

# Dr. G. Prabhakaran,

B.E (Prod.), M.E. (Manufacturing), Ph.D.,



## Personal Details

**Date of Birth** : 22nd July 1967  
**Address for Communication** : 3A, Block 3, Ceebros Shyamala Garden  
136 Arcot Road, Saligramam  
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## Personal Summary

- ✓ Graduated in Production Engineering (1988) from Regional Engineering College (National Institute of Technology NIT), **one of the premier Technical Institutions in India**, Post graduated in Manufacturing Technology (1993) (NIT) and awarded with Ph.D. degree in Production Engineering (2002). An experienced academician with over 30 years of experience at various levels in Mechanical/Production Engineering disciplines.
- ✓ Successfully faced **4 times NBA Expert Audit team** (Two as Head of the Department and Two as Head of the Institution)
- ✓ Two times faced **NAAC audit including 1 time as Head of the Institution and secured A+ (3.34/4.0)**.
- ✓ Also having one year of Industrial experience as design engineer.
- ✓ Serving for providing the vision and leadership required to ensure a high quality of education to the student's community. Established a proven track record of effectively managing the available human resources and infrastructure to improve educational services, thereby providing both the staff and students, the best environment to achieve their full potential. Also possessing the required enthusiasm, vision, drive and adaptability necessary to manage even a larger size organization.

Educational and Professional Qualification						
Degree	Specialization	Institution	University	Year of Passing	Percentage / CGPA	Class
B.E.	Production Engineering	Regional Engineering College (NIT), Tiruchirappalli	Bharathidasan University, Tiruchirappalli	1988	67	First
M.E.	Manufacturing Technology	Regional Engineering College (NIT), Tiruchirappalli	Bharathidasan University, Tiruchirappalli	1993	78	First
Ph.D.	Production Engineering	Regional Engineering College (NIT), Tiruchirappalli	Bharathidasan University, Tiruchirappalli	2002	-	-

Details of experience in Teaching / Administration / Industry				
S. No	Name of the Institution / Organization	Designation	Period of service	
			From	To
1.	KCG College of Technology, Karapakkam, Chennai	Dean (Academics)	01.11.2023	Till date
2.	SRM Institute of Science and Technology, Ramapuram, Chennai	Vice Principal (Academics) Professor & Head	01.02.2021	31.10.2023
3.	KCG college of Engineering and Technology, Chennai	Principal	01.07.2016	29.01.2021
4.	Velammal Engineering College, Chennai	Professor & Head	01.07.2013	30.06.2016
5.	Velammal Engineering College, Chennai	Professor & Vice -Principal	01.06.2011	30..06.2013
6.	Sri Ramachandra University, Porur, Chennai	Professor	15.05 2009	31.05.2011

S.No	Name of the Institution / Organization	Designation	Period of service	
			From	To
7.	Caledonian College of Engineering, Muscut, Sultanate of Oman	Sr. Faculty Member	12.10.2006	06.04.2009
8.	National Institute of Technology, Tiruchirappalli	Assistant Professor	13.09.2004	11. 10. 2006
9.	National Institute of Technology, Tiruchirappalli	Senior Lecturer	14.09.1999	13.09.2004
10.	National Institute of Technology, Tiruchirappalli	Lecturer	14.09. 1994	13.09.1999
11.	Shanmugha College of Engineering, Thanjavur	Lecturer	15 .12.1993	13.09. 1994
12.	Regional Engineering College, Tiruchirappalli	Research Assistant / Associate	03.09.1990	14.12.1993
	Promac Applied Industrial Products Ltd., Bangalore	Design Engineering	23. 09. 1989	31.08.1990

Details of Ph.D Guideship					
S.No	Name of Research Scholar	Title of Research	Univ.	Date of Completion	Supervisor or Co-supervisor
1	K.P.Padmanaban	Dynamic Analysis and Optimization of Machining Fixture Layout Using Finite Element Method and Evolutionary Techniques.	Anna Univ.	October 2007	Supervisor
2	M.Uthayakumar	Some Studies on the influence of Machining Parameters on the Surface Integrity of the Bimetallic Pistons.	Anna Univ.	October 2007	Supervisor
3	V.Anbumalar	Machine assignment in intra cell layout of cellular manufacturing system under static and dynamic environment using genetic algorithm	Anna Univ.	August 2009	Supervisor

