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BIOSKETCH

Dr. M Parthiban is an Engineering & IT professional with a Ph.D. in Engineering and having 5 Years of cross-functional experience in SAP/Manufacturing and Automobile industries. Parthiban is currently working as a Research Coordinator in PSG Institute for Advanced Studies, Coimbatore. Parthiban has got more than 12 years of experience with Machine Tool and Automobile engineering industries in Design, Quality Control and performed as a Lead Assessor for ISO 9000 and in preparation of Quality System Procedures. He has worked in SAP as a Module Leader of MM & PP modules. He has got nearly 15 years of academic and research experience and has done his Ph.D. in micro machining and currently guiding in the area of Hard Metal Turning, Miro machining, IOT 4.0 and Lean Six Sigma. He has a sound experience Metrology Lab and measurement activities.

Educational Profile

- **Doctor of Philosophy (Ph.D.) in Engineering**
Year of Passing: 2019
Thesis title: Investigation of manufacturing Micro components using Wire Electric Discharge Grinding (WEDG) process in Hard Metals
Thesis Supervisor: Dr. V Krishnaraj
PSG College of Technology Production Department
- **Master of Engineering (M.E.) in Production**
Department of Production
PSG College of Technology Production Department
- **Post Graduate Diploma in Management**
IGNOU, New Delhi.
- **Post Graduate Diploma in Operations Management**
IGNOU, New Delhi.
- **Bachelor of Engineering (B.E.) in Mechanical**
Coimbatore Institute of Technology Mechanical Department
- **Diploma in Mechanical Engineering (D.M.E.)**
PSG Polytechnic College Mechanical Department

- Area of specialization:** Metrology, Micro machining, Non-traditional Machining, ERP
- Awards:** Best Senior Faculty for the year 2021-22 by Novel Research Academy, India.
- Laboratory:** Parthiban in In-charge of CMM Lab and doing the consultancy work for both Internal and External customers. He has also conducted more than 12 One- and Two-day workshops on “GD&T and CMM Applications” for Academia and Industry Personnel.

Positions Held

April 2026 - Present	Research Coordinator	PSG Institute of Advanced Studies
June 2025 - Mar 2026	Senior Grade Lecturer	PSG PTC
Jan 2011 - May 2025	Assistant Professor SG	PSG College of Technology
June 2005 – Dec 2010	Research Analyst	Context world, UK
Oct 2004 - May 2005	Database Analyst	Northwick Park Hospital, UK
Jan 2000 - Aug 2001	Assistant Manager	PRICOL Plant III
Mar 1988 - Dec 1999	Quality Assurance Engineer	LMW-MTD

Research Scholars (Ongoing)

- M Harinath
Research Topic: Manufacturing of micro components through WEDG process by adding suitable chemical solution (Tentative)
- D. J. Hiran Gabriel (Part Time)
Research Topic: Temperature based cutting fluid applicator (Tentative)
- S Monish Raja (Full Time)
Research Topic: Development of IoT based application for small scale Industries
- D Vaidhyaprasath (Part Time)
Research Topic: Experimental Investigation on process performance to improve quality for crushing and screening equipment’s Industry.

Funded Projects

Name of the Project	Sponsoring Agency	Duration	Amount Received (Rs. In lakhs)	Role
Manufacturing of micro components through Wire Electric Discharge Grinding (WEDG)	AR&DB	2 Years (2016-18)	15.82	PI

Manufacturing of micro components through WEDG process by adding suitable chemical solution	AR&DB	2 Years (2021-23)	21.52	PI
Development of SMA Couplers using Powder Fed Direct Laser Metal Deposition and Post-Processing in WEDP for Aerospace Pipe/ Tube Joint Applications	AR&DB	3 Years (2025-28)	79.83 (Approved waiting for Grant)	PI

