


## FACULTY PROFILE

<b>Name of Teaching Staff / RMK ID</b>	Dr.S.D.Sekar / T0639	
<b>Designation</b>	ASSOCIATE PROFESSOR	
<b>Department</b>	MECHANICAL ENGINEERING	
<b>Date of Joining the Institution</b>	27.05.2011 (Regular)	
<b>Qualifications</b>	B.E (Mechanical Engineering)	M.E (I.C. Engineering)      Ph.D
<b>Total Experience</b>	Overall : <b>21Yrs 3 Months</b>	in RMK : 12Yrs 5 Months
<b>Papers Published in Journal</b>	Overall : <b>23</b>	After Joining RMK : <b>23</b>
<b>List of Papers Published</b>	<ol style="list-style-type: none"> <li>1. R.Ganesamoorthy , N. Mohanrajhu , <b>S.D.Sekar</b> , K. Vimalanathan , G. Suresh, C. M. Meenakshi and M. Puviyarasan (<b>2023</b>) “Influence of water absorption on physical characteristics of cotton fiber reinforced polyester composites”, AIP Conference Proceedings 2747, 020010 (2023) <a href="https://doi.org/10.1063/5.0132679">https://doi.org/10.1063/5.0132679</a>.</li> <li>2. L. Natrayan, S. Kaliappan , S. Chinnasamy Subramanian, Pravin P. Patil, <b>S. D. Sekar</b>, Y. Sessa Rao and Melkamu Beyene Bayu (<b>2023</b>) “Optimization of Activated Carbon Fiber Preparation from Hemp Fiber through Dipotassium Hydrogen Phosphate for Application of Thermal Storage System” Adsorption Science &amp; Technology, Volume 2023, <a href="https://doi.org/10.1155/2023/7228408">https://doi.org/10.1155/2023/7228408</a> [IF = <b>4.37</b>, <b>Anna University Listed Journal</b>].</li> <li>3. M.Babu, M.Naresh Babu, <b>S.D.Sekar</b> (<b>2023</b>) “Effect of Silane-treated Nanosilica on the Grape Seed Oil-blended Epoxy Nanocomposite Coating and its Characterization”, Biomass Conversion and Biorefinery, <a href="https://doi.org/10.1007/s13399-023-03857-y">https://doi.org/10.1007/s13399-023-03857-y</a> [IF = <b>4.1</b>, <b>Anna University Listed Journal</b>].</li> <li>4. S. Bharani Kumar, <b>S. D. Sekar</b>, G.Sivakkumar, S. Mohamed Abbas, J. Jeevamalar, C. M. Meenakshi &amp; G. Suresh (<b>2022</b>) “Jute Fibre IPN Graphite filled: An Experimental Investigation and Prediction of wear Behaviour” Recent Advances in Materials and Modern Manufacturing,PP-337-346.</li> <li>5. J. Jeevamalar, S. Mohamed Abbas, S. Bharani Kumar, G. Sivakkumar, <b>S. D.</b></li> </ol>	

