

## **FACULTY PROFILE**

Name of the faculty : **Dr. M.SIVA KUMAR**

Department : Electrical & Electronics Engineering College  
: Gudlavalleru Engineering College

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### **RESIDENTIAL ADDRESS:**

**M. Siva Kumar, Flat No:202, Santhosh Residency, Near Mee Seva Centre, Rajendra Nagar, GUDIVADA.**

### **ACADEMIC QUALIFICATIONS: *M.E,Ph.D***

### **ACADEMIC REWARDS / ACHIEVEMENTS:**

- First in district wise chess competition and in several competitions
- **Best paper award** in National Conference on Emerging Trends & Applications held at Rajkot.
- **Best paper award** in National Conference on Recent Trends in Electrical and Electronics Engineering, RTEEE-2017 held at Vignan's Institute of Technology, Visakhapatnam.
- Received **Best Teacher Award** in Shri Vishnu Engg College for Women.
- Received **Certificate of Appreciation** as a member of organizing committee in National Conference held during 29-30 Dec, 2007 in Shri Vishnu Engg College for Women.
- Received **Certificate of Appreciation** as a Convener of National workshop on recent Trends in Modelling & Simulation of Control Systems held during 7-9 July, 2007 in Shri Vishnu Engg College for Women.
- Received **Certificate of Appreciation** as a Coordinator cum resource person of workshop on Introduction to MATLAB & its tool boxes held during 12-16 Feb, 2007 in Shri Vishnu Engg College for Women.
- Received *Avula Jayaprada and Sambasiva Rao Prize and Endowment award* for **Best Ph.D Thesis in Engineering for the years 2010 & 2011** by Andhra University.
- Received award "**Certificate of Reviewing**" from **ISA Transactions, Elsevier Journal**.

- Received **Certificate of Appreciation** for reviewing articles in **Journal of Institution of Engineers (Series-B),Springer.**
- Received **IETE S K Mitra award** for best research oriented paper published in IETE Journal of Research published in the year 2019.

## PROFESSIONAL EXPERIENCE:

From	To	Employer	Position Held
July 2017	Till today	Gudlavalleru Engineering College,	Mentor(AS&A)
Jan,2011	July 2017	Gudlavalleru, Krishna District	Professor&Head <b>Ratified</b>
May,2009	Jan,2011	S.V. P Engineering College, P.M. Palem, VISAKHAPATNAM. A. P, India.	Professor&Head
June,2005	May,2009	ShriVishnuEngineeringCollegefor Women, A.P.	Associate Professor <b>Ratified</b>
Nov,2001	June,2005	G.V.P.College Of Engineering, Visakhapatnam, A.P.	Assistant Professor <b>Ratified</b>
Dec,1998	Aug,2000	B.V.C.Engineering College, Odelarevu, Amalapuram, East Godavari District, A.P.	Assistant Professor
April,1994	March 1995	Ordnance Factory Project, Medak, A.P	Technical Assistant

## MEMBERSHIP IN PROFESSIONAL BODIES:

- Life Member of Indian Society of Technical Education : **LM 40022**
- Member of International Association of Engineers (IAENG) No : **139003**
- Fellow of Institution of Engineers (FIE) : **F-118726-7**

## PROJECTS GUIDED:

PhD (Guiding)		Post Graduation	Under Graduation
Awarded	pursuing	18	40
5	4		

## Ph.D SUPERVISING :

**Ph.Ds Guidance:** Total 9 Scholars are registered at JNT University, Kakinada

<b>Name of the scholar</b>	<b>Title of the PhD</b>	<b>Registered University &amp; year</b>	<b>Status</b>
D.Srinivasa Rao	Design and Development of Robust Controller for Higher Order Interval Systems-Some New Aspects	J.N.T. University, Kakinada 2012	Awarded (2019)
N.Vijaya Anand	Some New Aspects in Model Order Reduction of Interval Systems using Soft Computing Approach	J.N.T. University, Kakinada, 2012	Awarded (2019)
B.Dasu	Development and Application of Heuristic Algorithms for the design of Power System Stabilizer via MOR	J.N.T. University, Kakinada, 2012	Awarded (2020)
G.Vasu	Development of Some New Aspects in Model Order Reduction for Optimal Controller Design of Large-Scale Systems	J.N.T. University, Kakinada, 2013	Awarded (2019)
A.Ramesh	Development and performance analysis Hybrid multilevel inverters topology for PV generation system Theory	K.L.University 2012	Awarded (2018)
G.Balaji	Flux Weakening Techniques for Permanent Magnet Machines	J.N.T. University, Kakinada, 2014	Pre-Ph.D Examinations are completed
N.V. Bharadwaj	Cascaded Multilevel Inverters for Medium Power Applications	J.N.T. University, Kakinada, 2014	Pre-Ph.D Examinations are completed
Y.V.Prashant	An Improved Control Strategy to Reduce Circulating Current and Improve Power Sharing in Bi-Directional Power Converters of Hybrid AC/DC Micro-Grid	J.N.T. University, Kakinada, 2016	Pre-Ph.D Examinations are completed
A.S.V.Vijaya Lakshmi	Design aspects of Robust power system stabilizer using Heuristic search algorithms	J.N.T. University, Kakinada 2013	Pre-Ph.D Examinations are completed

## SPECIALIZATION: Control Systems

BOOKS PUBLISHED IN PUBLICATIONS : NIL

### Scopus Author

ID: <https://www.scopus.com/authid/detail.uri?authorId=57189730709> Google

### Scholar Citations:

<https://scholar.google.com/citations?user=OrU4ZO8AAAAJ> Researcher ID

: [C-3205-2019](http://www.researcherid.com/rid/C-3205-2019) <http://www.researcherid.com/rid/C-3205-2019>