Consultancy work carried out

Consultancy Job / Project	Organisation & Year	Team Members
Consultancy work (CMM)	M/s LMW - 2021	Dr.C.Shanmugam Dr.M.Kalayarasan
Consultancy work (CMM)	M/s S.K.S. Accessories - 2023	-
Consultancy work (CMM)	M/s Bright Burnishing - 2025	-
Students Project work (22 jobs from 2019-2025)	PSG TECH	-

Publications /STTP/ FDP Details

International journals	29		
National journals	5		
International conference	18		
National conference	7		
Book chapters	4		
Google scholar	Citations: 85	H-index : 5	I10-index : 2
Workshop organized	8		
Fdp / sttp	19		
Workshop attended	13		

Membership in professional bodies

Professional Body	Type of Membership
Member in Institution of Engineers of India	Life time
Indian Society of Systems for Science & Engineering	Life time

National Conferences

1. M. Parthiban, S. Aswin, [2012] **“Design and Fabrication of Rotary Axis for WEDM”** in Second National Conference on “Emerging Trends in CAD/CAM/CIM” conducted by PSG College of Technology, Coimbatore.
2. Parthiban M, Mohammad Aashiq M, Arun A.P, [2013] **“Investigation of process parameters for an injection molded component for warpage and shrinkage”** in Third National Conference on “Emerging Trends in CAD/CAM/CIM” conducted by PSG College of Technology, Coimbatore.
3. Parthiban M, Naveen Anthuvan R, Krishnaraj V, [2013] **“Analysis of Warpage for an Injection molded component using Numerical simulations”** in Third National Conference on “Emerging Trends in CAD/CAM/CIM” conducted by PSG College of Technology, Coimbatore.
4. Samsudeensadham S, Parthiban M, Krishnaraj V, Sindhumathi.R [2014],” **Machinability study on end milling of titanium alloy”** , Fourth National Conference on “Emerging Trends in CAD/CAM/CIM” conducted by PSG College of Technology, Coimbatore.
5. Parthiban M, Dhayanidhi K [2015] **“An Experimental Investigation on Wire Electric Discharge Grinding Process”** Second National Conference on “Energy Efficient Mechanical System Design and Manufacturing – EMSDM 2015” conducted by PSG College of Technology, Coimbatore.
6. M.Parthiban, Maneesha John [2016] **“Improvement of Productivity in Screw Banks Manufacturing Industry”** in Trends in Automotive Parts System and Applications – TAPSA2016 conducted by Sri Krishna College of Engineering & Technology, Coimbatore.
7. M.Parthiban, S. Shyam Sundar, S.S.Sibi Rajkumar, S. Ajay [2018] **“Study of material removal rate and diametrical accuracy of Tungsten Carbide in WEDG Process”** in the Third National Conference on Industrial Engineering and Technology Management [NCIETM-2918] held at NITIE, Mumbai.

International Conferences

1. M. Parthiban, V. Krishnaraj [2013] **“Investigation of Machining Parameters for Wire Electrical Discharge Grinding”** IN AMPC 2013, conducted by Anna University, Chennai, India.
2. T. Karthi, S.Syath Abuthakeer, M.Parthiban [2013] **“Lead Time Reduction through Lean thinking in a Manufacturing Organisation”** in INCAMA 2013, conducted by Kalasalingam University, Srivillipudur, India
3. M.Parthiban R.Naveen Anthuvan, V.Krishnaraj, [2013] **“Analysis of Warpage and Shrinkage for an Injection Molded Component using Flow Analysis Software”** in IConDM 2013, conducted by IIITDM, Kancheepuram.

