

Name	Mr.J.Immanuel Durai Raj
Designation	Assistant Professor
Contact details (Phone number & Official Mail ID)	+91 9442405280, immanueldurairajj@stjosephstechnology.ac.in
Date of birth	07.05.1974
Qualification:	M.Tech., (Ph.d)
Years of Experience:	Total of 28 Years
	Teaching: 19 years
	Industry: 9 years
Subjects handled:	<ol style="list-style-type: none"> 1.Robotics 2.Principles of Management 3.Metrology and Measurements 4.Design of Transmission systems 5.Engineering Materials and Metallurgy 6.Total quality Management 7.Strength of Materials 8.Fluid Mechanics and Machinery 9.Engineering Graphics 10.Hydraulics and Pneumatics
Area of research:	E-waste management
Guide ship Details:	-NA-
Research Guidance:	-NA-
Awards and Achievements(Journal editors):	-NA-

Journal Publication Details:

- [1] Geethan, K., Jose, S., Kannan, S. A., & **Immanuel Durai Raj, J.** (2017). Nano coated lead free solders for sustainable electronic waste management. *Brazilian Archives of Biology and Technology*, 59
- [2] Prabhuram, T., Elilraja, D., Prathap Singh, S., & **Immanuel Durai Raj, J.** (2020). Investigation of mechanical and chemical properties of the coir fiber and wood powder reinforced hybrid polymer composite. *Trends in Manufacturing and Engineering Management: Select Proceedings of ICMechD 2019*, 285-292.
- [3] Singh, S. P., Geethan, K. A. V., Elilraja, D., Prabhuram, T., & **Immanuel Durai Raj, J.** (2020). Optimization of dry sliding wear performance of functionally graded Al6061/20% SiC metal matrix composite using Taguchi method. *Materials Today: Proceedings*, 22, 2824-2831.
- [4] Prathap Singh, S., Prabhuram, T., Elilraja, D., & **Immanuel Durairaj, J.** (2022). Influence of Drilling Operation Variables on Surface Roughness and Thrust Force of Aluminium Reinforced with 10% Al₂O₃ Functionally Graded Metal Matrix Composite. In *Recent Advances in Manufacturing, Automation, Design and Energy Technologies: Proceedings from ICoFT 2020* (pp. 65-73). Springer Singapore.
- [5] Sunderraj, D. A. J., **Immanuel Durai Raj, J.**, Geethan, K. A. V., Singh, S. P., & Narayanamoorthy, K. (2021, October). Study of tribological behavior of Al2024 by power metallurgy method. In *AIP Conference Proceedings* (Vol. 2395, No. 1, p. 040008). AIP Publishing LLC.
- [6] Prabhuram, T., Singh, S. P., **Immanuel Durai Raj, J.**, Elilraja, D., Das, M. C., & Sunderraj, D. A. J. (2022). Optimization of operation parameters in machining of functionally graded metal matrix composite using TOPSIS. *Materials Today: Proceedings*, 62, 429-433.
- [7] Aagashram, N., Raj, **Immanuel Durai Raj, J.**, A. A. R., & Singh, S. P. (2022, November). CFDGAN: A generative adversarial network for flow approximation. In *AIP Conference Proceedings* (Vol. 2446, No. 1, p. 180036). AIP Publishing LLC.
- [8] **Immanuel Durai Raj, J.**, Durairaj, R. B., Ananth, S. V., & Barmavatu, P. (2024). Experimental investigation of the effect of e- waste fillers on the mechanical properties of Kenaf woven fiber composites. *Environmental Quality Management*.
- [9] Vennila, C., Muralikrishnan, G., Malathi, G., Srinivasan, D. R., Banoth, R., & Raj, J. I. D. (2024). Designing and Performance Analysis of a Concentrated Solar Power System in Cold Arid High DNI Area. *International Journal of Intelligent Systems and Applications in Engineering*, 12(2s), 475-486.
- [10] **Immanuel Durai Raj, J.**, Durairaj, R. I. B., John Rajan, A., & Barmavatu, P. (2023). Effect of e-waste nanofillers on the mechanical, thermal, and wear properties of epoxy-blend sisal woven fiber-reinforced composites. *Green Processing and Synthesis*, 12(1), 20230164.
- [11] **Raj, J. I. D.**, Durairaj, R. B., Ananth, S. V., & Meenakshisundaram, N. (2023). Effect of e- waste materials as filler in the flax woven fiber reinforced polymer composite for a sustainable environment. *Environmental Quality Management*.

<i>Book and Chapter Publications:</i>	NIL

<p>International Conference:</p>	<p>[1] Presented a paper titled ‘Characterization of Epoxy Resin Based Banana Fibre Reinforced Composite with Waste Cd Powder Filler’ in ICoFT MADE 2022, National Institute of Technology Puducherry, Karaikal on December 14-16, 2022</p> <p>[2] Presented a paper titled ‘Landfill Site selection by Multi criteria Decision making methods’ in ICESM2022, Rajalakshmi Engineering Collegel on 22.04.22 &23.04.22</p> <p>[3] Presented a paper titled ‘Generative adversarial networks for flow approximation of Air foil with Reynold's number increment’ in ICRTBI20-153, St.Joseph's Institute of Technology. OMR, Chennai-119 on 23 & 24TH JULY 2020</p>
<p>National Conference:</p>	<p>NIL</p>
<p>Patent:</p>	<p>[1] A patent was granted for the title ‘VIBRATION AND SHOCK ARRESTING PAD FOR MACHINERY’ on 11/01/2023</p> <p>[2] A patent was published in the title ‘Influence of Nano floral particles on the mechanical behaviour of Polymer composites’ on 04.02.2022</p> <p>[3] A patent was published in the title ‘ DESIGN OF CENTRIFUGAL PUMP IMPELLER/12-09, on 07.03.2022</p> <p>[4] A patent was published in the title ,’POWER GENERATING SWING IN TWO DIRECTIONAL USING OSCILLATOR BLOCK’ on 17/03/2021</p>
<p>FDP/Workshop/STTP attended:</p>	<ol style="list-style-type: none"> 1. Attended a six days FDP on ‘Futuristic Research in Mechanical Engineering’ from 08th August to 13th August 2022 at SRM Institute of Science and Technology, Ramapuram Campus. 2. Attended a six days FDP on ‘Advances in Strength of Materials and Manufacturng Engineering’ from 06.12.21 to 11.12.21at AMET-Academy of Maritime Education and Training 3. Attended a 2 weeks FDP on ‘Advances in Composite Materials, Manufacturing processes and optimization Techniques’ from 01-06-2021 to 14-06-2021at Academy of Maritime Education and Training 4. Attended a 6 Ddays FDP on ‘Modern material and Industrial Automation ’ from 01-06-2020 to 07-06-2020 at Sri Sairam Institute of Technology. 5. Attended a 14 Days FDP on ‘The role of smart materials in Digital manufacturing and fourth Industrial revolution’ from 10/10/2019 TO 23/10/19 at KCG College of Technology
<p>FDP/Workshop/STTP Conducted:</p>	<p>nil</p>
<p>Online Courses:</p>	<p>Obtained certificates in NPTEL courses</p> <ol style="list-style-type: none"> 1. Ethics in Engineering 2. Body language 3. Product Design and Development 4. E-Waste Management 5. Design for Quality, Manufacturing and Assembly

	6. Material science and Engineering
<i>Funded Projects:</i>	Nil
<i>Consultancy work:</i>	Nil
<i>Professional Body Membership:</i>	Membership in SAE, ISTE, IAE Eng