



Dr.R.Sreerama Kumar Professor (DSM & EE Chair)

Address : Vice-Presidency for Projects
King Abdulaziz University Jeddah
P.O.Box: 80200, Jeddah 21589, Saudi Arabia

Contact Details : **Email** : sreeram@nitc.ac.in, dsm.chair@kau.edu.sa,
dr.r.sreeramkumar@gmail.com
Phone : 00966 2 640 2000 Extn. 68682 (Direct)
00966 2 640 2000 Extn. 19129 (Office)
Mobile : 00966 5521 67877 Fax : 00966 2 6401328

Educational Qualifications

- **B.Tech. (Electrical Engg)** from NSS College of Engg., Palakkad, University of Calicut,
- **M.Tech. (Electrical Engg.)** from Indian Institute of Technology, Madras, India
- **Ph.D.** from Indian Institute of Science, Bangalore, India

Thesis Title: Algorithms and Interfacing Techniques for Simulation of Large Scale Power System Dynamics
--

Membership in Professional Bodies

1. **Fellow** of Institution of Engineers (India) (F/108229/5) and **Chartered Engineer (India)**
Chairman of IE(I) *Calicut Local Centre* (2004-2006)
Hon.Secretary-Cum-Treasurer (Oct.2001-Oct.2003)
2. **Senior Member** of IEEE (USA) (M41526633),
Vice-Chairman of IEEE (Industry Applications and Industrial Engineering and Power Electronics Society Joint Chapter)–Kerala Section (2007 onwards); **Secretary** (2004-'07)
Student Branch Counsellor - NIT Calicut= 2008-2010
3. **Life Member** of Indian Society for Technical Education (LM 11166)
Chairman of NIT Calicut Chapter
Hon.Secretary-Cum-Treasurer (Nov.1999-Nov.2003)
4. **Life Member** of Energy Conservation Society (LM 565)
Vice-chairman-Calicut Chapter(June.2000-2004)
ECS Joint Secretary (1995-1999)
ECS Secretary-Calicut Chapter (95-97).
5. **Life Member** of System Society of India (LM 05014)

Publications

International Journals

1. R. Sreerama Kumar, R.Ramanujam, H.P.Khincha, L.Jenkins,"A High Speed Algorithm for Simulation of Large Scale Power System Dynamics", Int. Jl. of Electric Machines and Power Systems (USA), Vol.18, No.3, pp.225-239, May-June 1990.
2. R. Sreerama Kumar, R.Ramanujam, H. P.Khincha, L.Jenkins,"Performance Evaluation of the High Speed Algorithm for Simulation of large Scale Power System Dynamics", Int. Jl. of Electric Machines and Power Systems (USA), Vol.20, No.3, pp. 205-222, May-June 1992.
3. R.Sreerama Kumar, R.Ramanujam, H.P.Khincha, L.Jenkins,"Transient Stability Simulation of Unbalanced Large Scale Power Systems", Int.Jl. Electric Machines and Power Systems (USA), Vol. 23, No.1, pp.93-102 Jan.1995.
4. R.Sreerama Kumar, "Modelling and Interfacing Techniques for Transient Stability of Unbalanced Power Systems with Time Varying Loads", Int. Jl. of AMSE, France, Vol.50, No.1, pp.13-20, 1997.
5. R.Sreerama Kumar, R.Ramanujam, "A Robust Induction Motor Model Interface for Fast Transient Stability Analysis", Int. Jl. of AMSE (France), Vol.71, No.1, pp.37-47, 1999.
6. R.Sreerama Kumar, Satheesh Thomas, "Digital Excitation Control of Synchronous Generators", International Jl. of AMSE (France), Vol.73, No.1, pp.29-39, 2000.
7. R.Sreerama Kumar, N.Rajendran, B.Harikumar, F.Gajendran, "A Simple Eigen Value Assignment based Approach for Power System Stabiliser Design", International Jl. of AMSE (France), Vol. 56, No.1, pp.59-68, 2001.
8. E.Chandrasekharan, M.S.N.Potti, R.Sreerama Kumar, K.P.Mohandas, "Improved General Purpose Fast Decoupled Load Flow", International Jl. of Electric Power and Energy Systems (UK), 24, pp.481-488, Aug.2002.
9. R.Sreerama Kumar, D.Sandhya, "Fast Load Flow Analysis Using Artificial Neural Networks", Accepted for Publication in Int. Jl. of AMSE (France).
10. R.Sreerama Kumar, Nagaraja, "ANN Based Transfer Capability Computation", International Journal of AMSE (France), Vol.78,No.3, pp.35-40, 2005.
11. K.G.Jolly, K.P.Ravindran, R Vijayakumar, R Sreerama Kumar, "Intelligent Decision Making in Multi-agent Robot Soccer System through Compounded Artificial Neural Networks", Int. Journal of Robotics and Autonomous Systems", 55 (7), pp.589-596,September 2007.
12. B Sitaleksmi Amma, F Gajendran, R Sreerama Kumar, "Controllers for Vehicle Active Suspension Systems", International Journal of AMSE (France) on Mechanics & Thermics, Vol.76,No.3, 64-84, 2007.
13. Sobha m, Sreerama Kumar, Saly George, "ANFIS Based UPFC Supplementary Controller for Damping Low Frequency Oscillations in Power Systems", International Journal of Electrical Systems, Vol.3, Issue 4, December 2007, pp. 259-263.

