

RESUME

No.K90, Vallalal Nagar
Tamilnadu Housing Board
Sevili medu Post
Kanchipuram District
Pin: 631501

Dr. A. DEVARAJU
Email : adevaa2011@gmail.com

Mobile No : +919789133629

EDUCATIONAL QUALIFICATIONS

Degree	Specialization	College	University	Year of Passing	% of Marks
PhD	Mechanical Engineering (Engg., Design)	Anna University Main campus, CEG, Chennai	Anna University Chennai	2012	Highly commended
M.B.A	Human Resource Management	Distance Education	Alagappa University, Karikudi	2006	60%
M.Tech.	Energy Engineering	Bharathidasan University Campus	Bharathidasan University, Trichy	2002	75.83 % I-Class with Distn.
B.E	Mechanical Engineering	Thanthai Periyar Govt., Institute of Technology, Vellore	University of Madras, Chennai	1996	63.7% I – Class
H.Sc	State Board	SMHS school, Tharamangalam	State Board	1992	83% I – Class
S.S.L.C	State Board	Government high school, Sinnappampatti	State Board	1990	69% I – Class

PhD Title: An Experimental Study on Surface Modification and Tribological Behaviors of Austenitic Stainless Steel Type AISI 316LN

EXPERIENCE DETAILS

- Working as **Principal** in Adhi College of Engineering and Technology, Chennai, from 01.10.2012 to till date. **- 5 years & 4 months**
- Worked as **Principal** in Sree Krishna College of Engineering, Vellore, from 06.06.2011 to 29.09.2012. **-1 Year and 4 months.**

3. Worked as **Head of Department** (HOD) in P.T.Lee Chengalvaraya Naicker College of Engineering and Technology, Kanchipuram, from 26.07.2004 to 30.06.2011.
-7 Years.
4. Worked as a **Lecturer** in Perumal Manimekalai College Of Engineering, Hosur, from 05.06.2002 to 02 .06.2004.
-2 Years.
5. Worked as a **Lecturer** in M.P.N.M.J. polytechnic college, Erode, from 07.07.1997 to 25.08.2001.
- 4 Years.
6. Worked as a **Quality Control Engineer** in R.R Enterprise, Chennai, from 07.07.1996 to 03.06.1997.
- 1 Year.

INTERNATIONAL JOURNALS

SCI indexed

1. M. Saravanan, N. Venkateshwaran, **A. Devaraju**, A. and Krishnakumari, Tribological Behavior Of Thin Nano Tungsten Carbide Film Deposited On 316l Stainless Steel Surface, Surface Review and Letters, (2017), pp. 71-80.
2. S. Harikrishnan, Imran Hussain, S, **Devaraju, A**, Sivasamy, P, and Kalaiselvam, S. Improved performance of a newly prepared nano-enhanced phase change material for solar energy storage, Journal of Mechanical Science and Technology 31 (10) (2017) 4903-4910.
3. M. Saravanan, N. Venkateshwaran, **A. Devaraju**, A. Krishnakumari and J. Saarvesh, Surface Modification Of 316l Stainless Steel By Plasma-Assisted Low Temperature Carburizing Process, Surface Review and Letters, Vol. 24, No. 8 (2017),pp. 1-6.
4. Saravanan, I., Elayaperumal, A., Franklin Issc, S., Vettivel, S.C. and **Devaraju, A.** “Optimization of wear parameters and their relative effects on TiN coated surface against Ti6Al4V alloy”, *Materials & Design, Elsevier publications*, Vol. 92, pp. 23-35, 2016.

