**Dr.Ch.Naga sai kalyan**

EEE Department

Vasireddy Venkatadri Institute of Technology (VVIT)

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**Career Highlights**

**Current Position:** Assistant Professor, EEE Department, VVIT, Guntur since 25th May2015.

**Research area:** Power system operation and control, incorporation of Renewable energy systems and application of FACTs devices to the grid.

**Ratified as Assistant Professor from JNTUK, Kakinada on March-2017**

**Education**

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| --- | --- | --- | --- | --- | --- |
| **QUALIFICATION** | **COURSE** | **COLLEGE** | **BOARD** | **YEAR** | **Percent/**  **CGPA** |
| Ph.D | Power Systems | Acharya Nagarjuna University |  | 05th Mar-2021. |  |
| M.TECH | PSCA | PVP Siddartha Institute-Of Technology | Autonomous | 2012-14 | 8.79 |
| B.TECH | EEE | Vasireddy Venkatadri Institute Of Technology, Nambur. | JNTUK,  Kakinada | 2008-12 | 70.26 |

**Journal Publications:**

1. B.Nagi reddy, B. Srikanth goud, Ch. Naga Sai Kalyan, P. K. Balachandran, B. Aljafari, and K. Sangeetha, “The design of 2S2L-based Buck-Boost converter with a wide conversion range”, International Transactions on Electrical Energy Systems, <https://doi.org/10.1155/2023/4057091> (2023), (SCIE) ISSN: 2050-7038.
2. Ch.Amarendra, A.Pandian, C.R.Reddy, CH.Naga Sai Kalyan, M. Bajaj, K.M.AboRas, and D.E.M. Wapet, “Modified hybrid PSO algorithm for efficient control of the matrix converter-fed electrical drive system”, International Transactions on Electrical Energy Systems, <https://doi.org/10.1155/2023/4344270> (2023), (SCIE) ISSN: 2050-7038.
3. CH. Naga Sai Kalyan, P. Srihari, K. Nagalingachary, A. V. Ravi Kumar, Abdul Imran, B. S. Goud, and M. Kiran Kumar, “Path finder optimization algorithm tuned 3DOFPID controller for frequency stabilization in wind integrated realistic power system with HVDC line”, International Journal of Renewable Energy Research, Vol.13, No.1, pp.208-220, 2023. (ISSN-1309 0127).
4. P. Gopi, P. S. Varma, **C. N. S. Kalyan**, C. V. R. Kumar, A. Srnivasulu, B. Bohara, A. Rajesh, M. Wahab, and K. Sathish, “Dynamic behaviour and stability analysis of automatic voltage regulator with parameter uncertainty”, International Transactions on Electrical Energy Systems, <https://doi.org/10.1155/2023/6662355> (2023), (SCIE) ISSN: 2050-7038
5. Suresh, C.V., Giridhar, M.S., **Kalyan, C.N.S.** et al. Optimal renewable resource for enhanced performance of unbalanced radial distribution systems. Microsyst Technol (2023). <https://doi.org/10.1007/s00542-022-05409-2> (SCIE) ISSN: 1432-1858
6. Vijayan, M.; Udumula, R.R.; Mahto, T.; Lokeshgupta, B.; Goud, B.S.; **Kalyan, C.N.S**.; Balachandran, P.K.; C, D.; Padmanaban, S.; Twala, B. Optimal PI-Controller-Based Hybrid Energy Storage System in DC Microgrid. Sustainability 2022, 14, 14666. (SCI-E) ISSN:2071-1050.
7. B.S.Goud, C.R.Reddy, **CH.Naga sai kalyan**, U.R.Reddy, M.Bajaj, B.A.Samad, M.Shouran, and S.Kamel, “PV/WT integrated system using the grey wolf optimization technique for power quality improvement”, Frontiers in Energy Research, 10:957971., 2022. **(SCI-E)** ISSN:2296-598X.
8. **CH.Naga sai kalyan**, B. Srikanth Goud, Ch.Rami reddy, U.Ramanjaneya Reddy, Mohit Bajaj, N.K.Sharma, E.Elgamli, M.Shouran, and S.Kamel, “Seagull optimization algorithm based fractional order fuzzy controller for LFC of multi area diverse source system with realistic constraints”, Frontiers in Energy Research, 10:921426, 2022. **(SCI-E)** ISSN:2296-598X.
9. **Ch.Naga sai kalyan**, G.Swapna, S.Rajasekaran, A.N.Venkateswarlu, B.Srikanth goud, and Ch.Rami reddy, “Coordinated IPFC and SMES strategy for stability analysis of renewable energy based contemporary interconnected power system with FOPID controller”, International Journal of Renewable Energy Research, Vol.12, No.02, pp.1052-1062, 2022. ISSN-1309 0127, (**e-SCI, SCOPUS Indexed**)