4. M.Parthiban, V.Krishnaraj, R.Naveen Anthuvan [2014]” **Optimization of parameters for Diameter Accuracy in Wire Electric Discharge Grinding for Micro Machining of Tungsten Rods**” in IMEC 2014, organized by Department of Mechanical Engineering, NIT Trichy.
5. M.Parthiban, V.Krishnaraj, N.Balaj [2016] “**Manufacturing of Micro Electrodes through Wire Electric Discharge Grinding Process**” in PECDM [2016] organized by Department of Mechanical Engineering, PSGCT, Coimbatore’
6. Mr.P.Viswanathan, Dr. T Prabhu, Mr. M.Parthiban, Dr. R. Rudramoorthy, Kishan Kumar, S.Raghunath [2016] I ”**Investigation of the Performance Characteristics of A Wind Turbine Blade using Reverse Engineering**” in PECDM[2016]organized by Department of Mechanical Engineering, PSGCT, Coimbatore.
7. M.Parthiban & A.K.Ezhilan [2019] “**Implications of Industry 4.0 on ERP for an Automobile Industry**” in 1st International Conference on INDUSTRY 4.0 [ICI 4.0] organized by Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore.
8. M.Parthiban, Sourabh Thomson, M. Senthilnathan [2019] “**Applications of SAP-FIORI in a Manufacturing Industry**” in 1st International Conference on INDUSTRY 4.0 [ICI 4.0] organized by Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore.
9. M.Parthiban, K. Prakash, Daniel Prabhakaran [2019] “**Applications of SAP-LEONARDO in a Paint Industry**” in 1st International Conference on INDUSTRY 4.0 [ICI 4.0] organized by Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore.
10. M.Parthiban, Manikandan VV, Krishnaraj S [2019] “**Implications of Industry 4.0 on ERP for an Automobile Industry**” in 19th Global Conference on Flexible Systems Management [GLOGIFT-19] organized by Department of Management Studies, Indian Institute of Technology, Roorkee.
11. M.Parthiban, Praveen Kumar K, Suryaprakash.M [2019] “**Applications of SAP-FIORI in a Manufacturing Industry**” in 19th Global Conference on Flexible Systems Management [GLOGIFT-19] organized by Department of Management Studies, Indian Institute of Technology, Roorkee.
12. M.Parthiban, R V Rishi Revanth, U Karthick, D Karthick [2019] “**Applications of SAP-LEONARDO in a Paint Industry**” in 19th Global Conference on Flexible Systems Management [GLOGIFT-19] organized by Department of Management Studies, Indian Institute of Technology, Roorkee.
13. M.Parthiban & M. Harinath [2020] “**Analysis of Tool Wear in Micro Drilling using Response Surface Methodology**” in 1st International Conference on Materials, Design and Manufacturing for Sustainable Environment organized by Department of Mechanical Engineering, PSG Institute of Technology and Applied Research, Coimbatore.
14. M.Parthiban & P.Ramkumar [2020] “**Applications of discrete event simulation: A literature review**” in 1st International Conference on Advances in Engineering & Technology [ICAET] organized by Global Conference Hub, Coimbatore.

15. M.Parthiban, M.Harinath, M.Kirubakaran [2020] “**Measurement of Roundness on the Bearing by Varying Probe Length in CMM**” in Second International Conference on Recent Advances in Materials and Manufacturing [ICRAMM2020] organized by Velalar College of Engineering and Technology, Erode, Tamilnadu.
16. M.Parthiban, Nishant Kant [2021] “**Application of Statistical Process Control to Measure and Improve Performance Consistency in a Gear Manufacturing Industry**” in the virtual International Conference on Recent Advances in Manufacturing Engineering Research [ICRAMER2021] organized by Department of Mechanical Engineering, SRM Institute of Science Chengalpattu, Tamilnadu.
17. M.Parthiban, P.Ramkumar [2021] “**Productivity Improvement in an Auto Component Manufacturing Industry**” in the virtual International Conference on Recent Advances in Manufacturing Engineering Research [ICRAMER2021] organized by Department of Mechanical Engineering, SRM Institute of Science Chengalpattu, Tamilnadu.
18. M.Parthiban, M.Harinath [2021] “**Optimization of micro EDM drilling on Titanium alloy (Ti-6Al-4V) using RSM and Neural Network**” in the Second International Conference on Advances in Physical Sciences and Materials (ICAPSM 2021) held at Coimbatore, Tamil Nadu
19. M.Parthiban, S.Monish Raja [2023] “**Application of SAP-FIORI in Manufacturing Industry - A case study**” in the International Conference on Contemporary Research in Management [ICCRM2023] organized by PSG Institute of Management, Coimbatore, Tamilnadu