Orcid ID: <https://orcid.org/0000-0002-0168-9365>

PAPERS PUBLISHED IN JOURNALS 60

1. M.Siva Kumar and G.V.K.R.Sastry, "Higher - Order MIMO Interval System Reduction Using Direct Routh Approximation Method", International Journal of Engineering Research and Industrial Applications (IJERIA), Vol.1, No.IV, pp 45-54, 2008, ISSN 0974-1518, **SCI:0.22**.
2. M.Siva Kumar and Dr.G.V.K.R.Sastry, "Direct Routh-Approximation Method For Linear Siso Uncertain Systems Reduction" International Journal of Applied Engineering Research, Volume 5, Number 1 (2010), pp.91-98, ISSN 0973-4562, Online ISSN 1087—1090, **SJR:0.11**.
3. M.Siva Kumar, G.V.K.R.Sastry, B.Dasu "A Novel Order Reduction Technique For Higher Order Plants With Parametric Uncertainty" International Journal of Engineering Research and Industrial Applications (IJERIA), Vol 4, No.II, 2011, ISSN: 0974-1518, **SCI:0.22**.
4. M.Siva Kumar, D.Srinivasa Rao, B.Dasu, "Design and Simulation of Digital Controller for Higher Order Discrete – Time Systems through Reduced Order Model", International Journal of Applied Engineering Research (IJEAR), Volume 6, Number 9 (2011), pp. 1159-1167, ISSN 0973-4562, **H-index:2, SJR:0.11, Citation Index:6**.
5. M.Siva Kumar, B.Dasu, "Denoising Of Partial Discharge Signal and Performance Comparison of Different Wavelets", International J. of Engg. Research & Indu. Appls. (IJERIA). Vol. 4, No. III (August 2011), pp 79-86, ISSN 0974-1518, **SCI:0.22**.
6. M.Siva Kumar, N.Vijaya Anand, "Direct Routh Approximation Method For Order Reduction Of Discrete–Time Interval Systems", International Journal of Innovative Computing, Information and Control (ICIC-EL), Vol.5, No.12, pp.4553-4560, Dec 2011, ISSN:1881803X, **H.Index:18, SJR:0.51, IF:2.932**.
7. Dr M.Sivakumar et al, "Computation of Robust PI Controller for Systems with Parametric Uncertainty" International Journal for Engineering Research & Application (IJERA), Special issue, ISSN 2248-9622, pp72-75, Dec 2011 (**IF: 1.69**).
8. Dr M.Sivakumar et al, "Modelling and simulation of High Step up Dc-Dc Converter for Micro Grid Application" International Journal of Modern Engineering Research (IJMER), Vol.3, Issue.1, pp-530-537, Jan-Feb 2013. ISSN 2249-6645, **IF:1.227**.
9. Dr.M.Siva Kumar et al, "Design of Robust Pi/Pid Controller for Discrete-Time Parametric Uncertain System" International Journal of Scientific Research (IJSR), ISSN No. :2277-8179 Vol.2, Issue:10, October 2013, **IF:0.3317**.

10. Dr.M.Siva Kumar et al,“**Computation of Optimal Stabilizing PID Controller for Interval Plants using PSO**” International Journal of Engineering Research &Technology(IJRET)Vol.2,Issue 10,October-2013,**IF:1.79**.
11. Dr.M.Siva Kumar I.Srinu,“**Design and Application of PID Controllers using Fuzzy logic for better Disturbance Rejection**” International Journal ofScientific Research (IJSR)Vol.2,Issue 11,November-2013,PP 81-85,ISSN No. 2277 – 8179. **IF: 0.3317**.
12. Dr.M.SivaKumarN.Sai Dinesh D.Srinivasa Rao ,“**Model Order Reduction of Higher Order Discrete Time Systems Using Modified Pole Clustering Technique**”,International Journal of Engineering Research and Technology,Vol.2,Issue.11,Nov-2013,pp.439-445,ISSN:2278-0181,**IF:1.76**.
13. Dr.M.SivaKumar et al, “**Order Reduction of Discrete Time Systems Using Modified Pole Clustering Technique**”, International Journal of Engineering Research and Application,Vol.3,Issue.6,Nov-Dec-2013,pp.01-05ISSN:2248-9622,**IF:1.695,ICV:5.09**.
14. Dr.M.SivaKumar et al, “**A Novel DG Interface with Power-Quality Improvement Features at Distribution Level Using Instantaneous P-Q Theory**”, International Journal of Electrical and Electronics Engineering (IJEEE),Vol.4,Issue.2,2013,pp.14-20,ISSN:2231-5184.
15. Dr.M.Siva Kumar et al,“**A Hybrid Reduction Technique for Transformer Linear Section Model**”,International Journal of Engineering Research & Technology(IJERT),ISSN:2278-81,Vol.2,Issue.11,Nov-2013,**IF:1.76**.
16. M. Siva Kumar et al, “**Renewable Resources Constructed with Hybrid Multilevel Inverter Using SVM Technique**” IJERIA ISSN: 2248-9278, Sep-Nov13, Vol-2, Issue-3 Pg.970-976.
17. M. Siva Kumar et al, “**Integration of Hybrid Multilevel Inverter using Space Vector Modulation Technique**” IJAR ISSN - 2249-555X, Volume: 3, Issue: 11, Nov 2013.
18. Dr.M.SivaKumar et al, “**Stabilizing PID controller for interval plants using PSO**”, Elixir International Journal of Control Engineering,Vol.65,Dec-2013,pp.20037-20043,ISSN:2229-712X, **ICV:5.79**.
19. Dr.M.Siva Kumar et al, “ **Optimal Stabilizing Controller for Boiler Flow control using Soft Computing Technique**”International Journal of Engineering Research and Technology,Vol.3Issue 12,Dec 2014,pp 1063-1067,ISSN(online):2319-7064.
20. Dr.M.Siva Kumar et al, “**Order Reduction of MIMO systems using Firefly Algorithm**”,InternationalJournalofElectricalEngineering(International Research Publication House),Vol.7.No.3(2014),pp425-438,ISSN(online):0974-2158.
21. Dr.M.Siva Kumar et al, “**Design of Robust PI/PID controller for a Parametric Uncertain Jet Engine Using PSO**”,International Journal of Science and Research,Vol.3Issue 12,Dec 2014,pp 1063-1067,ISSN(online):2319-7064.
22. Dr.M.Siva Kumar et al, “**Design of Robust PI/PID controller for Two Input Two Output Gas Turbine Application**”,International Journal for Research in Applied Science Engineering and Technology,Vol.3,Issue III,March 2015,pp 230-239,ISSN(online):2321-9653(IC Value:13.98).

23. Dr.M.Siva Kumar et al," **Impulse Energy Approximation Higher Order Interval System using Kharitonov's Polynomials**" Transaction of the Institute of Measurement and Control, SAGE publications,vol.38,No.10,pp.1225-1235,DOI:10.1177/0142331215583326,**ImpactFactor:1.049,ISSN:01423312,E-ISSN: 14770369,H-index:23,SJR:0.46,SCIJournal.**
24. Dr.M.Siva Kumar et al,"**Design of Robust PI and PID Controller for DC Motor – Fuzzy Parametric Approach**", Global Journal of Mathematical Sciences (GJMS), International Federation of Nonlinear Analysts (IFNA) Publishers,GJMS Special Issue for Recent Advances in Mathematical Sciences and Applications-13, GJMS Vol 2. Issue.2,pp77–83,(2015).
25. Dr.M.Siva Kumar et al,"**Order Reduction Of Linear Interval System Using DifferentialEvolution Algorithm**"International Journal of Applied Engineering Research (Research India Publications), ISSN 0973-4562 Volume 10, Number 14 (2015) pp.34316-34322,**Scopus Indexed,H-Index:5,SJR:0.13.**
26. Dr.M.Siva Kumar et al,"**Design of Stabilizing PID Controller for Discrete Time Parametric Uncertain Systems**"International Journal of scientific Engineering and Technology Research, ISSN 2319-8885 Vol.04, Issue 47 (Nov, 2015) pp.10158-10163.
27. Dr.M.Siva Kumar et al,"**A New Model Order Reduction For Linear Continuous Time Interval Systems**",**Journal of Electrical Engineering and science**, DJ publications,Vol.1(1)2015,pp.1-10,DOI:10.18831/djee.org/2015011001.
28. Dr.M.Siva Kumar et al,"**Model Order Reduction of Discrete Time Interval System Using Improved Bilinear Routh Approximation**"International Journal of Science, Engineering and Technology Research (IJSETR), Volume 5, Issue 1,pp.90-94, January 2016.
29. M.Siva Kumar et al,"**A Novel Method For Optimal Model Simplification Of Large Scale Linear Discrete-Time Systems**",International Journal of Automation and Control, Vol.10,No.2,pp.120-141,2016, Inderscience, **Scopus Indexed ,SCI Journal, H-Index:6 ,SJR:0.22,DOI: 10.1504/IJAAC.2016.076455.**
30. M.Siva Kumar et al,"**Optimal Least Squares Model Approximation For Large Scale Discrete-Time Systems**", Transactions of the Institute of Measurement and Control, SAGE publications,Vol.40,No.1,pp.35-48,**Scopus Indexed ,SCI Journal,H-index:23,SJR:0.46DOI:10.1177/0142331216649023.**
31. M.Siva Kumar et al,"**A New Biased Model Order Reduction For Linear Continuous Time Interval Systems Using Stability Equation And Pade Approximation**", Journal of Advances in Electrical and Electronics Engineering, Vol.14,No.2,2016,pp.145-152,**Scopus Indexed , H-Index:6,SJR:0.25,DOI:10.15598/aeee.v14i2.1395.**
32. M.Siva Kumar et al,"**Model Order Reduction of Linear Time Interval System Using Stability Equation Method And A Soft Computing Technique**",Journal of Advances in Electrical and Electronics Engineering,Vol.14,No.2,2016,pp.153-161,**ScopusIndexed,H-Index:6,SJR:0.25DOI:10.15598/aeee.v14i2.1432.**

