


SRIRAMENGINEERINGCOLLEGE

Perumalpattu, Veppampattu(RS),Chennai602024TamilNadu (A
Unit of Sriram Educational Trust)

(ApprovedbyAICTE,NewDelhi&AffiliatedtoAnnaUniversity,Chennai)

DEPARTMENT-MECHANICAL ENGINEERING

GENERAL INFORMATION

Name of the Faculty Member	Dr.B.R Ramesh Babu	
Present Designation	Principal	
Educational Qualification	B.E., M.E., Ph.D.,	
Anna University ID Number	2612861965	
AICTE ID Number	1-1530491596	
Total Experience	36 Years	
Date of Birth	19.12.1965	
Date of Joining	16.08.2023	
Area of Specialization	Energy , Thermal	

PARTICULARS OF EDUCATIONAL QUALIFICATION

Degree	Subject	University/ Board	Year of Passing
Ph.D.,	Mechanical Engineering	JNTU, Hyderabad	2005
PG	Computer Integrated Manufacturing	Madras University	2001
UG	Mechanical Engineering	Madurai Kamaraj Univ	1989

RESEARCH TITLES

Ph.D.,	Cascaded Multi Temperature L.H.T.S. System for Industrial Applications
PG.	Design & Fabrication of Variable Speed Bi-Cycle
UG	Computer Aided Gear Box Design

ACADEMIC & INSTITUTIONAL RESPONSIBILITIES

Head of the Institution, Students acadequality monitoring and improvements
AICTE & Anna University affiliation and recognition works
Admission coordination, Industrial MoU & coordination

PATENTDETAILS

1. Design Patent in the title of, "AUTONOMOUS AI CONTROLLED MECHANICAL ASSEMBLY LINE ROBOT" get published with Design No: 490423-001, Dt 09.02.2026

2. Intellectual property rights, Patent filled in title “ <i>Design & Fabrication of comfort tooth brush with paste kit for travel</i> ”. CBR No.21720.Ref. No. E-2/1697/2017-CHE . APP.No. 201741021869
3. Intellectual property rights, Patent filed in title “ <i>Compactable EarPhone Holder</i> ”. Ref.No.E- 2/1354/2018-CHE APP. No. 201841016393 .
4. Patent Application 202141029562 Titled “ BRICK EMBEDDED KHUSROOT AROMA AIR COOLER ”.
5. Intellectual property rights, Patent filed in title, “ <i>SIXINONE-NOTEBOOK CARRIER</i> ”. APP. No. 202241041945 A . Date of filling: 22.7.2022. Date of Publication: 26.01.2024

BOOK CHAPTER PUBLICATIONS

1. Editor of the Book on, “Advances in Manufacturing Technology”, under the Lecture Notes in Mechanical Engineering of Springer. ISBN: 978-981-13-6373-3

