on "Python Programing and its Applications" Organized by G. Pulla Reddy Engineering College Autonomous, Kurnool. During 26-30 Sep. 2022.
- 25. Completed Microsoft Certified "Introduction to Programming using Java" Course on 28 June 2022
- 26. Attended six day online faculty development program on "Control Engineering in Electric Vehicles" conducted by Department of Electrical and Electronics Engineering in association with SRM TRPEC IEEE Students Branch and IIC from 07.02.2022 to 12.02.2022.
- 27. Attended two week training faculty development program on "Fuzzy Sets, Logic and Systems & Applications" conducted by NPTEL-AICTE(Jan-Apr 2020).
- 28. Attended AICTE sponsered online one week short term training program on "Recent Chalenges and Emerging Opportunities in Electric Vehicles" organised by Pragathi Engineering College from 7-12-2020 to 12-12-2020.
- 29. Attended AICTE sponsered six days online short term training program on "IoT Based Control Strategies for AC/DC Microgrid in Smart City Implementation" organised by Sri Ramakrishna Engineering College from 23-11-2020 to 28-11-2020.
- 30. Attended four day online faculty development program on "Challenges and Opportunities of Energy and Sensor Applications" organised by JNTACEA Anantapur from 23-09-2020 to 26-09-2020.
- 31. Participated in five day faculty development program on "IoT and Smart Device Applications in Green Technology and Electric Vehicle" organised by Bapatla Engineering College during 24-08-2020 to 28-08-2020.
- 32. Attended five day short term course on "Power Electronics Applicatios in Smart Grid and Electric Vehicles" organised by Sri Ramakrishna Engineering College from 3-8-2020 to 7-8-2020.
- 33. Attended online faculty development program on "Emerging Trends in Electrical Engineering- A Research Perspective" organised by LBS College of Engineering Kasaragod from 27-07-2020 to 31-07-2020.

- 34. Attended a one week national level faculty development program on "Current Research Trends in Power Systems and Power Electronics" organised by Vignans Nirula Institute of Technology and Science for Women during 20-07-2020 to 25-07-2020.
- 35. Attended five day faculty development program on "Recent Innovations and Technologies in Electric Vehicles" organised by GATES institute of Technology during 08-06-2020 to 12-06-2020.
- 36. One Day National Workshop on **Power Electronics for Power Engineers** organized by NPTI Faridabad on Oct-1 2019.
- 37. Attended one week Training Program on "Advanced Linear Continuous Control Systems: Applications with MATLAB and Simulink" Conducted by NPTEL-AICTE (July-Sep 2019)
- 38. Attended One Week Training Program on "Training Program on "Power Converters Design" held at JNTUACEA from 25/09/2019 to 30/09/2019.
- 39. Three Day National Workshop on "Electro Ceramics: Synthesis Characterization and Device Applications" organized by UCET Bikaner and JNTUACEA from Sep 11-13 2019.
- 40. Three Day national Workshop on "Intelligent Optimization Techniques for Engineering Problems" organized by NIT Karnataka Surathkal from Aug 19-21 2019
- 41. Attended One day workshop on "Industrial applications of power electronics systems" a. held at JNTUACEA, on 1<sup>st</sup> July 2019
- 42. Attended One week Faculty Development Program on 'Design and development of MOOCS through SWAYAM' held at JNTUACEA from 18/01/2019 to 23/01/2019.
- 43. Attended one week Training Program on "Electrical Power Distribution System Analysis" Conducted by NPTEL-AICTE (Aug-Sep 2018)
- 44. Attended One day workshop on "Awareness on IEEE?IET Electronic Digital Library Sources" held at JNTUACEA, on 30 November 2018
- 45. Attended two day workshop on **"Pedagogical Skills For Outcome Based Education"** held at JNTUACEA on November 16-17,2018
- 46. Attended two day workshop on "Big Data Applications in Power Systems" held at JNTUACEA on September 28-29,2018
- 47. S.S..D Gowtham Kumar, K. Nagabhushanam and Dr. R. Kiranmayi 'Quasi-Sliding-Mode Domain based Discrete-Time Sliding-Mode Control' International Conference on Intelligent Computing and Sustainable Systems(ICICSS 2018), Akshaya College of Engineering and technology on 20, 21 September 2018.
- 48. B. Prasanth, Dr. R. Kiranmayi and K. Nagabhushanam'Voltage Regulation of a Hybrid Standalone 1-Phase Microgrid using FOPID Based Adaptive Sliding Mode Controller' International Conference on Intelligent Computing and Sustainable Systems(ICICSS 2018), Akshaya College of Engineering and technology on 20, 21 September 2018.
- 49. Attended One day workshop on "R Programming and Applications to E;ectrical Engineering" held at JNTUACEA on April-21,2018
- 50. Attended two day workshop on "Prospective Energy Sorces- Wind and Solar PV Systems" held at JNTUACEA on March 23-24,2018
- 51. P. Yogaswani, Dr. R. Kiranmayi and K Nagabhushanam 'Adaptive control design for a PWM-CSC and PMSG based wind energy conversion system', A National Conference on Advances in Power and Energy Systems(NCAPES), Madanapalle Institute of Technology & Science, Madanapalle. During 17<sup>th</sup> 18<sup>th</sup> march 2017.

