


## FACULTY PROFILE

<b>Name of Teaching Staff / RMK ID</b>	Dr.N.kalaiarasi/T1148			
<b>Designation</b>	Professor			
<b>Department</b>	Electronics and Communication Engineering			
<b>Date of Joining the Institution</b>	1.07.2024			
<b>Qualifications</b>	ME			
<b>Total Experience</b>	Overall: 32 Years		in RMK: 1 month	
<b>Papers Published in Journal</b>	Overall: 35		After Joining RMK:-	
<b>List of Papers Published</b>	<ol style="list-style-type: none"> <li>1. N.Kalaiarasi and KSR Anjaneyulu, “Adaptive Vector Control of Induction Motor Drives” at International Journal of Electrical and Power Engineering , Vol.1 (2), pp. 239-245 , 2007.</li> <li>2. N.Kalaiarasi, P.Sujatha and KSR Anjaneyulu ,“Vector Control of Induction Motor using Fuzzy Logic Voltage Source Inverter” at International Journal of Engineering Research &amp; Industrial Applications , Vol.1,No.II,pp. 237-247,2008.</li> <li>3. N.Kalaiarasi and KSR Anjaneyulu ,“Simulation of Direct Torque Control of Induction Motor in FPGA” at International Journal of Power Systems&amp; Power Electronics, Vol 1,No.1, pp. 28-35, July 2008</li> <li>4. N.Kalaiarasi, P.Sujatha and KSR Anjaneyulu ,“Practical Implementation of Multilevel Inverter for Reducing Harmonic on a Induction Motor” at International Journal of Emerging Technologies and Applications in Engg, Technology and Sciences,issue2,Vol.2,pp. 577-581 ,July2009-Dec2009.</li> <li>5. L.Umashankar and N.Kalaiarasi “Online Internal Fault Identification in Transformers Based on Directional and Location of Magnetizing Signature Patterns” at European Journal of Scientific Research, Vol.77, No.2, pp.259-264, 2012.</li> </ol>			

6. Deepthi Joseph, N.Kalaiarasi “P-Q Theory for Shunt Active Filters Using Ramp Comparator” at IEEE Explore, International Conference on Power, Energy and Control (ICPEC), June 2013.
7. L.Umashankar and N.Kalaiarasi “Identification of Inrush Current and Internal Fault Currents in a Transformer Using Self Organizing Maps” at Journal of Theoretical and Applied Information Technology, Vol. 58, No.2, pp.303-310, 20<sup>th</sup> Dec 2013.
8. G.Shanmugaraj and N.Kalaiarasi “Low Cost Non recursive digital Filter structures” at Internal Journal of Computer Applications in Engineering Sciences, Vol.III, Special issue, pp.146-150,2013.
9. **L.Umashankar and N.Kalaiarasi “Internal Fault identification and Classification of transformer with the Aid of Radial Basis Function Neural Network” at The Arabian journal for Science and engineering, Arab J Sci Eng DOI 10.1007/s13369-014-1030-x on 15<sup>th</sup> May 2014.**
10. Kalaivani C T and N.Kalaiarasi “Robust scheduling Analysis for stability Constraints in Network Control System” International review on Computer and Software (I.R.E.C.O.S.) Vol.9 No.6 pp.1082-1087, June 2014.
11. **Deepth Joseph, N.Kalaiarasi and K.Rajan “A Novel reference Current Generation Algorithm for Three Phase Shunt Active Power Filter” , at Lecture Notes in Electrical Engineering 326, DOI 10.1007/978-81-322-2119-7\_143, pp. 1467-1475, Springer India 2015.**
12. N.Kalaiarasi and Kalaivani C T “Rate Monotonic Scheduling Analysis for Stability Constraints in Network Control System” IOSR Journal of Electrical and Electronics Engineering Volume 9, Issue 3 Ver. I, pp. 30-35, May –Jun. 2014.
13. P.P.Srinivass, L.Umasankar, N.Kalaiarasi, A.Shamugasundaram, and R.Prasanna Venkatesh “Power Quality Enhancement of Micro Converter for Combined

UPqc and Photovoltaic Array” at IOSR journal of Electrical and Electronics Engineering (IOSR-JEEE), Volume 9, Issue 4 Version V pp. 01-05, jul-Aug2014.