JOURNAL PUBLICATIONS

S.NO.	International Journals
1.	B.R Ramesh Babu, S Kayalvizhi, S Murugavalli, ‘Numerical Analysis of Thermal Management of On-Chip Circuits’, Wireless Personal Communications 121 (4), 3029-3040, Springer US, Published: 18 August 2021, DOI: https://doi.org/10.1007/s11277-021-08862-w
2.	B.R. Ramesh Babu, J Senthil kumar, YN Shinde, DA Skaria, ‘ Emission investigation of VCR diesel engine by TiO ₂ nanocatalyst and Jamun biodiesel blended with diesel’, ISSN:0143-0750, Vol 43, Issue 1, PP 2673-2680, Taylor & Francis, https://doi.org/10.1080/01430750.2020.1758784
3.	J Senthil Kumar, BR Ramesh Babu, ‘ Cerium oxide nano additive impact of VCR diesel engine characteristics by using Ginger grass oil blended with diesel’, ISSN:0143-0750, Vol 43, Issue 1, PP 578-583, Taylor & Francis, https://doi.org/10.1080/01430750.2019.1653975
4.	J Senthil Kumar, B.R Ramesh Babu, S Sivasaravanan, M Prabhu, ‘Experimental studies on emission reduction in a DI diesel engine by using a nano catalyst coated catalytic converter’, International Journal of Ambient Energy, ISSN:0143-0750, Vol 43, Issue 1, PP 1241-1247, Taylor & Francis, https://doi.org/10.1080/01430750.2019.1694584
5.	N. Sadasivan, M. Balasubramanian, B.R. Ramesh Babu, ‘A comprehensive review on equal channel angular pressing of bulk metal and sheet metal process methodology and its varied applications’, Journal of Manufacturing Processes, ISSN: 1526-6125, Vol: 58, Oct 2020, pp 698-726, Impact Factor: 4.086, AU Annexure:6808, Elsevier Sci Ltd, US, https://doi.org/10.1016/j.jmapro.2020.10.032
6.	Sukumar T., Ramesh Babu B.R., Durga Prasad B. ‘Numerical analysis and experimental evaluation of rubber boot design’, Engineering Failure Analysis, ISSN: 1350-6307, Vol 118, Dec 2020, Impact Factor: 2.897, AU Annexure: 3358, https://doi.org/10.1016/j.engfailanal.2020.104867
7.	M Karthigairajan, PK Nagarajan, R Raviraja Malarvannan, BR Ramesh Babu, D Jayabalakrishnan, T Maridurai, VK Shanmuganatha, ‘Effect of Silane-Treated Rice Husk Derived Biosilica on Visco-Elastic, Thermal Conductivity and Hydrophobicity Behavior of Epoxy Biocomposite Coating for Air-Duct Application’, Silicon, ISSN: 1876-990X, Vol:12, Impact Factor: 1.499, AU Annexure: 10590, Springer, Netherlands https://doi.org/10.1007/s12633-020-00772-z
8.	S Somasundaram, BR Ramesh Babu, R Raj Jawahar, ‘ Tribological characteristics of n-(GO/WC-10Co-4Cr) HVOF coatings under biolubricant conditions’, Surface Engineering, ISSN: 0267-0844, 2020/5/14, Impact Factor: 2.433, AU Annexure: 10920, DOI: 10.1080/02670844.2020.1762467.

9.	B.R Ramesh Babu, S Kayalvizhi, S Murugavalli, 'Two phase cooling with nano-fluid for highly dense electronic systems-on-chip—A pilot study', <i>Microelectronics Reliability</i> , ISSN: 0026-2714, Vol 108, 2020/5/1, Impact Factor: 1.535, AU Annexure:8383, https://doi.org/10.1016/j.microrel.2020.113640 .
10.	Gokulakrishnan, S., Ramesh Babu, B.R., Ravinder, R., Karthik, G., 'Fabrication of polymer matrix reinforced composite by using bio waste materials', <i>International Journal of Advanced Science and Technology</i> , 2020, 29(3), pp. 8628-8637, IF: 0.108
11.	J Senthil kumar, BR Ramesh Babu, R Gugan, 'Emission examination on nanoparticle blended diesel in constant speed diesel engine', <i>Petroleum Science and Technology</i> , ISSN: 1091-6466, Vol 38, Issue 2, 2020/1/17, Impact Factor: 0.976, AU Annexure: 9297, DOI: 10.1080/10916466.2019.1683579.
12.	T Sukumar, BR Ramesh Babu, B Durga Prasad, 'Prediction of hyperelastic material sealing pressure using experimental and numerical analyses', <i>Journal of Elastomers and Plastics</i> , ISSN: 0095-2443, Vol 52, Issue 8, December 23, 2018; pp. 684–697, Impact Factor: 1.200, AU Annexure: 6304, SAGE Publications, https://doi.org/10.1177/0095244319891211
13.	BR Ramesh Babu, J Senthil kumar, Yash Nitin Shinde, Derin Anto Skaria, 'Emission investigation of VCR diesel engine by TiO ₂ nanocatalyst and Jamun biodiesel blended with diesel', <i>International Journal of Ambient Energy</i> , ISSN:0143-0750, Vol 41, Issue 13, https://doi.org/10.1080/01430750.2020.1758784
14.	Illyas, S. Mohamed; Babu, B. R. Ramesh; Rao, V. Venkata Subba, 'Experimental Analysis of Heat Transfer and Multi Objective Optimization of Swirling Jet Impingement on a Flat Surface', <i>Journal of Applied Fluid Mechanics</i> . 2019, Vol. 12 Issue 3, p803-817. 15p. ISSN: 1735-3645. DOI: 10.29252/jafm.12.03.29172, IF: 0.689
15.	T Sukumar, BR Ramesh Babu, B Durga Prasad, BR Vijay Prithiv, 'Numerical Analysis and Design Optimization of Lip Seal Opening Pressure for Automotive Valves', <i>Advances in Manufacturing Technology</i> , Springer, Singapore, 2019, pp. 119-129, DOI: https://doi.org/10.1007/978-981-13-6374-0_15 , ISBN: 978-981-13-6373-3
16.	T Sukumar, BR Ramesh Babu, B Durga Prasad, 'Determination of sealing pressure in hyperelastic O-ring with different hardness using numerical method', <i>Journal of Elastomers & Plastics</i> , SAGE Publications, ISSN: 0095-2443, Dec 2018., Impact Factor:1.200., https://doi.org/10.1177/0095244318817889
17.	T Sukumar, BR Ramesh Babu, D Durga Prasad, 'Numerical and Experimental Evaluation of Hyperelastic Material Parameters,' <i>Advances in Materials and Metallurgy</i> , Springer, Singapore, Jan 2019, pp 485-494, https://doi.org/10.1007/978-981-13-1780-4_47
18.	B. R. RAMESH BABU, T. SUKUMAR & B. DURGA PRASAD, 'AN ANALYSIS OF HYPER ELASTIC MATERIAL MODELS', <i>International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)</i> , Aug 2018, Vol 8, Issue 7, pp 1220-1229., ISSN(Print) : 2249-6890, Impact Factor(JCC) : 7.6197, NAAS Rating : 3.11, TRANS STELLAR Publications.
19.	S. Mohamed Illyas, B. R. Ramesh Babu, and V. Venkata Subba Rao, 'Heat transfer and flow visualization of swirling impinging jet on flat surface using helicoid inserts', <i>Journal of Visualization</i> (Springer Berlin Heidelberg), Print ISSN 1343-8875 Online ISSN 1875-8975, 5- May 2018, DOI 10.1007/s12650-018-0493-3
20.	J. Senthil Kumar and B. R. Ramesh Babu, 'Experimental analysis of DI diesel engine using dual biofuel blended with diesel', <i>International Journal of Ambient Energy</i> (Taylor & Francis Group), 2018 /5/18, Vol 39, Issue 4, pp 1-4, Print ISSN: 0143-0750 Online ISSN: 2162-8246
21.	J. Senthil Kumar, B. R. Ramesh Babu, S. Ganesan & L. Krishnan, 'Evaluation of performance and emission behaviour of DI diesel engine powered by biofuel', <i>International Journal of Ambient Energy</i> (Taylor & Francis Group), 15, Jan 18, Print ISSN: 0143-0750 Online ISSN: 2162-8246