	<p><b>Sekar, C. M. Meenakshi &amp; G. Suresh (2022)</b> "Influence of Nanoclay Dispersion on Mechanical and Vibration Properties of E-Glass Fiber-Reinforced IPN Composites", <i>Recent Advances in Materials and Modern Manufacturing</i>, 255-263</p> <p>6. <b>S.D. Sekar, S. Sekar, T.N. Valarmathi. M. Mudhu Krishnan, A Godwin Antony (2022)</b> "Mathematical Modelling of thin layer drying characteristics and proximate analysis of turkey berry (<i>Solanum torvum</i>)", <i>Thermal Science</i>, <a href="https://doi.org/10.2298/TSCI200312075S">https://doi.org/10.2298/TSCI200312075S</a> [IF = 1.57, Anna University Listed Journal]</p> <p>7. Kumar, S. Bharani, <b>S. D. Sekar</b>, T. Mothilal, G. Sivakkumar, R. Lavanya, C. M. Meenakshi, and S. Manivannan (2021) "Experimental investigation on physical properties of banana/E-glass fiber reinforced hybrid interpenetrating polymer network composites." <i>Materials Today: Proceedings</i> 45 (2021): 5029-5033.</p> <p>8. Kumar, S. Bharani, <b>S. D. Sekar</b>, G. Sivakumar, J. Srinivas, R. Lavanya, and G. Suresh (2021) "Modern concepts and application of soft robotics in 4D printing." In <i>Journal of Physics: Conference Series</i>, vol. 2054, no. 1, p. 012056. IOP Publishing, 2021.</p> <p>9. <b>Sekar Sivakumar Dana</b>, Nainar Nithin Srinivas Sai , Kari Venkata Krishna Kumar, Deepak G (2021) "Mechanical Behavior of Hybrid Composites Moulding" <i>International Journal of Mechanical Engineering</i>, vol 06, 1551-1556.</p> <p>10. Sivakumar G, Karthikeyan S, Jayachandran G, Mageshwaran G, <b>Sekar S D (2021)</b> "Vehicle Overload Management System" <i>Pensee Journal</i>, vol 51, 89-93.</p> <p>11. <b>Sekar Sivakumar Dana</b>, Jothikrishnan Ayadurai Solaiyalagan, Kirubanandhan, Krishna Kumar Karunanidhi (2021) "Automated Waste Disposal system using Sludge Vacuum Pump" <i>International Journal of Mechanical Engineering</i>, vol 06, 1531-1534.</p> <p>12. Subramani, Sekar, <b>Dana Sekar Sivakumar</b>, Natesan Valarmathi Thirumalai, and Mary Lionus Leo George (2020) "Energy and exergy analysis of greenhouse drying of ivy gourd and turkey berry." <i>Thermal Science</i> 24, no. 1 Part B: 645-656. [IF = 1.57, Anna University Listed Journal].</p> <p>13. <b>S.D.Sekar</b> , S.Sekar , K.Partheeban , T.N.Valarmathi (2020) "Recent Developments in Renewable Solar Energy based drying Systems: A Review" <i>Test Engineering and Management</i>, vol 82, pp: 14907 – 14915.</p> <p>14. <b>S.D.Sekar</b> , S.Sekar , T.N.Valarmathi , S.Bharanikumar (2020) "Reduction Of Nox In DI Diesel Engine Using Metal Salt Solution" <i>Pensee Journal</i>, vol 50,</p>
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	<p>1663-1667.</p> <p>15. <b>S.D. Sekar</b>, B. Sarath kumar, N. Sherin kumar, S. Vijaya sarathy <b>(2019)</b> "Design And Analysis Of Leaf Spring Suspension System Using High Carbon Steel And Aluminum Six Series Alloys" International Research Journal of Engineering and Technology, ISSN: 2395-0056 Volume: 06 Issue: 04.</p> <p>16. G Sivakkumar, <b>S D Sekar</b>, CG Krishna, NL Reddy <b>(2019)</b> "Fabrication And Analysis Of Composite Based Industrial Safety Helmet" International Research Journal of Engineering and Technology, ISSN: 2395-0056 Volume: 06 Issue: 05</p> <p>17. Valarmathi, T. N., Sekar, S., Purusothaman, M., Saravanan, J., Balan, K. N., <b>Sekar, S. D.</b>, &amp; Mothilal <b>(2018)</b> " Design and thermal analysis of coated and uncoated exhaust manifold". International Journal of Ambient Energy, vol 41, no 2, 157-160.</p> <p>18. Kumar R, S., M, T., R, G., Srinivasan, , V, R., Manuel D, J. &amp; <b>S.D. Sekar, (2018)</b>. Investigation on the Effect of Tio2 Nanoparticle Additives on the Properties of 10w-40 Engine Oil. International Journal of Mechanical and Production Engineering Research and Development, 8(4):1187–1196. doi: 10.24247/IJMPERDAUG2018122</p> <p>19. <b>S.D. Sekar</b>, S. Sekar, T.N. Valarmath <b>(2018)</b> "Performance Improvement of a Passive Greenhouse dryer for drying Turkey berry' Taga Journal, Vol. 14, pp. 1932- 1939. [IF=4.46, Anna University Listed journal]</p> <p>20. T.N. Valarmathi1 , S.Sekar , M. Purushothaman , <b>S.D. Sekar</b> , MaddelaRamaSharath Reddy , Kancham Reddy Naveen Kumar Reddy <b>(2017)</b> "Recent developments in drying of food products" Frontiers in Automobile and Mechanical Engineering, 197, 1-10.</p> <p>21. <b>S.D.Sekar</b> , Dr S.Sekar , Dr T.N.Valarmathi , Dr T.Mothilal <b>(2017)</b> "Experimental Analysis on DieselEnginefueled with Nerium biodiesel oil and Diesel" American Journal of Engineering Research (AJER), Volume-6, Issue-12, pp-29-34.</p> <p>22. Valarmathi, T. N., S. <b>Sekar, S. D.</b> Sekar, A. Aditya, R. Cawin, and J. Kishore Kumar <b>(2015)</b> "Recent developments in solar energy-based absorption cooling systems." Progress in Industrial Ecology, an International Journal 9, no. 2, 135-143.</p> <p>23. Partheeban K, <b>Sekar S D</b>, Sekar Saravanan <b>(2015)</b> "Optimization and Modelling Techniques of Various Dryer- A Review" Vol. 10 No.50, 861-873.</p>	
<p><b>Papers Presented in Conferences</b> (Scopus / WoS indexed only)</p>	<p>Overall : <b>03</b></p>	<p>After Joining RMK : <b>03</b></p>