National Journal

1. V.Krishnaraj, M.Parthiban, R.Sindhumathi [2016]” **Study of Process Parameters on Wire Electric Discharge Grinding**” in the National Journal of Technology, Vol. 12 Issue 3, pp.50-55.
2. M.Parthiban, V.Krishnaraj, J.Kanchana, M. Kanthababu [2018]” **Optimization of material removal rate in wire electric discharge grinding for micro machining of tungsten rods**” in the Indian Journal of Engineering & Materials Sciences, Vol. 25, August 2018, pp.10-21.
3. M. Parthiban, Monish Raja S, and Hiran Gabriel DJ, [2021] “**Implications of industry 4.0 on ERP for automobile industry**”, Stochastic Modelling and Application, vol.25, pp. 1228-1233, ISSN: 0972-3641, UGC CARE APPROVED JOURNAL.
4. M. Parthiban, M. Harinath and Naveen Anthuvan, [2021] “**Multi-Response Optimization of Micro-EDM on Molybdenum material using TOPSIS**”, Stochastic Modelling and Application, vol.25, pp. 1234-1239, ISSN: 0972-3641, UGC CARE APPROVED JOURNAL.
5. M. Parthiban, Monish Raja S, and Hiran Gabriel DJ, [2021] “**Application of SAP FIORI IN Manufacturing Industry**”, Stochastic Modelling and Application, vol.25, pp. 1240-1248, ISSN:0972-3641, UGC CARE APPROVED JOURNAL.

Book Chapter

1. M. Parthiban & M.Harinath (2020), "**Wire Electric Discharge Grinding – A Future Technology for Micro Machining**" in Advanced Materials & Manufacturing, Evince pub Publications, and ISSN: 978-93-89988-70-3.
2. M.Parthiban, S.Monish Raja, V. Rishi Revanth & D. Karthick [2022] "Case Studies About SAP Leonardo in Paint Industry" in Flexibility, Innovation and Sustainable Business part of the Flexible Systems Management book Series [FLEXSYS] published by Springer Nature publication, ISBN: 978-981-19-1697-7; DOI: 10.1007/978-981-19-1697-7_15, pp.209 – 229.
3. M.Parthiban, D.J. Hiran , B. & B. Vaishnavi [2022] "An Experimental Comparison Study of Dry and Air-Cooled Turning of AISI 1040 Steel" in Advances in Forming, Machining and Automation book Series [LNME] published by Springer publication, ISBN: 978-981-19-3866-5; DOI: 10.1007/978-981-19-3866-5; pp189-196.
4. M.Parthiban, D.J. Hiran , B. & B. Vaishnavi [2022] "Optimization of Process Parameters for Improved Surface Finish in Heat Pipe-Assisted Turning of AISI 1040 Steel" in Advances in Forming, Machining and Automation book Series [LNME] published by Springer publication, ISBN: 978-981-19-3866-5; DOI: 10.1007/978-981-19-3866-5_31;pp 369-379.

