

CURRICULUM VITAE

Dr. A R PRADEEP KUMAR, B.E., M.E., Ph.D.

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Web of Science Researcher Id : G-4220-2012



Personal skills: A confident, enthusiastic, and hard working teacher who is able to handle the engineering students whilst at the same time to encourage them to develop their skills, knowledge, and confidence.

Academic qualification

Degree	Specialization	Name of the college	University	Year of passing
B.E.	Mechanical	Bharath Institute of Science and Technology	University of Madras	1993
M.E.	Thermal (Refrigeration and Air conditioning)	College of Engineering, Guindy	Anna University	2003
Ph.D.	Emulsified Fuels, Engine Modification	Madras Institute of Technology	Anna University	2014

Anna University Recognized Supervisor

Approved supervisor for Ph.D. and M.S. scholars in Anna University (Reg. No. 2002494)

No. of scholars pursuing under my guidance: 2

Teaching Experience

S. No.	Name of the Institution	Designation	From	To
1	Dhanalakshmi College of Engineering, Chennai	Professor and HoD	30.11.2013	Till date
		Associate Professor and HoD	01.04.2010	29.11.2013
		Assistant Professor	13.05.2008	31.03.2010
2	Meenakshi Krishnan Polytechnic College, Chennai	HoD	05.02.2007	12.05.2008
3	MERCHANT NAVY – Bombay Science and Research Education Institute, Navi Mumbai	Academic Head	15.03.2004	31.01.2007
4	Little Flower Polytechnic College, Chennai	Principal	06.06.2000	09.02.2004
		HoD	06.03.1999	05.06.2000
		Lecturer	01.09.1998	05.03.1999
5	Meenakshi Krishnan Polytechnic College, Chennai	Lecturer	14.02.1994	31.08.1998

Subjects Handled

- Engineering graphics
- Engineering mechanics
- Strength of materials
- Fluid mechanics
- Engineering thermodynamics
- Thermal engineering
- Heat and mass transfer
- Advanced IC engines
- Automobile engineering
- Basic civil and mechanical engineering
- Professional ethics in engineering
- Disaster Management (Civil Engineering)
- Air Pollution and Control (Civil Engineering)

Career achievements

- Produced bio-diesel from used cooking oil (from mess) and used it as fuel in college van
- Used diesel + water emulsion as fuel in college vehicle in demonstrated during Open house exhibition
- Created an academic website (<http://arp.c0m.in>) and introduced e-learning platform to students
- Established NPTEL Local chapter and acted as SPOC
- Received **ACTIVE SPOC** award from **NPTEL, IIT Madras** in the academic year 2016-2017 and 2018-2019
- Received “Best Academic Administrator Award” from ex Chief Minister of Puduchery Mr Rengaswamy during March 2016

- Established **SAE India Collegiate Club** and fabricated BAJA all terrain vehicle.
- Acquired **BMW engine** to our college through skill next scheme
- Created a team to participate in Aero Design Challenge 2020 – SAE India
- **Introduced online classes using Google Platform**

Professional Responsibilities

- Acting as **Chief Superintendent** for Anna University theory examinations
- Acted as **squad member** for the Anna University theory and practical examinations
- Acted as **Chairman** for the Anna University central valuation
- Organized Anna University valuation in campus

Participation in Doctoral / Technical committees

- *Doctoral Committee (D.C.) member* for the research scholars at MIT, Anna University.
- *Member of advisory committee in the National conference* conducted at Anna University (M.I.T. campus), during the year 2016.
- *Member of syllabus review committee* of M Scheme syllabus of Directorate of Technical Education for Diploma in Mechanical Engineering, during the year 2017.
- *Member of technical review committee* in the International Conference RAME 2017, conducted at Kingston Engineering College, Vellore during the year 2017.
- Acted as *Session Chair* in Virtual International conference on “Advancements in Nanotechnology - AINT2020 during the year 2020.