14. B Sitalekshmi Amma, F Gajendran, R Sreerama Kumar, "Genetic Fuzzy Controller for Vehicle Active Suspension Systems", International Journal of AMSE (France) on Automatic Control (Theory & Applications) Vol. 62, No.3, pp.36-54, 2007,
15. M Sobha, R Sreerama Kumar, Saly George, "ANFIS based co-ordination of multiple UPFC control functions for damping low frequency oscillations in power systems", International Energy Journal, Vol.9, Issue 4, December 2008
16. K.G. Jolly, R.Sreerama Kumar, R Vijayakumar, "An Artificial Neural Network Based Dynamic Controller for a Robot in a Multi-agent System", International Journal of Neurocomputing, 73, pp.283-294, 2009.
17. K. G. Jolly, R. Sreerama Kumar, R. Vijayakumar: A Bezier curve based path planning in a multi-agent robot soccer system without violating the acceleration limits. Robotics and Autonomous Systems 57(1), pp. 23-33 2009
18. K. G. Jolly, R. Sreerama Kumar, R. Vijayakumar: Intelligent task planning and action selection of a mobile robot in a multi-agent system through a fuzzy neural network approach. Engineering. Applications of Artificial Intelligence 23(6), pp. 923-933, 2010.
19. Sunitha R, Sreerama Kumar R, Abraham T Mathew, "A Composite Security Index for On-line Steady-state Security Evaluation", Int. Journal of Electric Power Components and Systems, Volume 39, Number 1, January 2011 , pp. 1-14.
20. Asokan O, Sreerama Kumar R, "A High Speed Relay for Integrated Fault Identification and Zone Classification in EHV Transmission Lines', Accepted for Publication in the International Review on Modelling and Simulations", Sept. 2011
21. Asokan O, Sreerama Kumar R, "ANN Based Network Reconfiguration for Practical Distribution Systems", Under Review in the International Journal of Power Components and Systems, 2011.
22. Asokan O, Sreerama Kumar R, "RFBF Based Voltage Collapse Proximity Identification of Large Power Systems", Under Review in the International Journal of Electrical Systems, 2011.
23. Balachandran D P, Sreerama Kumar R, Deepa M U, "Instantaneous Power Based Detection Inrush Currents in Single Phase Transformers", Under Review in the International Journal of Emerging Electric Power Systems, 2011
24. E.Chandrasekharan, M.S.N.Potti, R.Sreerama Kumar, K.P.Mohandas, "A Parallel Algorithm for Newton-Raphson Load Flow" Under Review in Int. JI. of Electric Power and Energy Systems" 2012.
25. Balachandran D P, Sreerama Kumar R, Deepa M U, "Estimation of Inrush current in Single Phase Transformers", Under Review in international Journal of Power and Energy Systems
26. Balachandran D P, Sreerama Kumar R,"Volt-Second Balance Method For Mitigation of Inrush Current in Single Phase Transformers", International Journal of Power System Operation and Energy Management, ISSN (PRINT): 2231 – 4407 , VOL-I Issue-3, 2012,
27. Vinod Pottakulath, Elizabeth P Cherian, Sreerama Kumar. R, "Determination of Reduced Order Model for Torsional Interaction Investigations using Selective Modal Analysis,

Part I : Initial Approach", International Journal of Electrical Power and Energy Systems", Vol. 44, Issue 1, pp. 482-487, 2013.

28. Vinod Pottakulath, Elizabeth P Cherian, Sreerama Kumar. R, "Determination of Reduced Order Model for Torsional Interaction Investigations using Selective Modal Analysis, **Part II** : Application to Practical Power Systems", Part II in Vol/Issue 44/1, International Journal of Electrical Power and Energy Systems Vol. 44, Issue 1, pp. 454-460, 2013.

International Conferences

29. R.Sreerama Kumar, R.Ramanujam, H.P.Khincha, L.Jenkins, "Investigation of Computation Techniques for Simulation of Large Scale Power System Dynamics", Proceedings of the IEEE International Tencon'91 Conference, New Delhi, India, pp.340-344, Aug.1991.
30. Vijay Bhaskar Akella, H.P.Khincha, R. Sreerama Kumar, "An Artificial Intelligence Approach to Transient Stability Assessment", Proceedings of the IEE (U.K.) Int. Conference on Advances in Power System Control, Operation and Management", Hong Kong, pp. 359-362, Nov.1991.
31. R. Sreerama Kumar, R.Ramanujam, H.P.Khincha, L.Jenkins, "Fast Transient Stability Simulation of Large Scale Power Systems", Proceedings of the IEEE International Tencon'92 Conference, Melbourne, pp.112-115, Nov.1992.
32. R.Sreerama Kumar, "Feedforward and Recurrent Artificial Neural Networks for Power System Computations", Proceedings of the 31st Universities International Power Engineering Conference- UPEC'96, Iraklio, Crete, Greece, pp.937-940, Sept.1996.
33. R.Sreerama Kumar, D.Sandhya, R.Gavirangappa, "Investigations on Application of Artificial Neural Networks for Load Flow Studies", Proceedings of the International Symposium on Modern Electric Power Systems (MEPS'96), Wrocklaw, Poland, Sept. 1996.
34. R.Sreerama Kumar, H.P.Khincha, "A Fast Approach for On-line Optimum Economic Dispatch Using Artificial Neural Networks", Proceedings of the International Symposium on Modern Electric Power Systems (MEPS'96), Wrocklaw, Poland, Sept. 1996.
35. R.Sreerama Kumar, C.latha, S.Thiruvengadam,"On-line Contingency Selection for Voltage Security Assessment- Case Studies", Proceedings of the Int. Conf. on "Power Generation, System Planning and Operation", New Delhi, pp. 285-291, Dec.1997.
36. R.Sreerama Kumar, G. Vincent "On-line Selection of Contingencies Incorporating the Effects of Governor Control and AGC", Proceedings of the Int. Conf. on "Power Generation, System Planning and Operation", New Delhi, pp. 245-251, Dec.1997.
37. R.Sreerama Kumar, R.Ramanujam,H.P.Khincha,L.Jenkins,"Induction Motor Modelling and Interfacing Technique for Fast Transient Stability Simulation", Proceedings of the IEEE Int.Conf. on "Electric Energy Management and Power Delivery"-(EMPD'98), Singapore, pp. 548-551, March 1998.
38. R.Sreerama Kumar, K.C.Sindhu Thampatty, "Environmentally Constrained Optimum Economic Dispatch", Proceedings of the IEEE Int.Conf. on "Electric Energy Management and Power Delivery"-(EMPD'98), Singapore, pp.265-270, March 1998.