33. M.Siva Kumar et al, "A Novel Model Order Reduction Technique for Linear Continuous-Time Systems Using PSO-DV Algorithm", Journal of Control, Automation and Electrical Systems, Springer, (Feb2017) Vol.28, issue:1, pp.68-77. **Scopus Indexed**, DOI: 10.1007/s40313-016-0284-9.
34. M.Sivakumar et al, "Robust Computational HDE Technique For Optimal Approximation of Linear Systems" International Journal of Control Theory and Applications (International Science Press), Vol.9, No.10, pp.1-11, November, 2016, (**Scopus Indexed**).
35. M.Sivakumar et al, "Robust Computational Technique For Optimal Approximation of Discrete time Systems" International Journal of Control Theory and Applications (International Science Press), Vol.9, No.10, November, 2016, (**Scopus Indexed**).
36. M.Sivakumar et al, "Evolutionary Approach to Model Order Reduction of Discrete Time Systems" International Journal of Control Theory and Applications (International Science Press), Vol.9, No.29, pp.41-47, November, 2016, (**Scopus Indexed**).
37. M.Sivakumar et al, "Design Of LQR Based Stabilizer For Rotary Inverted Pendulum System", International Journal of Control Theory and Applications (International Science Press), Vol.9 No.29, pp.21-29, November, 2016, (**Scopus Indexed**).
38. M.Sivakumar et al, "Interleaved Boost Converter Fed with PV for Induction Motor/Agricultural Applications", International Journal of Power Electronics and Drive System (IJPEDS), Vol.7 No.3, September 2016, pp.831-847, ISSN:2088-8694, DOI:10.11591/ijpeds.v7i3.10694 (**Scopus Indexed**).
39. M.Sivakumar et al, "Modeling and Analysis of 11 Level Hybrid H-Bridge Multilevel inverter with Minimum number of switches", International Journal of Control Theory and Applications (International Science Press), Vol.10, No.5, pp.221-235, January, 2017, (**Scopus Indexed**).
40. M.Sivakumar et al, "New algorithm for the design of robust PI controller for plants with parametric uncertainty", Transactions of the Institute of Measurement and Control, SAGE Publications, DOI: 10.1177/0142331216685393., Vol.40, No.5, pp.1481-1489, February, 2018 (**SCI Journal**).
41. M.Siva Kumar et al, "Simulation Analysis and Experimental Validation of Symmetrical and Asymmetrical Cascaded H-Bridge Multilevel Inverters for PV Application", Journal of Electrical engineering, Vol.17, No.1, pp.16-23, 2017. (**Scopus Indexed**).
42. M.Siva Kumar et al, "Optimum PID Controller Design Using PSO For Vehicle Active Suspension System Considering MATLAB Simulink Modeling Based Road Profiles", Journal of Electrical engineering, Vol.17, No.2, pp.279-288, 2017 (**Scopus Indexed**).
43. M.Sivakumar et al, "Design of Controller for Cuk converter using Evolutionary algorithm via Model Order reduction", International Journal of Pure and Applied Mathematics, Vol.114, No.8, pp.297-307, July, 2017. (**Scopus Indexed**).
44. M.Sivakumar et al, "Evolutionary Algorithm and Fuzzy C-Means Clustering Based Order Reduction of Discrete Time Interval Systems", International Journal of Pure and Applied Mathematics, Vol.114, No.8, pp.309-319, July, 2017. (**Scopus Indexed**).

45. M.Sivakumar et al,“ **Three Phase Parallel Multilevel Inverter Fed Asynchronous Machine Using phase Disposition scheme**”, International Journal of Advanced in Management, Technology and Engineering Sciences, **Vol.7 , No.12, pp.325-331,Dec, 2017.(UGC Approved)**
46. M.Sivakumar et al,“ **A Simplified PWM Technique for Reduced Switch Count Multilevel Inverter**”, Indonesian Journal of Electrical Engineering and Computer Science, **Vol.9 , No.3 , pp.711-721, March, 2018.(Scopus Indexed)**. DOI: 10.11591/ijeecs.v9.i3.pp711-721
47. M.Sivakumar et al,“ **A Novel Three Phase Multilevel Inverter with Single DC Link For Induction Motor Drive Applications**”, International Journal of Electrical and Computer Engineering, **Vol.8 , No.2 , pp.763-770, April, 2018.(Scopus Indexed)**. DOI: 10.11591/ijece.v8i2.pp763-770
48. M.Sivakumar et al,“ **Two-Degree-of-Freedom Robust Controller Design Approach for Fuzzy Parametric Uncertain Systems using Particle Swarm Optimization**”, *IETE Journal of Research*, Taylor & Francis ,**Vol.65, No.3, pp.397-409, DOI:10.1080/03772063.2018.1431064. July, 2019.(SCI Journal, Clarivate Analytics)**.
49. M.Siva Kumar et al,“ **A novel reduced order modeling of interval system using soft computing optimization approach**”, Proceedings of Institute of mechanical Engineers, Journal of Systems and Control Engineering, SAGE, **Vol.232, No.7, pp.879-894, April, 2018. DOI: 10.1177/0959651818766811 (SCI Journal, Clarivate Analytics)**.
50. M.Siva Kumar et al,“ **Optimal Design of Modified Power System Stabilizer Using Multi Objective Based Bio Inspired Algorithms**”, International Journal of Energy Optimization and Engineering, **Vol.7, No.4, pp.17-55, Oct-Dec 2018. <https://doi.org/10.4018/IJEOE.2018100102>**
51. M.Siva Kumar et al,“ **A Novel Order Reduction Procedure for Linear time invariant interval systems using SGO algorithm**” International Journal of Engineering & Technology, **Vol.7, No.1.8, pp.118-122, <https://doi.org/10.14419/ijet.v7i1.8.9986> March 2018. (Scopus Indexed)**
52. M.Siva Kumar et al,“ **Design of Robust Stabilizing PI/PID Controller for time delay Interval Process Plants Using Particle Swarm Optimization**”, International journal of Advances in Systems Science and Applications, **Vol.18, No.4, pp.92-120, 28<sup>th</sup> Dec, 2018. <https://doi.org/10.25728/assa.2018.18.4.536> (Scopus Indexed)**
53. M.Siva Kumar et al,“ **Interconnected multi-machine power system stabilizer design using whale optimization algorithm**”, Protection and Control of Modern Power Systems, **Vol.4, No.2, pp.1-11, 15<sup>th</sup> Feb, 2019. <https://doi.org/10.1186/s41601-019-0116-6> (Scopus Indexed)**
54. M.Sivakumar et al,“ **Design of Robust Modified Power System Stabilizer for Dynamic Stability Improvement Using Particle Swarm Optimization Technique**”, Ain Shams Engineering Journal, Elsevier, **Vol.10, No.4, pp.769-783, 30<sup>th</sup> July, 2019. <https://doi.org/10.1016/j.asej.2019.07.002>. (SCI Journal, Clarivate Analytics)**.