10. **CH.Naga sai kalyan**, B.Srikanth goud, Ch.Rami reddy, M. Kiran kumar, Mohit Bajaj, M.F.Naggar, and Salah Kamel, “Performance assessment of open-loop and closed-loop generation rate constraint models for optimal LFC of the three-area reheat thermal system”, Frontiers in Energy Research, 10:9206541, 2022. **(SCI-E)** ISSN:2296-598X.
11. M.Dashtdar, K.Sarada, S.M.S.Hosseinimoghadam, **C. N. S. Kalyan**, A.N.Venkateswarlu, B.S.Goud, C.R.Reddy, Y.Belkhier, M.Bajaj and B.N.Reddy, “Faulted section identification and fault location in power network based on histogram analysis of three-phase current and voltage modulated”, Journal of Electrical Engineering & Technology, 2022, <https://doi.org/10.1007/s42835-022-01079-2> **(SCI-E)** ISSN: 1975-0102.
12. **Ch. Naga sai kalyan**, B.S.Goud, C.R.Reddy, M.Bajaj and G.S.Rao, “SMES and TCSC coordinated strategy for multi-area multi-source system with water cycle algorithm based 3DOF-PID controller”, Smart Science, <https://doi.org/10.1080/23080477.2022.2054199>, ISSN: 2308-0477. **(Taylor and Francis)** (**e-SCI, SCOPUS Indexed**)
13. **CH.Naga sai kalyan,** B.S.Goud, M.Bajaj, M.K.Kumar, E.M.Ahmed and S.Kamel, “Water cycle algorithm tuned intelligent fuzzy controller for stability of multi area multi fuel power system with time delays”, Mathematics, 2022, 10, 508, https://doi.org/10.3390/math10030508 **(SCI-E)** ISSN: 2227-7390.
14. **Ch.Naga sai kalyan,** B.S.Goud, C.R.Reddy, M.Bajaj, N.K.Sharma, H.H.Alhelou, P.Siano, and S.Kamel, “Comparative performance assessment of different energy storage devices in combined LFC and AVR analysis of multi-area power system”, Energies, 2022, 15: 629, https://doi.org/10.3390/en15020629 **(SCI-E)** ISSN: 1996-1073.
15. **Ch.Naga sai kalyan**, A.N.Venkateswarlu, C.R.Reddy, B.S.Goud, A.G.Prasad, C.Sriram, F.Aymen, “Frequency regulation of multi area renewable energy source system with practical constraints under fractional-order fuzzy controller”, International Journal of Renewable Energy Research, Vol.11, No.3, pp.992-1002, 2021. ISSN-1309 0127, (**e-SCI, SCOPUS Indexed**)
16. B.S.Goud, T.Rakesh, N.Rajesh, C.R.Reddy, **Ch.Naga sai kalyan**, B.N.Reddy, F.Aymen, “Grid integration of renewable energy sources using GA technique for improving power quality”, International Journal of Renewable Energy Research, Vol.11, No.3, pp.1390-1402, 2021. ISSN-1309 0127, (**e-SCI, SCOPUS Indexed**)
17. **Ch.Naga Sai Kalyan**, B.S.Goud, C.R.Reddy, H.S.Ramadan, M.Bajaj, Z.M.Ali, “Water cycle algorithm optimized Type II fuzzy controller for load frequency control of a Multi-Area, Multi-Fuel system with communication time delays”, Energies, 2021, 14(17): 5387. https://doi.org/10.3390/en14175387 **(SCI-E)** ISSN: 1996-1073.
18. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Coordinated control strategy for simultaneous frequency and voltage stabilization of the multi-area interconnected system considering communication time delays”, International Journal of Ambient energy, https://doi.org/10.1080/01430750.2021.1967192 ISSN: 2162-8246 **(Taylor and Francis)** (**e-SCI, SCOPUS Indexed**)
19. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Frequency and voltage stabilisation in combined load frequency control and automatic voltage regulation of multi area system with hybrid generation utilities by AC/DC links”, International Journal of Sustainable Energy, Vol.39, No.10, 2020, pp.1009-1029. ISSN: 1478-646X **(Taylor and Francis)** (**e-SCI, SCOPUS Indexed**)
20. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Combined frequency and voltage stabilization of multi-area multisource system by DE-AEFA optimized PID controller with coordinated performance of IPFC and RFBs”, International Journal of Ambient energy, Vol.43, No.1, pp.3815-3831, 2022. ISSN: 2162-8246 **(Taylor and Francis)** (**e-SCI, SCOPUS Indexed**)
21. **CH.Naga sai Kalyan**, G.Sambasiva Rao, “Coordinated SMES and TCSC Damping controller for load frequency control of multi area power system with diverse sources”, International Journal of Electrical Engineering and Informatics, Vol.12, No.04, 2020, pp.747-769, ISSN:2087-5886 **(SCOPUS Indexed)**
22. **CH.Naga sai Kalyan**, G.Sambasiva Rao, “Impact of communication time delays on combined LFC and AVR of a multi-area hybrid system with IPFC-RFBs coordinated control strategy”, Protection and Control of Modern Power Systems, 6:7 (2021), <https://doi.org/10.1186/s41601-021-00185-z> (**ESCI, Scopus Indexed**, ISSN:2367-0983) **(Springer)**
23. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Performance Comparison of  
    Various Energy Storage Devices in Combined LFC and AVR of Multi Area System  
    with Renewable Energy Integration”, International Journal of Renewable Energy Research (IJRER), Vol10, No.02, pp.933-944, 2020. ISSN-1309 0127, (**e-SCI, SCOPUS Indexed**)
24. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Automatic generation control of multi area hybrid system considering communication time delays”, Jour. Of Adv. Research in Dynamical & Control Systems, Vol.12, No.02, 2020, pp.2071-2083. ISSN:1943-023X (**SCOPUS Indexed**)
25. J.Srilekha, **Ch.Naga sai Kalyan**, G.Stanley, K.Suneetha, Md.M.Thakreem, “Load frequency control of two-area hydro thermal system considering GRCs and GDB non linearity’s with intelligent controller”, International Journal of Recent Technology and Engineering, Vol.8, No.05, PP.4697-4705. (**SCOPUS Indexed**). 2020, ISSN: 2277-3878.
26. **Ch.Naga sai kalyan**, Chintalapudi V Suresh, M.Rajesh, CH.Rambabu, “GWO optimized FOPID controller for AGC of nonlinear hydrothermal system with HVDC line”, International Journal of Future Generation Communication and Networking, Vol.13, No.03, 2020, pp.3620-3627. (Web of Science) ISSN: 2233-7857.
27. Sk.Mastan, **Ch.Naga sai Kalyan**, K.Vasuki, P.B.Sankar, N.Rajesh, “Optimal load frequency control of two area reheat interconnected thermal power system with superconducting magnetic energy storage device”, International Journal of Innovative Science, Engineering and Technology (IJISET), Vol.07, No.02, pp.264-270, Februray 2020, ISSN-2348 7968. (**UGC approved journal No.48287**). 2020
28. **Ch.Naga sai kalyan**, A.V.Naresh Babu, Chintalapudi V Suresh “A method to enhance system loadability in the performance of ramp-rate limits using optimization”, Journal of Emerging Technologies and Innovative Research (JETIR), Vol.06, No.02, pp.1096-1099, February 2019, (**UGC approved journal No.63975**) ISSN-2349 5162.
29. **Ch.Naga sai kalyan**, Chintalapudi V Suresh, M.Rajesh “ Economic Load Dispatch Using Gradient Method” on International Journal of Research and Analytical Reviews (IJRAR), Vol 5, Issue 4, PP.No: 319-322 Aug 2018, (**UGC approved journal No. 43602**) e ISSN No 2348-1269.
30. **Ch.Naga sai kalyan**, M.Rajesh “Grid Integration of Renewable Power (PV-Wind) With Incremental Conductance MPPT Controlled BUCKBOOST Converter and Battery Storage” on International Journal of Management, Technology And Engineering (IJMTE) in Vol 8, Issue 9 Page No: 196-203, September 2018, ISSN NO: 2249-7455, (**UGC approved journal SI.No 45550**) DOI:16.10089.IJMTE.2018.V8I9.16.2023.
31. **Ch. Naga sai kalyan**, M.seshu “ A Novel High Performance Dual Control Strategy for Islanding Operations in PV Generation using Fuzzy” on IJATIR in Vol 6 – Issue 12 ISSN 2348-2370 page no:1525-1528 DEC 2014.