22.	B. R. Ramesh Babu, N. Gayathri, B. Vijayakumar, V. K. Shanmuganathan, 'Chemical Synthesis and Characterization of Thoria Incorporated Ytria Ceria-Stabilized Zirconia Nano Particles for High Temperature Applications', Digest Journal of Nanomaterials and Biostructures, ISSN: 1842-3582, Vol. 12, No. 4, October-December 2017, p. 973-979
23.	V Dattatreya, BR Ramesh Babu, and B Durga Prasad, 'Analysis of combustion and performance characteristics of multilayer HVOF and plasma ceramic coatings on piston in a diesel engine', Advances in Natural and Applied Sciences, April 2017, ISSN 1995-0772
24.	A. John Rajan, K. T. Anand, K. V. Narayanan and B. R. Ramesh Babu, 'A Study on Environmental Sustainability in Textile Processing Industries of South India', Indian Journal of Science and Technology, Feb 2016, Vol 9, Issue 5, ISSN 0974-6846, DOI: 10.17485/ijst/2016/v9i5/87263
25.	K. T. Anand, A. John Rajan, K. V. Narayanan, and B. R. Ramesh Babu, 'Key Variables in the Control of Lead Time in Spinning Mills', FIBRES & TEXTILES in Eastern Europe, 2016, ISSN 1230-3666,
26.	Amith Kishore Pandian, Ramesh Babu Bathey Ramakrishnan, et al 'Influence of an oxygenated additive on emission of an engine fueled with neat biodiesel', Petroleum Science, Springer Link. (2017) 14:791–797, ISSN: 1672-5107 (Print) 1995-8226 (Online) DOI 10.1007/s12182-017-0186-x, Impact Factor: 1.624
27.	B.R. Ramesh Babu, B. Kanimozhi, 'Thermal energy storage system operating with phase change materials for solar water heating applications: DOE modelling', Applied Thermal Engineering, Elsevier, ISSN 1359-4311, Vol. 123, 25 Aug 2017, p. 614-624
28.	B.R. Ramesh Babu, L. Saravanakumar, and B. Durga Prasad. "Effects of combustion chamber geometry on combustion characteristics of a DI diesel engine fueled with calophyllum inophyllum methyl ester." Journal of the Energy Institute 90, no. 1 (2017): 82-100.
29.	G. Suganya, and Dr. B. R. Ramesh Babu, 'Experimental Studies on Performance of Latent Heat Thermal Energy Storage Unit Integrated with Solar Water Heater', International Journal of Chemical Sciences, 2016, ISSN0972-768X 1165-1171,
30.	B.R.Ramesh Babu, L.Saravana Kumar 'Effect of combustion chamber geometry on combustion characteristics of a di diesel engine fueled with calophyllum inophyllum methyl ester', Journal of the Energy Institute, ISSN: 1743-9671, Oct-2015, Page 1-19
31.	Kanimozhi B. and Ramesh Babu B.R. (2012), "Experimental study of thermal energy storage in solar system using PCM", Transaction on Control and Mechanical Systems, Vol.2, No.5, pp.
32.	S.Mahalingam, B.R.Ramesh Babu 'Experimental and emission analysis of rubber seed oil and jatropa oil blends with diesel in compression ignition engine', International Review of Mechanical Engineering (I.RE.M.E) ISSN 1970 – 8734. Vol.7, Issue.5, PP 954 – 959. (2012) (ANNUXTRE II). Impact factor 0.19.
33.	S.Mahalingam, B.R.Ramesh Babu 'Environmentally efficient biodiesel blend of jatropa oil and rubber seed oil as an alternative fuel for a direct injection diesel engine for reducing engine emission', Pensee,ISSN 0031-4773, vol.76,Issue no:2,PP 290-297(2014) (ANNXURE I) ,Impact factor 0.063.
34.	Mahalingam S., Ramesh Babu B.R. and Balaji B.(2014), "Emission analysis of DI-diesel engine at different injection pressures using jatropa and rubber seed oil blended with diesel", IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e- ISSN: 2278-1684, p-ISSN : 2320–334, pp .78-80.
35.	Mahalingam S. and Ramesh Babu B.R.(2013), "The effect of injection timing on the performance and emission characteristics of a DI constant speed diesel engine fuelled with dual-fuel biodiesel",International Journal on Design and Manufacturing Technologies, Sathyabama University, ISSN: 0973-9106, Vol.7, pp. 42-45.
36.	Ramesh Babu B.R, et al, "Hydrogen fuel generation and storage", Indian Journal of Science and Technology Vol. 4 No. 6 (June 2011) ISSN: 0974- 6846, pp. 717-720.