55. M.Sivakumar et al,“ **Enhancement of Robust performance for Fuzzy Parametric Uncertain Time Delay Systems using Differential Evolution Algorithm**”,*International Journal Robust and Nonlinear Control*, **Johan Wiley & Sons** ,Vol.29.,No.6.,pp.6337-6356,<https://doi.org/10.1002/rnc.4694> Published online:9<sup>th</sup> Aug,2019.(**SCI Journal, Clarivate Analytics**).published on 6 nov,2019
56. M.Siva Kumar et al,“ **Optimal model approximation of linear-time invariant systems using Enhanced DE and Improved MPPA algorithm**”, *Journal of circuits, systems and signal processing*, Springer, pp.1-17, (**SCI Journal, Clarivate Analytics** ),Sep 2019 .<https://doi.org/10.1007/s00034-019-01259-y>
57. M.Sivakumar et al,“ **An improved whale optimization algorithm for the design of multi-machine power system stabilizer** ”,*International Transactions on Electrical Energy Systems*, **Johan Wiley & Sons** ,Vol.30.,No.5.,pp.6337-6356, <https://doi.org/10.1002/2050-7038.12314> Published online:21<sup>st</sup> Jan,2020.(**SCI Journal, Clarivate Analytics**).
58. M.Siva Kumar et al,“**A Two-Phase Approach for the Design of Two-Degree of- Freedom of Robust Controller for Higher Order Interval system**”, *International Journal of Automation and Control*,Vol.14,No.2,Feb 2020 <https://doi.org/10.1504/IJAAC.2020.105517> Inderscience.(**Scopus Indexed,Clarivate Analytics**).
59. M.Siva Kumar et al,“ **A Novel model reduction approach for linear time invariant systems via enhanced PSO-DV algorithm and Improved MPPA method**”, *Proceedings of Institute of mechanical Engineers, Journal of Systems and Control Engineering*, SAGE,Vol.234,No.2,pp.240-256,Feb2020,(**SCI Journal, Clarivate Analytics**).DOI: <https://doi.org/10.1177/0959651819849372>
60. M.Siva Kumar et al,“ **Design of a robust PID-PSS for an uncertain power system with simplified stability conditions**”, *Protection and Control of Modern Power Systems*, <https://doi.org/10.1186/s41601-020-00165-9> Vol.5, No.20, Sept2020. ( **SCI Journal , Clarivate Analytics**).

## PAPERS PUBLISHED IN CONFERENCES:

**National                      13**

**International                28**

### National :

- 1 M. Siva Kumar, Prof G. V. K. R. Sastry, “**A New Algorithm for The Analysis And Design of High Order MIMO – Discrete Systems Using Model Reduction Technique**”, Proc. of National conference on Recent Trends in Control Systems , 21-22, May 2004, Department of Electronics & Electrical Engineering Baba Banda Singh Bahadur Engineering college Fatehgarh Sahib, Punjab, India.

2. M. Siva Kumar , E.Praveena “ **Simulation of Ferro Resonance in Power Systems Using Describing Function Technique**”, Proc.of National conference on Emerging Trends & Applications (ETA-2006), 1- 2 , Oct 2006, suarashtra university ,Rajkot,India.  
(Awarded Best Paperin the Conference)
3. M.Siva Kumar,Dr.G.V.K.R.Sastry,“**A New Direct Routh Approximation (DRAM)for The High Order MIMO Interval Systems Reduction**”Proc.of IEEE National Conference on Computational Intelligence, Control and Computer Vision in Robotics & Automation (CICCRA-2008), 10-11 March 2008, at NIT, Rourkela. India.
4. M.Siva Kumar et al., “**Robust Stability Analysis Of Systems With Parametric Uncertainty UsingMATLAB/Polynomial Toolbox**” Proc.of AICTE Sponsored Three day National Conference on Emerging Trends in Electrical Engineering for Sustainable Development, 24<sup>th</sup> to 26<sup>th</sup> Nov, 2008, at Gudlavalleru Engineering College, Gudlavalleru, A.P,India.
5. Dr M.Sivakumar et al,“**Order Reduction of Linear Interval Systems Using Khairitonov’s Polynomials**”Proc.ofNational Conference on “Recent Advances in Power and Control Engineering” (RAPCE-2K11)16<sup>th</sup> 17<sup>th</sup> Dec 2011,held at Vignan’s Lara Institute of Technology and Science,Guntur,A.P.
6. Dr M.Sivakumar et al,“**Computation of Robust PI Controller for Systems With Parametric Uncertainty**”Proc.ofNational Conference on “Recent Advances in Power and Control Engineering” (RAPCE-2K11),16<sup>th</sup> 17<sup>th</sup> Dec 2011,held at Vignan’s Lara Institute of Technology and Science,Guntur,A.P.
7. Dr M.Sivakumar et al,“ **Design of Robust PID Controller for Non-Minimum Phase System - Fuzzy Parametric Approach**”Proc.ofNational Conference on “Innovations in Engineering & Technology” (NCIET-2013),27<sup>th</sup>- 28<sup>th</sup> Dec 2013,held at Gudlavalleru Engineering College,Gudlavalleru,A.P.
8. Dr M.Sivakumar et al,“ **Design Of PID Controller for Using Fuzzy Logic-A Case Study**”Proc.ofNational Conference on “Innovations in Engineering & Technology” (NCIET-2013),27<sup>th</sup>- 28<sup>th</sup> Dec 2013,held at Gudlavalleru Engineering College,Gudlavalleru,A.P.
9. Dr M.Sivakumar et al,“ **A New Hybrid Model Order Reduction Technique for Large Scale System**”Proc.ofNational Conference on “Innovations in Engineering & Technology” (NCIET-2013),27<sup>th</sup>- 28<sup>th</sup> Dec 2013,held at Gudlavalleru Engineering College,Gudlavalleru,A.P.
10. M.Sivakumar et al, “**Robust Computational HDE Technique For Optimal Approximation of Linear Systems**”Proc.ofNew Trends in Multidisciplinary Research and Practice, (NTMRP-2016),7-8 October, 2016,held at GITAM University, Bangalore.
11. M.Sivakumar et al, “**Robust Computational Technique For Optimal Approximation of Discrete time Systems**”Proc.ofNew Trends in Multidisciplinary Research and Practice, (NTMRP- 2016),7-8 October, 2016,held at GITAM University, Bangalore.