5. **Devaraju, A.**, Elayaperumal, A., Venugopal, S., Satish V. Kailas. and Alphonsa, J. “Sliding Wear Behavior of Plasma Nitrided Austenitic Stainless Steel Type AISI 316LN in the Temperature Range from 25 to 400 °C at 10⁻⁴ bar.”, *Wear, Elsevier publications*, Vol. 288, pp.17-26, 2012.
6. **Devaraju, A.**, Elayaperumal, A., Venugopal, S., Satish V. Kailas. and Alphonsa, J. “Microstructure and Dry Sliding Wear Resistance Evaluation of Plasma Nitride Treated Austenitic Stainless Steel Type AISI 316LN against Different Sliders”, *Surface and Coatings and Technology, Elsevier publications*, Vol. 207, pp.406-412, 2012.
7. **Devaraju, A.**, Elayaperumal, A., Venugopal, S., Satish V. Kailas. and Alphonsa, J. “Investigation on the High Vacuum Tribological Characteristics of Surface Treated Nuclear Grade Stainless Steel Type AISI 316LN at 25 °C -500 °C”, *Strojniški vestnik – Journal of Mechanical Engineering*, Vol. 57, pp.927-935, 2011.

Scopus Indexed

8. **Devaraju, A.** “A Review on Important Factors Affecting Sliding Friction”, *Journal of Surface Science and Technology*, Vol. 32(3–4), pp. 71–76, 2016.
9. **Devaraju, A.**, and Pazhanivel, K. “Evaluation of Microstructure, Mechanical and Wear Properties of Aluminium Reinforced with Boron Carbide Nano Composite”, *Indian Journal of Science and Technology*, Vol. 9(2), pp. 1-6, 2016.
10. **A. Devaraju**, and R.Periyardhasan. “Fabrication and Characterization of Steel Wire Embedded GFRP Composites”, *Journal of Chemical and Pharmaceutical Sciences*, Vol. 9, Issue 2, pp. 981-984, 2016.
11. **Devaraju, A.** “Recent Progress in Tribological Behaviors of Nitride Treated Austenitic Stainless Steel-A Review”, *European Journal of Scientific Research*, Vol. 136, No.4, 394-405, 2015.
12. **Devaraju, A.**, and Pazhanivel, K. “A Comparative Study on Heat Generation of Si₃n₄ and Steel Roller Bearings”, *International Journal of Applied Engineering Research*, Vol. 10, issue No.85, pp. 325-329, 2015.

13. **Devaraju, A.** “A Critical Review on Different Types of Wear of Materials”, *International Journal of Mechanical Engineering and Technology*, Vol.6, Issue 11, pp. 77-83, 2015.
14. **Devaraju, A.,** Elayaperumal, A., Venugopal, S., Satish V. Kailas. and Alphonsa, J. “Hot Vacuum Tribological Properties of Chromium Nitride Coatings against Austenitic Stainless Steel Type AISI 316LN and Colmonoy”, *Applied Mechanics and Materials Research*, Vols. 110- 116, pp.600-605, 2012.
15. **Devaraju, A.** and Elayaperumal, A. “The effect of surface roughness on Sursulf, Gas and Plasma nitride Coatings on Austenitic Stainless Steel Type AISI 316LN” *Applied Mechanics and Materials*, Vols. 110- 116, pp. 758-763, 2012.

Google Scholar indexed

16. P. Amuda Priya Dharshinee, K.Sakthisudhan, and **A.Devaraju**, “Banana Fiber Woven Mobile Pouch Design & Development of Emi/Emc Mitigation Design for Mobile Applications” *International Journal of Advanced in Management, Technology and Engineering Sciences*, Volume 7 Issue 10 (2017), pp 23-27.
17. Pramila J, Mohan D and **Devaraju A.** “Removal of Toxic Metal Ion using Poly m-phenylene (Isophthalamide) Ultrafiltration Membranes”, *International Journal of Advanced in Management, Technology and Engineering Sciences*, Volume 7 Issue 10 (2017), pp 94-99.
18. **Devaraju, A.,** and Pazhanivel, K “A Study on Stress Analysis for Design of Pressure Vessel”, *International Journal of Mechanical and Production Engineering*, Vol.3, Issue 11, pp. 98-101, 2015.
19. **Devaraju, A.** “Development of Austenitic Stainless Steel Type 316LN – A Review”, *International Journal of Design and Manufacturing and Technology*, Vol.6, Issue 2, pp. 48-53, 2015.