International Journal

1. M.Parthiban, C.Manigandan, G. Muthu Venkadesh and M. Ranjith Kumar [2013] "**Development of Rotary Axis for Wire Electric Discharge Machine**" in International Journal for Engineering Research, Vol.2, Issue 3, pp.314-317.
2. Parthiban M Mohammad Aashiq. M, Arun A.P, [2013] "**Investigation of Process parameters for an Injection molding component for warpage and shrinkage**" in International Journal of Engineering Trends and Technology, Volume 4 Issue 4, pp.1237-1240.
3. Parthiban.M, Naveen Anthuvan [2013], "**Analysis of Warpage and Shrinkage for an Injection Molded Component Using Flow Analysis Software**", International Journal of Engineering & Technology Research, Vol. 1, Issue 2, pp17-29. Scopus Link: <https://scopendatabase.com/Documents/index/00000084/00000-66333>
5. M.Parthiban, V.Krishnaraj, Naveen Anthuvan, [2014]" **Optimization of parameters for diameter accuracy in wire electric discharge grinding for micro machining of tungsten rods**" in the International Journal of *Applied Mechanics and Materials Vols. 592-594 (2014) pp. 625-629 © (2014) Trans Tech Publications, Switzerland.*
6. M.Parthiban, Maneesha John [2016] "**Improvement of Productivity in Screw Banks Manufacturing Industry**" in International Journal of Innovative Research in Science, Engineering and Technology, *Volume 5, Special Issue 7.*
7. M.Parthiban, V.Krishnaraj, J.Kanchana, N.Balaj [2016] "**Manufacturing of Micro Electrodes and Micro Hole Drilling on Titanium Plate**" in *CIENCIA E TECNICA .VITIVINICOLA A SCIENCE AND TECHNOLOGY JOURNAL* In Vol. 31 (n. 3, 2016) pp.2151-166, Portugal.

8. M.Parthiban, H.Adarsh [2016] **“Lead Time Reduction of Inbound Logistics in a FMCG Company”** in Scholars Journal of Engineering and Technology (SJET) in Vol.4 Issue 10,pp.472-477
9. M.Parthiban, H.Adarsh [2017] **“Improving Efficiency in Garment Industry by Implementing Single Piece Line Production System”** in International Journal of Engineering Sciences & Management Volume 4, Issue 1, pp. 31-37
10. M.Parthiban, V.Krishnaraj, R. Sindhumathi ,J. Valentinçiç [2017] **“Investigation on Manufacturing of Micro Tools made of Tungsten Carbide using Wire Electric Discharge Grinding (WEDG)”** in Journal of the Brazilian Society of Mechanical Sciences and Engineering, Springer Link in Vol.4, pp. 1 -10.
11. M.Parthiban, V.Krishnaraj, S.Jothi [2017] **“Investigation of Machining Parameters for HSS in Wire Electrical Discharge Grinding”** in International Journal of Modern Studies in Mechanical Engineering (IJMSME) Volume 3, Issue 3, pp. 18-25
12. M.Parthiban, M. Perumalsamy, G.Arvinddinesh [2017] **“Manufacturing Lead Time Reduction in Monoblock (SWJ) Pump Industry”** in International Research Journal of Engineering and Technology (IRJET) Volume 4, Issue 2, pp. 1801-1807.
13. M.Parthiban, M. N.Tamilvanan [2018] **“ Development of an open source ERP (Enterprise resource planning) system for a Sales and Distribution industries”** in International Research Journal of Engineering and Technology (IRJET) Volume 5, Issue 2, pp. 855-856.
14. M.Parthiban, C.Madhan Kumar, A.Adiyaman [2018] **“Implementation of ERP in an Automobile Manufacturing Shop Floor”** in International Research Journal of Automotive Technology (IRJAT) Volume 1, issue 1, pp.21-28.
15. M.Parthiban, V.Krishnaraj, M.Senthilkumar [2018] **“Development of Numerical Model and Comparison with the Analytical Model for predicting the Wire Effects in Wire Electric Discharge Grinding”** in Journal of Mechanical Engineering, Strojnický Casopis, Volume 68, No.1, pp.69-80.
16. M.Parthiban, M. N.Tamilvanan [2018] **“Development of an open source ERP (Enterprise resource planning) system for an distributing industry”** in International Research Journal of Engineering and Technology (IRJET) Volume 5, Issue 8, pp. 164-166.
17. M.Parthiban, M., Santhoshkumar [2019] **“Design and Fabrication of Rotary Axis for WEDM (Wire electrical discharge grinding)”** Journal of Advancement in Machines, 3(3), pp.19–24.
18. V.Krishnaraj, M.Parthiban, R. Sindhumathi [2019] **“Experimental investigations on micro machining of high speed steel using WEDG”** in International Journal of Machining and Machinability of Materials (IJMMM), Vol. 21, No. 3
19. M.Parthiban, A. Prabhukarthi, R.Naveen Anthuvan [2019] **“Development of a Mechanistic Model for Wedm”** in International Journal of Modern Studies in Mechanical Engineering (IJMSME) Volume 5, Issue 3, pp. 1-9

