Dr. K.N. Srinivas, Ph.D., Professor and Head / EEE. Dept of EEE, CET, SRMIST Ramapuram Campus, Chennai hod.eee.rmp@srmist.edu.in



Dr K N Srinivas is presently working with SRM IST Ramapuram Campus since February 2018, where he is Professor and Head of the department of electrical and electronics engineering. At this same institution he served as Vice Principal (Academic) for one term from April 2018 – April 2021. Also he is presently serving as the NBA coordinator of the same institution. Prior to the present service of 5.5 years at SRM IST, he served with two engineering institutions: (i) Dec 1989 – July 1996 at Dr M G R Engineering college, Chennai (5 years, with 1.5 years gap for completing M.E.,) and (ii) from Aug 1996 to Jan 2017 at B S Abdur Rahman Crescent University, Chennai (21.5 years), where he occupied various administrative positions including HOD/EEE, programme coordinator for NBA (B.Tech., (EEE), M.E., (PED) and M.E., (PSE)), IEEE students' branch faculty counselor, to quote a few.

He has over 34 years of teaching, research, administration and extension activity experience both in India and abroad. He has personally received awards for his research contributions at IECON IEEE International conferences held at Nagoya, Japan (2000) and Virginia State university, Raonoke, USA (2003).

Dr K N Srinivas is the author of I<sup>st</sup> and II<sup>nd</sup> editions of a textbook titled 'Basic Electrical Engineering' published by I K International Publishing Pvt Ltd. and distributed by Wiley. A textbook book titled 'A Course in DC Machines: Performance, Modeling and Design' has been published by M/s Khanna Publishers. He is at the final stage of manuscript a reference book titled 'A Course in AC Machines: Performance, Modeling and Design' for Khanna Publishers.

He has published about 48 research papers in refereed International Journals and Conferences. He has a h-index of 20 and an overall citation of 1100. He has produced four Ph.Ds in the area of power electronics and electric machines & drives. His research area interests of power electronics and electric machines & drives have been extended into electric vehicles (EV) in the recent past. He is guiding 5 Ph.D., scholars in EVs focusing in motors and control circuitry for the same.

He has visited over 7 Countries for Academic, Research and Administrative activities.

Other notable contributions in, major administrative positions held, academic services rendered, funded projects executed, foreign assignments undertaken, awards and fellowships received and teaching/research/administrative positions are given in detail in the enclosed CV.

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# PUBLICATIONS OF Dr. K. N. SRINIVAS IN (i) EV RESEARCH AND (ii) ELECTRIC MACHINES AND DRIVES FROM HIS R&D ACTIVITIES.

#### **INTERNATIONAL JOURNALS:**

- K.N. Srinivas and R. Arumugam, "Basic Concepts of Thermal Distribution through Finite Element Analysis of Switched Reluctance Motor", *International Journal* Association for the Advancement of Modeling and Simulation Techniques in Enterprises – A.M.S.E., Vol:71, No:7, 8, 2002, pp:49-64.
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- K.N. Srinivas and R. Arumugam, "An investigation into air velocity distribution inside switched reluctance motors", *Electric Power Components and Systems*, Vol:32, 2004, pp:893 - 900.
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- T.D. Sudhakar and K.N. Srinivas, "A Graph-Theory Based Distributor Feeder Reconfiguration for Service Restoration", *International Journal of Power and Energy Systems ACTA Press*, Vol:30, No:3, 2010, pp: 161-168.
- 12. T.D. Sudhakar and K.N. Srinivas, "Prim's Algorithm for Loss Minimization and Service Restoration in Distribution Networks", *International Journal of Electrical and Computer Engineering*, Vol:2, No:1 (2010), pp:43-62.
- 13. T.D. Sudhakar and K.N. Srinivas, "Network Restoration in Distribution Networks using Ant colony Algorithm", *International Journal of Recent Trends in Engineering and technology*, Vol:4, No:4, Nov 2010, pp:183-187.
- 14. T.D. Sudhakar and K.N. Srinivas, "Restoration of Power Network a bibliographic survey", *European Transaction on Electric Power*, Vol:21, 2011, pp:635-655.