20. **Devaraju, A.** “Influence of fiber percentage on Mechanical properties of Hybrid Composite Materials”, *Journal of Materiel Science and Mechanical Engineering*, Vol. 2, Issue 13, pp.1-5, 2015.
21. **Devaraju, A.** “An Experimental study on TIG welded joint between Duplex Stainless Steel and 316L Austenitic Stainless Steel”, *SSRG International journal of Mechanical Engineering*, Vol. 2, Issue 10, pp.1-4, 2015.
22. **Devaraju, A.** and Elayaperumal, A. “Tribological behaviors of plasma nitrided AISI 316LN type stainless steel in air and high vacuum atmosphere at room temperature”, *International Journal of Engineering Science and Technology*, Vol. 2(9), pp. 4137-4146, 2010.

INTERNATIONAL CONFERENCES

23. **Devaraju, A.** and Pazhanivel, K “Mechanical and Tribological Behaviors Of Aluminium Reinforced with Boron Carbide Nano Composite”, *International Conference on Mechanical, Materials and Manufacturing Systems (ICMMMS'16)*, Sri Sai Ram Engineering College, Chennai, 2016.
24. **Devaraju, A.** and Periyardhasan. R. “Fabrication and Characterization of Steel Wire Embedded GFRP Composites, *Second International Conference on Recent Advancement in Mechanical Engineering & Technology*, AArupadai Veedu Institute of Technology, Chennai, 2016.
25. Saravanan M , **Devaraju, A.**, Venkateshwaran N, Krishnakumari A, Sarvesh J. “Influence of the counter material on the dry sliding wear behaviour of low temperature plasma assisted gas carburized AISI 316L steel”, *International Conference on Modern, Intelligent and Green Manufacturing” (ICMIGM 2015)*, Erode Sengunthar Engineering College, Erode, 2015.
26. **Devaraju, A.** “Influence of fiber percentage on Mechanical properties of Hybrid Composite Materials”, *10th International Conference on “Advances in Mechanical, Material Science, Manufacturing, Automobile, Aerospace Engineering and Applied Physics” (AMAEAP-2015)*, Jawaharlal Nehru University, New Delhi, 2015.

27. **Devaraju, A.** and Pazhanivel, K. “A FEA Study on Heat of Ceramic and Steel Roller Bearings”, 1st *International Conference on Modelling, Simulation and Control*, Karpagam College Engineering, Coimbatore, 2015.
28. **Devaraju, A.** “An Experimental Investigation on Mechanical Properties of Friction Stir Welded Aluminium Alloy(AA6063)”, 1st *International Conference on Modelling, Simulation and Control*, Karpagam College Engineering, Coimbatore, 2015.
29. Saravanan, M., Venkateswaran, N., **Devaraju, A.**, Krishnakumari, A., Sathyaraj, P. and Saarvesh. “A Tribological Analysis of thin film of nano tungsten carbide coated AISI 316L stainless steel”, *International Conference on Advances in Materials, Manufacturing and Applications*, National Institute of Technology, Trichy, 2015.
30. **Devaraju, A.** “Evaluation of Microstructure and Mechanical Properties of Two Dissimilar Material between DSS vs. 316L Using TIG Welding”, *International Conference in Synergistic Evolutions in Engineering*, Surya Engineering College, Erode, 2015.
31. **Devaraju, A.** “Tribological Properties of Tungsten Carbide Coated 316LN Stainless Steel in Atmosphere Temperature”, *International Conference in Synergistic Evolutions in Engineering*, Surya Engineering College, Erode, 2015.
32. **Devaraju, A.** “An Experimental Investigation On Mechanical Properties Of Hybrid Composite Materials”, 4th *International Conference on Futuristic Trends in Mechanical Engineering*, Thiruvalluvar College of Engineering and Technology, Vandavasi, 2015.
33. **Devaraju, A.** “ A Comparative Study Between Manual And Ansys Results On Stress Analysis Of Pressure Vessel”, 4th *International Conference on Futuristic Trends in Mechanical Engineering*, Thiruvalluvar College of Engineering and Technology, Vandavasi, 2015.
34. Saravanan, M., **Devaraju, A.**, Krishnakumari, A., Manivannan, N. “ Tribological behaviour of Tungsten Carbide Coated AISI 316LN Type Stainless Steel in Air at Room Temperature”, *International Conference on Advances in Tribology*, National Institute of Technology, Calicut, 2014.