20. M.Parthiban, M.Harinath [2019] **“Manufacturing of Brass and Copper Micro Electrodes by WEDG Process”** in IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) Volume 2, Issue 6 Ser. II, pp. 18-25
21. M.Parthiban, P.Ramkumar [2020] **“Applications of discrete event simulation: A literature review”** in International Research Journal on Advanced Science Hub, Vol.02, Issue 11, pp. 35-40
22. M.Parthiban & M. Harinath [2020] **“Analysis of Tool Wear in Micro Drilling using Response Surface Methodology”** in Springer ICMDMSE 2020, ISSN 2195-4356 ISSN 2195-4364 (electronic) Lecture Notes in Mechanical Engineering ISBN 978-981-15-9808-1 ISBN 978-981-15-9809-8 (eBook) <https://doi.org/10.1007/978-981-15-9809-8>, pp.301 – 315.
23. M.Parthiban, M.Harinath, M.Kirubakaran [2021] **“Measurement of Roundness on the Bearing by Varying Probe Length in CMM”** in Material Today Proceedings in Elsevier. Volume 42, Part 2, 2021, Pages 1393-1403. doi.org/10.1016/j.matpr.2021.01.146
24. R. Naveen Anthuvan, V. Krishnaraj, M. Parthiban [2021] **“Magnetic field-assisted electrical discharge machining of micro-holes on Ti-6Al-4V”** in Materials Today: Proceedings 39 (2021) in Elsevier, pp.1688-1694
25. Parthiban M., Harinath M. [2021] **Optimization of Parameters for Material Removal Rate and Surface Roughness in Wire Electric Discharge Grinding (WEDG) for Micro-machining of Cemented Carbide Rods.** In: Sustainable Machining Strategies for Better Performance. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-16-2278-6_14
26. Parthiban M., Harinath M. [2021] **“Optimization of micro-EDM drilling on titanium alloy (Ti-6AL-4V) using RSM and Neural Network”** in Journal of Physics Conference Series, IOP Science Publishing, Open Access, doi:10.1088/1742-6596/2070/1/012223.
27. Parthiban M, Hiran Gabriel [2022] **“Experimental Investigation on Heat Pipe-Assisted Cooling During Hard Turning of AISI 4340 using HSN2 Coated Inserts”** in PERIODICO di MINERALOGIA, : <https://doi.org/10.37896/pd91.4/91430>, Vol.91 No/4 pp.478-496
28. D. J. Hiran Gabriel, M. Parthiban, I. Kantharaj & N. Beemkumar (2023): **“A review on sustainable alternatives for conventional cutting fluid applications for improved machinability”** in Machining Science and Technology, DOI: 10.1080/10910344.2023.2194966
29. M. Parthiban, M. Harinath, Krishnaanth, Logesh & Mushtaq Ahmed [2024] **“Multi-Objective Parametric Optimization of Micro-Electro Discharge Machining of Hastelloy C276 Super Alloy Using Response Surface Methodology and Particle Swarm Optimization”** in Applied Mechanics and Materials, Trans Tech Publications, Switzerland, *ISSN: 1662-7482, Vol. 919, pp. 21-30 doi.: 10.4028/p-a7EIPi*
30. M. Parthiban and M. Harinath [2024] **“Experimental investigation on WEDG machining parameters for tungsten carbide”**, in Materials and Manufacturing Processes, Taylor & Francis Publications, <https://doi.org/10.1080/10426914.2024.2419110>, pp.1-10.