


Name of Teaching Staff		J.SELWIN RAJADURAI		
Designation		Professor (CAS)		
Department		Mechanical Engineering		
Date of Joining	In Teaching	08.02.1997		
	In Govt. Institution	09-08-2001		
Qualifications with Class/Grade		UG-Mech. Engg. - FWD	PG-Engg. Design - FWD	PhD-Mech. Engg
Total Experience in Years		Teaching:25	Industry:1	Research:21
Papers Published in Journals		National: 1	International: 51	
Papers Presented in Conferences		National: 18	International : 05	
PhD Guide? Give field & University		Field: Composites	University : Anna University	
PhDs / Projects Guided		PhDs: 12	Projects at Masters level: 46	
Books Published / IPRs/ Patents		Books : 1 Thermodynamics & Thermal Engineering – Published by New Age International Publishers, New Delhi		
Professional Memberships		ISTE		
Consultancy Activities		Valuer for TIIC (a Govt. of TamilNadu organization)		
Awards		--		
Grants fetched		<ul style="list-style-type: none"> ➤ Rs.1,54,800/- for the conduct of FDP on Advanced Concepts & Techniques in Engineering Design ➤ Rs.1,19,900/- for the conduct of FDP on Finite Element Method for Mechanical & Structural Applications. ➤ Rs.17.5 Lakh for RPS project from AICTE under the title Performance and Emissions of Diesel Engines with blends of diesel fuel with Bio-Diesel of Salicornia and Karuvel Seeds. ➤ Rs.14.6 Lakhs for CVRDE project entitled “Effect of ternary blends with “Bio-Diesel in Single cylinder diesel engine 		
Interaction with Professional Institutions		<ul style="list-style-type: none"> ➤ Board of studies member for Anna University, Chennai, PSG Tech, Coimbatore, Thiagarajar College of Engineering, Madurai, ACGCET, Karaikudi, MEPCO SCHLENK Engg. College, Sivakasi, PSR Engineering College, Sivakasi. ➤ Doctoral Committee member for various candidates doing research in the field of Composites. ➤ Doctoral review committee member in Kalasalingam deemed University, Krishnan Kovil & Noorul Islam Deemed University, Nagercoil. ➤ Promotional committee member at VSSC, Trivandrum (Central Govt. organization) 		

	<ul style="list-style-type: none"> ➤ Delivered guest lecture in various topics in more than 20 Engineering Institutions ➤ Acted as Chair-person in Seven international conferences ➤ Question paper setter / Examiner for Viva Voce & Practical Examinations for various universities including Anna University, Kerala University and many Autonomous Institutions and Deemed Universities. ➤ Zonal Officer / Camp Officer for Anna University Examinations from 2006 to 2018. ➤ Chief Superintendent for Autonomous examination of ACGCET, Karaikudi.