35. **Devaraju, A.** “ An Investigation On Chopped Glass Fiber And Banana Fiber On The Fracture Property Of Polyster Composites”, *3rd International Conference on Futuristic Trends in Mechanical Engineering*, Thiruvalluvar College of Engineering and Technology, Vandavasi, 2014.
36. **Devaraju, A.** “A Comparative study of Microstructure and Mechanical Properties of Two Dissimilar Material after TIG Welding”, *3rd International Conference on Futuristic Trends in Mechanical Engineering*, Thiruvalluvar College of Engineering and Technology, Vandavasi, 2014.
37. **Devaraju, A.** “Evaluation of Surface Hardness, Microstructure and Tribological Properties of Nuclear Material”, *3rd International Conference on Futuristic Trends in Mechanical Engineering*, Thiruvalluvar College of Engineering and Technology, Vandavasi, 2014.
38. Saravanan, I., Elaya Perumal, A. and **Devaraju, A.** “Some Studies on Surface and Wear Properties of Titanium Nitride Coated SS 316L”, *International Conference on Advances in Materials Processing and Characterisation (AMPC 2013)*, College of Engineering, Guindy, Anna University, Chennai, 2013.
39. **Devaraju, A.** and Elayaperumal, A. “The effect of surface roughness on Sursulf, Gas and Plasma nitride Coatings on Austenitic Stainless Steel Type AISI 316LN”, *International Conference on Mechanical and Aerospace Engineering*, Bangkok, Thailand, 2011.
40. **Devaraju, A.**, Elayaperumal, A., Venugopal, S., Satish V. Kailas. and Alphonsa, J. “Hot Vacuum Tribological Properties of Chromium Nitride Coatings against Austenitic Stainless Steel Type AISI 316LN and Colmonoy” *International Conference on Mechanical and Aerospace Engineering*, Bangkok, Thailand, 2011.
41. **Devaraju, A.** and Elayaperumal, A. “A study on characterization of plasma-nitrided (CrN) layer on AISI 316LN Type austenitic stainless steel”, *International Conference on Materials in Future*, Government College of Engineering, Trissur, Kerala, 2011.
42. **Devaraju, A.**, Elayaperumal, A. and Ashok Raj. “The improvement of surface structure, hardness and tribological properties of nuclear reactor material by sursulf

nitriding”, *Joint International Conference on Advanced Materials*, Organised by B.T.L Institute of Technology, Bangalore and University of Delaware, USA, 2011.

43. **Devaraju, A.** and Elayaperumal, A. “Investigation on improved Surface Hardness, Microstructure and Vacuum Tribological Properties of Nuclear Reactor Material”, *International Conference on Advanced Materials and Processing*, R.M.K Engineering College, Chennai, 2011.

NATIONAL CONFERENCES

44. Gunaseelan, R., Antony Raj, A., **Devaraju,A.**, Venkatachalam,V., and Sagayaraj P. “Bulk size crystal growth and physicochemical properties of an organic THZ crystal DASC” National Semiar on New Materials Research and Nanotechnology, Govt Arts College, Ooty,2013.
45. **Devaraju, A.**, Elayaperumal, A., Dinesh kumar, P., Chandrahasan, K.V., Jayaraj, S. and Kotti S. “Structure and Tribological Behaviors of Plasma Pitrided 316LN stainless steel at room temperature” National Conference on Recent Advances in Mechanical Engineering, M.P.N.M.J.Engineering College, Erode, 2009.
46. **Devaraju, A.**, “Efficient Solar Drier Using Natural Circulation Type Solar Water Heating System” in *National level conference on Recent Trends in Energy Engineering* at National Engineering College, Kovilpatti (2003).
47. **Devaraju, A.**, “Energy Management and Environmental Consciousness” in the *National conference on Environmental awareness and sustainable Rural Development* at Sri Venkateswara University, Tirupati. (AP) (2001).