**Conference Publications:**

1. **Ch.Naga sai Kalyan**, “UPFC and SMES based coordinated control strategy for simultaneous frequency and voltage stability of an interconnected power system”, 2021 1st International conference on Power Electronics and Energy (ICPEE), 2-3 Jan-2021, Bhubaneswar, India. [10.1109/ICPEE50452.2021.9358576](https://doi.org/10.1109/ICPEE50452.2021.9358576) **(IEEE).**
2. **Ch.Naga sai Kalyan**, G.Sambasiva Rao, “Demonstrating the effect of excitation cross coupling and communication time delays on automatic generation control”, 2021 4th Biennial Conference on Nascent Technologies in Engineering (ICNTE), [10.1109/ICNTE51185.2021.9487779](https://doi.org/10.1109/ICNTE51185.2021.9487779) **(IEEE).**
3. **Ch.Naga sai Kalyan**, Chintalapudi V Suresh, “PIDD controller for AGC of nonlinear system with PEV integration and AC-DC links”, 2021 International Conference on Sustainable Energy and Future Electric Transportation (SEFET), 21-23 Jan 2021, Hyderabad, India. [10.1109/SeFet48154.2021.9375756](https://doi.org/10.1109/SeFet48154.2021.9375756) **(IEEE).**
4. **Ch.Naga sai Kalyan**, Chintalapudi V Suresh, “Differential Evolution based intelligent control approach for LFC of multi-area power system with communication time delays”, International Conference on Computing, Communication and Intelligent Systems (ICCCIS), 19-20 Feb, 2021, Sharda University, Greater Noida, India, [10.1109/ICCCIS51004.2021.9397112](https://doi.org/10.1109/ICCCIS51004.2021.9397112)
5. **C. N. s. kalyan**, C. V. Suresh and M. Rajesh, "Stabilization of Dual Area Hydro Thermal System with the Integration of Plug in Electric Vehicles," *2021 2nd International Conference for Emerging Technology (INCET)*, 2021, pp. 1-5, doi: 10.1109/INCET51464.2021.9456442.
6. **C. N. s. kalyan**, C. V. Suresh and M. Rajesh, "Performance Evaluation of Several Fuzzy Controllers in AGC of Dual Area System with Time Delays," *2021 2nd International Conference for Emerging Technology (INCET)*, 2021, pp. 1-6, doi: 10.1109/INCET51464.2021.9456279.
7. **C. N. S. Kalyan**, "Determination of appropriate GRC Modelling for Optimal LFC of Multi Area Thermal System," 2021 IEEE International Power and Renewable Energy Conference (IPRECON), 2021, pp. 1-6, doi: 10.1109/IPRECON52453.2021.9640892.
8. **C. N. S. Kalyan**, "Water Cycle Algorithm based Intelligent Controller for Frequency Regulation of Dual Area Hybrid System with Time Delays," 2021 IEEE International Power and Renewable Energy Conference (IPRECON), 2021, pp. 1-5, doi: 10.1109/IPRECON52453.2021.9640646.
9. **C. N. S. Kalyan**, B. S. Goud, C. R. Reddy, B. N. Reddy, M. Bajaj and A. V. Sudhakar, "Falcon Optimizer based PIDD Controller for AGC of Dual Area Realistic System with AC-DC Links," 2021 International Conference on Technology and Policy in Energy and Electric Power (ICT-PEP), 2021, pp. 6-10, doi: 10.1109/ICT-PEP53949.2021.9600946.
10. P. Harideep, V. Pavan Sai Reddy, G. Ganesh, O. Bhanu Prakash, **C. Naga Sai Kalyan** and C. V. Suresh, "Seagull Optimization Tuned Traditional PID Controller with Set Point Filter for LFC of Hydro Thermal System based on Performance Indices," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 85-89, doi: 10.1109/RDCAPE52977.2021.9633523.
11. C. N. S. Kalian, K. B. Krishna and M. Rajesh, "Water cycle algorithm based PIDD controller for LFC of multi area diverse source system with communication time delays," 2021 4th International Conference on Recent Developments in Control, Automation & Power Engineering (RDCAPE), 2021, pp. 298-303, doi: 10.1109/RDCAPE52977.2021.9633544.