Patents Filed

Title : Portable Air-conditioner for Car

- Application No. : 201941035581 A
- Date of Publication : 18/10/2019

Title : Automatic Spraying Seeds Dispensed from a Planter

- Application No. : 201941051560
- Date of Publication : 20.12.2019

Title : IBAS - vehicle: Intelligent-Balancing Advanced Vehicle Structure

- Application No. : 202041006033 A
- Date of Publication : 21/02/2020

Funds / Grants Received

- Fund of Rs. 25000/- received from TNSCST for organizing a programme under the category of Popularization of Science titled “Drafting and Modeling using CREO” during the academic year 2016 – 2017. (Ref. no. TNSCST/POPS/AR/19/2016-2017/1802)
- Fund of Rs.15000/- received from TNSCST for organizing a symposium “Throttlez 2017” during the academic year 2017 – 2018. (Ref. no. TNSCST/PFA/SSW/VR/24/2017-2018)

Webinars Presented

- Emulsified Fuels as an alternative fuel for I.C. Engine
- Poster and Certificate design using Canva – Simplified
- How to establish SAE Collegiate Club?
- Establishment of NPTEL Local chapter and Progressing

Expert Lectures given

S. No.	Title of lecture	Venue	Month and year
1	Thermal Engineering - Perfect gases and Steam power cycles	Anna University (MIT Campus)	June, 2016
2	Emulsified fuels in I.C. Engines	V.I.T. University, Vellore	December, 2016
3	Diesel – Water emulsion as an alternative fuel for I.C. Engines	AVIT University	October, 2018

FDPs Attended

S. No.	Course Title	Venue	Period
1	Infosys campus connect	Infosys, Chennai	25.08.2008 – 29.08.2008
2	ISO awareness fresher Programme	Dhanalakshmi College of Engineering	05.01.2009
3	QC awareness Programme	Dhanalakshmi College of Engineering, Chennai.	09.05.2009
4	Guidelines to sponsored projects	Dhanalakshmi College of Engineering, Chennai.	06.05.2009
5	Recent advances in engineering materials	Rajalakshmi College of Engineering, Chennai	18.07.2011-23.07.2011
6	Recent trends in composite materials	Velammal Engineering College, Chennai	27.08.2011
7	Renewable energy sources for sustainable development	Oxford Engineering College, Tiruchirappalli.	07.07.2011
8	Recent developments in Manufacturing and Management	Sri Sairam Engineering College, Chennai	25.07.2011-30.07.2011

9	High impact teaching skills – Mission 10x	Dhanalakshmi College of Engineering, Chennai.	21.11.2011-22.11.2011
10	Research methodology, Techniques of writing Research Article for SCI journals and Ph.D. thesis preparation	Anna University, MIT Campus	07.03.2013

Online Certification Course

S. No.	Title of Course	Conducted by	Completed on
1	I.C. Engines and Gas Turbines	NPTEL	April 2019
2	Refrigeration and Air-conditioning	NPTEL	December 2019
3	Bulk Material Handling	TATA Steel	16.04.2020
4	Basic TQM	TATA Steel	16.04.2020
5	Centrifugal Pumps – Design Development	Udemy	20.04.2020
6	Heat Treatment of Steel	TATA Steel	21.04.2020
7	Compressor	TATA Steel	22.04.2020
8	Lifestyle Business Ideas to Make Money Online from Home	Udemy	22.06.2020
9	Artificial Intelligence (Score 93%)	Accenture	10.08.2020
10	Public Speaking: Be a Professional Speaker	Udemy	16.08.2020

Online FDPs/ STTPs Attended

S. No.	Title of Course	Conducted by	Duration
1	Principles of Management	Panimalar Inst. of Technology	18.05.2020 – 22.05.2020
2	NAAC Assessment and Accreditation – A step by step process	GATES Inst. of Technology	28.05.2020 – 30.05.2020
3	Digital Teaching Techniques	ICT Academy	29.06.2020 – 04.07.2020
4	Recent Trends in Theoretical and Experimental physics	Karpaga Vinayaga College of Engg. and Tech.	17.07.2020 – 19.07.2020
5	Robotics	AICTE –ATAL (Chennai Institute of Technology)	24.08.2020 – 28.08.2020
6	Exploring Additive Manufacturing Health Care Applications	AICTE –ATAL (Dr NGP Institute of Technology)	19.10.2020 – 23.10.2020

Online Certifications from Research Academy, Elsevier

S. No.	Title of Course	Presented by	Completion Date
1	Ethics Responsibility for Peer Reviewers	<i>Mr Jaap Van Harten</i>	02.05.2020
2	How to secure funding	<i>Mr Jamie Hicks</i> <i>Mr Andrew Jupp</i> <i>Mr Annalisa Montesanti</i>	03.05.2020`
3	Writing a persuasive cover letter for your manuscript	<i>Mr Anthony Newman</i> <i>Mr Lora Heisler</i>	09.05.2020