12. M.Sivakumar et al, “**Evolutionary Approach to Model Order Reduction of Discrete Time Systems**”Proc.ofNational Conference on “Emerging Trends in Power,Energy and Control(ETPEC'16),14-15,october 2016,held at Vignan University,Guntur,A.P.
13. M.Sivakumar et al, “**Design of LQR Based Stabilizer for Rotary Inverted Pendulum System**”,14-15, october2016,Proc.ofNational Conference on “Emerging Trends in Power, Energy and Control(ETPEC'16), held at Vignan University, Guntur, A.P.

### International Conferences:28

14. M.SivaKumar, ProfB.J.J.Raju, “**A New Algorithm For Simulation Of Ferro Resonance In Power Systems Using MATLAB-A Case Study**”Proc.of International Multi Conference of Engineers and Computer Scientists2007,21-23 March,2007 , **Hong Kong**,ISBN (Vol I): 978-988-98671-4-0.
15. M.SivaKumar,Prof G. V. K. R. Sastry,” **A Direct Routh Approximation Method for Reduction of High Order Interval Systems**” Proc.of International conference on Recent Advancements and computer applications in Electrical Engineering (**RACE**),24-25,March 2007 Engineering College Bikaner,Rajasthan, India.
16. M.Siva Kumar,Prof G. V. K. R. Sastry,” **Stability Analysis And Design High Order Discrete Time Systems Using Improved Bilinear Routh Approximation Method**”Proc.of International Conference on Recent Advancements And Computer Applications in Electrical Engineering(**RACE**),24-25, March 2007, Engineering College Bikaner,Rajasthan, India.
17. M.SivaKumar,Prof G. V. K. R. Sastry,” **A Novel Method for The Reduction of Discrete Time Interval Systems**” Proc.of International Conference on Modelling & Simulation (CITICOMS),27-29 Aug 2007, Coimbatore Institute of Technology,Coimbatore, India.
18. M.SivaKumar, B.J.J.Raju,”**A Novel Approach for The Design of Stabilizing PI Controllers**“ Proc.of International Conference in Modelling & Simulation MS07, organized by AMSE, 3-5 Dec 2007 held at University of Calcutta,Calcutta, India.
19. M.SivaKumar &B.J.J.Raju ,“**Optimization of Power Distribution System Through PQ-PV Control Methods**“ Proc.of International Conference on Energex, held at Singapore from 27-29, Nov 2007, India.
20. M.SivaKumar,V.S.Murthy,B.J.J.Raju,”**Robust Control Analysis of Systems With Parametric Uncertainty Using MATLAB/Polynomial Toolbox**”, Proc.of International Conference on Emerging Technologies and Applications in Engineering, Technology and Sciences,13-14,Jan 2008 ,India.
21. Dr.M.SivaKumar,N.Vijaya Anand, “ **A Novel Approach for The Design of Controller for Higher Order Discrete – Time Systems Via Its Reduced Model**”,Proc. of IEEEInternational Conferenceon Power, Control and Embedded Systems (ICPCES-2010),pp.1- 4, Nov 28 – Dec 1, 2010,MNNIT,Allahabad, ,India.D.O.I:[10.1109/ICPCES.2010.5698682](https://doi.org/10.1109/ICPCES.2010.5698682)Print ISBN:978-1-4244-8543-7
22. M.SivaKumar,D.Srinivasa Rao and Ch.Anuradha,”**A Novel Approach for The Design of Robust PI Controller For Higher Order Systems With Parametric Uncertainty**”,Proc.of 8<sup>th</sup> International

Control Instrumentation Conference(CISCON),3<sup>rd</sup> – 6<sup>th</sup> Nov 2011,held at Manipal Institute of Technology,Manipal University,Manipal,India.

23. M.Siva Kumar, N.Vijaya Anand,” **Model reduction of linear interval systems using Kharitonov’s polynomials**”, Proc.of IEEE International Conference on Energy, Automation, and Signals(**ICEAS-2011**),28<sup>th</sup> -30<sup>th</sup> Dec 2011, held at Siksah O Anusandhan UniversityBhubaneswar,pp.533-538,**Digital Object Identifier:**[10.1109/ICEAS.2011.6147163](https://doi.org/10.1109/ICEAS.2011.6147163) .
24. M.Siva Kumar, ButtiDasu,” **Root sensitivity analysis of higher order systems via its reduced model**”, Proc.of IEEE International Conference on Energy, automation and signals (**ICEAS-2011**). 28<sup>th</sup> -30<sup>th</sup> Dec 2011,held at Siksah O Anusandhan UniversityBhubaneswar,pp.528-532,**Digital Object Identifier:**[10.1109/ICEAS.2011.6147162](https://doi.org/10.1109/ICEAS.2011.6147162).
25. Dr.M.Siva Kumar et al,”**A simple and direct method for computation of stabilizing PI controllers for T.I.T.O. System**”,Proc.of IEEE International Conference on Advances in Engineering,Science and Management(IEEE-ICAESM-2012),30<sup>th</sup> -31<sup>st</sup> March 2012,held at E.G.S.Pillay Engineering College,Nagapatnam.Pp.657-660,Print ISBN: 978-1-4673-0213-5.INSPEC Accession Number:12818579
26. Dr.M.Siva Kumar et al,”**Design of Robust PI And PID Controller For Dc Motor – Fuzzy Parametric Approach**”,Proc.of International Conference on Recent Advances in Mathematical Science Engineering(RAMSA-13), 19<sup>th</sup> -22<sup>nd</sup>Dec 2013,organized byG.V.P.College of Engineering andin association with Prof, V. Lakshmikantham Institute for advanced studies,Vishakapatnam.
27. Dr.M.Siva Kumar et al,”**Design of PID Controller Using Artificial Neural Network –A Case Study**”,Proc.of International Conference on Recent Advances in Mathematical Science Engineering(RAMSA-13), 19<sup>th</sup> -22<sup>nd</sup> Dec 2013,organized byG.V.P.College of Engineering andin association with Prof, V. Lakshmikantham Institute for advanced studies,Vishakapatnam.
28. Dr.M.Siva Kumar et al,”**Robust PID Controller Design For An Underdamped Parametric Uncertain System**”,Proc.of IEEE International Conference on Power, signals, controls and computation (EPSCICON-14),8<sup>th</sup> -10<sup>th</sup> January2014,organized by *Vidya Academy of Science and Technology*, Thrissur, Kerala , India.
29. Dr.M.Siva Kumar et al,”**Intelligent PID Controller Design For Liquid Level Process Control Systems**”,Proc.of IEEE International Conference on Power, signals, controls and computation (EPSCICON-14),8<sup>th</sup> -10<sup>th</sup> January2014,organized by *Vidya Academy of Science and Technology*, Thrissur, Kerala , India.
30. M. Siva Kumar et al, “**Design of Three Phase Eleven Level Grid Connected Inverter**” Proc.of IEEE International Conference on Power, signals, controls and computation (EPSCICON-14),8<sup>th</sup> -10<sup>th</sup> January2014,organized by *Vidya Academy of Science and Technology*, Thrissur, Kerala , India.
31. M. Siva Kumar et al, “**Three Phase Parallel Three Level Inverter fed Induction Motor Using PD Modulation Scheme**” Proc.of IEEE International Conference on Electrical, Electronics, and