12. B. S. Goud, **C. N. S. Kalyan**, N. Keerthi, C. R. Reddy, M. Bajaj and B. N. Reddy, "AGC of Multi Area Multi Fuel System with Water Cycle Algorithm based 3DOF-PID Controller and Integration of PEVs," 2021 International Conference on Data Analytics for Business and Industry (ICDABI), 2021, pp. 464-469, doi: 10.1109/ICDABI53623.2021.9655899.
13. N. Kurakula, M. Nithya and **C. N. S. Kalyan**, "Enhancement in AGC Performance of Multi Area Interconnected Power System with Practical Constraints using WCA based PIDD Controller," 2022 2nd International Conference on Power Electronics & IoT Applications in Renewable Energy and its Control (PARC), 2022, pp. 1-6, doi: 10.1109/PARC52418.2022.9726598.
14. **C. N. S. Kalyan**, K. Syed, B. S. Goud, C. R. Reddy, H. Shahinzadeh and G. B. Gharehpetian, "Ascertainment of Appropriate GRC Structure for Two Area Thermal System under Seagull Optimization based 2DOF-PID Controller," 2021 7th International Conference on Signal Processing and Intelligent Systems (ICSPIS), 2021, pp. 01-05, doi: 10.1109/ICSPIS54653.2021.9729332.
15. P. V. N. S. Harideep, P. V. S. Gowtham, P. S. Harsha, P. M. Babu, V. P. S. Reddy and C. H. N. S. Kalyan, "Exhibiting the Effect of Time Delays on Load Frequency Control of Multi Area Interconnected Hybrid Power System," 2022 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES), 2022, pp. 355-360, doi: 10.1109/SPICES52834.2022.9774148.
16. **C. N. S. Kalyan** and C.V.Suresh, “Higher order degree of freedom controller for load frequency control of multi area interconnected power system with time delays”, Global Transition Proceedings, <https://doi.org/10.1016/j.gltp.2022.03.020> (Science Direct).
17. C. Naga Sai Kalian, M. Bajaj, S. Kamel and F. Jurado, "Load Frequency Control of Multi-Area Power System with Integration of SMES and Plug-In Electric Vehicles," 2022 4th Global Power, Energy and Communication Conference (GPECOM), 2022, pp. 349-354, doi: 10.1109/GPECOM55404.2022.9815760.
18. C. N. Sai Kalyan, G. Srinivasa Rao, K. Rambabu, M. K. Kumar, B. S. Goud and C. R. Reddy, "Exhibiting the Effect of AVR Coupling on the Performance of LFC in Multi Area Hybrid Power System," 2022 3rd International Conference for Emerging Technology (INCET), 2022, pp. 1-6, doi: 10.1109/INCET54531.2022.9824930.
19. C. N. Sai Kalyan, M. D. Kumar, B. S. Goud, H. Shahinzadeh, C. R. Reddy and M. Kiran Kumar, "Frequency Regulation of Multi Area Hybrid Source Power System with Energy Storage Devices," 2022 CPSSI 4th International Symposium on Real-Time and Embedded Systems and Technologies (RTEST), 2022, pp. 1-5, doi: 10.1109/RTEST56034.2022.9850101.
20. S. J. Gambhire, M. K. Kumar, K. Mallikarjuna, A. N. Venkateswarlu, C. N. Sai Kalyan and B. S. Goud, "Performance Comparison of Various Classical Controllers in LFC of Hydro-Thermal Power System with Time Delays," 2022 10th International Conference on Smart Grid (icSmartGrid), 2022, pp. 401-406, doi: 10.1109/icSmartGrid55722.2022.9848690.
21. G. S. Rao, C. N. S. Kalyan, C. V. Kumar, B. S. Goud, M. K. Kumar and C. R. Reddy, "Automatic Voltage Regulator Using Global Optimization Algorithms Based on Traditional Controller," 2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP), 2022, pp. 1-5, doi: 10.1109/ICICCSP53532.2022.9862470.
22. Demonstrating the impact of excitation cross coupling on the performance of LFC in multi area hybrid system.