4	A.Muruganandam	Design of Cellular Manufacturing System for Static and Dynamic Production Requirements.	Anna Univ.	October 2007	Supervisor
5	A.Manimaran	Complete and Fraction Cell formation using Optimization Techniques in Cellular Manufacturing Systems.	Anna Univ.	November 2009	Supervisor
6	M.Madhan	Investigation on Self –Crack Healing Ability of Microwave Sintered and Conventional Sintered Al <sub>2</sub> O <sub>3</sub> /SiC Ceramics	Anna Univ.	January 2020	Supervisor
7	Rajkamal S	Optimization of Process parameters of spin coating on self cleaning solar panel	Anna Univ.	June 2023	Supervisor
8	Pradeepkumar S	Development of Nylon66 and glass fiber composite for automobile components	Anna Univ.	Ongoing Registered 2013	Supervisor

#### Member of Journal Reviewer Panel

- ✓ International Journal of Advanced Manufacturing Technology (IJAMT), Springer Verlag Publications, UK.

#### Research Publications Summary

<b>International Journals</b>	<b>:</b>	<b>42</b>
<b>No. of citations</b>	<b>:</b>	<b>1894</b>
<b>h-index</b>	<b>:</b>	<b>23</b>
<b>i10-index</b>	<b>:</b>	<b>33</b>
<b>International Conferences</b>	<b>:</b>	<b>09</b>
<b>National Journals</b>	<b>:</b>	<b>05</b>
<b>National Conferences</b>	<b>:</b>	<b>24</b>

#### Research Articles

1. P.Asokan, G.Prabhakaran and G.Satheeshkumar,“Machine Cell Grouping using Non-Traditional Optimization Techniques - A Comparative Study”, International Journal of Advanced Manufacturing Technology, U.K, Vol. 18, pp 140-147, 2001. (SCI & SCOPUS)
2. G.Prabhakaran, T.N.janakiraman and M.Sachithanandam, “Manufacturing Data Based - Combined Dissimilarity Co-efficient for Machine Cell Formation”, International Journal of Advanced Manufacturing Technology, U.K., Vol.19, pp 889-

- 897,2002. **(SCI & SCOPUS)**
3. G. Prabhakaran, M.Sachithanandam and N.Venkiah, “Application of Maximal Spanning Tree for Machine Cell Formation”, International Journal of Advanced Manufacturing Technology, U.K., Vol. 20, pp 503-514, 2002. **(SCI & SCOPUS)**
  4. K.Vijayakumar, G.Prabhakaran, P.Asokan and R.Saravanan ”Optimization Of Multi-Pass Turning Operations Using Ant Colony System”, Accepted for publication in International Journal of Machine tools and Manufacture, Vol. 43, pp 1633-1639, 2003. **(SCI & SCOPUS)**
  5. N.Baskar, R.Sravanan, P.Asokan and G. Prabhakaran, “Ants Colony Approach for Optimization of Surface Grinding Operations”, accepted for publication, “International Journal of Advanced Manufacturing Technology”, U.K. Vol. 23, pp 311-317, 2004. **(SCI & SCOPUS)**
  6. R.Ramesh and G.Prabhakaran, “Genetic-algorithm-based Optimal Tolerance Allocation Using A Least-Cost Model”, International Journal of Advanced Manufacturing Technology, U.K., Vol.24, pp 647-660, 2004. **(SCI & SCOPUS)**
  7. A.Muruganandam, G. Prabhakaran, P.Asokan and V.Baskaran “A Memetic Algorithm Approach to Cell Formation”, International Journal of Advanced Manufacturing Technology, U.K. Vol. 25, pp 988 – 997, 2005. **(SCI & SCOPUS)**
  8. G. Prabhakaran, P.Asokan and S.Rajendran,“Sensitivity Based Conceptual Design And Tolerance Allocation Using Continuous Ants Colony Optimization Techniques”, International Journal of Advanced Manufacturing Technology, U.K., Vol. 25, No. 5-6, pp. 516-526, 2005. **(SCI & SCOPUS)**
  9. G. Prabhakaran, A.Muruganandam, P.Asokan and B.S.Girish,“Machine cell formation for Cellular Manufacturing systems Using Ant Colony System Approach”, International Journal of Advanced Manufacturing Technology, Vol.25, Vol. 9-10, pp 1013 – 1019, 2005. **(SCI & SCOPUS)**
  10. N.Baskar, P.Asokan, R.Saravanan and G. Prabhakaran, “Optimization of Machining parameters for Milling Operations using Non-Conventional Methods”, International Journal of Advanced Manufacturing Technology, U.K, Vol. 25, No.11-12, pp. 1078-1088, 2005. **(SCI & SCOPUS)**
  11. J.Jerald, P.Asokan, G. Prabhakaran and R.Saravanan, “Scheduling optimization of Flexible Manufacturing Systems using Particle Swarm Optimization Algorithm”, International Journal of Advanced Manufacturing Technology, U.K., Vol. 25, pp.