39. R.Sreerama kumar, Uma Shanker, Sujatha Subhash, "Fuzzy Logic Based Transient Stability Controller", Proceedings of Int. Conf. on Trends in Industrial Measurements and Automation (TIMA-99), Chennai, pp.365-372, Jan.1999.
40. R.Sreerama Kumar, N.Rajendran, R.Sunitha, F.Gajendran, "On-line Tuning of Conventional Power System Stabilizer Using Artificial Neural Network", Proceedings of the AMSE Int. Conf. on Computer Modelling, Simulation and Communication (CMSC'99), Jaipur, India, pp.331-336 Dec. 1999, Tata Mc.Graw Hill Pub. Co. New Delhi, 2000.
41. R.Sreerama Kumar, S.Sreelatha, Sujatha Subhash, "Damping of Power System Oscillations Using FACTS Devices", AMSE Int. Conf. on Computer Modelling, Simulation and Communication (CMSC'99), Jaipur, India, Dec. 1999, and Published in AMSE Int. Publication "BEST of 1999".
42. N.Rajendran, A.Singh. R.Sreerama Kumar, F.Gajendran, "Neuro-Fuzzy Based Adaptive Power System Stabilizer", Proceedings of the AMSE Int. Conf. on Modelling and Simulation, Las Palmas de Gran Canaria, Spain, pp.205-212, September 2000 .
43. R.Sreerama Kumar, N.Rajendran, Fayaz A. M, R.Sunitha, F.Gajendran, "On-Line Tuning Of Conventional Power System Stabilizer Using Fuzzy Logic Approach", Proceedings of the Int. Conf. On Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2001), 28-30 Nov.2001.
44. R.Sreerama Kumar, O.Asokan, L Deepa, Rijil Ramchand, "Artificial Neural Network Based Voltage Collapse Proximity Identification", Proceedings of the Int. Conf. On Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2001),Singapore, 28-30 Nov.2001.
45. R.Sreerama Kumar, Subha D Puthankattil, "Artificial Neural Network Based Sulphur Dioxide Constrained Economic Generation Scheduling", Accepted for Presentation in the International Conference on Energy and Environmental Technologies for Sustainable Development", 8-10 October 2003, Jaipur, India.
46. R.Sreerama Kumar, P.Ugandhar, E.Chandrasekharan, "Distributed Data Processing Approach for Power Flow Computations", Proceedings of the International Conference on Information Technology, Prospects and Challenges in the 21st century", 22-23 May 2003, Kathmandu, Nepal, pp. 130-133.
47. Jeema K Cherian, R.Sreerama Kumar, Roy K Mathew, "Direct Load Control Scheme for a Fertilizers and Chemicals Plant", Proceedings of the International Conference on Energy and Environmental Technologies for Sustainable Development", 8-10 October 2003, Jaipur, India, pp.550-556.
48. R.Sreerama Kumar, Subha D Puthankattil, "Artificial Neural Network Based Sulphur Dioxide Constrained Economic Generation Scheduling", Proceedings of the International Conference on Energy and Environmental Technologies for Sustainable Development", 8-10 October 2003, Jaipur, India, pp.16-22.
49. A.C.Rajendran, R.Sreerama Kumar, Subha D Puthankattil, "Energy Conservation Measures in a Pulp Industry", Presentated in the International Conference on Energy and Environmental Technologies for Sustainable Development", 8-10 October 2003, Jaipur, India.

50. R.Sreerama Kumar, O.Asokan, V.Bindu, "Voltage Collapse Proximity Identification of Large Power Systems Using Artificial Neural Networks", Proceedings of the International IEEE Tencon'03 Conference, 14-17 October 2003, Bangalore, India.
51. N.Rajendran, R.Sreerama Kumar, A.Gunasekharan, F.Gajendran, "Fuzzy Logic Based Adaptive Power System Stabilizer", Proceedings of the International Conf. on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2003), Singapore, 15-18 Dec. 2003,
52. Sobha M, Sreerama Kumar R, Jayanand B, "Stability Enhancement of Power Systems with Fuzzy FACTS Controllers", Proceedings of the International Conf. on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2003), 15-18 Dec. 2003, Singapore.
53. Balachandran D P, Sreerama Kumar R, Shimnamol V P, "A new Technique for Mitigation of Transformer Inrush Current", 19th IEEE International Conference on Electrical Distribution-CIRED 2007, Paper No: 0694, pp. 21-24 Vienna May 2007, ieeexplore.ieee.org
54. Shimnamol V P, Balachndran D P, Sreerama Kumar R, "Transformer Inrush Current Reduction by Power Frequency Low Voltage Signal Injection to the Tertiary Winding ", Proceedings of the IEEE PES International Conference, Power Tech. 2007, Lausanne, Switzerland, pp.1953-1958, July 2007, ieeexplore.ieee.org
55. M Sobha, R Sreerama Kumar, Saly George, "ANFIS Based SDC with GA tuning for damping low frequency oscillations in power systems" International Conference on Power Systems (ICPS 2007), CPRI Bangalore, Dec.2007.
56. C V Naga Vamsidhar, R Sreerama Kumar, "Automatic Generation Control of Multi-Area Deregulated Power Systems", Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), pp. 662-665, March 2008.
57. Balaji Krishna Appana, R Sreerama Kumar, "Modelling of Fuzzy PSS for Damping Small Signal Oscillations", Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), pp. 162-165, March 2008.
58. Lokesh G, R Sreerama Kumar, "Wavelet Based ANN Approach for Locating SLG Fault in Medium Voltage Power Systems", Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), pp. 162-165, March 2008.
59. Sunitha R, Sreerama Kumar R, Abraham T Mathew, "Development of a Composite Security Index for Static Security Evaluation", Proceedings of the IEEE International Conference TENCON 2009, Singapore 2009, ieeexplore.ieee.org
60. Jaya C K, Sreerama Kumar R, "Wheeling Cost Comparison: A Case Study of 220kV Interstate Grid under Deregulated Environment", Proceeding of the International Conference on Latest Trends in Simulation Modelling and Analysis (COSMA 2009), NIT Calicut, pp.549-552, Dec.2009.
61. Jitendar Veeramalla, Sreerama Kumar.R, "Application of Interline Power Flow Controller (IPFC) for Damping Low Frequency Oscillations in Power Systems, Proceedings of the International Symposium on Modern Electric Power Systems 2010, Wroclaw, Poland, pp. 19-24, Sept. 2010, ieeexplore.ieee.org
62. Atmakuru, Rajagopal; Sreerama Kumar R, "ANN Based Adaptive Control Coordination Of Psss And FACTS Devices In Multi-Machine Power Systems", Proceedings of the