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Details of Publications in International Journals by **J.Selwin Rajadurai**

File Number	Description	ISSN No.	Impact Factor
1.	Selwin Rajadurai J. T. Christopher · G. Thanigaiyarasu · B. Nageswara Rao (2008), 'Finite element analysis with an improved failure criterion for composite wind turbine blades', ForschIngenieurwes-Engineering Research, Springer, Vol. 72, pp. 193-207.	ISSN: 0015-7899	1.850
2.	Selwin Rajadurai J. and ThanigaiyarasuG. (2009), 'Failure envelope generation using modified failure Criteria for wind turbine blade and validation for FRP Laminates', International Journal on Mechanics of advanced Materials and Structures, Vol. 16, No.4, pp. 275-292.	ISSN: 1537-6494	1.196
3.	Selwin Rajadurai J. and ThanigaiyarasuG. (2009), 'Structural analysis, Failure prediction, and Cost analysis of Alternative Material for Composite Wind Turbine Blades', International Journal on Mechanics of advanced Materials and Structures, Vol. 16, No.6, pp. 467-487.	ISSN: 1537-6494	1.196
4.	Nagarajan, V.A., Sundaram, S. and Selwin Rajadurai, J. , (2011) 'Characterization Of Delamination Failure In Composite Wind Turbine Blade Using Refined Delamination Factor,Int. J. Computer Aided Engineering and Technology, Vol. 3, Nos. 5/6, pp 466-479.	ISSN: 1757-2657	1.257
5.	VA Nagarajan, S Sundaram, K Thyagarajan, J Selwin Rajadurai and TPD Rajan (2012) 'Refined Delamination characterization for composite laminates using digital means', Journal of Composite Materials, Vol.46(13), pp. 1535-1547.	ISSN: 0021-9983	1.494
6.	V. A. Nagarajan, S. Sundaram, K. Thyagarajan, J.Selwin Rajadurai & T. P. D. Rajan (2011) 'Novel approach on characterization of Inter-laminar failure in glass fiber reinforced composite' Advanced Composite Materials, Vol.20, pp. 585-609.	ISSN: 0924-3046	1.407
7.	V A Nagarajan, S Sundaram & Selwin Rajadurai, J (2011) 'A Novel approach based on digital image analysis to evaluate refined delamination factor for E-Glass 21xK43 Gevetex/LY556/DY063 Epoxy composite laminates', Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, SAGE Publications, Vol.18, pp.148 – 162	ISSN: 0954-4054	1.366

8	V. A. Nagarajan, S. Sundaram, K. Thyagarajan, J.Selwin Rajadurai & T. P. D. Rajan (2012) 'Refined Delamination factor failure characterization of composite wind turbine blade', Int. Journal of Damage Mechanics, Vol.21, pp. 1227 – 1244	ISSN: 1056-7895	1.783
9	Nagarajan, V.A., Sundaram, S., Thyagarajan, K., Selwin Rajadurai, J. and Rajan, T.P.D., (2012), "Measuring Delamination Severity of Glass Fibre Reinforced Epoxy Composites during Drilling Process", Experimental Techniques, Wiley-Blackwell Publication, Vol. 37, Issue 2, pp. 66-73.	ISSN:1747-1567	0.583
10	Nagarajan, V.A., Selwin Rajadurai, J. and Annilkumar, T., (2012), "A digital image analysis to evaluate delamination factor for Wind Turbine Composite laminate blade", Composites Part B: Engineering, Elsevier Publications, Vol. 43, Issue 8, pp. 3153- 3159	ISSN: 1359-8368	4.727
11	Nagarajan, V.A., Sundaram, S. and Selwin Rajadurai, J. , (2013), "Inter laminar failure characterization using Refined Delamination factor in Composite Wind Turbine Blade", Mechanics of Advanced Materials and Structures, Taylor & Francis Publication, Vol. 20, Issue 2, pp. 151-162.	ISSN: 1537-6494	1.196
12	Adhikesavan C & Selwin Rajadurai, J (2014) 'Influence of B20 Biodiesel Blends on Diesel Engine Combustion', Journal of Japan Institute of Energy, Vol.93, pp. 675 – 683	ISSN : 0916-8753	0.981