WORKSHOPS AND FACULTY DEVELOPMENT PROGRAM S PARTICIPATED

1. Participated a AICTE Sponsored 2 week Summer School Programme on “*Recent Trends in Heat and Mass Transfer*” organized by Adhiparasakthi Engineering College (Two weeks- 8th to 21st May 2015).

2. Participated a Workshop on “*NAAC Awareness on Quality Systems in Higher Education*” conducted by Internal Quality Assurance Cell, Anna University in association with NAAC (26th and 27th March 2015).
3. Participated a Winter School on “*Advanced Materials: Concepts & Applications*” (sponsored by MHRD/AICTE) conducted by National Institute of Technology, Warangal (29th Dec to 10th Jan 2009).
4. Participated a workshop on “*Awareness of Intellectual Property Rights and Related Issues*”, organized by Anna University Chennai in association with Ministry of Communications and Information Technology (21st and 22nd Feb 2008).
5. Participated a Short Term Course on “*Vibration and Noise for Practicing Engineering*” (Funded by TEQIP-CEG) organized by Department of Mechanical Engineering, College of Engineering, Guindy, Anna University (28th to 29th Sep 2007).
6. Participated a Faculty Development Programme on “*Engineering Materials and Metallurgy*” (Sponsored by TEQIP) organized by the Department of Metallurgical Engineering, Government College of Engineering, Salem (18th to 22nd Dec 2006).
7. Participated a Staff Development Programme on “*Comprehensive CNC Turning/ CNC Milling Training*” conducted at MTAB- DENFORD TECHNOLOGY CENTRE, Chennai (28-02-2005 to 04-03-2005).
8. Participated a Training Programme on “*Applications of Computational Fluid Dynamics in IC Engines*”(sponsored by AICTE) conducted at Velammal Engineering College (Two weeks- 10th to 21st July 2006).
9. Participated a Staff Development Programme on “*Induction Training Programme in Pedagogy*” (Sponsored by AICTE) organized by S.S.M Institute of Textile Technology & Polytechnic College, Komarapalayam (Two weeks- 23rd Apr to 3rd May 2003).

10. Participated a Faculty Development Programme on “ *Programme on Effective Teacher*” (Sponsored by Anna University, Chennai) organized by Jansons School of Business, Coimbatore (24th to 28th Nov 2003).

INVITED TALK, CONFERENCE SESSION CHAIR AND GUEST LECTURE DELIVERED

1. Participated as *SESSION CHAIR* for the 1st *International Conference on Modelling, Simulation and Control*, Karpagam College Engineering, Coimbatore, on 15th & 16th October 2015.
2. Delivered a Lecture on “Role of Tribology in World Class Manufacturing” in the AICTE Sponsored Two week Faculty Development Programme on *OPPORTUNITIES AND CHALLENGES IN WORLD CLASS MANUFACTURING* organized by the Department of Mechanical Engineering, R.M.K College of Engineering and Technology, Chennai. from 22nd April to 6th May 2015.
3. Delivered an Invited Talk on “*Importance of Surface Engineering in materials Design*” at National Conference on Recent advances in Mechanical Engineering organized by Surya College of Engineering, Erode, on 11th March 2014.

REVIEWER

Currently, I am a reviewer in

1. Journal of mechanical science- springer publications
2. Tribology publications- Elsevier publications
3. Journal of Materials Science & Technology- Elsevier publications
4. Materials and Design- Elsevier publications
5. Acta Metallurgica Sinica (English Letters)- Elsevier publications
6. Journal of Materials Engineering and Performance- springer publications

PhD GUIDANCE

- Anna University Research Supervisor Recognition Number: 2120073
- 9 candidates are doing PhD in Anna University under my guidance.

PROFESSIONAL BODY MEMBERSHIP

1. Life Member in Tribology Society of India.
2. Life Member in Indian Society for Technical Education.
3. Life Member in IAENG International Association of Engineers.