International Symposium on Modern Electric Power Systems 2010, Wroclaw, Poland, pp. 19-24, Sept. 2010, ieeexplore.ieee.org

63. Vinod P, Elizabeth P Cherian, Sreerama Kumar R, "Synthesis of Power System Model for SSR Analysis", Proceedings of the IEEE International Conference TENCON 2010, Fukuoka, Japan, November 2010, ieeexplore.ieee.org
64. Ajay Babu, Ashok S, Sreerama Kumar R, "Priliminary Design Considerations towards building of a Hybrid Electric Bicycle" Accepted for Publication in the IEEE PES ISGT 2011 International Conference-India, Dec.1-3, Kollam, 2011
65. Ibrahim M Jomoah, Abdul Aziz Al Abdul-Aziz, Sreerama Kumar R, "Energy Management in the Buildings of a University Campus – A Case Study", accepted for presentation in the Saudi Arabia Smart Grid 2012 International Confer4enve Jeddah, December 2012.

National Journals/Conferences/Seminars/Workshops

66. R.Sreerama Kumar, "Interaction Between Economic Development and Technical Institutions", 24th Annual ISTE Convention, REC Calicut, Dec. 1994.
67. R.Sreerama Kumar, "Artificial Neural Networks for Power System Applications", Proceedings of the National Conf. on "Signals, Data and System Modelling, Simulation and Analysis", Bhatkal, Nov.1995.
68. R.Sreerama Kumar, "Electric Motors-Energy Saving and Demand Side Management Issues", Proceedings of the National Workshop on Energy Auditing and Demand Side Management, Hassan, pp.70-77, June 1998.
69. R.Sreerama Kumar, N.Rajendran, R.Sunitha, F.Gajendran, "Power System Stabilizer Design: Recent Development and Future Trends", National Conf. on Modern Trends in Power Engineering and Development, MTPED, Thiruvananthapuram, pp.40-45, Aug.1998.
70. R.Sreerama Kumar, Satheesh Thomas, P.Anantha Krishnan, "Predictive Excitation Control of Synchronous generators", 22nd National Systems Conference, REC Calicut, Allied Publishers, New Delhi, pp.135-142, Dec.1998.
71. R.Sreerama Kumar, "Neuro-Computers", Technical Publication of Kerala Engineers' Forum, December 1999.
72. R.Sreerama Kumar, "Fuzzy Logic and System Control", Proceedings of the National Workshop on Fuzzy Mathematics and its Applications, Cochin University of Science and Technology, August 2000.
73. R.Sreerama Kumar, "Electric Motors-Energy Saving and Demand Side Management Issues", Proceedings of the National Seminar on Energy Conservation, Kottayam, October 2000.
74. R.Sreerama Kumar, "A New PG Course on Artificial Neural Networks and Fuzzy Logic Systems", National Workshop on Curriculum Development on Artificial Neural Networks", Kanpur, June 2000.
75. R.Sreerama Kumar, M.R.Venkateswar, "Optimum Economic Dispatch Using Elman Recurrent Artificial Neural Network", Proceedings of the 11th National Power Systems

Conference (NPSC-2000), Bangalore, Allied Publishers, New Delhi, pp.519-523, Dec.2000.

76. R.Sreerama Kumar, P.Preetha, "Steady State Analysis of Wind Turbine Driven Induction Generator", Proceedings of the IEEE Conf. on Renewable Energy Sources For Generation of Electricity, Pune, pp.84-89, September 2001.
77. R.Sreerama Kumar, "Power Quality Issues-An Overview", Invited paper in the 5th National Seminar on Modern Trends in Power Engineering & Development, Thiruvananthapuram, October 2002.
78. Misha Rani Mathew, R.Sreerama Kumar "Optimal Reactive Power Dispatch for Voltage Stability Improvement", Proceedings of the National Conference on Power Conversion and Industrial Control, NSSCE, Palakkad, 3-4 January 2003.
79. P.Ugandhar, R.Sreerama Kumar., E.Chandrasekharan, "Client-Server Model for Load Flow Computation", Proceedings of the National Conference on Power Conversion and Industrial Control, NSSCE, Palakkad, 3-4 January 2003.
80. R.Sreerama Kumar, "High Efficiency Industrial Lighting", Proceedings of the All India IE(I) Seminar on Industrial Architecture, Calicut, pp. 50-55, October 2004.
81. T.V.Nishat Menon, R.Sreerama Kumar, "Artificial Neural Network Based Real Time Electricity Pricing in Deregulated Environment", Proceedings of the 6th National Seminar on Modern Trends in Power Engineering & Development", Thiruvananthapuram, pp.48-51, Nov.2004.
82. Sreerama Kumar, "New Trends in Industrial Lighting", Journal of Vaasthuprathistanam, pp. 71-77, Dec.2004,
83. R Sreerama Kumar, "Mitigation of Power Quality Problems in Medium Voltage Power Systems", Institution of Engineers (India)-National Convention of Electrical Engineers, Kochi, Sept. 2006.
84. R Sreerama Kumar, "Soft Computing and Applications", Institution of Engineers (India) All India Seminar on Emerging Trends in Information and Communication Technology 2008, Ernakulam August. 2008.
85. Indhu J R, Sreerama Kumar, "Hysteresis Controller Based Interline Unified Power Quality Conditioner", Proceedings of the National Conference on Emerging Trends in Power Systems and Energy Management (NCEPE-09), St.Joseph's College of Engineering & Technology, Palai, Kerala, pp.11-17, June 2009.

Books/Course Notes

1. ISTE Summer School Notes on "**Recent Advances in Simulation, Control and Management of Electric Energy Systems**", REC Calicut, 3-14 May 1993.
2. Member in the Editorial Board and Contributor of "**Energy Vision-2025**", Energy Conservation Society- Handbook'98, Published by the Energy Conservation society, 1998.
3. R.Sreerama Kumar, Balagopal.T.S.Prabhu (Ed), "**Information Technology-Concepts and Applications**", Published by Institution of Engineers (India), Calicut Local Centre, September 2001.