<b>Ph.Ds / Projects Guided</b>	Ph.Ds Guided : <b>Currently guiding 1 Scholar</b>	Student Projects Guided : <b>40</b>
	Ph.D Guideship : <b>Recognized as Supervisor by Centre for Research, Anna University. Ref. No- 4120103</b>	
<b>Books Published :</b>	Count : <b>02</b>	
	<ol style="list-style-type: none"> <li>1. Engineering Graphics – Vinayaga Publications.</li> <li>2. Basic Civil and Mechanical Engineering – Vinayaga Publications</li> </ol>	
<b>Patents</b>	Published Count : <b>04</b>	Granted Count :-
	List : <ol style="list-style-type: none"> <li>1. Preliminary Cooling of Moulding sand by Pre cooling setup</li> <li>2. Low-Cost Fatigue Test Rig</li> <li>3. Method For Creating Cover Blocks For Reinforced Steel Insertion Using Smart Materials (Scrap Plastics And Fly Ashes)</li> <li>4. Soil Moisture Monitoring System Using Arduino Uno</li> </ol>	
<b>Professional Memberships</b>	Count : <b>03</b>	
	List : <ol style="list-style-type: none"> <li>1.MISTE</li> <li>2.SDWIC</li> <li>3.IAENG</li> </ol>	
<b>Consultancy Projects Completed</b>	Count : <b>02</b> <ol style="list-style-type: none"> <li>1. TREND Instrumentation and Automation Pvt Ltd- “Cable Route Marker fabrication and supply with one coat of Red oxide paint”.</li> <li>2. D.S.R Engineering works and D.S.R Trailors - “Design and Fabrication of a Greenhouse Dryer”</li> </ol>	
<b>Awards Received</b>	Count :- <b>03</b> List : <ul style="list-style-type: none"> <li>➤ <b>“Best Faculty Advisor Award 2023”</b> by The Institution of Engineers (India), Hosur Local Centre.</li> <li>➤ <b>“Academic Excellence Award 2023”</b> by The Institution of Engineers (India), Hosur Local Centre.</li> <li>➤ <b>Best Paper Award in International Conference</b> on Innovations in Robotics, Intelligent Automation and Control (ICIRIAC 2022) for the paper titled “Performance Analysis of Thin Layer Drying of Okra (Abelmoschus Esculentus)”.</li> </ul>	
<b>Research grants Received</b>	-	
<b>Orchid Link / ID</b>	ID : 0000-0002-2611-6779	
<b>Google Scholar Link / ID</b>	<a href="https://scholar.google.com/citations?hl=en&amp;user=3QYk4hEAAAAJ">https://scholar.google.com/citations?hl=en&amp;user=3QYk4hEAAAAJ</a> ID: 3QYk4hEAAAAJ	

<b>Vidwan Link / ID</b>	ID : 305239
<b>Research Gate Link / ID</b>	<a href="https://www.researchgate.net/profile/Sd-Sekar">https://www.researchgate.net/profile/Sd-Sekar</a>
<b>Scopus Link / ID</b>	ID : 57216437976