FACULTY PROFILE

<table>
<tr><td>Name of Teaching Staff / RMK ID</td><td colspan="3">N M Jothi Swaroopan / T0779</td></tr>
<tr><td>Designation</td><td colspan="3">Professor</td></tr>
<tr><td>Department</td><td colspan="3">EEE</td></tr>
<tr><td>Date of Joining the Institution</td><td colspan="3">11/12/2011-Regular Faculty</td></tr>
<tr><td>Qualifications</td><td>BE-EEE
(Regular)</td><td>ME-Power Systems
(Regular)</td><td>Ph.D- Generation Scheduling Of Interconnected Power Systems Using Fuzzified Particle Swarm Optimization
(Part time)</td></tr>
<tr><td>Total Experience</td><td colspan="2">Overall : 26</td><td>in RMK : 11</td></tr>
<tr><td>Papers Published in Journal</td><td colspan="2">Overall : 44</td><td>After Joining RMK :38</td></tr>
<tr><td>List of Papers Published</td><td colspan="3">1) Pushpavalli.M and N.M Jothi Swaroopan “Closed-Loop Analysis of Multi-input KY Boost Converter Applying Fuzzy Logic Controller” Smart Energy and Advancement in Power Technologies (SPRINGER), Vol 927, pp 447–459, October 2022
2) J. Anish Kumar, N. M. Jothi Swaroopan “Prediction of Rotor Slot Size Variations in Induction Motor Using Polynomial Chirplet Transform and Regression Algorithms” Arabian Journal for Science and Engineering, Vol 39, September 2022
3) J. Sumithra and N. M. Jothi Swaroopan “Stability Analysis of Cyber Physical Microgrid with Dynamic Demand Control considering Time Delays” International transaction of electrical energy systems, Vol 2022, August 2022.
4) D. Satheeswari, Leninisha Shanmugam, N M Jothi Swaroopan “Mask R-CNN based Object Detection in Overhead Transmission Line from UAV Images” Lecture Notes in Networks and Systems, Vol 514, pp. 639- 653, July 2022
5) D. Satheeswari, Leninisha Shanmugam, N M Jothi Swaroopan “Recognition of Bird's Nest in High Voltage Power Line using SSD” IEEE Xplore, May 2022.
6) J. Anish Kumar, N. M. Jothi Swaroopan “Average Rotor Slot Size Variation Measurement inInduction Motor Using Variable Q- Factor Transformsand Regression Algorithms” Iranian Journal of Science and Technology, Transactions of Electrical Engineering, Vol 6, pp.675–687, March 2022.
7) Pushpavalli.M and N.M Jothi Swaroopan “Analysis of novel multi-input KY boost converter” Material Today- Proceeding, Vol 45, pp. 2323-2328, March 2022
8) J. Anish Kumar, N. M. Jothi Swaroopan, “Induction motor’s rotor slot variation measurement using logistic regression” Journal for Control, Measurement, Electronics, Computing and Communications, Vol 63, No.2, Feb 2022</td></tr>
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	9) SudhakiranPonnuru, R.Ashok Kumar, N. M. Jothi Swaroopan "Analysis of novel multi-input KY boost converter" Materials Today: Proceedings ,Vol 58,No.1. pp 345 361, Feb 2022 10) M. Ismail Gani, N. M. Jothi Swaroopan, "Running State Monitoring of Induction Motor winding using near infra-red sensor residual signal and Q factor analysis" doi.org/10.1007/s42835-022-01004-7, Jan 2022 11) SudhakiranPonnuru, R.Ashok Kumar, N. M. Jothi Swaroopan," Switching Strategies of Single Stage Battery based Microgrid", Przegląd Elektrotechniczny,doi:10.15199/48.2021.09.26,July 2021. 