Webinars Participated

S. No.	Title of Webinar	Organized by	Date
1	How to Get Published In Scientific Journal : From Research to Publication	Sri Sairam Institute of Technology	27.04.2020
2	Engineering Graphics	Bharath University	28.04.2020
3	Fundamentals of Strength of Materials	Chennai Institute of Technology	29.05.2020
4	Post Covid 19: Opportunities for Engineers	Aalim Muhammed Salegh College of Engineering	02.05.2020
5	The four indispensable soft skills you need to master	Sri Venkateshwara College of Technology	02.05.2020
6	3D Printing leading towards industry 4.0	Bharath University	03.05.2020
7	Power of a Teacher	ICT Academy	04.05.2020
8	3D Printing Applications in fighting Covid 19	Sri Sairam Institute of Technology	09.05.2020
9	India First Leadership Talk	MHRD	09.05.2020
10	Article writing and its opportunity	Anand Institute of Higher Technology	11.05.2020
11	Friction Stir Welding of Aluminium Alloys	Panimalar Institute of Technology	13.05.2020
12	Enhance Employability Skills in Engineering	Aalim Muhammed Salegh College of Engineering	14.05.2020
13	IPR and IP Management for Innovation and Start-ups	RMK Engineering College	15.05.2020
14	Issues & Challenges in Medium and High-Temperature Concentrating Solar Power Technologies	Francis Xavier Engineering College	15.05.2020
15	Recent Trends in Renewable Sources	Gnanamani College of Technology	26.05.2020
16	NAAC Accreditation and Management System Demo	INPODS	29.05.2020
17	Electric Vehicles for Indian Scenario	SAE India (Erode Section)	30.05.2020
18	Role of Mechanical Engineering in Space Technology	Vel Tech Hi Tech Dr Sakunthala Engineering College	02.06.2020
19	Accelerating e-mobility to Realisation	Anna University (MIT Campus)	26.06.2020

20	Time for Looking Inwards, Y Covid	Nehru Institute of Management Studies	02.08.2020
21	Space Debris Management	Team 2020 Helping Hands	07.08.2020
22	Digital Marketing	SVCET Virtual Campus	08.08.2020
23	Design Thinking to Digital Thinking	CMR Institute of Technology	08.08.2020
24	Strategies for Better Student's Engagement	SRM Institute of Science and Technology	20.08.2020
25	Exploring the Science of Atmosphere from Space	K L University, Hyderabad	28.08.2020

Participation in Conference

International Conference

S. No.	Title of Paper	Institution	Name of Conference	Year
1	Performance Comparison of DI Diesel Engine and LHR Engine with Biodiesel as Fuel	E.G.S. Pillay Engineering College, Nagapattinam	IEEE International conference on Advances in Engineering, Science and Management	2012
2	Effect of Thermal Barrier coating on DI diesel engine fuelled with P20 biodiesel	JJ College of Engineering	IEEE - Springer International Conference on Emerging Trends on Science, Engineering and Technology	2012
3	Revolution in automotive engines with hydrogen as a fuel - An analysis and investigation'	Dhanalakshmi Srinivasan College of Engineering	International Conference on Engineering, Science and Technology	2011
4	Eco friendly fuel for DI diesel engines - Hydrogen	Sathyabama University	International conference on Green Technology and Environmental Conservation (GTEC-2011)	2011
5	Low Heat Rejection Engines - An Innovative Technology for a better efficiency	Dhanalakshmi Srinivasan College of Engineering, Perambalur	International Conference on Engineering, Science and Technology	2011
6	Experimental Investigation in a semi adiabatic ceramic coated DI Diesel Engine	Dr. M.G.R. Educational and Research Institute, Chennai	International conference on Recent Advances in Mechanical Engineering	2011
7	Partially Stabilized Zirconia coated DI Diesel engines - A material and Inventory Management	Thiagarajar College of Engineering, Madurai	International Conference on Operational Research for Urban and Rural Development	2010
8	Analytical Investigation on Heat Transfer in a Low Heat Rejection DI Diesel Engine	Sathyabama University, Chennai	IEEE International Conference on Frontiers in Automobile and Mechanical Engineering	2010

9	Advancement of Nanotechnology in Biodiesel – A Review	Kingston Engineering College, Vellore	1 st Virtual International conference on “Advancements in Nanotechnology - AINT2020	2020
10	Critical Review on Organic Rankine Cycle (ORC) for Power generation	Kingston Engineering College, Vellore	1 st Virtual International conference on “Advancements in Nanotechnology - AINT2020	2020