13	Adhikesavan C, Rajagopal K, & Selwin Rajadurai, J (2015) 'Production and Characterization of biodiesel from Acacia nilotica seeds', Int. Journal of Chem Tech Research, Vol.8(2), pp. 854 – 859	ISSN: 0974-4290	0.598
14	Rajagopal. K, Johnson.J, & Selwin Rajadurai, J (2015) 'Production of biodiesel from Waste cooking oil using two different Alkaline Catalysts', Int. Journal of Chem Tech Research, Vol.8(2), pp. 754 – 759	ISSN: 0974-4290	0.598
15	Rajagopal. K , Johnson.J & Selwin Rajadurai, J (2015) 'A study on the performance and combustion of Diesel engine Fuelled with biodiesel from waste cooking oil, its blends and with an additive', Int. Journal of Engineering and Science, Vol.4(5), pp. 45 – 55	ISSN: 0020-7225	4.261
16	Sundararajan & Selwin Rajadurai, J (2015) 'Investigation of micro structure, mechanical and tribological properties of solid self-lubricating copper hybrid composites processed by solid state mixing techniques', Int. Journal of Engineering Tribology – DOI: 10.1177/1350650115588118	ISSN: 1350-6501	1.320
17	Iyahraja S & Selwin Rajadurai, J (2015) , "Study of thermal conductivity enhancement of aqueous suspensions containing silver nanoparticles", AIP Advances, vol.5 (5), Article id: 057103, DOI: 10.1063/1.4919808.	ISSN: 7211-5217	1.328
18	Iyahraja S & Selwin Rajadurai, J et al (2016) , "Stability of Aqueous Nanofluids Containing PVP-Coated Silver Nanoparticles", Arabian Journal for Science and Engineering, vol. 41, no. 2 , pp. 653-660.	ISSN: 2193-567X	0.865
19	S Sundararajan, J Selwin Rajadurai and C Antony VasanthaKumar, (2016) "Impact of solid self-lubricant and hardceramic reinforcements on tribological characteristics of microwave-sintered Cu hybrid composites processed by solid-state mixing technique", Journal of Engineering Tribology, Volume: 231 issue: 5, page(s): 523-542	ISSN: 1350-6501	1.320

20	V. Manikandan, S. Richard, M. ChithambaraThanu, J. Selwin Rajadurai , “Effect Of Fly Ash As Filler On Mechanical & Frictional Properties Of Jute Fiber Reinforced Composite”, International Research Journal of Engineering and Technology (IRJET), Volume: 02 Issue: 07 Oct-2015	ISSN: 2395-0072	6.171
21	S. Richard, J. Selwin Rajadurai & V. Manikandan, “Influence of particle size and particle loading on mechanical and dielectric properties of biochar particulate reinforced polymer nano composites”, International Journal of Polymer Analysis and Characterization, 2016, VOL. 21, NO. 6, 462–477	ISSN: 1023-666X	2.397
22	S. Richard, J. Selwin Rajadurai & V. Manikandan, “Effects of Particle Loading and Particle Size on Tribological Properties of Biochar Particulate Reinforced Polymer Composites”, ASME Journal of Tribology, Vol.139, No.1., pp.1-10	ISSN: 0022-2305	1.521
23	M. ChithambaraThanu, T. Christopher, V. Manikandan, J. Selwin Rajadurai , “Influence Of Permacore T-18 Polyester Fibre Stitched Around Circular Hole In Woven Jute Fibre Reinforced Composite”, International Journal of Advanced Engineering Technology, /Vol. VII/Issue II/April-June, 2016/ pp.1321-1325	ISSN 0976-3945	2.477
24	P Ponnu Krishnan, J Selwin Rajadurai, (2017) “ Microscopical, physico-chemical, mineralogical, and mechanical characterization of <i>Sansevieria zeylanica</i> fibers as potential reinforcement of composite structures”, Journal of Composite Materials, Vol.51, No.6, pp.811-829	ISSN: 0021-9983	1.494
25	M. ChithambaraThanua*, T. Christopherb, V. Manikandan, J. Selwin Rajadurai, (2016) “Influence of Fibre Treatments and Hybridization on Interfacial Shear Strength of <i>Sansevieria Cylindrica</i> Fibre Reinforced Bio-degradable Composite”, Research Gate, Rev. Téc. Ing. Univ. Zulia. Vol. 39, Nº 7, 20 - 29, 2016; doi:10.21311/001.39.7.03	ISSN: 0039-5478	1.367