4. R.Sreeram Kumar, "**Computer Methods in Industrial Power System Analysis**", Published by All India Council for Technical Education, New Delhi Through CEP-AICTE, NITIE 2002.
5. Course Notes on **Teacher Effectiveness** (January.2003)
6. R.Sreeram Kumar (Ed.), "**Lecture Notes on Flexible AC Transmission Systems**", Published by The Institution of Engineers (India), Calicut Local Centre, October 2003.
7. R.Sreeram Kumar, "**Notes on Computers and Internet**", Published by The Institution of Engineers (India), Calicut Local Centre, March 2004.
8. Course Notes on "**Safety of Electrical Installations**" (March 2006)
9. Course Notes on "FACTS and Custom Power Controllers for Quality Enhancement of Deregulated Power Systems" (May 2009)
10. **International Book Chapter Contribution:** K. G. Jolly, R. Sreerama Kumar, R. Vijayakumar , "**A Modular Artificial Neural Network Based Decision Making in a Multi-Agent Robot Soccer System**" Published as Chapter 3 in the Book entitled "**Agent Based Computing**" Edited by Duarte Bouca and Amaro Gafagnao, published by **NOVA Science. Pub. Inc (USA)**, pp. 89-107, July 2010

Major Honours and Awards

International Level

1. An International Journal Publication has secured **8th Position as per Science Direct Survey: Top 25 Hottest Articles in Engineering Applications of Artificial Intelligence** during the period from July to September 2010:
The publication is
K. G. Jolly, R. Sreerama Kumar, R. Vijayakumar: Intelligent task planning and action selection of a mobile robot in a multi-agent system through a fuzzy neural network approach. Engineering. Applications of Artificial Intelligence 23(6), 2010, pp. 923-933,
2. An International Journal Publication has secured **11th Position as per Science Direct Survey: Top 25 Hottest Articles in Engineering Applications of Artificial Intelligence** during the period from July to September 2010:
The publication is
K. G. Jolly, R. Sreerama Kumar, R. Vijayakumar: "An Artificial Neural Network based Dynamic Controller for a robot in a Multi-agent System" International Journal of Neurocomputing, Vol. 73, 2009, pp. 283-294.
3. The **paper** entitled "Damping of Power Systems Oscillations using Flexible AC Transmission System Devices", presented in the International Conference on "Computer Modelling, Simulation and Communication" at Jaipur (India), Dec.1999, has been selected for international AMSE Publication entitled "**AMSE(France):Best of 1999**".
4. Honorary Appointment to the **Research Board of Advisors 2000 of the American Biographical Institute, 2000.**
5. **Chaired a Technical Session in the International Conference** on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2001), **Singapore**, 28-30 Nov. 2001.
6. **Organised a Special Technical Session in the International Conference** on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2001), **Singapore**, 28-30 Nov. 2001.
7. **Co-chaired a Technical Session on Fuzzy Systems in the International Conference** on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2003), **Singapore**, 16-18 Dec. 2003.
8. **Reviewer of the International Journals**
 - IEEE Transactions of Artificial Neural Networks
 - IEEE Computational Intelligence Magazine
 - International Journal of "Electric Power Components and Systems
 - International Journal of European Transactions on Electrical Power
 - international journal of AMSE (France)
 - *Iranian Journal of Electrical and Computer Engineering (IJECE)*

National Level

9. **National Award for the Best Engineering College Teacher of Kerala State– 2008** given in recognition of his outstanding contribution to the Academic Community and the Students (*Given every year to one engineering teacher from the various nominations received from the Directors/Principals of various Engineering Institutes in Kerala*)
10. **National Award for Promising Engineering Teacher – 2003** for the Creative Work Done in Technical Education Instituted by the Indian Society for Technical Education (*Given every year to one engineering teacher from the various nominations received from the Directors/Principals of various Engineering Institutes in India*)
11. **Best Paper Presentation Award** in the 22nd National Systems conference (NSC'98) at REC Calicut, December 1998, for the paper on "Predictive Excitation Control of Electric Power systems".
12. **Best Paper Award** in the ISTE (Indian Society for Technical education) Seminar for the paper on "Energy Saving and Demand Side Management Issues", 14 October 2000, Kottayam, Kerala.
13. **Best Paper Presentation Award** in the National Conference on 'Signals, Data and System Modelling, Simulation and Analysis', Anjuman Engineering College, Bhatkal, 28-30 Nov. 1995, for the paper on "Feasibility of Application of Artificial Neural Networks to Power Systems".

Courses/Seminars/Programmes Coordinated

1. Chief Coordinator of the **National Seminar** on 'Modern Trends in Electric Energy Systems, Computer and Communication', (SEECC-'88), at REC Calicut, March 1988.
2. Chief Coordinator of the **ISTE (Indian Society for Technical Education) Summer School** on "Recent Advances in Simulation, Control and Management of Electric Energy Systems", REC Calicut, 3-14 May 1993.
3. Chief Coordinator of the **Intensive Course for Practising Engineers** and working professionals from industries on "Simulation and Control of Power Systems" for Practising Engineers", REC Calicut, 22-25 Sept. 1993.
4. Chief Coordinator of the **National Symposium** on "Energy, Communication and Information Technology for the 21st Century" (FUTECH-'97), at REC Calicut, 14-15 Nov. 1997.
5. Chief Coordinator of the **Intercollegiate Quiz Competition Programme** on Energy Conservation", at REC Calicut, 29th Jan.1997.
6. Chief-Coordinator of the Workshop on "**Energy Conservation Measures at Home**" organised jointly by the Energy Management Centre, Govt. of Kerala, and Energy Conservation Society, at Calicut on 23rd Jan. 1997.
7. Chief Coordinator of the **Intensive Course for Practising Engineers** and working professionals from industries on "Operational Challenges of Electric Power Utilities", REC Calicut, 12-14 Sept. '98.
8. Chief Coordinator of the **Intensive Course for Practising Engineers** and working professionals from industries on "Electrical Safety", REC Calicut, 9-11, August 2000.
9. Chief-Coordinator of the **National Level Students Technical Symposium –TATHVA 2000**, jointly organised by all the Engineering Departments of the College at REC Calicut, Nov. 9-11, 2000.
10. Coordinated (jointly with Dr.N.Ganesan, Dept. of Civil Engineering) the **Intensive Course for Practising Engineers** and working professionals from industries on "Safety in Construction/Maintenance ", REC Calicut, 24-25, September 2001.
11. Coordinator of the National **ISTE Workshop on "Teacher Effectiveness"**, 30-31 Jan.'03, NIT Calicut.
12. Coordinator of the **Institution of Engineers (India) Sponsored All India Workshop on Flexible AC Transmission Systems**, October 2003.
13. Coordinator and Resource Person of the **Workshop on "Computers and Internet"** Sept. 2003 March 2004 and Sept.2004.
14. Coordinator & resource Person of the **IEEE/IEI National Workshop on "Safety of Electrical Installations"** Calicut, March 2006.
15. A number of programmes as Secretary of IEEE (IA& IE Society) of Kerala Section 2004-2006, and thus contributed along with other Societies for getting the **Best Section Award in IEEE-Region-10** for the year 2004-2005.
16. Coordinated a number of programmes on behalf of ISTE NITC Chapter (being the Secretary and then as Chairman), (2000-2006) and the Chapter received the **Best Chapter Award of the ISTE Kerala Section** thrice.
17. Coordinator of the **MHRD-NASSCOM Finishing School** for Engineering Graduates 2007 at NIT Calicut.
18. Coordinator of the **Faculty Development Programme** on FACTS and Custom Power Controllers for Quality Enhancement of Deregulated Power Systems", May 2009, NIT Calicut.
19. Convenor-ISTE Student **National Conference ICON 2009**
20. Convenor-ISTE Student **National Conference ICON 2011**
21. Coordinator of the **National Workshop on "New Frontiers in DSM: Techniques and Applications"**, King Abdulaziz University, Jeddah, Nov.2012.