23. B. S. Goud, C. N. S. Kalyan, G. S. Rao, B. N. Reddy, Y. A. Kumar and C. R. Reddy, "Combined LFC and AVR Regulation of Multi Area Interconnected Power System Using Energy Storage Devices," 2022 IEEE 2nd International Conference on Sustainable Energy and Future Electric Transportation (SeFeT), 2022, pp. 1-6, doi: 10.1109/SeFeT55524.2022.9909102.
24. C. N. S. Kalyan, B. S. Goud, C. V. Suresh, M. Bajaj, O. Rubanenko and D. Danylchenko, "3DOFPID Controller Tuned with Donkey and Smuggler Optimization Algorithm for LFC of Interconnected Power System with Communication Time Delays," 2022 IEEE 3rd KhPI Week on Advanced Technology (KhPIWeek), 2022, pp. 1-6, doi: 10.1109/KhPIWeek57572.2022.9916381.
25. C. N. S. Kalyan, B. S. Goud, C. V. Suresh, M. Bajaj, O. Rubanenko and D. Danylchenko, "Redox Flow Battery and TCSC-based Territory Control Mechanism for LFC of Dual Area Reheat Hydro-Thermal Power System," 2022 IEEE 3rd KhPI Week on Advanced Technology (KhPIWeek), 2022, pp. 1-6, doi: 10.1109/KhPIWeek57572.2022.9916411.
26. C. N. S. Kalyan, B. S. Goud, M. K. Kumar, M. Bajaj, O. Rubanenko and D. Danylchenko, "Fruit Fly Optimization Algorithm Tuned 2DOFPID Controller for Frequency Regulation of Dual Area Power System With AC-DC Lines," 2022 IEEE 3rd KhPI Week on Advanced Technology (KhPIWeek), 2022, pp. 1-6, doi: 10.1109/KhPIWeek57572.2022.9916505.
27. S. J. Gambhire, M. K. Kumar, H. Shahinzadeh, M. -H. Fayaz-Dastgerdi, B. S. Goud and C. N. S. Kalyan, "Load Frequency Control of Geothermal Power Plant Incorporated Two-Area Hydro-Thermal System with AC-DC Lines," 2022 12th International Conference on Computer and Knowledge Engineering (ICCKE), 2022, pp. 505-510, doi: 10.1109/ICCKE57176.2022.9959994.
28. **C. N. Sai Kalyan**, M. D. Kumar, K. Mamatha, B. S. Goud, C. R. Reddy and M. K. Kumar, "Demonstrating the Predominance of Time Delays on Frequency Regulation of Dual Area Realistic Power System under 2DOFPID Controller," 2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon), 2022, pp. 1-6, doi: 10.1109/MysuruCon55714.2022.9972495.
29. M. Kondalu, N. K. Kishore, C. R. Reddy, M. K. Kumar, **C. N. Sai Kalyan** and D. R. Reddy, "Fuzzy Controller Based Transformer Less CHB Inverter for Grid Connected PV Systems," 2022 4th International Conference on Circuits, Control, Communication and Computing (I4C), Bangalore, India, 2022, pp. 168-172, doi: 10.1109/I4C57141.2022.10057860.
30. SMES and UPFC coordinated strategy for LFC of hydro-thermal power station with water cycle algorithm based PID controller (AIP-Punjab-accepted)
31. Super Capacitor and TCSC Based Territorial Control Strategy for Frequency Regulation of Multi Area Interconnected Power System. (NKcon).
32. C. N. S. Kalyan, B. S. Goud, M. K. Kumar, B. N. Reddy, G. S. Rao and M. Bajaj, "Performance Comparison of SSSC and TCSC Devices on Load Frequency Control of Interconnected Power System with Geothermal Power Plant Integration," 2022 International Conference on Technology and Policy in Energy and Electric Power (ICT-PEP), 2022, pp. 31-36, doi: 10.1109/ICT-PEP57242.2022.9988824.
33. C. N. S. Kalyan, B. Srikanth Goud and M. Kiran Kumar, "Coordinated Thyristor Controlled Phase Shifter and Ultra-Capacitor Based Strategy for Load Frequency Control of Interconnected Power System," 2022 International Conference on Technology and Policy in Energy and Electric Power (ICT-PEP), 2022, pp. 37-42, doi: 10.1109/ICT-PEP57242.2022.9988866.
34. K. V. G. Rao, M. K. Kumar, B. S. Goud, C. N. S. Kalyan, H. Pulluri and M. Venkatesh, "Enhancement in Load Frequency Control of Multi Area Hydro Thermal System with HVDC Tie-line Incorporation under WCA based TIDN Controller," 2022 IEEE 2nd International Conference on Mobile Networks and Wireless Communications (ICMNWC), Tumkur, Karnataka, India, 2022, pp. 1-6, doi: 10.1109/ICMNWC56175.2022.10031654.