- Bala Hemalatha. R, Sarmila Har Beagam, K.N. Srinivas, "A Permanent Magnet Brushless DC Motor Drive based Voltage Controlled Power Factor Correction Sepic Converter", *International Journal of Science and Engineering Research*, Vol:5, Issue:4, April 2014, pp: 16-21.
- Dj. Thankguevelane, K.N. Srinivas, "Deduction of Pilferage of Energy using PLC Signals", *International Journal of Applied Engineering Research*, Vol:10, No:9, 2015, pp: 23573 - 23581.
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- M. Ramkumar and K N Srinivas, "Small scale wind generation system: Part II A Novel Quazi Z-source Inverter and FRG-QZSI-Micro grid Interface", *International Journal of Applied Power Engineering (IJAPE)*, Vol 6, No 1, 2017, pp: 13-30.
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- 22. T.D. Sudhakar and K.N. Srinivas, "Grid Connected Inverter using Fused converters", International Journal of Power Electronics, Vol:8, No:1, 2016, pp:68.
- 23. T.D. Sudhakar, K.N. Srinivas, et.al., "Modeling and Simulation of Distribution Network with the Integration of Distribution Generator using Matlab", *Indian Journal of Science and Technology*, Vol:9, Issue:12, 2016.
- 24. Dj. Thankguevelane, K.N. Srinivas, "Localization of pilferage of energy using PLC signals for an unbalanced system", *International Transaction of Electrical and Computer Engineering System*, Vol:4, No:1, 2017, pp:39-48.

25. M Ramkumar and K N Srinivas, "Modular Switched Mode Power Supply, Tested with DC Motor Load", International journal of Power Electronics, Vol:11, No:3, 2020, pp: 359-381.

## Electric Vehicles Research:

#### (A). Recent Publications in (i) EV research and (ii) Electric Machines and Drives:

- 26. B Vidhya and K N Srinivas, "Modelling and Experimental Validation of Electrical Characterizations of High Speed Flux Reversal Generator", International journal of Power Electronics, Vol:12, No:3, 2020, pp: 349-381.
- 27. K Vijayalakshmi and K N Srinivas, "Reduction of torque ripple, vibration and noise in switched reluctance motors (SRM) focussing on electric vehicle applications: a survey", *International Journal of Vehicle Noise and Vibration*, June 2021, Vol 17, Nos 1/2, pp: 51-81. Inderscience, Scopus
- 28. K Vijayalakshmi and K N Srinivas, "Sensitivity Analysis On SRM for Possible Applications in EVs Considering Weight Factor", *The ECTI Transactions on Electrical Engineering, Electronics, and Communications*, Vol.20, No.2 June 2022, Regular Issue. ECTI. Scopus.
- K. Vijayalakshmi and K.N. Srinivas, "Electromagnetic, vibration and thermal analyses of a 1.1 kW switched reluctance motor for electric vehicle applications.", *Journal of Electrical Engineering and Technology*, Vol: 18, Issue: 3, Nov 2022. Springer, SCI/WOS. IF: 1.528.
- K. Vijayalakshmi and K.N. Srinivas, "Control of switched reluctance motor using fuzzy logic and SMC controller for EV applications", *International journal of engineering education*, Vol 4 (2), 2022, pp: 42-57.

#### (B). Research Scholars under me in Electric Vehicles:

Sl. No.,	Proposed Research	Status

1.	Electric Motors for EV Applications	In advanced stage.
		3.5 years completed.
2.	Wireless charging system for EVs.	Course works completed.
		Comprehension Completed.
		Progressing.
3.	Converter topologies for the motors used	do
	for applications in EVs.	
4.	Flux Reversal Machines for EV	do
	applications	

(C). **Reviewing papers** for IEEE Trans., on Transportation Electrification.

**(D). Offering Electric Vehicle subject as an elective for UG students.** The preparation for the same is intensely done by undergoing NPTEL course.

**(E). Organized** important On-campus and On-line FDPs / Webinars / Conferences with International experts in (i) EV research and (ii) Electric Machines and Drives.