- 52. Participated in the One day faculty development programme on "**Big Data Analytics**" held from 20-02-2017 to 22-02-2017 at JNTUA CEA.
- 53. Attended One day workshop on "21stCentuary Teaching Strategies" held on 16th September, 2017 at JNTUA CEA.
- 54. Attended One day Didactical programme on "Crafting Powerful Questions" held on 16<sup>th</sup> July, 2016 at JNTUA CEA.
- 55. Attended One day workshop on "**Solar Power Technologies**" held on 20.04.2016 at JNTUA College of Engineering.
- 56. Attended One day workshop on "Wind Energy Conversion Systems" held on 13.04.2016 at JNTUA College of Engineering.
- 57. Attended One day workshop on "Awareness on IT/ITES Job Roles & Big Data Analytics" held on 20<sup>th</sup> August, 2015 at JNTUA CEA.
- 58. Participated in the One day faculty development programme on "AGILE METHODOLOGIES" held at JNTUA College of engineering Anantapur on 25-Feb-2015.
- 59. Attended One day complimentary training/orientation on "MATLAB, Simulink& Related Tool Boxes for Engineering Education" held on 07<sup>th</sup> October, 2015 at JNTUC CEA.
- 60. Attended one day workshop on "Smart grid" organized by the department of Electrical Engineering JNTU Ananthapuramu.
- 61. Attended One day workshop "Awareness on Power Systems Simulation Analysis using Mi Power Software" held on 22.09.2015 at JNTUA College of Engineering.
- 62. Attended workshop on **Research Perspective on Solar PV Systems** at PSG college of technology Coimbatore held on 26-04-2015 to 29-04-2015.

### M.Tech/B.Tech

# Subjects Courses taken/labs/Projects guided

- 1. Electric Vehicle Engineering
- 2. Control Systems
- 3. Switchgear and protection
- 4. Electric Power Generating Systems
- 5. Transmission of Electric Power
- 6. Electric Power Distribution and Automation
- 7. Basic Electrical Energy
- 8. Optimal Control
- 9. Adaptive Control
- 10. Modern Control Theory
- 11. Process Dynamics and Control
- 12. Digital Control Systems
- 13. DC Machines and Transformers
- 14. AC Machines-II

#### **Achievemts:**

- NPTEL 1. Certificate published for "Electrical Distribution System Analysis"
  - 2. Certificate published for "Fuzzy Sets, Logic and Systems & Applications"
  - 3. Certificate published for "Advanced Linear Continuous Control Systems: Applications with MATLAB Programming and Simulink.
  - 4. Certificate published for "Research Publications and Ethics"

## Academic Projects Guided/Guiding: M. Tech-12, B. Tech-7

# **Administrative Works Supported:**

- Performed Invigilation duties for different exams (End semester examinations (college & University), CET examinations, APPSC Examinations and UPSC Civil Service Examination).
- Assistance for university BOS
- Assistance for College BOS
- Supported in getting data for NBA, NAAC and NIRF
- Assisting for department administrative works