35. C. N. S. Kalyan, N. A. Kumar, B. S. Goud, M. K. Kumar, H. Pulluri and C. V. Suresh, "Load Frequency Control of Wind Power Plant Integrated Multi Area Interconnected Power System with Practical Constraints," 2022 IEEE 2nd International Conference on Mobile Networks and Wireless Communications (ICMNWC), Tumkur, Karnataka, India, 2022, pp. 1-6, doi: 10.1109/ICMNWC56175.2022.10031627.
36. C. N. S. Kalyan, B. S. Goud, H. Shahinzadeh, M. -H. Fayaz-Dastgerdi, B. N. Reddy and T. Himabindu, "Analysing the Impact of Time Delays on the Performance of Geothermal Power Plant Integrated Multi Area Hydro-Thermal Power System," 2022 8th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS), Behshahr, Iran, Islamic Republic of, 2022, pp. 1-6, doi: 10.1109/ICSPIS56952.2022.10043871.
37. R. R. Ch, S. Y, K. M, C. S. Obbu, P. A and N. S. K. Ch, "PV Fed Vehicle Application with Fuzzy Controlled AOF for Nonlinear Load," 2022 IEEE 19th India Council International Conference (INDICON), Kochi, India, 2022, pp. 1-4, doi: 10.1109/INDICON56171.2022.10039885.
38. C. R. Reddy, B. G. Rani, M. Kondalu, O. C. Sekhar, G. Venu and C. N. S. Kalyan, "Energy Management System for Hybrid Renewable Energy-Based Microgrid," 2022 IEEE 19th India Council International Conference (INDICON), Kochi, India, 2022, pp. 1-6, doi: 10.1109/INDICON56171.2022.10039932.
39. C. N. Sai Kalyan, B. Srikanth Goud, H. Kishan, P. Ramineni, B. P. Kumar and T. Anil Kumar, "Donkey and Smuggler Optimization Algorithm-based Degree of Freedom Controller for Stability of Two Area Power System with AC-DC Links," 2022 IEEE 7th International Conference on Recent Advances and Innovations in Engineering (ICRAIE), MANGALORE, India, 2022, pp. 461-466, doi: 10.1109/ICRAIE56454.2022.10054318.
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43. N. A. Kumar, M. K. Kumar, B. S. Goud, C. N. S. Kalyan, H. Shahinzadeh and A. Hafezimagham, "Improvement in LFC Performance of Dual Area Thermal Hydro System with Territory Control of TCPS and Redox Flow Battery Units," 2023 8th International Conference on Technology and Energy Management (ICTEM), Mazandaran, Babol, Iran, Islamic Republic of, 2023, pp. 1-6, doi: 10.1109/ICTEM56862.2023.10083711.
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47. Improvement in LFC performance of Dual Area Thermal Hydro System with Territory Control of TCPS and Redox Flow Battery Units (ICMNWC-2022).
48. CES and TCSC based Supplementary Controller for Stability of Renewable Energy Integrated Nonlinear Power System (Russia)
49. Revealing the Significance of Time Delays on the Performance of Diverse Source Power Systems under Fruit Fly Optimization Tuned 3DOFTID Regulator (Russia)
50. Fruit Fly Optimization Technique Based Regulator for LFC of Conventional Power System with the Integration of Plugin Electric Vehicles (Russia)
51. CES and UPFC based Supplementary Control Mechanism for Stability of Multi Area Power System under IDDF Regulator (Iran)
52. Water Cycle Optimization Technique based IDDF Controller for Frequency Regulation of Interconnected Power System with HVDC Line (London)
53. Enhancement in Interconnected Power System Performance with 3DOFPID Regulator and Plug in Electric Vehicles Incorporation (London)
54. Voltage and Frequency Control in Diverse Source Power System under Cascade Controller with TCSC and SMES Devices (London)