### **INTERNATIONAL CONFERENCES:**

- K.N. Srinivas and R. Arumugam, "Analysis and Improvement of Torque Profile in the Switched Reluctance Drives", *Proc. On IEEE International Conference IECON-*2000, Nagoya, Japan, October 22-28, 2000, pp:381-386.(Presented in Person).
- K.N. Srinivas and R. Arumugam, "Circuit Simulation of Dynamic Performance of Switched Reluctance Motors", Proc. On IEEE Region-10 International Conference on Electrical and electronic Technology, Singapore-Malaysia-Thailand, August 19-22, 2001, pp:592-596.(Presented in Person).
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- K.N. Sinivas and R. Arumugam, "Analysis and Characterization of switched reluctance motors", *Proc. on IEEE International conference IECON 2003*, Roanoke, USA, November 2-7, 2003, pp:2690-2698.(<u>Presented in Person</u>).
- 35. T.D. Sudhakar and K.N. Srinivas, "Design and analysis of grid connected PV generation system", Proceedings of 2<sup>nd</sup> international conference on intelligent computing and applications, 2017, pp:413-422.
- B. Vidhya and K.N. Srinivas, "Vibration analysis of flux reversal generator", IEEE International Conference on conditional assessment techniques in electrical systems (CATCON), 2015.
- 37. B. Vidhya and K.N. Srinivas, "3-D procedure to trace the air path inside a flux reversal generator for mechanical characterization", IEEE International Conference on conditional assessment techniques in electrical systems (CATCON), 2015.

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- 38. R. Arumugam and K.N. Srinivas, "Improved Finite Element Analysis for Electric Machines – Applied to Switched Reluctance Motors (Using CAD Model)", Proc. On National Conference on Applied System Engineering and Soft Computing, Dayalbagh Educational Institute, Agra, India, March 4-5, 2000, pp : 126-131.
- 39. R. Arumugam, K.N. Srinivas and M. Azhagar Raj, "Three-Dimensional Modeling and Simulation of Local Field Quantities and Induced Voltage through Finite Element Analysis of Claw Pole Alternators", Proc. On National Conference on Applied System Engineering and Soft Computing, Dayalbagh Educational Institute, Agra, India, March 4-5, 2000, pp:122-125.
- R. Arumugam, K.N. Srinivas and S. Shanmuga Sundaram, "Mathematical Modelling of Inductance Profile of Electrical machines in MATLAB Environment", Proc. On National Conference on Operation Research and Information Technology, Agra, India, April 2-3, 2000, pp:58.
- 41. K.N. Srinivas and R. Arumugam, "Study of Heat Distribution by the Process of Induction in the Switched Reluctance Motors by the Process of Induction", *Proc. On National Conference on Intelligent and Efficient Electric Sytems*, P.S.G. College of Technology, Coimbatore, India, September 2001, pp:207-210.
- 42. Balaji, Bishwaroop Paul, Ragavendra and K.N. Srinivas, "Spectrum analysis of torque profile of switcged reluctance motors" *Proc. On National Conference electrical, electronics and control technology elect – 2004*, BSA crescent engineering college, 2004.
- 43. K.N. Srinivas and Adi Narayanan, "Unit Commitment Using GA" *Proc. On National Conference on New trends in Power Systems*, Annamalai University May 2005.
- 44. K.E. Lakshmi Prabha and K.N. Srinivas, "Combined economic emission dispatch with and without line constraints using genetic algorithm", *Proc. On national level conference on extreme engineering and technical advancements XETA-2K8*, Jayam college of engineering and technology, Dharmapuri, April 2008..
- 45. M. Vennila and K.N. Srinivas, "Economic dispatch using linear and ono-linear programming methods", *Proc. On national conference on optimization techniques in engineering and technology (NCOTET 08)*, Vinaya Mission's university, Salem.

- K.N.Srinivas, Naveenkumar.S, "Analysis of 3D Magnetic Field Using Magnet Software" National Level Student Technical Conference-NSTC'12, S.K.P. Engineering College ,pp 1-4, March 2012.
- 47. K.N.Srinivas, M.Ramkumar, Dhana Shanmuga Priya, B,", Torque Ripple Minimization in mutually coupled SR motor by modification of rotor pole shape", Natioanl Conference on application of AI techniques for hydrid Renewable Energy Sytems, SRM University, Chennai on 21-22 March 2013.
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- 49. K.N.Srinivas, Sivanantham.N, "A novel method of designing a fluxgate magnetic sensor based magnetometer for low magnetic field detection," Proceeding in the 3<sup>rd</sup> edition of National Conference on Modeling, Simulation,Design and Experimental study of electrical System MOSDES 2013, B S Abdur Rahman University, Chennai April 25-26,2013.
- B. Vidhya, K.N. Srinivas, "3-D Procedure to Trace the Air Path Inside a Flux Reversal Generator for Mechanical Characterization", IEEE International Conference ICPSPCIC 2015, Hyderabad, Nov 20, 2015.