Optimization Techniques (ICEEOT-16), organized by D.M.I.College of Engineering, Chennai, 3rd - 5th March 2016, pp.4377 – 4380. DOI: [10.1109/ICEEOT.2016.7755545](https://doi.org/10.1109/ICEEOT.2016.7755545)

32. M.Sivakumar et al, “ **Design of Stabilizing PI/PID Controller for Plants With Parametric Uncertainty**”, 2nd International Conference on Smart Electric Grid ,Organized by KL University, 22nd -23rd December, 2016.
33. M.Sivakumar et al, “ **Modeling and Analysis of 11 Level Hybrid H-Bridge Multilevel inverter with Minimum number of switches**”, 2nd International Conference on Smart Grid, 22-23 December, 2016.
34. M.Siva Kumar et al, “ **Model Order Reduction of High Order Continuous Time Systems Using Intelligent Search Algorithm**”, IEEE International conference on Recent Trends in Electrical, Electronics and Computing Technologies, 30<sup>th</sup> -31<sup>st</sup> July, pp.70-76, 2017. DOI: [10.1109/ICRTEECT.2017.14](https://doi.org/10.1109/ICRTEECT.2017.14), 978-1-5090-6266-9/17 \$31.00 © 2017 IEEE.
35. M.Siva Kumar et al, “ **Soft Computational Approach for the Design of Optimal Controller for a Quad-Rotor**”, Advanced Science and Technology Letters, Vol.147 (SMARTDSC-2017), pp.251-260, 30<sup>th</sup> Nov-1<sup>st</sup> Dec, 2017 <http://dx.doi.org/10.14257/astl.2017.147.35>
36. M.Siva Kumar et al, “ **Evolutionary Algorithm Based Model Order Reduction of MIMO Interval Systems**”, Advanced Science and Technology Letters, Vol.147 (SMARTDSC-2017), pp.261-267, 30<sup>th</sup> Nov-1<sup>st</sup> Dec, 2017. <http://dx.doi.org/10.14257/astl.2017.147.36>
37. [M.Siva Kumar et.al](https://doi.org/10.1109/RTECC.2018.8625700)” **Optimal Routh Approximates for Discrete-Time Interval Systems using Kharitonov Theorem**” IEEE International Conference RTECC’18, 20<sup>th</sup> -22<sup>nd</sup> march 2018, Crescent University, Chennai, DOI: [10.1109/RTECC.2018.8625700](https://doi.org/10.1109/RTECC.2018.8625700). pp.287 - 292
38. M.Siva Kumar et.al” **Design of Load frequency controller for Hydro Power Dynamic Systems Using PSO\_DV based Model Approximation Method;**” IEEE International Conference RTECC’18, 20<sup>th</sup> -22<sup>nd</sup> march 2018, Crescent University, Chennai, DOI: [10.1109/RTECC.2018.8625657](https://doi.org/10.1109/RTECC.2018.8625657), pp.188 – 195.
39. M.Siva Kumar et.al” **Efficient Power sharing of a Bi-Directional Converter Using Droop Controllers in an AC/DC Hybrid grid;**” 1st International Conference on “Computational and Intelligent Techniques for Automation of Engineering Systems” (CITAES), 30<sup>th</sup> Nov -1<sup>st</sup> Dec 2018, GEC, Gudlavalleru.
40. M.Siva Kumar et.al” **Induction motor design analysis for electric vehicle application;**” International Conference on Multifunctional Materials (ICMM-2019)” AIP Conf. Proc. 2269 , January 2020. <https://doi.org/10.1063/5.0019486>. Published Online: 12 October 2020.
41. M.Siva Kumar et.al” **A consecutive parameter extraction technique for IGBT compact model;**” International Conference on Multifunctional Materials (ICMM-2019)” AIP Conf. Proc. 2269 , January 2020. ; <https://doi.org/10.1063/5.0019484> . Published Online: 12 October 2020.

## LIST OF WORKSHOPS ORGANIZED: 16

- Organized as a principle Coordinator for AICTE sponsored STTP program on “**Automation and Intelligent Control of Electrical Systems**” during 2020-21.
- Organizing Secretary for One-week FDP on” **Refresher course on Basic electrical engineering**” at GEC from 19<sup>th</sup> - 24<sup>th</sup>, June-2017.
- Organizing Secretary and resource person for One-week FDP on” **Refresher course on pedagogy on machines and Power systems**” at GEC from 9<sup>th</sup> - 15<sup>th</sup>, May-2016.
- Organizing Secretary for One-day seminar on” **Renewable Energy resources for Sustainable Development**” at GEC on 24<sup>th</sup> Feb 2016.
- Coordinator for two-day workshop on “**Industrial Automation – PLC & SCADA**”an outreach workshop of Shaastra’15, IIT Madras in association with Innovians Technologies held at GEC from 12<sup>th</sup> -13<sup>th</sup> Feb,2015.
- Organizing Secretary and resource person for One Day Workshop on” **Non-Linear System Analysis**” at GEC from 7<sup>th</sup> - 8<sup>th</sup>, Feb-2014.
- Organizing Secretary and resource person for One Day Workshop on” **MATLAB and ItsToolboxes**” at GEC on 24<sup>th</sup>, Jan-2014.
- Organizing Secretary and resource person for Two Day Workshop on”**Control of Electric Dives**”at GEC from 22<sup>nd</sup> – 23<sup>rd</sup>, June 2012.
- Convener and resource person for” **Refresher Course on Electrical Machines**” at GEC from 14<sup>th</sup> – 15<sup>th</sup>,Nov 2011.
- Convener for Three Day National workshop on “**Recent Advancements in Modeling and Simulation of Control Systems**”, 7<sup>th</sup>-9<sup>th</sup>, July 2007.
- Coordinator of workshop on” **MATLAB& its toolboxes**”, in SVECW for staff as a Secretary of ISTE Chapter 27<sup>th</sup>, Feb, 2007.
- Coordinator & resource person of workshop for staff in SVECW on “**MATLAB and its Toolboxes**” from 11<sup>th</sup>-15<sup>th</sup>, Feb 2007.
- Conducted Symposium **MADHA MILAN-2006 & 2007** for engineering students at SVECW.
- Active member in conducting AICTE/ISTE sponsored STTP (Short Term Training Program) on “**Application of Power Electronics to Power Systems**“, at GVP College ofEnggin Dec 2004.
- Active member in conducting national Conference on “**Recent Trends in Power System Operation and Control**” at GVP College of Engg, 27<sup>th</sup>-29<sup>th</sup>, Dec 2003.