PG PROJECT WORK GUIDED

M.E

1. Mechanical Behaviour Analysis of GFRP Embedded With Copper at Linear Pitch (2016).
2. Analysis the Microstructure and Study the Mechanical Properties of the Friction Stir Welding of AA6063 (2016).
3. Mechanical Behavior Analysis on GFRP Embedded with Copper Wire at 45° Angular Pitch (2016).
4. To Study the Mechanical Properties of Super Duplex Stainless Steel (AISI 2507) by Using TIG Welding (2016).
5. Mode 1 fracture Toughness Analysis on Jute and Glass Fiber Hybrid Composites (2016).
6. Mechanical Behavior Analysis on GFRP Embedded with Banner Fiber (2016).

MBA

1. A study on consumer behaviour towards Maruti Suzuki small cars (2013).
2. A study on employees perception towards various stress factors undertaken at Lanson Toyoto(2013)
3. A study on employee absenteesim in Pondicherry alum and chemicals (2013).
4. A project report on performance appraisal (2013).
5. A study on consumer satisfaction of coca-cola brands in thiruparankundram region (2013).
6. A project report on training and development (2013).

BOOKS PUBLISHED

11 books have been published as co author for B.E Mechanical Engineering students.

CONFERENCES, TECHNICAL LEVEL SYMPOSIUM AND WORKSHOPS ORGANISED

As a Principal,

- ◆ One International and 3 National Conference have organized.
- ◆ 15 National Level Technical Symposiums have organized.
- ◆ Eight Workshops and many Guest Lectures have organized

As a HOD,

- ◆ 3 National Level Technical Symposiums have organized.
- ◆ Many Guest Lectures have organized

ACHIEVEMENTS

1. **As a Principal**, my academic team has improved the overall result from 16% to 65% (Academic year 2016-17) at Adhi college of Engineering and Technology, Chennai.
2. **As a Principal**, my academic team has improved the overall result from 12% to 38% within one year period (Academic year 2011-12) at Sree Krishna college of Engineering, Vellore.
3. **As a Researcher**, I have a taken part of nuclear research work at Indira Gandhi Centre Atomic Research, Kalpakkam and published 21 original research papers in highly referred International Journals and 32 International Conferences.
4. **As a HOD**, my department team has improved the department result as 67% during the academic 2009-10 at P.T.Lee Chengalvaraya Naicker college of Engineering, Kancheepuram and it was the Second Zonal rank.
5. **As a Faculty**, I have Produced 100% result in many Mechanical Engineering subjects
6. Acted as principal in charge in P.T.Lee Chengalvaraya Naicker College Of Engineering and Technology. Kanchipuram, for two year and improved the result from 0% to 34.7%
7. Acted as deputy warden in M.P.N.M.J.polytechnic college, Chennimalai for 4 years and controlled over 350 students in a single man.
8. Scored school second mark in H.Sc.

REFERENCE

1. Prof. Dr. A. Elaya Perumal
Professor,
Engineering Design Division,
Department of Mechanical Engineering,
C.E.G, Anna University, Chennai-25.
2. Prof. Dr. M. Kamaraj

Professor, Department of Mechanical Engineering,
Indian Institute of Technology Madras, Chennai-36.

3. Dr. Sathis Vasu Kailas
Professor
Department of Mechanical Engineering
Indian Institute of Science
Bengaluru 560012
4. Dr.-Ing. M. Duraiselvam
Associate Professor,
Department of Production Engineering,
National Institute of Technology
Tiruchirappalli- 620 015.

PERSONAL PROFILE

Fathers name	: K. Ayyannan
Date of Birth	: 13/07/1975
Nationality	: Indian
Religion	: Hindu
State of Domicile	: Tamil Nadu
Sex	: Male
Marital Status	: Married
Children	: One girl and a boy
Languages Known	: Tamil, English.

DECLARATION

I hereby declare that the above-mentioned details are true to the best of my knowledge.

A. DEVARAJU