12) SudhakiranPonnuru, R.Ashok Kumar, N. M. Jothi Swaroopan," GWO- based MPPT controller for grid connected solid oxide fuel cell with high step up DC/DC converter", Indonesian Journal of Electrical Engineering and computer science, No.3, Vol.23,Aug 2021 13) SudhakiranPonnuru, M. Dhinakaran, N. M. Jothi Swaroopan, "Intelligent control and power management of wind-solar integration of renewable energy sources using microgrid"Material Today- Proceeding ,Vol-13, P-P : 1- 32, June 2021 14) Nandhini , T. Genasekaran.N.M. Jothi Swaroopan, "Fault Aware Dynamic Resource Manager for Fault Recognition and Avoidance in Cloud" Computer Systems Science & Engineering, May 2021 15) SrirajaBalaguru , N.MJothi Swaroopan "Techno-Economic Investigation ofWind Energy Potential in Selected Sites with Uncertainty Factors", Sustainability, 2021, Vol-13, P-P : 1- 32, Feb 2021(WoS/SCI) 16) Sudhakiran Ponnuru1, M. Dhinakaran, N. M. Jothi Swaroopan, "An Adaptive Control and Power Management of a PV-Wind-Diesel Hybrid Microgrid System", High Technology Letters, Volume 26, Issue 8, September 2020(Scopus) 17) Pushpavalli.M and N.M Jothi Swaroopan. " KY Converter With Fuzzy Logic Controller For Hybrid Renewable Pv/Wind Power System." Transactions on Emerging Telecommunications Technologies ,Volume 30, Issue 9 ,July 2020: e3989.(WOS) 18) N.M. Jothi Swaroopan, A.ManoGaran, T.SuryaAnnamalai, E.SaiTeja, "Smart Monitoring and Analyzing Process Level of Boiler Water Treatment Plant" International Journal of Recent Technology and Engineering ,Volume-9 Issue-2, pp. 1003-1006,July 2020(Scopus) 19) Kavitha S , Varghese Paul and Jothi Swaroopan N.M "Wavelet Features Based Facial Expression Recognition Using Neuro-Fuzzy Architecture" Vol 45, Issue 3, PP 203-219, April 2020 20) P.Sivagami, N.M.Jothi Swaroopan, "Smart Methodology For Performance Improvement Of Energy Sources For Home Application"Microprocessors and Microsystems, Elsevier, Volume 74, April 2020.(WOS) 21) P.Sivagami, N.M.Jothi Swaroopan, "IOT based statistical performance improvement technique on the power output of

	photovoltaic system", Journal of Ambient Intelligence and Humanized Computing, April 2020(WOS) 22) Pushpavalli.M and N.M Jothi Swaroopan."Performance analysis of hybrid photovoltaic/wind energy system using KY boost converter." International Journal of Power Electronics and Drive Systems Vol.10,Issue 1,pp433-443,March 2020(Scopus) 23) P.Sivagami, N.M.Jothi Swaroopan "Optimal Control Strategy Using PV Based LUO Converter for a Micro Grid to an Unelectrified Zone" Journal of Green Engineering, Volume-10, Issue-2, February 2020(Scopus) 24) M.Pushpavalli ,N.M.Jothi Swaroopan, "Development of Wind-Solar Hybrid Systemusing Multi Input KY Boost ConverterResults from the Simulation Model" Journal of Green Engineering (JGE),Volume-10, February 2020(Scopus) 25) U. Nagabalan, N. M. Jothi Swaroopan, "An Improved Single Stage Phase Shifted Control Based AC–DC PFC Converter for Wireless Applications" Wireless Personal Communications, January2020.(WOS) 26) B. Nagarani , N.M. Jothi Swaroopan, "Performance enhancement of photovoltaic system using genetic algorithm-based maximum power point tracking, Turkish Journal of Electrical Engineering &Computer Sciences, Vol. 27, pp.3015–3025,July2019(WOS) 27) S. Kirthiga , N.M. Jothi Swaroopan, " Highly reliable inverter topology with a novel soft computing technique to eliminate leakage current in grid-connected transformer-less photovoltaic systems, Computers and Electrical Engineering, ELSVIER, Vol. 68, pp.192– 203,June2018(WOS) 28) P. Sivagami, N. M. Jothi Swaroopan, " Performance Measures of Positive Output Super lift Luo Converter Using Multitudinous Controller" , International Journal of Power Electronics and Drive System, Vol. 9, No. 2, pp. 704-711, June2018(Scopus) 29) P.Sivagami, N. M. Jothi Swaroopan, "Perlustration On Multifarious Converters, For Renewable Energy Source" International Journal of Pure and Applied Mathematics, Vol. 118 No. 