National Conference

S. No.	Title of Paper	Institution	Name of Conference	Year
1	Performance analysis on LHR engine with eucalyptus oil	Anand Institute of Higher Technology, Chennai	Recent Trends and Developments in Mechanical Engineering (RTME 2018)	2018
2	High impact factors to vector accreditation standards at Higher Education Institutions.	Saint Gits College of Engineering, Kottayam, Kerala	47 th ISTE National Convention	2018
3	Reducing engine-out emissions of DI diesel engine using oxygen enriched hydrogen gas as a combustion additive	National Institute of Technology (NIT), Surat, Gujarat	23 rd National Conference by Combustion Institute	2013
4	Effect of Injection pressure Performance characteristics of Adelfa (Nerium oil methyl ester) fuelled DI diesel engine	National Institute of Technology (NIT), Surat, Gujarat	23 rd National Conference by Combustion Institute	2013
5	Performance and Emission Characteristics of Two Different biodiesel fuel in DI Diesel engine	Karpaga Vinayaga College of Engineering and Technology, Mamandur	National Conference on Contemporary approaches in Mechanical Engineering	2012
6	Automotive engines with hydrogen – An analysis and investigation	Karpaga Vinayaga College of Engineering and Technology, Mamandur	National Conference on Contemporary approaches in Mechanical Engineering	2012

7	Automotive engines with hydrogen – An analysis and investigation	Karpaga Vinayaga College of Engineering and Technology, Mamandur	National Conference on Contemporary approaches in Mechanical Engineering	2012
8	Thermal Insulation for a DI Diesel Engine – An innovative technology	Saveetha University, Chennai	National conference on Future Engineering in Automobile Technology	2011
9	Performance Characteristics of a Semi Adiabatic DI Diesel Engine	Karpagam University, Coimbatore	SAE India – National Conference on Modeling and Optimization on Automotive systems	2011
10	Performance and Emission Characteristics of Bio-fuel in Low Heat Rejection Engines	Easwari Engineering College, Chennai	National Conference ARIME 2011	2011
11	Thermal barrier coatings for DI Diesel Engines – An Energy Efficient Technology	SKR Engineering College, Chennai	National Conference on Advances and Innovations in Mechanical Engineering- AIME2011	2011
12	Effect of coating on Diesel Engine Emission Characteristics	Sriram Engineering College, Chennai	National Conference on Emerging Trends in Energy Engineering	2011
13	An emerging trend in automotives with hydrogen as a fuel	Saveetha University, Chennai	National conference on Future Engineering in Automobile Technology	2011
14	Emission characteristics of a DI diesel engine with hydrogen as fuel	Karpagam University, Coimbatore	SAE India – National Conference on Modeling and Optimization on Automotive systems	2011
15	Effects of compression ratio on emission characteristics of hydrogen fuelled dual fuel engine	Easwari Engineering College, Chennai	National Conference ARIME 2011	2011
16	A potential alternative fuel for DI diesel engine - Hydrogen	SKR Engineering College, Chennai	National Conference on Advances and Innovations in Mechanical Engineering- AIME2011	2011