37.	Kanimozhi B. and Ramesh Babu B.R. (2011), "Experimental Study of Heat Transfer Enhancement in Latent Heat Thermal Storage System during Charging and Discharging Processes", International Journal of Design and Manufacturing Technologies, Vol.2, No.5,
38.	Ramesh Babu B.R, et al, " CFD Analysis of Heat Transfer and Fluid Flow Characteristics of Swirl and Non Swirl Impinging Jet for Electronic Cooling Application", International Journal of Dynamics of Fluids.ISSN 0973-1784 Volume 7, Number 2 (2011), pp. 203-214
39.	Ramesh Babu B.R, et al, "Co-firing of Coal and Biomass Blends – Experimental Studies of Ambient Air Emissions", International Journal on Design and Manufacturing Technologies, Volume 1, November 2007, Page 95-99.
40.	Kanimozhi B. and Ramesh Babu B.R. (2011), "Experimental study on Thermal Energy Storage System in Domestic Geyser", International Journal of Coimbatore Institute of Information Technology, Vol.3, No.4, pp. 210-214.
41.	Kanimozhi B. and Ramesh Babu B.R. (2011), "Performance Study on Latent Heat Thermal Energy Storage in Solar System Using PCM", International Journal of coimbatore Institute of Information Technology, Vol.3, No. 8, pp. 406-411.
42.	Ramesh Babu B R, Balan K N, "The Hardness Enhancement Technique for Detonation Gun Coating", IEEE Xplore, 25-27 Nov. 2010 page(s): 274-279, ISBN: 978-1-4244-9081-3, Digital Object Identifier: 10.1109/FAME.2010.5714834
43.	Dr. B.R.Ramesh Babu, et al, "Hydrogen Storage in Wind Turbine Tower – A Review", IEEE Xplore, 25-27 Nov. 2010 page(s): 308-312, ISBN: 978-1-4244-9081-3, Digital Object Identifier: 10.1109/FAME.2010.5714852
44.	B.R.Ramesh Babu, et al, "The Abrasive Wear Behaviour of Al-SiCp Composites for Automotive Parts", 25-27 Nov. 2010, page(s): 54 – 59, ISBN: 978-1-4244-9081-3, Digital Object Identifier 10.1109/FAME.2010.5714798