24, pp.1-20, April2018 30) Jothi Swaroopan N.M., Durgapriya, K.V. and GosiSwaroopa, Jollireddy Divyasree, "Efficient Transformer-less Super Junction MOSFET Inverter", International Journal of Recent Advances in Multidisciplinary Research, Vol. 05, Issue 03, pp.3676-3683, March, 2018 31) Jothi Swaroopan N.M., Mohan Kumar, M., Sharath Kumar, D. and Hemanth, S., "Power Management In Intelligent Based Daily Demand Forecast", International Journal of Recent Advances in Multidisciplinary Research, Vol. 05, Issue 03, pp.3671-3675, March, 201 32) N.MJothi Swaroopan , Dr.T. Magesh, A.Vinith, N.Yuvaraj, C.Naveen, "Implementation of Single Phase Cascaded Multilevel Inverter with Multi-Carrier PWM

	Technique Connected to Grid, International Journal of Engineering and Techniques, Volume 4 Issue 6, pp.526-532,Apr2018 33) S. Kavitha, Varghese Paul and N.M. Jothi Swaroopan, "Biometric Emotion Recognition Using Adaptive Neuro Fuzzy Inference System" Middle-East Journal of Scientific Research, Vol 25, No. 8, PP. 1644- 1649,2017 34) S.Kirthiga and N.M.Jothi Swaroopan, "Design and Implementation of Closed Loop Voltage Mode DC-DC Boost Converter for Stand Alone PV Power System" International Journal of Applied Engineering Research, Vol.10, No. 80,PP. 33-35,2015 35) E.Vetri ,.N.M.Jothi Swaroopan and M. Perarasi, "Mitigation of Ripple Content Using Coupled Inductor Based KY Converter" International Journal of Applied Engineering Research Vol.10, No.44,pp..30815-30820,2015 36) N.M.Jothi Swaroopan, A.R.M.Sasidhar, "GridConnected DC Voltage Control with MPPT by Buck/Boost Converter," International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Special Issue 2, pp.431- 436,April2014 37) V.Shanthamoorthy, N.M.Jothi Swaroopan, "Design of Intelligent Controller to Reduce the Torque Ripple in a Brushless Dc Motor Drive," International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Special Issue 2, pp.467- 476,April 2014 38) A.Jaya Mabel Rani, LathaParthiban, N.M. Jothi Swaroopan, "An Efficient Intelligent Clustering Tool based on Hybrid Fuzzified Algorithm for Electrical Data," International Journal of Computer Applications, Volume 84 – No 8, pp. 30 – 36,December 2013 39) P.Somasundaram, N.M. Jothi Swaroopan "Fuzzified PSO Algorithm For Multi-Area Security Constrained Economic Dispatch , "Electric power components & Systems, Taylor & Francis, Vol.39,No.10, pp. 979-990, July2011.(WOS) 40) Jothi Swaroopan, N.M. , Somasundaram, P. "Power System Optimization Under Uncertainties: A Fuzzy Modulated PSO Approach", Conference on Recent Advances in Biomaterials, Saveetha University, Recent Research in Science and Technology, Vol 2, No.12,pp. 67-82,2010. 41) N.M. Jothi Swaroopan, Somasundaram P. (2010) 'Fuzzified PSO Algorithm for OPF with FACTS devices in interconnected power systems International Conference on Swarm, Evolutionary and Memetic Computing 2010, SRM University, Chennai, pp. 918-926, December 2010. 42) N.M. Jothi Swaroopan, "A Novel Combined Economic and Emission Dispatch Control by Hybrid Particle Swarm Optimization Technique, "Majlesi Journal of Electrical Engineering, vol 4,No 2, June2010. 43) N.M. Jothi Swaroopan,, P.Somasundaram, "Fuzzified PSO Algorithm for DC-OPF of Interconnected Power System, "Journal of Theoretical and Applied Information Technology,

	vol 17, July 2010, pp 1-10. **44)** N.M. Jothi Swaroopan, V.M. Varatharaju, P.Somasundaram, "UPFC A Versatile Facts Devices for Load and Transient Stability, "International Journal of Electrical Engineering and Embedded Systems (IJEEES), vol 1,No 1,pp 33-40, June2009.	