26	Antony Vasantha Kumar, C.; Selwin Rajadurai, J. ; Sundararajan, S., “Performance enrichment on tribological characteristics of powder metallurgy processed aluminium particulate composites by inclusion of rutile (TiO ₂)”, Journal of Materials Research, vol. 31, issue 16, pp. 2445-2456	ISSN: 0884-2914	1.673
27	Antony Vasantha Kumar, C.; Selwin Rajadurai, J, (2016) “Influence of rutile (TiO ₂) content on wear and microhardness characteristics of aluminium-based hybrid composites synthesized by powder metallurgy”, Transactions of nonferrous metals, society of china, Vol.26., No.1 pp.63-73	ISSN 1003-6326	2.158
28	S.Ramasamy, Arul Marcel Moshi A, Dr.J.Selwin Rajadurai , “Effect Of Warping Deformation Mode In The Prediction Of Free Edge Stresses In The Composite Laminates”, International Journal of Applied Engineering Research, Vol. 10 No.62 (2015)	ISSN 0973-4562	--
29	S.Ramasamy, Arul Marcel Moshi A, Dr.J.Selwin Rajadurai , “Prediction of Free Edge Stresses in the Composite Laminates and It's Validation through Experimental Means”, International Journal of Advanced Research Trends in Engineering and Technology (IJARTET), Vol. 1, Issue 4, December 2014	ISSN:2394-3777	5.338
30	K.Rajagopal , G. Johnson Newton, J.Selwin Rajadurai , C.Adhikesavanand J.Johnson, “Effect of temperature on the physical properties of sunflower biodiesel and their mixtures	ISSN: 0974-4290	--

	with palm biodiesel and petrodiesel fuels”, International Journal of ChemTechResearch CODEN (USA): IJCRGG Vol.8, No.8, pp 371-383, 2015		
31	Supriya SUBRAMANIAM, Krishnaveni ANBALAGAN, Selwinrajadurai JEYARAJ , Selvakumar MURUGAN, (2017) “Stochastic Numerical Simulation for the Evaluation of Mechanical Properties of Filled Polymer Composites”, Materials Science. VOLUME 23 , ISSUE 1 , Pages 44-50 , ISSN (Online) 2029-7289, DOI: 10.5755/j01.ms.23.1.14217, March 2017	ISSN: 0237-2571	2.321
32	Selwin Rajadurai J. and Thanigaiyarasu G. (2007), ‘Failure envelope generation using modified failure Criteria for wind turbine blade and comparison with Stress based, strain based and interactive criteria’, IETECH Journal of Mechanical Design, Vol. 01, pp. 001-012.	ISSN:0973-810X	--
33	Selwin Rajadurai J. and Thanigaiyarasu G. (2008), ‘Strain Behavior Prediction Using Modified Failure Criteria and Generation of Failure Envelope for Wind Turbine Blade’, IETECH Journal of Mechanical Design, Vol. 02, pp. 048-054.	ISSN:0973-810X	--
34	Selwin Rajadurai J. and Thanigaiyarasu G. (2008), Failure Prediction Using Improved Interactive Failure Criteria for Wind Turbine Blade’, Journal of Manufacturing Engineering, Vol. 03, pp. 54-62.	ISSN : 8562:1257	1.324
35	Supriya, Selwin Rajadurai , Sankar, (2015)“A Numerical Study of Interface Effect on The Effective Thermal Conductivity Of glass Microsphere Filled Polymer Composites” International Journal of Applied Engineering Research, Vol.10; No.3, pp.8967-8980	ISSN 0973-4562	--
36	Supriya, Selwin Rajadurai , (2016), “Numerical Analysis of the Effective Dielectric Constant of Hybrid Glass Microsphere Filled Epoxy Composite” International Journal of Printing, Packaging & Allied Sciences, Vol. 4, No. 4, pp.2812-2818.	ISSN 2320-4387	--
37	Supriya, Selwin Rajadurai , Jebakani (2017), “A Numerical Study on the Determination of Mechanical and Thermal Properties of Hybrid Polymeric Composites”, International Journal of Engineering Technology Science and Research, Vol.4, No.11, pp.884-892	ISSN 2394-3386	--