**Book Chapters:**

1. **Naga Sai Kalyan C**., Sambasiva Rao G. (2021) Performance Index-Based Coordinated Control Strategy for Simultaneous Frequency and Voltage Stabilization of Multi-area Interconnected System. In: Singh A.K., Tripathy M. (eds) Control Applications in Modern Power System. Lecture Notes in Electrical Engineering, vol 710. **Springer**, Singapore. <https://doi.org/10.1007/978-981-15-8815-0_4>
2. **Naga Sai Kalyan C.,** Sambasiva Rao G. (2021) Stabilizing Frequency and Voltage in Combined LFC and AVR System with Coordinated Performance of SMES and TCSC. In: Singh A.K., Tripathy M. (eds) Control Applications in Modern Power System. Lecture Notes in Electrical Engineering, vol 710. **Springer**, Singapore. <https://doi.org/10.1007/978-981-15-8815-0_6>
3. **Naga Sai Kalyan C.,** Suresh C. (2022) Performance Evaluation of Various Traditional Controllers in Automatic Generation Control of Multi-Area System with Multi-Type Generation Units. In: Dawn S., Das K.N., Mallipeddi R., Acharjya D.P. (eds) Smart and Intelligent Systems. Algorithms for Intelligent Systems. Springer, Singapore. <https://doi.org/10.1007/978-981-16-2109-3_37>
4. Kalyan C.N.S., Suresh C.V. (2022) Maiden Application of Seagull Optimization Algorithm for the Study of Load Frequency Control. In: Dawn S., Das K.N., Mallipeddi R., Acharjya D.P. (eds) Smart and Intelligent Systems. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-16-2109-3\_48
5. **Ch.Naga sai kalyan,** G.Sambasiva rao, “Performance comparison of various FACTS devices in combined LFC and AVR of Multi-area system for simultaneous frequency and voltage stabilization”, Hybrid Intelligence for Smart Grid Systems, **CRC Press, Taylor and Francis**
6. **Kalyan C.N.S.,** Suresh C.V., Ramaniah U. (2022) Multi-objective Weighted-Sum Optimization for Stability of Dual-Area Power System Using Water Cycle Algorithm. In: Gupta O.H., Sood V.K., Malik O.P. (eds) Recent Advances in Power Systems. Lecture Notes in Electrical Engineering, vol 812. Springer, Singapore. <https://doi.org/10.1007/978-981-16-6970-5_2>
7. Kalyan, C.N.S., Suresh, C.V. (2022). Section of Suitable GRC Structure for Dual Area Thermal System Under 2DOF-PID Controller. In: Kumar, J., Tripathy, M., Jena, P. (eds) Control Applications in Modern Power Systems. Lecture Notes in Electrical Engineering, vol 870. Springer, Singapore. <https://doi.org/10.1007/978-981-19-0193-5_2> (Best paper award)
8. **Naga Sai Kalyan, C.**, Suresh, C.V., Ramanaiah, U., Srikanth Goud, B., Rami Reddy, C.H. (2023). Coordinated Strategy of Ultra-Capacitors and UPFC for LFC of Dual Area Conventional System Having Classical PID Controller with Set Point Filter. In: Namrata, K., Priyadarshi, N., Bansal, R.C., Kumar, J. (eds) Smart Energy and Advancement in Power Technologies. Lecture Notes in Electrical Engineering, vol 926. Springer, Singapore. <https://doi.org/10.1007/978-981-19-4971-5_3>
9. Srikanth Goud, B., Rami Reddy, C., Kondalu, M., Nagi Reddy, B., Srinivasa Rao, G., **Naga Sai Kalyan, C.** (2023). Islanding Detection of Integrated DG with Phase Angle Between Voltage and Current. In: Namrata, K., Priyadarshi, N., Bansal, R.C., Kumar, J. (eds) Smart Energy and Advancement in Power Technologies. Lecture Notes in Electrical Engineering, vol 926. Springer, Singapore. https://doi.org/10.1007/978-981-19-4971-5\_21
10. Naga Sai Kalyan, C., Suresh, C.V. (2023). Stabilizing Voltage and Frequency of Multi-area Interconnected Power System with Time Delays. In: Kumar, J., Tripathy, M., Jena, P. (eds) Control Applications in Modern Power Systems. Lecture Notes in Electrical Engineering, vol 974. Springer, Singapore. https://doi.org/10.1007/978-981-19-7788-6\_17

**Short Term Courses:**

1. Participated in a short term course on “Applied Optimal Control and State Estimation” during 2nd to 6th July, 2018 at Indian Institute of Science (IISc), Bengaluru.
2. Participated in a short term course on “Advanced Topics in Power System Protection” during 27th to 31st May, 2019 at Indian Institute of Science (IISc), Bengaluru.

**Awards and Recognitions:**

1. **Ratified** as Assistant Professor from **JNTUK,** Kakinada on March-2017.
2. **Best Researcher Award** for the contribution and Honourable Achievement in Innovative Research by **International Research Awards on Science, Health and Engineering** in Jan, 2021.
3. **Young Researcher Award** by **Institute of Scholars (InSc)** in Feb, 2021.

**Professional Society**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Society** | **Membership ID** | **Validity** |
| 1 | IAENG | 158116 | Life Member |
| 2 | ISRD | M4150902832 | Life Member |
| 3 | Institute of Scholars (InSc) | INSC2017F5AE | Life Member |
| 4 | IAER | 1812081 | Life Member |

**Subjects taught**

* Power Systems-I
* Power Systems-II
* Artificial Intelligence Techniques
* Renewable Energy sources and Systems
* Switch Gear and Protection
* Power system Operation and Control
* Basic Electrical and Electronics Engineering

I am here with declared that the above mention details are correct and genuine to the best of my knowledge.

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