Papers Presented in Conferences (Scopus / WoS indexed only)	Overall : 13	After Joining RMK :05
Ph.Ds / Projects Guided	Ph.Ds Guided : 12	Student Projects Guided : 25
Books Published :	Count : 01	
	Book Name: Advanced Statistical Modeling, Forecasting, and Fault Detection in Renewable Energy Systems **Publisher:** Intech Open 2020 **Chapter Title:** Implement Using KY Converter for Hybrid Renewable Energy Applications: Design, Analysis, and Implementation. Authors : Pushpavalli M and Jothi Swaroopan N M	
Patents	Published Count : 15	Granted Count : -
	1. Interactive voice enabled outdoor navigation system for visually impaired people (201841049953) 2. Self-Maintenance lead acid battery for Life enhancement (201841049955) 3. Steel Fiber Reinforce Gypsum Panel (202141016659) 4. Virtual Healthcare Assistance (202141013782) 5. Smartphone Controlled End-Effector (202141016660) 6. Precision Agriculture (202141013784) 7. Hybrid Micro Grid Optimization Using Homer Software (202141013783) 8. Cattle Monitoring System Using IOT (202141016663) 9. Agro Crop Recommendation Using Machine Learning (202141013786) 10. Mems Sensor Based Duplex Communication for Recognizing ASL (202141016661) 11. LPG Gas Monitoring and Automatic Cylinder Booking (202141013787) 12. Trolley Encompassed Pesticide Sprayer (202141016659) 13. Automatic Access Control system using Deep Learning for COVID-19(202141029941) 14. Affordable UAV Fertilizer Distributor (202241019808) 15. Anti-Snooze Device (202241019807)	
Professional Memberships	Count : 03	
	1. Indian Society for Technical Education: LM42556 2. Institution of Engineering and Technology -UK:100130040	

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<tr><td></td><td>3.Institutions of Engineers(India):M-58771-9</td></tr>
<tr><td>Consultancy Projects Completed</td><td>Count : 02</td></tr>
<tr><td rowspan="2">Awards Received</td><td>Count : 04</td></tr>
<tr><td>1. Dr. Kalam Educational Trust Best Mentor Award2019
2. Green Energy Developer Award" in Vison 2020 -All India Development National Conference, Sri Ramakrishna College, Trichy, Tamilnadu, May 2018.
3. Young Men Engineer award by IET, UK Younger Professional section, Chennai during year2010.Achievement Award by IET,UK Younger Professional section, Chennai during year2009.
4. Best Teacher Award by Sir MuthuKumaran Institute of Technology, Chennai during year2004.</td></tr>
<tr><td>Research grants Received</td><td>
<table>
<tr><th>Sl.No.</th><th>Agency</th><th>Title</th><th>Amount (Rs.)</th><th>Year</th></tr>
<tr><td>1.</td><td>AICTE</td><td>STTP</td><td>3,23,000</td><td>2021</td></tr>
<tr><td>2.</td><td>AICTE</td><td>Samriddhi Programme Centre for</td><td>13,88,333</td><td>2021</td></tr>
<tr><td>3.</td><td>AICTE</td><td>FDP</td><td>5,90,000</td><td>2019</td></tr>
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<tr><td>Orchid Link / ID</td><td>ID :0000-0001-7671-5190</td></tr>
<tr><td>Google Scholar Link / ID</td><td>ID :u1pICDIAAAAJ</td></tr>
<tr><td>Vidwan Link / ID</td><td>ID : 305183</td></tr>
<tr><td>Research Gate Link / ID</td><td>Link : https://www.researchgate.net/profile/Jothi-Swaroopan-N-M</td></tr>
<tr><td>Scopus Link / ID</td><td>ID : 36720952700</td></tr>
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