## SHORT TERM COURSES ATTENDED: 20

- One week TEQIP-III sponsored e-Faculty development program on” **Future of automation ,control & Technologies** ” organized by *Center of excellence in complex Non linear dynamical systems*(CNDS),Department of EEE, Veermata Jijabai Technological Institute, Mumbai, Maharashtra, 26<sup>th</sup> -30<sup>th</sup> Dec 2020.
- One week TEQIP-III sponsored Faculty development program on” **Advanced Microgrid operation and control** ” organized by Veer Surendra Sai University of Technology, Burla, Odisha, 8<sup>th</sup> -12<sup>th</sup> Sept 2020.
- One week TEQIP-III sponsored Faculty development program on” **The Development of the Energy Internet of Things(eIoT) in Green energy Infrastructure**” organized National Institute of Technology, Silchar, Assam, 1<sup>st</sup> -5<sup>th</sup> Sept 2020.
- Webinar on “Teaching Online, The New Normal: Opportunities & Challenges” organised by Business Standard Learning in association with great learning, 22<sup>nd</sup> Aug,2020.
- A National Level Webinar on “**Intellectual Property Rights & Patents - A View**” organized by IQAC, Gudlavalleru Engineering College, Gudlavalleru held during 10<sup>th</sup> - 12<sup>th</sup> August 2020.
- One week online Faculty development program on” **Recent Trends in Electrical engineering**” organized by Vishnu Institute of Technology, Bhimavaram, 8<sup>th</sup> -12<sup>th</sup> June 2020.
- Online Course on “**Examination Reforms**” organized by AICTE conducted during 22<sup>nd</sup> -25<sup>th</sup> April, 2020
- One week Faculty development program on” **Advanced linear continuous control systems: Applications with MATLAB programming and simulink**” organized by NPTEL-AICTE, (Awarded with Elite+Silver), July-Sep2019 .
- One week Faculty development program on” **Advanced linear continuous control systems: Applications with MATLAB programming and simulink**” organized by NPTEL-AICTE, (Awarded with Elite+Silver), July-Sep2019 .
- One-week faculty development program on “Application of Artificial Intelligence and soft computing Techniques to Electrical Engineering” Organized by Gudlavalleru Engineering College,12<sup>th</sup> -17<sup>th</sup> November 2018.
- NMEICT workshop on “**Control Systems**” conducted by IIT kharagpur and organized by EEE department, Gudlavalleru Engineering College on behalf of IIT Bombay Remote Centre during 2<sup>nd</sup> Dec to 12<sup>th</sup> Dec 2014.
- NBA Training center “**Workshop for Training Resource persons on Outcome Based Accreditation (OBA)-Phase-I & II**” conducted by NBA Training center, V R Siddartha Engineering College, Vijayawada on 13<sup>th</sup> and 26<sup>th</sup> -28<sup>th</sup> Sept 2013.

- QIP short term course on “**Student Counseling and Career Guidance** “Conducted by TTTI, Chennai, at Shri Vishnu Engineering College for Women, Bhimavaram, W.G.Dt, A.P, from 20<sup>th</sup> to 21<sup>st</sup> , June 2008.
- TEQIP short term course on “**Advanced Theory of Control Systems** “at Andhra University, Visakhapatnam, from 9<sup>th</sup> to 11<sup>th</sup>, March 2007.
- QIP Short term course on “**Advanced Control Systems**” at Indian Institute of Science, Bangalore, from 3<sup>rd</sup> to 4<sup>th</sup>, Feb 2007.
- TEQIP short term course on “**Training Program on MATLAB Basic Module and its Tool Boxes**“at AUCE, Andhra University, Visakhapatnam, from 22<sup>th</sup> to 23<sup>nd</sup>, Sept 2006.
- TEQIP short term course on “**Vector control of Induction Motor**“at JNTUCE, HYD, from 20<sup>th</sup> to 22<sup>nd</sup>, Oct 2005.
- AICTE-ISTE short term training program “**Application of Power Electronics to Power Systems**” at G.V.P.College of Engg, from 6<sup>th</sup> – 10<sup>th</sup> , Dec 2004.
- QIP short term course on “**Automatic System Control Engineering** “at Indian Institute of Science, Bangalore, from 16<sup>th</sup>-20<sup>th</sup>, Nov 2004.
- QIP short term course on “**Improved Teaching Methodologies**” conducted by TTTI, Chennai, at G.V.P.College of Engg, from 8<sup>th</sup> to 13<sup>th</sup> , July 2003.

### **GUEST LECTURES DELIVERED: 23**

- “**Advances in Control Systems**” at Aditya Engineering College on 24-01-2018.
- “**Energy Management**” at Aditya College of Engineering on 31-08-2017
- “**Applications of MATLAB Symbolic math toolbox to Mechanical Engineering**” in FDP on Application of MATLAB to Mechanical Engineering on 10-09 -2015 at GEC.
- “**Research Prospects in Model Order Reduction**” in FDP on Emerging areas of Research in Electrical Engineering at Gudlavalleru College of Engineering, Gudlavalleru on 10-12-15.
- “**Research Methods in Engineering**” in FDP on Recent Trends in Electrical Engineering conducted at Aditya Engineering College, Surampalem on 26-06- 2015.
- “**Large Scale System Model Order Reduction**” in FDP on Recent Trends in Electrical Engineering conducted at Aditya Engineering College, Surampalem on 26-06- 2015.
- “**Electrical Energy Management**” at Institute of Engineers (I), Local center, Vijayawada on 13-12-2014.



- **“Refresher course on Electric Circuit Analysis”** at Gudlavalleru Engineering College, on 9<sup>th</sup>– 12<sup>th</sup>June-2014.
- **“Non-Linear System Analysis”** at Gudlavalleru Engineering College, from 7<sup>th</sup> -8<sup>th</sup> Feb-2014.
- **“Introduction to MATLAB and its Toolboxes”** at Gudlavalleru Engineering College, on 24<sup>th</sup> Jan-2014.
- **“Future trends in Electrical Engineering”** at Amrita Sai Institute of Science and Technology, on 21<sup>st</sup> Sept-2013.
- **“Advanced Control Systems”** in GITAM University, Hyderabad Campus on 12<sup>th</sup> March-2013.
- **“Role of Interval Systems in Energy Management”** in ‘*VEDA Technical Fest*’ organized by Aditya Engineering College, Surempalem from 10<sup>th</sup> – 11<sup>th</sup>, Sept 2012.
- **“Programming with MATLAB and Control System Toolbox”** in AICTE sponsored workshop on ‘*Modern Power System Operation and Control*’ organized by B.V.C.Engineering College, Odalarevu, 28<sup>th</sup>June 2012.
- **“Control Systems & Electric Machines”** at D.B.S.Institute of Technology, 4<sup>th</sup> Feb2012.
- **“Optimal Control Systems and Generation of Liapunov Functions”** in a refresher course on ‘*Advanced Control systems*’ Jointly organized by V.R.Siddartha College of Engineering and J.N.T. University on 27<sup>th</sup>,Jan 2012.
- **“Trends in Model Order Reduction”** in a Two Day National Conference on ‘*Recent Advances in Power and Control Engineering*’ organized by Vignan’s Lara Institute of Technology and Science during 16<sup>th</sup>&17<sup>th</sup>, Dec2012.
- **“Symbolic Math tool box in MATLAB”** in National workshop on ‘*Scope of Sciences & Maths in Engineering*’ organized by dept of B S&H, Gudlavalleru Engineering College, Gudlavalleru on 12<sup>th</sup> Aug 2011.
- **“Recent Advances in Energy Management System”** in National Conference on ‘*Recent Advances in Communications and Energy Systems*’ organized by Vignan’s Lara Institute of Technology and Science, 29<sup>th</sup> - 30<sup>th</sup> April, 2011.
- **“Model Order Reduction”** in AICTE sponsored Workshop on ‘*Recent Trends in Electrical Engineering*’ at Paladugu Parvathi Devi College of Engineering & Technology, Vijayawada, 9<sup>th</sup> July 2011.