14. S Rebekah Eunice Reuby, N.Hariharan, N.Kalaiarasi ,V.C.Shanmugapriyaa and S.P.Raghavel “Regenerative braking of dc motor with renewable sources using bi-directional converter”, International Journal of Scientific Research and Management(IJSRM) , **Vol 2 ,Issue 8**, pp.1154-1157,2014.
15. G.Shanmugaraj and N.Kalaiarasi “Hardware Complexity Reduction of Parallel FIR Filter Structures based on Fast FIR Algorithm” at International journal of soft computing, Vol.9, Issue 5, pp.308-313,2014.
16. **Depth Josph, N.Kalaiarasi and Pradeep Katta** “**Synchronous Reference Frame Method for A Four Leg active Power Filter using UDCS Frequency Scheme Under non-stiff Source Conditions**” , at **International journal of Applied Engineering Research, Vol.10, Number 7, pp.17779-17787 ,2015.**
17. L.Umasankar, N.S.Elanthiraiyan, N.Hariharan and N.Kalaiarasi ,“Solar Tracking System using Delta PLC” at International journal of Science Technology & Engineering, Volume 2, Issue 11, May 2016.
18. L.Umasankar, N.S.Elanthiraiyan, N.Hariharan and N.Kalaiarasi ,“Solar Tracking System using Delta PLC” at International journal of Science Technology & Engineering, Volume 2, Issue 11, May 2016.
19. Kalaivani C T and N.Kalaiarasi “Testing and Implementation Multi Resonating Antenna for GSM/UMTS/LTE Operations” International journal of Advanced Engineering Technology, Vol.VII Issue I, pp.423-426,2016.
20. Deepthi Joseph, N.Kalaiarasi and K.Rajan “In-Situ Domestic Load Harmonic Detection and Reduction Based on GLRM Algorithm for Optimum Filter Excerpt ” Circuits and Systems (scientific Research Publishing ), Vol.7, pp.2095-2108, 5<sup>th</sup> July 2016.

21. Kalaivani C T and N.Kalaiarasi “Gain Scheduling of the PID Controller Time Delay System Using Hybrid Methodology for Network Control System” Asian journal of Information Technology, Vol.15 Issue 24, pp.5075-5083,2016.
22. Kalaivani C T, N.Kalaiarasi and K.Rajan “Comparision of Robust Control Methods of Gain Scheduling in Networked Control Systems” International journal of Printing ,Packaging &Allied Sciences, Vol.4 No.4, pp.2578-2589,Dec’16.
23. Joseph, D, Kalaiarasi, N, Rajan, K, Shanker, NR & Pradeep Katta” Surveying the Power Quality in Non-linear Loads of Tower Block for Performance Assessment through Optimization and Transformation Filters” Journal of Computational and Theoretical Nanoscience,2016.
24. Deepthi Joseph, Kalaiarasi N,Pradeep Katta and K.Rajan presented the paper “Design and Optimization of a C-Type Harmonic Filter for Multi Dwelling Units” at Journal of Chemical and Pharmaceutical Science Special Issue9, pp.9-15, June 2017
25. L.Umashankar and N.Kalaiarasi “Multi Wavelet Transform with Radial Basis Function Neural Network for Internal Faults in Power Transformer”, Journal of Computational and Theoretical Nanoscience Vol.14, Number.11, 2017.
26. G.Shanmugaraj and N.Kalaiarasi “Hearing aids speech signal enhancement via N-parallel FIR-multiplying polynomials for Tamil Language dialect syllable ripple and transition variation”Cluster Computing –The Journal of Networks, software Tools and Applications DOI 10.1007/s10586-018-2476-5 on 15<sup>th</sup> March 2018.
27. Kalaivani C T, N.Kalaiarasi “ Earliest deadine first Scheduling for different networksin network control system” Neural Computing and Applications 31 (1), 223-232,2019.
28. N.Hariharan, Kalaiarasi N, Jesintha Mary T, .K.V.Bindu, S.Nivetha Shree &Paattali S “Delay Dependent Stability

Analysis of Load Frequency Control in Power System including Electric Vehicles (EVs)", Caribbean Journal of Science, Volume 53, ISSUE 1 (JAN - APR), 2019, ISSN: 0008-6452, pp 662-672.