- 964-971, 2005. **(SCI & SCOPUS)**
12. J.Jerald, P.Asokan, G. Prabhakaran and R.Saravanan, “Scheduling optimization of Flexible Manufacturing Systems using Particle Swarm Optimization Algorithm”, International Journal of Advanced Manufacturing Technology, U.K., Vol. 25, pp. 964-971, 2005. **(SCI & SCOPUS)**
13. B.Shahul Hamid Khan and G.Prabhakaran, “A Particle Swarm Optimization Algorithm For Permutation Flow Shop Scheduling With Regular And Non-Regular Measures”, International Journal of Applied Management and Technology, Volume 3, pp 172-181, 2005.
14. B.Shahul Hamid Khan and G.Prabhakaran, “An Implementation of Grasp in Flow Shop Scheduling”. International Journal of advanced manufacturing Technology, Volume 30, Number 11- 12, pp 1126 – 1131, 2006. **(SCI & SCOPUS)**
15. K.P.Padmanabhan and G. Prabhakaran, “Dynamic Analysis On Optimal Placement Of Fixturing Elements Using Evolutionary Techniques” International Journal of Production Research, Vol., pp 1-38, 2007. **(SCI & SCOPUS)**
16. G.Prabhakaran, R. Ramesh and P. Asokan, “Concurrent Optimization Of Assembly Tolerances For Quality With Position Control Using Scatter Search Approach” International Journal Of Production Research, Volume 45, November 2007 , pages 4959 – 4988 . **(SCI & SCOPUS)**
17. N.Baskar, P.Asokan, G.Prabhakaran, K.Babu and R.Saravanan,”Optimization of surface grinding operations using Particle Swarm Optimization Technique”, ASME Journal of Manufacturing Science and Engineering, Vol.127, pp 885-892. **(SCI)**
18. G.Prabhakaran, G. Padmanaban, K. Krishnakumar, R., “Machining Fixture Layout Optimization With Evolutionary Techniques, International Journal of Advanced Manufacturing Technology,. Volume 32, Numbers 11-12, May 2007, pp. 1090-1103. **(SCI & SCOPUS)**
19. B.Shahul Hamid Khan and G.Prabhakaran , “A New Hybrid Genetic Algorithm for Multi Objective Flow Shop Scheduling Problem, International Journal of Applied Management and Technology, Volume 4, Number 2, 8 – 18, 2006. **(SCI & SCOPUS)**
20. R.Saravanan, P.Asokan, G.Prabhakaran and K.Vijayakumar, “Optimization of cutting conditions during continuous Finishing Profile Machining”, International Journal of Advanced Manufacturing Technology, U.K., August 2003. **(SCI &**

**SCOPUS)**

21. Khan,BSH., G.Prabhakaran and Asokan,P, “A Grasp Algorithm for m - machine Flowshop Scheduling Problem With Bicriteria of makespan and Maximum Tardiness, International Journal of Computer Mathematics 84 (12): pp1731-1741, 2007. **(SCI)**
22. A.Muruganandam and G.Prabhakaran, "Machine Formation using Particle Swarm Optimization And Tabu Search” International journal of Management and Systems, New Delhi, 2004. **(SCOPUS)**
23. Prabhakaran.G., Padmanaban.K.P. and Krishnakumar.R "Machining Fixture Layout Optimization using FEM and Evolutionary techniques " International Journal of Advanced Manufacturing Technology, Vol .32, page 1090-1113, 2007. **(SCI & SCOPUS)**
24. Prabhakaran.G., Padmanaban.K.P. and Asokan.S., Dynamic Analysis on Optimal Placement of Fixturing Elements Accounting for The Effect of Workpiece Elasticity, International Journal for Manufacturing Science and Technology, Vol 8, No. 1, page 33-53, 2006. **(SCI & SCOPUS)**
25. R.Sivasankar, P.Asokan, G.Prabhakaran and VenkataPhani "A CAPP Framework with Optimized Process Parameters for Rotational Components", International Journal of Production Research, Vol 46, Issue 20, pp 5561-5587, 2008. **(SCI & SCOPUS)**
26. M.Uthayakumar, G.Prabhakaran and S.Aravindan, “ Study on Aluminium alloy Piston reinforced with Cast Iron inserts, International Journal of Material Science, Volume.3. pp 1-10, 2008. (still computing) **(SCI & SCOPUS)**
27. M.Uthayakumar, G.Prabhakaran and S.Aravindan, Machining Studies on Bimetallic systems using Taguchi Method, “ International Journal of Machining Science and Technology, Vol.12, No.2. Jan 2008. **(SCI & SCOPUS)**
28. R.Sivaankar, P.Asokan, R.Saravanan, S.Kumanan, G.Prabhakaran, "Selection of machining parameters for constrained machining problem using evolutionary computation", International Journal of Advanced Manufacturing Technology, Vol. 32 no 9, pp 892-901,. 2006. **(SCI & SCOPUS)**
29. Prabha - A New Heuristic Approach For Machine Cell Formation Under Dynamic Production Environments, A.Muruganandam, G.Prabhakaran, and R.V.Murali,