- “**MATLAB Basics and Control System Toolbox**” in a Workshop on ‘*Simulation Tools in Engineering & Technology*’ jointly organized by depts. of EEE & ECE, Shri Vishnu Engineering College for Women, from 6-8, Aug 2007.
- “**MATLAB and its Toolboxes**” in a workshop ‘*Real time Engineering Application of Mathematics*’ organized by dept of S &H, Shri Vishnu Engineering College for Women, from 11-15, Feb 2007.
- “**MATLAB basics and its tool boxes**” at Swarnandhra institute of technology, Narasapuram,2005.

### **EXTENSION ACTIVITIES**

- Served as **Head of the department** of EEE, Gudlavalleru Engineering College, from 2011 to 2017.
- Guided the department as Head in acquiring accreditation status from **NBA** under **OBA** twice (i.e. in 2013(Final **Marks secured:736**(Evaluation team marks:**758**,missed 5 years accreditation))& 2016) in Gudlavalleru Engineering College.
- Guided the faculty in preparing UGC/DST/AICTE- Minor/Major Research Project.
- Worked as active member for preparation of Documents for Accreditation by NBA, at GVP College of Engineering, Visakhapatnam and Shri Vishnu engineering College for Women, Bhimavaram.
- Developed all Under Graduate Labs for Electrical Engineering as per AICTE norms, in BVC Engg College.
- Developed Simulation Lab and Renewable Energy laboratories.
- Department In charge, Time Table committee at GVP College of Engg.
- Member of Examination committee at GVP College of Engg.
- Guided the students for technical paper presentations at different student conferences.
- Motivated the students to improve technical skills by conducting technical quizzes
- Secretary cum Treasurer of ISTE Chapter, SVECW at Bhimavaram.
- Presented papers in International Conferences with the students of SVECW.
- Delivering guest lecture in various engineering colleges on latest topics
- Delivered lectures in 2-day workshop on “Real time Engineering Applications in Mathematics” at Shri Vishnu Engineering College for Women, Bhimavaram during 1-2, Sept 2007.
- Technical program chair for national symposiums at different engineering colleges

### **SOFTWARE SKILLS:**

FORTRAN, — C — ,MATLAB, SIMULINK, Sim Power systems, PSPICE, CC Package, Program CC.

## **EDITORIAL /ADVISORY BOARD:**

1. Editorial Member of International Journal of Electronic Engineering and Technology (IJEET), Research India Publications.
2. Editorial Member of International Journal of Electronic and Electrical Engineering (IJEET), Research India Publications
3. Editorial Member of International Journal of Industrial Electronics and Control (IJIEC), Research India Publications
4. Editorial Member of International Journal of Electrical and Computer Engineering(IJEC), Research India Publications
5. Editorial Member of International Research Publication House.
6. Editorial Board member of AE journals in Engineering, Technology and Management Science.
7. Editorial Board member of journal of Advanced Research in Electrical and Electronics Engineering(AREE).
8. Editorial Board member of journal of Electrical Engineering and Science (JEES), DJ Publications.

## **PROFESSIONAL ACTIVITIES**

- **Member of Board of Studies** for UG & PG in college of Engineering, Jawaharlal Technological University, Kakinada during 2019-20
- **Member of Board of Studies** for UG in Jawaharlal Technological University, Kakinada during 2019-20.
- **Member of Board of Studies and IQAC** for SR Engineering College, Warangal, during 2015-till today.
- **Member of Technical Advisory Committee** for 2<sup>nd</sup> National conference on Emerging Trends in Power, Energy and Control(ETPEC-2017), organized by department of EEE, VFSTR University, Guntur, from 11<sup>th</sup> -12<sup>th</sup> August 2017.
- **Member of Organizing Committee** for 3<sup>rd</sup> International conference on Recent Challenges in Engineering and Technology (ICRCET-2017), organized by department of EEE, AITS, Tirupati, from 12<sup>th</sup> -13<sup>th</sup> September 2017.
- **Technical Program chair** for 2<sup>nd</sup> International conference Smart Electric Grid, organized by department of EEE, KL University, Vijayawada, on 23<sup>rd</sup> December 2016.

- **Session chair** for National Level Student Technical Symposium on Electrendz 2016 organized by Aditya College of Engineering, on 30th Sept-1st Oct,2016.
- **Session chair** for National Level Student Technical Symposium,organized by GUNTUR ENGINEERING COLLEGE, on 27<sup>th</sup> March 2015
- **Session chair** for National Level Student Technical SymposiumSAMKALP -2014, organized by KallamHaranadha Reddy Institute of Technology, on 15<sup>th</sup> September 2014
- **Session chair** for National Technical Symposium **YOURFEST-2012**, organized by USHA RAMA College of Engineering & Technology,on 16<sup>th</sup> March 2012.
- **Technical program chair** for national symposiums **TECHFEST'12** organized by department of EEE,Sir C.R.ReddyEngg College,ELURU, on 9<sup>th</sup> March 2012.
- **Program chair** in National Technical Symposium SAPIENCE-2011organized by Sri Vasavai Institute of Engineering & Technology on 24<sup>th</sup> Dec-2011.
- **Technical program chair** for IEEE student Conference on **Recent Trends in Electrical and Electronics Engineering**, organized by GITAM institute of Technology,GITAM University, Visakhapatnam, during 24<sup>th</sup> – 25<sup>th</sup> Feb-2012.
- **Session chair**in National Conference on “**Recent Advances in Power and Control Engineering**” organized by Vignan’s Lara Institute of Technology and Science during 16<sup>th</sup>&17<sup>th</sup> Dec-2011.
- **Session chair**in National Conference on “**Recent Advances in Communication and Energy Systems**” organized by Vignan’s Lara Institute of Technology and Science 24<sup>th</sup>July-2011.
- **Technical program chair** for national symposiums TECHFEST'11 organized by department of EEE,SirC.R.ReddyEngg College,ELURU, on 9<sup>th</sup> March-2011.
- **Session Chair** for National Symposium IZZA-10 at Chaitanya Engineering College,Visakhapatnam.

## RESEARCH PROJECTS UNDER TAKEN:

Title of the project	Name of the agency	Amount in INR (Lakhs)	Status
<b>Design and Development of Robust Control Algorithms for Inverted Pendulum</b>	GEC	4.0	Completed
<b>Design and Development of artificial intelligence based controller for vehicle active suspension system considering multi objective approach</b>	DST-SERB	34.30	Under Review
<b>Design and analysis of Power system stabilizer using Interval Quantitative Feedback Theory(IQFT)</b>	AICTE-RPS	10.40	Under Review
<b>Development of Optimal Stabilizing Controller for Twin Rotor Multiple Input and Multiple Output Systems Using Computational Intelligence and Meta Heuristic Optimization Techniques.</b>	UGC-MRP	9.91	Under Review

## GRANTS FETCHED:

Received a grant of Rs 3,85,666/- from AICTE, New Delhi, for organizing Short Term Training Program on “*Automation and Intelligent Control of Electrical Systems*” under AQIS 2018-19 during the financial year 2019-20.