Papers Presented in Conferences / Symposiums

1. Performance of compact phase change material filled thin tube latent heat solar water heater, National Conference on Fascinating advancements in mechanical engineering (FAME 2019).
2. Analysis of phase change material using CFD - National conference on power and energy systems (NCPES-2K19).
3. Study of PCM using solar water system – National conference on power and energy systems (NCPES-2K18).
4. Design and Fabrication of Heat Enhanced Solar Water Heater – National Conference on Advances in Mechanical Engineering (AME2017),p.61,2017.
5. Experimental Investigation of Solar Water Heating System Using Phase Change Material (PCM) – Review, - International Conference on Recent Trends in Science, Engineering and Management (ICRTSEM-2017), pp. 140, 2017.

Memberships with Professional bodies:

Name of the Professional Body	Type of Membership	Membership No
Institution of Engineers, (India).	AMIE	AM – 76363 / 5
Society of Automotive Engineers (SAE)	Member	6101972772

Indian Institution of Production Engineers (IIPE)	Member	
Member of Indian Society for Technical Education (MISTE)	Life member	Life Member No: 9426

The List of researchers successfully completed Ph.D under the Guidance of Dr B R Ramesh Babu

<p>1. Dr.V.Krishnamoorthy, Principal, SRR Engineering College, Chennai. Research Title: Enhancement of SI Engine performance through extended expansion and lean burn techniques. His PhD Final Viva-voce Examination held on 18.04.2008</p>
<p>2. Dr.B.Kanimozhi (Reg no: 2006194242), Professor, Mechanical and Production Engineering, Sathyabama University, completed the research work on Behavior of Thermal Fluids in Cascaded-Multi Temperature Latent Heat Storage Systems. – PhD Awarded from Sathyabama University</p>
<p>3. Dr.S. Mahalingam, (Reg. No:2009794212), Assistant Professor, Mechanical, Sathyabama University. Research Topic: Experimental analysis of effect of injection parameters on ceramic coated CI engine using diesel blended with Jatropha and Rubber seed oil. His PhD Final Viva-voce Examination held on 14.02.2015</p>
<p>4. Dr. K.N.Balan (Reg. No. 2008194298), Associate Professor, Mechanical, Sathyabama University. Research Topic: Experimental Investigation and Analysis of High Velocity Oxy Fuel (HVOF) and Detonation Gun (D-Gun) Coating Technique His PhD Final Viva-voce Examination held on 20.02.2015</p>
<p>5. Dr. L.Saravana Kumar (Completed Ph.D at JNTU-A), Asst. Prof, Mechanical, Sai Ram Engg Collge, Chennai. Research Title: Experimental Investigations and Performance Evaluation of Single Cylinder 4-stroke Diesel Engine fueled Calophyllum Inophyllum Methyl Ester blends with Diesel. Viva-voce Examination held on 26.03.2017</p>
<p>6. Dr V Dattatreya (Completed Ph.D at JNTU-A), Principal, Sri Ram Engg Collge, Chennai. Research Title: Evaluation of Engine Performance Characteristics of 4- Stroke CI Engine with Multilayer Piston Coating using Jatropha Methyl Ester and Calophyllum Inophyllum Methyl Ester. Viva-voce Examination held on 08.11.2021</p>
<p>7. N.Gayathri (Reg.No: 2011172052 - AUT, Chennai), Professor, VelTech Engineering College, Avadi, Chennai. Research Topic:“Enhancing the life and efficiency of Turbo engines by optimizing the design of turbine blades by using nano composite coating and validation using CFD Analysis”. (PhD Final Viva-voce Exam held on 01.03.2019)</p>
<p>8. S.Mohamed Ilyas (Roll No.10022P0333), JNTU, Kakinada, Professor, Mechanical, B.S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Tamil Nadu 600048, Research Topic: Research Scholar Experimental and Computational Analysis of Heat Transfer and Flow Characteristics of Swirling Jet Impingement Cooling, (PhD Final Viva-voce Exam held on 20.07.2020)</p>