PUBLICATION DETAILS

1. **Pradeep Kumar A R**, Annamalai K, Prabhakar S, Banugopan VN & Premkartikkumar SR (2010), "Heat transfer analysis in a low heat rejection DI Diesel engine", National Journal on Advances in Building Sciences and Mechanics, Vol. 1, No.2, pp. 6-10. **(Scopus Indexed Paper - IEEE)**
2. **Pradeep kumar A R**, Annamalai K & Premkartikkumar SR (2012), "Performance and emission characteristics two different biodiesel fuel in DI diesel engine", Journal of Engineering Today, Vol.14, No.2, pp. 231-234
3. Premkartikkumar SR, Annamalai K & **Pradeepkumar A R** (2012), 'Automotive engines with hydrogen – An analysis and investigation', Journal of Engineering Today, vol. 14, no. 2, pp 227-230
4. **Pradeep kumar A R**, Annamalai K & Premkartikkumar SR (2013), "Influence of injection timing on emission parameters of Adelfa biodiesel (Nerium oil methyl ester – NOME) fuelled in DI CI engine", International Journal of Innovative Technology and Research, Vol. 1, No. 1, pp. 099-102
5. **Pradeep kumar A R**, Annamalai K & Premkartikkumar SR (2013), "Experimental Investigation On Emission Parameters Of Transesterified Adelfa Oil (Methyl Ester Of Nerium Oil)", International Journal of Chem Tech Research, Vol. 5, No. 4, pp. 1654-1670 **(Scopus Indexed)**
6. **Pradeep kumar Arockiasamy Remigious**, Annamalai Kandasamy & Premkartikkumar Selvi Ramajayam (2013), "An Experimental Investigation into Chosen Parameters of Diesel-Water Emulsion on Combustion Processes", Journal of Chemistry, Hindawi publishing corporation, Vol. 2013, pp. 1-6 **(Web of Science)**
7. Premkartikkumar SR, Annamalai K & **Pradeepkumar A R** (2013), 'Using hydrogen as a fuel in automotive engines – An investigation', International Journal of innovative technology and research, vol. 1, no. 1, pp 90-93
8. Premkartikkumar SR, Annamalai K & **Pradeepkumar A R**, (2013), 'Effect of addition of Oxygen Enriched Hydrogen gas produces by electrochemical reaction in the reduction of pollutants coming out from a DI diesel engine', International Journal of ChemTech Research, vol. 5, no. 4, pp 1523-1531 **(Scopus Indexed)**
9. **Pradeep kumar A R**, Annamalai K & Premkartikkumar SR, (2013), "Adelfa – A futuristic Biodiesel Fuel for DI Diesel Engines A comparative experimental investigation, Chinese Science Bulletin, Vol. 59, No. 9, pp.924-930 **(Web of Science)**
10. **Pradeep kumar A R**, Annamalai K & Premkartikkumar SR, (2014) "Adelfa (NOME – Nerium Oil Methyl Ester) with DEE as the fuel additive for NO_x reduction in DI Diesel engines – An experimental investigation", Journal of Scientific and Industrial Research India, India, Vol. 73, pp.627-632 **(Web of Science)**
11. Premkartikkumar SR, Annamalai K & **Pradeepkumar A R**, (2014) "Effectiveness of oxygen enriched hydrogen-HHO gas addition on DI Diesel Engine performance, emission and combustion characteristics," Thermal Science (Impact factor 1.45), Vol. 18, No. 1, pp. 259-268 **(Scopus Indexed)**
12. Premkartikkumar, SR, Annamalai, K & **Pradeepkumar, A R**, (2014) "Significance of inlet air temperature on reducing engine-out emissions of DI diesel engine operating under the influence of

oxygen enriched hydrogen gas”, Iranian Journal of Science and Technology - Transactions of Mechanical Engineering (Impact factor 0.4), Vol. 38, No. M1, pp 57-68 (**Web of Science**)

13. Premkartikkumar, SR, Annamalai, K & **Pradeepkumar, A R**, (2015) “Impact of ambient air temperature and injection timing on reduction of engine out emissions of DI diesel engine operating under the influence of oxygen enriched hydrogen gas”, International Journal of Oil, Gas and Coal Technology, Volume 9, Issue 1, pp.109-127 (Impact factor 0.44) (**Web of Science**).
14. **A R Pradeep Kumar** , K Annamalai and S R Premkartikkumar (2017), “Effect of partially Stabilized zirconia (Zr₂O) in improving the efficiency of emulsified fuel” IOP Conf. Series: Materials Science and Engineering 263 (2017) 062051 doi:10.1088/1757-899X/263/6/062051 (**Scopus Indexed**)
15. Sendilkumar R, Ramajayam J, **Pradeep Kumar A R**, (2019), “Comparative Analysis of Emission Characteristics of Conventional and PCCI Engines”, Asian Resonance, pp.40-43 (**UGC Care**)
16. Nandhakumar D, **Pradeep Kumar A R**, Elumalai P V, (2019), “Performance and Emission Characteristics of Diesel Blended with Eucalyptus / Pine Seed Oil on a DI Diesel Engine”, Asian Resonance, pp.16-21 (**UGC Care**)
17. **Pradeep Kumar A R**, Vignesh P, Elumalai P V, (2020) “PSZ as Thermal Barrier Coating Material to Improve the Chosen Parameters of DI Diesel Engine”, The International Journal of Analytical and Experimental Modal Analysis”, Volume XI, Issue XI, November/2019. ISSN NO: 0886-9367 (**UGC Care**)
18. P V Elumalai, B Dhinesh, M Parthasarathy, **A R Pradeep Kumar**, S Mohammed Iqbal, J Jayakar, M Nambiraj, (2020) “An Experimental Study on Harmful Pollution Reduction Technique in Low Heat Rejection Engine Fuelled with Blends of Pre-heated Linseed Oil and Nano-additive”, Journal of Cleaner Production, <https://doi.org/10.1016/j.jclepro.2020.124617>.
19. Palani Vignesh, **A R Pradeep Kumar**, N. Shankar Ganesh , Veerasundaram Jayaseelan and Kumarasamy Sudhakar (2020), “Biodiesel and green diesel generation: an overview”, Oil & Gas Science and Technology, Rev. IFP Energies nouvelles, <https://doi.org/10.2516/ogst/202008>