Major Involvement in National Committees

- 1. Expert Member - National Board of Accreditation of All India Council for Technical Education, Govt. of India**
- 2. Member CIGRE National Sub-Committee of Overhead lines**
- 3. Subject Expert in the Staff-Selection Committee of National Institute of Technology, Trichi (August 2005-2008) and National Institute of Technology, Surathkal (August 2007-2010)**
- 4. Member, UG Board of Studies of the Department of Electrical Engineering, NIT Surathkal (June 2003-2004)**
- 5. Member, Board of Studies of the Department of Electrical Engineering, Anna University –Coimbatore (August 2007-2010)**
- 6. Member, Board of Studies of the Department of Electrical Engineering, PSG College of Engineering & Technology –Coimbatore (August 2009-2012)**
- 7. Member of the Institute Management Committee of the Government ITI for Women, Kozhikode, Govt. of Kerala since 2008=2012)**

Major Involvements in the Institute/ Department Administration (at NIT Calicut)

1. **Coordinator of the New National Institute of Technology Sikkim**, and took the major leading role in the establishment of the institute and the facilities during the initial phase of its development. : 2010-12
2. **Professor & Head** of the Department of Electrical Engineering (2010-12)
3. **Co-convener of the one year long Institute Golden Jubilee Celebrations** : 2010-11
4. **Secretary-NITC Parent-Teacher Association** August 2008-2010
5. **Coordinator of the Finishing School for Engineering Graduates 2007, (NIT Calicut is one of the Seven Finishing Schools of the Ministry of Human Resources & Development.**
6. **Member in the Academic Council** of NIT Calicut (Formerly REC Calicut) 2000-2002.
7. **Project Manager- Decision Support Systems Implementation Unit of NIT Calicut** ,(2004-2011) (*Complete NITC Automation Mission*)
8. **PG Course Coordinator** of the Department of Electrical Engineering (1998-2006)
9. **PG Course Coordinator** of M.Tech. Power Systems (2006-2011)
10. **Chairman** of M.Tech.(Power Systems) Project Evaluation and Final Viva-Voce Examinations June 2002 -2010.
11. **Coordinator of M.Tech. Curriculum Committee** of M.Tech. Programmes of EED, 2002-03
12. **Member in the B.Tech. Curriculum Committee** of EED, 2002-03
13. **Staff-in-charge of Ph.D. Matters** (January 1999-November 2003, 2005-2006)
14. **Faculty-In-Charge of the Power System Protection Lab** (1995-2006).
15. **Faculty-In-Charge of the Electrical Machines Lab** (2006 -2010)
16. **Faculty-in-Charge of the Electrical Engineering Association (EEA)** from 1996 January 2006.
17. **Time-Table in-Charge of Department of Electrical Engineering** from July 1993 to December 1995.
18. **College Hostel Warden** from June 1994 to May 1996.
19. **Member NITC Staff Association** (2006-07)

Ph.D. Guidance

1. **Guided the Ph.D. Work** entitled “Development of New Techniques for the Design and Tuning of Power System Stabilizers” of **Sri.N.Rajendran, Principal, Government Engineering College Srikrishnapuram, Palakkad, Kerala , (2004).**
2. **Guided the Ph.D. Work** entitled “Improved General Purpose and Distributed Load Flow Algorithms” of **Sri.E.Chandrasekharan, Professor and Head, Department of Electrical Engineering, Government College of Engineering, Trichur, Kerala. (2005).**
3. **Guided the Ph.D. Work** entitled “Investigations on the Control and Performance Optimization of Vehicle Active Suspension System” of **Smt.Sitalaksmi Amma, Professor & Head, Department of Instrumentation, NSS College of engineering, Palakkad, Kerala. (2006).**
4. **Guided the Ph.D. Work** entitled “Intelligent Task Planning and Action Selection of a Mobile Robot in a Multi-agent Robot Soccer “System”, of **Sri.K.G.Jolly, Lecturer, Department of Mechanical Engineering, NSS College of engineering, Palakkad, Kerala. (2007).**
5. **Guided the Ph.D. Work** entitled “Modelling and Dynamic Analysis of Systems with FACTS Controllers” of **Smt.Sobha. M, Professor and Head of the Department of Electrical engineering, M.E.S. College of Engineering, Kuttipuram, Kerala. (2009).**
6. **Guided the Ph.D. Work** entitled “Suppression of transformer Inrush Currents” of **Sri. D P. Balachandran, Professor, Department of Electrical Engineering, College of Engineering, Trivandrum, Kerala**
8. **Guiding the Ph.D. Work** entitled “Investigations on Voltage Instability Monitoring, Assessment and Control” of **Mr.Asokan.O, Chief Engineer, Kerala State Electricity Board, Government of Kerala, (... in the last phase of Thesis Correction).**
9. **Guiding the Ph.D. Work** entitled “Investigations on Torsional Interactions” of **Sri.Vinod Pottakulath, Lecturer in the Department of Electrical Engineering, N.I.T.Calicut, Kerala, (...Thesis correction under progress).**
10. **Guiding the Ph.D. Work** entitled “Dynamic Security Assessment” of **Smt.Sunitha R, Assistant Professor in the Department of Electrical Engineering, N.I.T.Calicut, Kerala, (... in the last work nearing completion, Thesis writing under progress).**
11. **Guiding the Ph.D. Work** entitled “Application of Fractional Order Controllers to Automatic Generation Control of a Multiarea Power System” of **Sri. Ismail, Government Engineering College, Trichur, Kerala**
12. **Guiding the Ph.D. Work** entitled “Investigations on Control and Operational Issues of Microgrid” of **Sri. Ajay Babu**