International Journal of Applied Management and technology, N0.3, Vol.6,2008.  
(SCOPUS)

30. Quality Improvement In Higher Education Through Normalization Of Student Feedback Data Using Evolutionary Algorithm, Vishnupriyan, L.Govindarajan, G.Prabhakaran, and K.P. Ramachandran, International Journal of Applied Management and technology, N0.3, Vol.6,2008 . (SCI & SCOPUS)
31. A.Muruganandam, G.Prabhakaran and R.V.Murali, “PRABHA- A new Heuristic approach for machine cell formation under dynamic production environments”, International Journal of Applied Management Technology on 29-7-2008. (SCI & SCOPUS)
32. A.Muruganandam, G.Prabhakaran and R.V.Murali, “Comparative study of evolutionary techniques for design of cellular manufacturing systems”. International Journal of Industrial Engineering Practice, Vol 1, Number 2, pp119-128 ,2009. (SCI)
33. G.Prabhakaran, S.Vishnupriyan, L.Govindarajan and K.P.Ramachandran, “Quality Improvement in Higher Education through Normalization of Student Feedback data using Evolutionary Algorithm”, International Journal of Applied Management Technology, Vol.6, issue 3, pp. 222-240, 2008 . (SCI & SCOPUS)
34. R.V.Murali, D.Ragavesh, A.B.Puri and G.Prabhakaran, “Worker efficiency and job criticality consideration in virtual cellular manufacturing environments”, International Journal of Advanced Operations and Management” Vol. 1, No.2/3 ,pp. 203 - 223, 2009. (SCOPUS)
35. R.V. Murali, A.B. Puri, K.F. Al-Rahim and G. Prabhakaran, ANN Worker Assignment Model With Real Time Industrial Data, International Journal of Engineering, Science and Technology, Vol.2, No.1, pp41-47, 2010. (SCI)
36. M. Uthayakumar, G. Prabakaran, S. Aravindan and J. V. Sivaprasad, “Influence of Cutting Force on Bimetallic Piston Machining by a Cubic Boron Nitride (CBN) Tool” Materials and Manufacture, Vol.27,1-6,2012. (SCI)
37. Saravanan P Sivam, Antony L Michaelraj, S Satish Kumar, G Prabhakaran, D Dinakaran and V Ilankumaran “Statistical multi-objective optimization of electrical discharge machining parameters in machining titanium grade 5 alloy using graphite