38	S. Supriya, J.Selwinrajadurai and P.Anshul (2017), “Microstructure based Finite Element Analysis of Particle filled Polymer Composite” Transactions of the Canadian Society for Mechanical Engineering, Vol. 41, No. 5, pp.681-690	ISSN:1195-1036	--
39	S. Ramaswamy, J. Selwin Rajadurai and A. Arul Marcel Moshi (2017) Comparative Analysis on Classical Laminated Plate Theory and Higher Order Lamination Plate Theory for Cross-Ply FRP Composite Structures”, Journal of Computational and Theoretical Nanoscience, Vol.14, No.11. pp.5444-5449.	ISSN: 1546-1955	--
40	Iyahraja, Selwin Rajadurai J etal (2019) Investigation on convective heat transfer and friction factor of silver-water nanofluid under laminar flow – an experimental study”, Journal of Heat and mass transfer, Vol.55; No.10; pp.3029-3039	ISSN 0947-7411	1.551

41	Iyahraja, Selwin Rajadurai J etal (2018) Studies on heat transfer and pressure drop in turbulent flow of silver - water nanofluids through a circular tube at constant wall heat flux”, Journal of Heat and mass transfer, Vol.54, No.7, pp.2089-2099	ISSN 0947-7411	1.551
42	S. Richard, J. Selwin Rajadurai etal (2019), “Study of Tribological Properties of Nano-Sized Red Mud Particle-Reinforced Polyester Composites”, Transactions of Indian Institute of Metals”, https://doi.org/10.1007/s12666-019-01694-0	ISSN 0972-2815	1.176
43	M. Lakshmanan, J. Selwin Rajadurai etal (2020), ‘Machining studies of Al7075 in CNC Turning Using Grey Relational Analysis’, Materials Today proceedings, https://doi.org/10.1016/j.matpr.2020.05.763	ISSN 2214-7853	0.97
44	M. Lakshmanan, J. Selwin Rajadurai etal (2020), ‘Wear and EBSD studies on (SiC/NiTi) reinforced Al7075 composite’, Materials Letters, vol. 272	ISSN: 0167-577X	3.204
45	M. Lakshmanan, J. Selwin Rajadurai , etal (2021), ‘Tribological investigations on h-BN/NiTi inoculated Al7075 composite developed via ultrasonic aided squeeze casting’, Materials Letters, vol. 285, No.20	ISSN: 0167-577X	3.204
46	M. Dineshkumar, Dr.J.Selwin Rajadurai (2020), Mechanical Behaviour Analysis of Al6061 Matrix and SiC - Kaolinite Reinforced Metal Matrix Composites Using Stir Casting”, International Journal of Innovative Science and Research Technology, Vol.5, No.5, pp. 1111-1114	ISSN No:-2456-2165	6.253
47	M. Ranjith, Dr.J.Selwin Rajadurai (2020), “Design Optimization of Composite Submarine Pressure Hull”, International Journal of Innovative Science and Research Technology, Vol.5, No.6, pp. 1311-1114	ISSN No:-2456-2165	6.253
48	D. Rabi Moses, Dr.J.Selwin Rajadurai etal (2018), “Investigation of Computational Flow on Horizontal Axis Wind Turbine Blade”, International Journal for Research in Engineering Application & Management, Vol-04, Issue-04, pp. 474-478	ISSN : 2454-9150	6.466
49	C.P. Goldin Priscilla and J. Selwin Rajadurai (2021), “Failure phenomena in metallic and metal-lined polymer composite pressure vessels for aerospace applications”, Transaction of canadian society for mechanical engineering, Vol.45(3), pp. 479-486	ISSN : 0315-8977	0.787
50	Goldin Priscilla, CP & Selwin Rajadurai, J (2021), ‘Effect of statistical scatter in the elastic properties on the predictability of first ply failure of a polymer composite pressure vessel’ Journal of Engineering Research, pp. 1-15. Doi: 10.36909/jer.11529.	ISSN: 2307-1877	0.64

51	Dr. Adhikesavan Chellachamy and Dr. J. Selwin Rajadurai , "Evaluation of Essential Oils as Antioxidant for Biodiesel", Journal of Biobased Materials and Bioenergy, published by American Scientific Publishers. Vol. 13, Issue 3, pp. 380-388 (2019).	ISSN: 1556-6560	2.52
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