M.Tech. Project Guidance

- [1] **D.Sandhya Divakar**, "Artificial Neural Network Based Fast Load Flow Simulation Technique" (1991-92)
- [2] **B.Harikumar**, "Design of Power System Stabilisers Using Pole Assignment Technique"(92-93)
- [3] **C.Latha**, "On-Line Contingency Selection for Voltage Security Assessment of Large Power Systems" (1993-94)
- [4] **G.Vincent**, "On-Line Selection of Contingencies Incorporating the Effects of Governor Control and AGC" (1994-95)
- [5] **Paramesh**, "Design of PWM Momentum Wheel Drive Control for Satellites" (1994-95)
- [6] **K.C.Sindhu Thampatty**, "Environmentally Constrained Optimum Economic Generation Scheduling" 1995-96)
- [7] **M.V.Venkateswar**, "Artificial Neural Networks for On-line Optimum Economic Dispatch"(95-96)
- [8] **Sreelatha**, "Damping of Power System Oscillations using Flexible AC Transmission System (FACTS) Devices" (1995-96)
- [9] **Uma Shanker**, "A Comparative Study of Fuzzy Logic, Bang-Bang and Minimum Time Optimal Controllers for Transient Stability Control" (1995-96)
- [10] **Bharathy Dubey**, "Automation of Diesel Generator Set Using PLCs" (1996-97)
- [11] **Satheesh Thomas**, "Digital Excitation Control of Synchronous Machines" (1997-98)
- [12] **L.Deepa**, "Artificial Neural Network Based Voltage Collapse Proximity Assessment" (1998-99)
- [13] **R.Sunitha**, "Power System Stabiliser Tuning Using Artificial Neural Networks" (1998-99)
- [14] **V.Bindu**, "Voltage Collapse Proximity Identification Using Artificial Neural Networks" (1999-2000)
- [15] **Fayaz Ahmad**, "Fuzzy Logic Based Power System Stabiliser Tuning" (1999-2000)
- [16] **Suvarchala Devi**, "Radial Basis function Network for Load Flow Analysis of Systems with Static VAR Compensating Systems" (2000-2001)
- [17] **P.Siva Prasad**, "Power System Stability Monitoring Using Artificial Neural Networks" (2000-01)
- [18] **V.Murali**, "Adaptive Gain Scheduling for Automatic Generation Control Using Fuzzy Logic and ANN " (2001-02)
- [19] **Abdul Jaleel J**, "Artificial Neural Network Based Automatic Generation Control of Hydro Electric Power System (2001-02)
- [20] **Plamasi Ugandhar**, "Load Flow Computations Based on Distributed Data Processing Approach" (2002-03)
- [21] **Krishna Prasad Kotha**, "HSPS Modelling and Interfacing Algorithms for Power Flow and Transient Stability Studies" (2002-03)
- [22] **Misha Rani Mathew**, "Reactive Power Dispatch Algorithm for Voltage Stability Improvement" (2002-03)
- [23] **Jeema K Cherian**, "Direct Load Control Scheme for Fertilizers and Chemicals Travancore Limited" (2002-03)
- [24] **Smrithi**, "Deregulated Power System Planning Using Reliability Technique" (2003-04)
- [25] **P. Nagendra**, "Power System Dynamic Security Assessment", (2003-04)
- [26] **Daka Seshireddy**, "Security Constrained Optimal Power Flow for an Economical Operation of FACTS Devices in Liberalized Markets", (2003-04)
- [27] **T.V.Nishant Menon**, "ANN Based Real Time Electricity Pricing in the Deregulated Environment" (2004-2005)
- [28] **Padma Pulloori**, "Power Flow Studies of Large Power Systems with Unified Power Flow Controllers", (2004-2005)
- [29] **M.Amar Praveen**, "Investigations on SSSC for Power Transfer and Stability Enhancement of Interconnected Power Systems", (2004-05).
- [30] **Gadamala Sri hrasha**, "Coordination Control of SVC and ULTC for Preserving Operating Margin of SVC", (2005-'06).
- [31] **Rajendra Kumar K**, "Dynamic and Multilayered Feedforward Neural Network Based Load Frequency Control of Two-area Power Systems", (2005-'06)
- [32] **Kuchi. Madhavi**, "Wavelet Analysis Based Scheme for Detection, Classification and Location of Faults in Transmission Lines", (2005-'06)
- [33] **Madhusudhan.CH**, "Fuzzy Controlled Dispersed Generators", (2005-'06)