9. G.Suganya, (St. Peters University, Avadi, Regn. No. SP11MEDB185) , Head of The Dept, Mechanical Engineering, Sri Ram Engineering College, Veppambaattu, Tamil Nadu 602024. **Research Title:** “Experimental Investigation and Analysis of Compact PCM Filled Thin Tube Latent Heat Solar Water Heater”, (PhD Final Viva-voce Exam held on 11.01.2020)

10. S. Kayalvizhi, (Reg. No: 1522499259 – Under ICE Dept, Anna University, Chennai), **Research Title:** “An Heterogenous Investigation on Thermal Problems of High Density Network-On-Chip’s Throughput Enhancement”. (PhD Final Viva-voce Exam held on 08.02.2021)

11. Somasundaram S, (Anna University, Reg. No: 2011172056), **Research Title:** “STUDIES ON NOVEL SWIRL THERMAL SPRAY COATING OF CARBONACEOUS NANO PARTICLES ON IC ENGINE COMPONENTS”. (PhD Final Viva-voce Exam held on 15.03.2021)

12. T. Sukumar (Jawaharlal Nehru Technological University, Anantapur), AGM, Team Lead, Design & Simulation, ZF Commercial Vehicle Control Systems, Ambattur, Chennai, **Research Title:** “Investigation on Hyper-Elastic Materials to Predict the Sealing Behaviors using Numerical Analysis”. (PhD Final Viva-voce Exam held on 20.05.2022)

13. J. Senthil Kumar, (Sathyabama University, Reg No: 2014794115), Associate Professor, Sathyabama University , Chennai, **Research Title:** “Experimental Examination on the influence of Nano particles and Exhaust gas after treatment on Diesel Engine Fuelled with Biodiesel Blends”. (PhD Final Viva-voce Exam held on 26.05.2022)

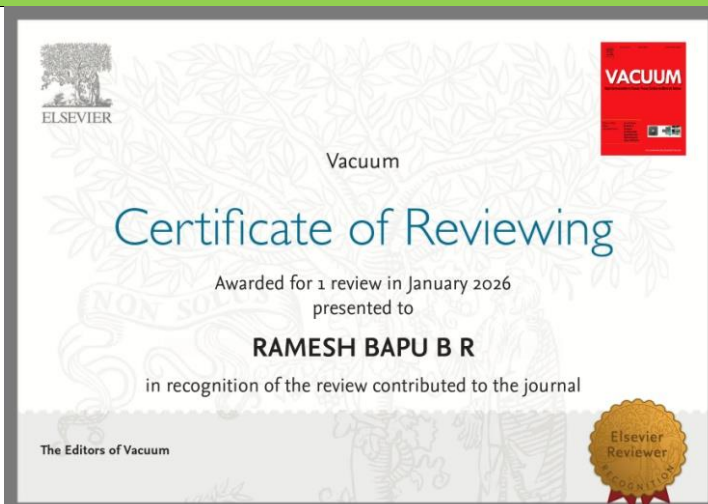
14. Sadasivan N, (Anna University, Reg No: 16152997210, Associate Professor, R.M.K College of Engineering and Technology, Pudukkottai, Gumidipoondi, Tamil Nadu – 601206. **Research Title:** “Equal Channel Angular Pressing as a Weld Strengthening Technique for AA6061 Weldments using Novel Die Geometry”. (PhD Final Viva-voce Exam held on 05.05.2023)

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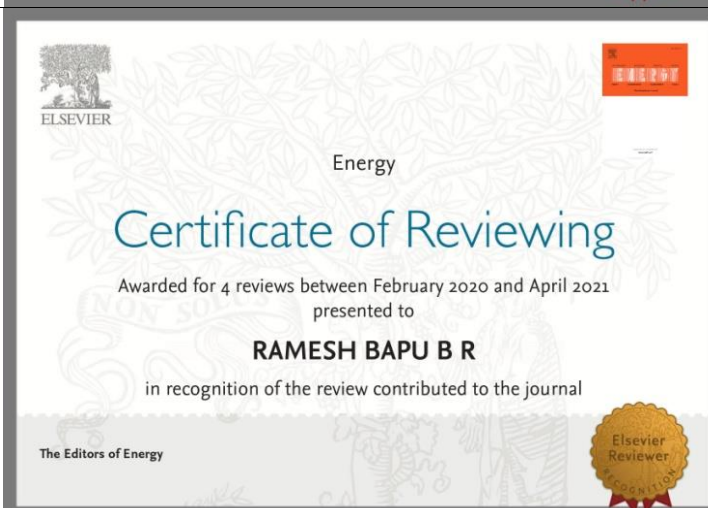
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