- electrode” Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, Vol.28, Issue 7, Pp 736-745, 2014. (SCOPUS)
38. Thilla Sekar Vinothkumar, Deivanayagam Kandaswamy, Gopalakrishnan Prabhakaran, Arunachalam Rajadurai “Microstructure of cryogenically treated martensitic shape memory nickel-titanium alloy”, Journal of Conservative Dentistry, Jul-Aug 2015 Vol 18, Issue 4. (SCOPUS)
39. Thilla Sekar Vinothkumar, Deivanayagam Kandaswamy, Gopalakrishnan Prabhakaran, Arunachalam Rajadurai, “Effect of dry cryogenic treatment on Vickers hardness and wear resistance of new martensitic shape memory nickel-titanium alloy” European Journal of Dentistry Volume 9 Number 4 , pp 513-517, 2015. (SCI)
40. Madhan Mohankumar and Prabhakaran Gopalakrishnan, “Microwave versus conventional sintering:microstructure and mechanical properties of Al<sub>2</sub>O<sub>3</sub>–SiC ceramic composites” accepted for publication in Boletín de la Sociedad Española de Cerámica y Vidrio, Elsevier , <https://doi.org/10.1016/j.bsecv.2018.06.001> ,July 2018 ( In Press). (SCI & SCOPUS)
41. Gobivel K., Vijay Sekar K.S., Prabhakaran G., “Finite Element Analysis of High-Speed Machining of CFRP Material”, Advances in Materials and Metallurgy, Lecture Notes in Mechanical Engineering. Springer, Singapore. [https://doi.org/10.1007/978-981-13-1780-4\\_15](https://doi.org/10.1007/978-981-13-1780-4_15). (SCOPUS)
42. Kumar, S.P., Prabhakaran, G. & Vishvanathperumal, S. Influence of Modified Nanosilica on the Performance of NR/EPDM Blends: Cure Characteristics, Mechanical Properties and Swelling Resistance. *J Inorg Organomet Polym* 34, 3420–3442 (2024). <https://doi.org/10.1007/s10904-023-02985-2>

#### Research Funds Received

1. An amount of **Rs.13,90,000**(Rupees Thirteen Lakhs Ninety Thousand) was obtained from **AICTE** under **RPS** as the Principal Investigator for the proposal entitled “**Investigation on crack -healing behaviour of Microwave sintered Al<sub>2</sub>O<sub>3</sub>/SiC**” MARCH 2013. Duration: 3 years. Has successfully completed.
2. Key member in the team, received a sum of **Rs.20 lakhs** from **DST** (Department of Science and Technology) under **FIST** program. Established **Non-Destructive Laboratory and augmented Thermal Engineering laboratory** facility.

**Facilities established**

- ✓ Established **CAD/CAM Laboratory** in the **Department of Production Engineering, National Institute of Technology, Tiruchirappalli**, India, from the fund obtained from **Ministry of Human Resource Development (MHRD)** of India.
- ✓ Established **Precision Engineering Laboratory** in the **Department of Production Engineering, National Institute of Technology, Tiruchirappalli**, India, from the fund partly obtained from **Ministry of Human Resource Development (MHRD)** of India, and under **Technical Education Quality Improvement Programme (TEQIP)**
- ✓ Procured and installed **Microwave Furnace and Ball mill** worth of **Rs.12 Lakhs** from the research fund obtained from **AICTE** to carry out Research by the scholar registered under my supervision.

**Events Organised**

Faculty Development Programmes:

- ✓ **Quality Engineering in Manufacturing**, Technical Education Quality Improvement Programme (TEQIP), July 21-22, 2006
  - ✓ **Recent Trends in Manufacturing & Materials**, Technical Education Quality Improvement Programme (TEQIP), January 6-7, 2006
  - ✓ **Modelling and Analysis of Production Systems** (MAPS- 2004), National level Conference, January 2004.
  - ✓ **Dimensional Engineering and Tolerance Analysis**, AICTE\_ISTE, June 13-27, 2003
- Skill Development Training:
- ✓ Organized a series of **training programs** on **AutoCAD** software for Practicing Engineers
  - ✓ Organized three **training programs** on **Pro- Engineer CAD/CAM Software**
  - ✓ Co-ordinated **training programs** on **Programming and Operation of CNC Machines**

**Key Strengths**

- ✓ Promoting, developing and influencing good management practice
- ✓ Effectively managing pupil behavior in the classroom and on institute premises.
- ✓ Self-motivated personality.
- ✓ Possessing adaptability and ability to manage the change in the system
- ✓ Clearly articulating the vision of the institute so that it is understood and acted upon effectively by all in the line down.
- ✓ Setting targets for the fellow faculty members and other staff, mentoring & monitoring.

**Additional Information**

- ✓ Member, Planning and Monitoring Committee, Hindustan University, Padur, Chennai,

Tamil Nadu, India.

- ✓ Member, Board of Studies, Anna University, Chennai 600025
- ✓ Management Representative (MR) for ISO 9001:2008, established Fifteen Quality Procedures (Academic, Examination, Library, Placement etc) with relevant formats and successfully put into practice.
- ✓ Acted as Institute level NBA (National Board of Accreditation) - Co-ordinator.

## References

**1. Dr.L.Karunamoorthy**

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Thanks for perusing my profile. I would appreciate if you could provide me an opportunity contributing towards organization growth.

  
*Dr.G.Prabhakaran*