- [34] **Ravi Kanth Pratti**, "Fuzzy Logic Approach for Transmission Line Protection", (2005-'06)
- [35] **Ananda Kumar**, " Fuzzy Controlled STATCOM", (2006-'07)
- [36] **D.V.S.S.A. Kumar Raju**, "Investigations on the Application of UPFC for Damping Inter-area Oscillations" (2007-'08)
- [37] **Naga Vamsidhar C V**, "Automatic Generation Control of Multi-area Deregulated Power Systems (2007-08)
- [38] **Balaji Krishna Appana**, "Power System Stabilizers based on Fuzzy Logic and Sliding Mode Control Techniques (2007-08).
- [39] **Lokesh G**, "Location of SLG fault in Medium Voltage Power Systems Using Wavelet and ANN Techniques (2007-08)
- [40] **Leena KK**, " Early Detection and Prevention of Cascading Events" (2008-09)
- [41] **Indhu J R**, "Inteline Unified Power Quality Conditioner" (2008-09)
- [42] **Jaya C K** , " Algorithms for Wheeling Cost Computations in the Interstate Grids of Deregulated Power Systems" (2009-10).
- [43] **Veeresh Prasad P**, " Distributed Computing Approach for On-line Power System Security Analysis" (2009-10)
- [44] **Mogaligunta Sankaraiah**, "Genetic Algorithms based Multistage Fuzzy Damping Controller for UPFC", (2009-10).
- [45] **Jitender V** , " Interline Power flow Controller Based Damping of Low Frequency Oscillations in Power Systems"(2009-10).
- [46] **Rajagopal Atmakuru**, "Adaptive Control Coordination of PSS and TCSC in Multi-machine Power Systems Using ANN" (2009-10).
- [47] **Shanooga Chandran**, "Cost Reduction in Smart Grids with Plug-in Vehicles and Wind Energy Systems", (2010-'11).
- [48] **Sravan Kumar K**, "Phase Imbalance Series Compensation Scheme for Mitigating Subsynchronous Resonance", (2010-'11).
- [49] **Kathiravan N**, "Tuned Damping Controllers for DFIG Based Wind Power Systems", (2010-'11).
- [50] **Bharathi Kannan K**, "Power Flow Control in Micro-grid Using Back-to-back Converter", 2011-12.
- [51] **Venu Madhava N Pavan**, "Dynamic Voltage Stability Enhancement by Using microgrid Voltage Stabiliser", (2011-12).
- [52] **Malotu Venkateswarulu Naik**, " Fuzzy Logic Based Load Frequency Control of Multiarea Power System in Deregulated Environment", (2011-12).
- [53] **Fathimathul Fasla**, "SSR suppression via STATCOM in a series compensated wind park", (2011-12)

B.Tech. /AMIE Project Guidance

- [1] Software Development for Load Flow Studies ...(1986-87).
- [2] Software Development for Short-Circuit Studies...(1987-88).
- [3] Optimum Economic Scheduling of Power Systems...(1988).
- [4] Sparse Matrix and Sparse Vector Methods in Power System Computations...(1992-93).
- [5] Automatic Contingency Selection And Ranking Algorithm...(1992-93).

- [6] Development of a Software Package for Fault Simulation Studies...(1993-94).
- [7] Transient Stability Simulation of Multi-machine Power Systems ...(1993-94).
- [8] Development of Expert Systems for Power Engineering Problems ...(1993-94).
- [9] On-line Economic Generation Scheduling Using Artificial Neural Networks...(1994-95).
- [10] Steady State Analysis of Wind Turbine Driven Self Excited Induction Generator...(1994-95).

- [11] Short-term Load Forecasting Using Artificial Neural Networks...(1999-2000).
- [12] Optimal Capacitor Placement in Distribution Systems Using Genetic Algorithms... (1999-2000).
- [13] Radial Basis Function Network for Economic Generation Scheduling ... (2000-01).
- [14] Evaluation and Reduction of Harmonic Distortion in Power Systems ... (2000-01).
- [15] Sulphur Dioxide Emission Constrained Economic Generation Scheduling...(2001).

- [16] Artificial Neural Networks for Voltage Security Evaluation...(2001).
- [17] Voltage Stability Enhancement Using Artificial Neural Network... (2002).
- [18] PSCAD Simulation of FACTS Devices... (2003).
- [19] Bifurcation Analysis of Voltage Stability Problem... (2003).
- [20] "Modelling of FACTS Devices for Power Flow Analysis" ...(2003-04).

- [21] "Artificial Neural Network Based Fast monitoring of Transmission Line Faults" ...(2003-04).
- [22] "Web Based Model for Load Flow Analysis" ...(2004-'05).
- [23] "Development of a Web based Real Time Power Quality Monitoring System"(2004-'05).
- [24] "Integrated Electrical System Design Package"(2007-08).
- [25] "Design, analysis and Fabrication of Brushless DC Motor"(2008-09).

- [26] "Design & Fabrication of Metal Detecting Robot"....(2008-2009).
- [27] Optimized Fuzzy gain Scheduler for Automatic Load Frequency Control of Multi-area Power Systems.... (2009-'10)
- [28] "Dynamic Stability Enhancement using FACTS Devices" ... (2009-'10)
- [29] "GSM Based Home Security System".....(2009-10)
- [30] "Power Flow Management in Microgrid Systems" (2011-12).

AMIE

- [31] Ms.Ayana K S,"Anti-theft Dialing System".... (2006).
- [32] Mr.Shyledran K, "Antenna for GSM Mobile Phones"..... (2006).
- [33] Mr.Shamsuddeen Nalakath, "Earth Mat Design for a 22kV Substation".... (2006).
- [34] Mr.Vivek R D, "Design of a 220 KV Substation" (2007)
- [35] Justin Joy, "Energy Audit and Conservation in a Village in Kerala" (2007).

- [36] Mr. Pramod Kumar M, "Energy Conservation Measures in a Steel Plant" (2009).
- [37] Ms.Jisha P P, "Automated Home" (2010).
- [38] Mr.Vipin K V, "Design and Fault Level Computation of a 220kV Substation" (2010).

- [39] Ms.Pravija K V, "Automatic Electricity Billing" (2010).
- [40] Ms.Bincy K, "Cordless Code Lock" (2010)
- [41] Mr.Alias K Thomas, "A Study of Distribution Automation in Kozhikode City" (2010).
- [42] Mr.Ropp[esh K P, " Design of 110/33 kV Substation" ... (2011)
- [43] Mr.Prakasan M N, "Study and Design of a 110kV 40MVA Gas Insulated Substation" ... (2011)
- [44] Ms.Anu K M, "Design of a Wind-Solar Hybrid Power System" (2011)
- [45] Mr.Bineesh R K, "Improvement of Power Generation in Run Off River Hydro-Electric Projects at Kozhikode District" (2011)