29. N Hariharan Dr.N.Kalaiarasi Mr.Leo Amalraj Dr.Senthil Kumar "Smart Industries Using Mis - Pro -Sma Tools And Monitoring Using IOT "Xidian University UGC Care Group - 2 Journal ISSN No : 1001 -2400
30. Geethamahalakshmi G, Kalaiarasi N, Nageswari D, Lokeshwaran R, Ajithdurai S, Annamalai N, Gopikannan K M "Energy Storage Management with Bidirectional Energy Control In Residential Application" International Journal of Engineering Research & Technology, Volume 9, Issue 03, March 2020, ISSN: 22780181
31. D Nageswari, N Kalaiarasi, G Geethamahalakshmi, P Ajay Mohan, M N Karthick Sutharsan "Passcode Based Circuit Interrupter" International Journal Of Innovative Technology And Exploring Engineering, Volume9, Issue-6, April 2020, ISSN: 2278-3075
32. N Hariharan, N Kalaiarasi "Dynamic power stabilization model for improving conduction and switching loss using Boost rectifier" Microprocessors and Microsystems Volume.79, page No.103286 Nov.2020.
33. D Nageswari ., N Kalaiarasi ., G Geethamahalakshmi., "Optimal Placement and Sizing of Distributing Generation using Metaheuristic Algorithm" Computer Systems Science & Engineering DOI:10.32604/csse.2022.020539 , Vol. 41 No 02, Oct.2022.
34. G Geethamahalakshmi., N Kalaiarasi., D Nageswari., Fuzzy Based MPPT and solar Power Forecasting Using Arti"fdicial Intelligence" Intelligent Automation &Soft Computing DOI:10.32604/iase.2022. 022728 , Vol. 32, No 03, Dec.2022
35. N Hariharan., N Kalaiarasi "IC Pattern Based Power Factor Maximization Model for Improved Power Stabilization" Intelligent Automation & Soft Computing DOI: 10.32604/iasc.2023.030768, Vol. 36, No 01,

	<p>pp401-414, Oct22.</p> <p>36. N Kalaiarasi, N., Walid, M.A.A., Das, S., ... Srimathi, S., Beschi, I.S.”Automated Digitally Modulated Signal Recognition and Classification using Machine Learning with Multimodal Information” <i>Proceedings of the 2023 2nd International Conference on Augmented Intelligence and Sustainable Systems, ICAISS 2023</i>, 2023, pp. 497–502</p> <p>37. T. Senthil Kumar, Rakesh Kumar Giri, Kalaiarasi N., D. Yuvaraj, T. Mahalingam Functional “Gastrointestinal Disorders (FGID): Information Technology Adoption Based on Power Transmission “Journal of Electrical System20<sup>m</sup>4s(2024):2341-2350</p>	
<b>Papers Presented in Conferences</b> (Scopus / WoS indexed only)	Overall :37	After Joining RMK :-
<b>Ph.Ds. / Projects Guided</b>	Ph.Ds. Guided:3-	Student Projects Guided: -
<b>Books Published:</b>	Count: 1	
	List :Basics of electrical and Electronics Engineering	
<b>Patents</b>	Published Count :4	Granted Count :
	List : 1. DRIVER ALERTING SYSTEM IN AUTOMOBILES USING LANE CORRECTION AND AUTOMATIC SPEED REDUCTION 2.SMART IOT SENSOR DEVICE FOR HAND WASH DISPENSING UNITS FOR BETTER HYGIENE 3.Hybrid and Electric Vehicles Charging at Running Time Vehicle	
<b>Professional Memberships</b>	Count :3	
	List: § Life Member <b>ISTE</b> (Membership No.: <b>LM22040</b> and Year: <b>1995</b> ).	

	<p>§ <b>AMIE</b> (Membership No.: <b>085607-2</b> and Year:<b>2001</b>)</p> <p>§ <b>IETE</b> (Membership No.: <b>F-235948</b> and Year: <b>2013</b>)</p>
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<b>Consultancy Projects Completed</b>	Count :1
<b>Awards Received</b>	Count :-
	List :-
<b>Research grants Received</b>	-
<b>Orchid Link / ID</b>	ID : <a href="https://orcid.org/0000-0001-5221-7277">https://orcid.org/0000-0001-5221-7277</a>
<b>Google Scholar Link / ID</b>	ID : <a href="http://scholar.google.co.in/citations?user=JedPxXoAAAAJ">http://scholar.google.co.in/citations?user=JedPxXoAAAAJ</a>
<b>Vidwan Link / ID</b>	ID : 301084
<b>Research Gate Link / ID</b>	<a href="https://www.webofscience.com/wos/author/rid/AAF-4026-2019">https://www.webofscience.com/wos/author/rid/AAF-4026-2019</a>
<b>Scopus Link / ID</b>	ID: <a href="http://www.scopus.com/authid/detail.url?authorId=57795054600">http://www.scopus.com/authid/detail.url?authorId=57795054600</a>