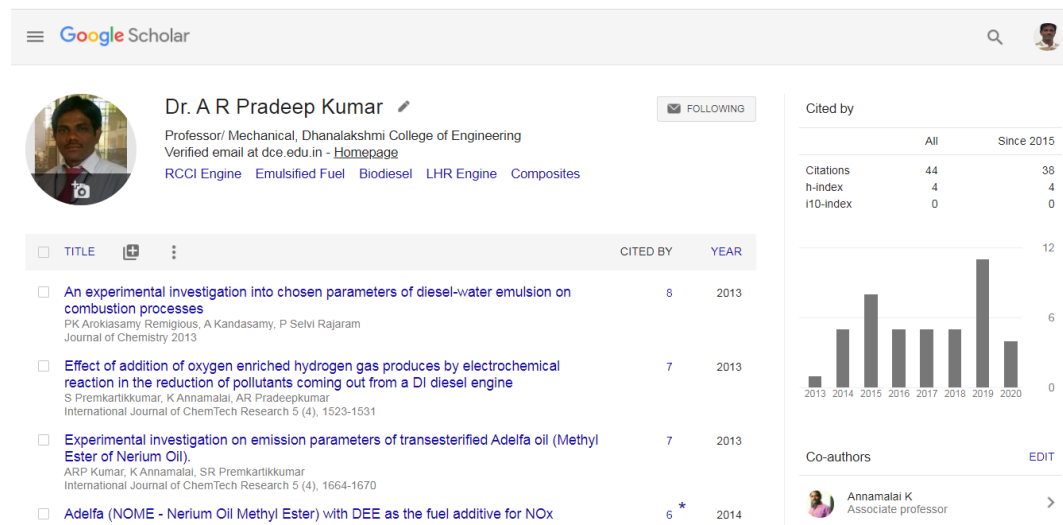
Book Chapter

- **Springer Link**, Emerging Trends in Science, Engineering and Technology, “Effect of Thermal Barrier Coating on DI Diesel Engine Fuelled with P20 Biodiesel”, pp 55-62, 2012.

Books published:

- Automobile Technology, Shreem Bhuvaneswari publications, 2007
- Machine Drawing, Narayana publications, 2011

h- index and citations as on 31st October, 2020



Question Paper Setting

- Member of question paper setting committee – Veltech University, Chennai

Editorial Board Membership :

- Editorial board member of Glacier Journal of Scientific Research
- Editorial board member of Blue Eyes Intelligence and Sciences Publication (Scopus indexed journal)
- Editorial board member of International Journal of Mechanical Engineering and Technology (Scopus indexed)
- Editorial board member of Journal of Mechanical Engineering and Technology (JMET)
- Editorial board member of International Journal of Advanced Research in Engineering and Technology

Journal Reviewer

- Certified reviewer in Renewable Energy Sources, *Elsevier*
- Reviewer in Ambient Energy
- Reviewer in Materials Today Proceedings, Elsevier
- Reviewer in Journal of Engineering Research and Reports

Professional body membership:

- Life member in Indian Society of Technical Education (ISTE)
- Life member in IAEng
- Life member in IRED
- Member in SAE India

Languages known

Language	To speak	To read	To write
Tamil	√	√	√
English	√	√	√
Hindi	√	√	√

Personal data

- Date of birth : 1st June, 1972
- Marital status : Married
- Nationality : Indian

References**1. Dr K Annamalai**

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DECLARATION

I hereby certify that the details furnished above are true to the best of my knowledge and belief.



Dr. A R Pradeep kumar, B.E., M.E., Ph.D.

Place : Chennai

Date : 31st October, 2020