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## Present Position

Assistant Professor (SI Gr), Department of Production Technology, Madras Institute of Technology, Anna University, Chennai from December-2007.

## Present Additional Responsibility

- TIME TABLE - Dept Level Coordinator, Department of Production Technology, Anna University, Chennai.
- N B A - Dept Level Coordinator, Department of Production Technology, Anna University, Chennai.

## Previous Positions

- Assistant Professor, Department of Production Technology, Madras Institute of Technology, Anna University, Chennai from December-2007.

## Previous Additional Responsibility

- Class Advisor, Department of Production Technology, Anna University, Chennai during August-2016 and May-2020.
- Resident Counselor, Madras Institute of Technology, Anna University, Chennai during December-2007 and June-2008.
- Deputy Warden, MIT Hostels, Anna University, Chennai.

## Other Employment

- Senior Lecturer, CSI Polytechnic College for 2 yrs 6 Months.
- Lecturer, CSI Polytechnic college for 1 yr 1 month.

## Degree

- ❖ M.E. in MANUFACTURING ENGINEERING , FEAT, Annamalai University (2002 - 2004).

- ❖ B.E. in PRODUCTION ENGINEERING , Adhiyamaan College of Engineering, Periyar University (1999 - 2002).
- ❖ D.M.E. in MECHANICAL ENGINEERING , CSI Polytechnic, DOTE (1995 - 1998).

## Research Degree

- ❖ Ph.D. in Unconventional Machining from Faculty of Mechanical Engineering, College of Engineering Guindy, Anna University (2009 - 2017).  
Title: COMPARATIVE STUDY ON MACHINING OF TI ALLOYS IN CNC WEDM USING ONLINE LIQUID NITROGEN COOLING.

## Area of Specialisation

- > Unconventional Machining, Composite Materials, Metal Forming, Automobile

## Membership in Professional Organization

- > MISTE

## Research Guidance

Number of M.E./ M.Tech. Projects : 36  
Guided  
Number of M.E./ M.Tech. Projects : 4  
Guiding

## Papers Published in Journals

Research Papers Published in International Journals : 19  
Research Papers Published in National Journals : 0

1. C. Nandakumar, S. Prakash and B.Mohan, " Analysis and Optimization of Process Parameters for Titanium (Ti6Al4V) Using CNC WEDM", IEEE, published by IEEE. Vol. 2, pp. 1489-1492 (2013).
2. C Nandakumar, AR Viswanadhan, "Study of brass wire and cryogenic treated brass wire on titanium alloy using CNC WEDM", International Journal of Research in Engineering and Technology, Vol. 3, pp. 2319-1163 (2014).
3. C.Nandakumar S. Sridevi G. Muralidaran, " Online Inspection of Printed Circuit Board Using Machine Vision", International Journal of Innovative Research in Science, Engineering and Technology, published by IJRSET. Vol. 3, Issue 3, pp. 1343-1346 (2014).

4. C. Nandakumar K.S. Sreenivasan, " Study of Process Parameters in EDM using Grey Relational Analysis ", IOSR Journal of Mechanical and Civil Engineering, published by IOSR-JMCE. pp. 74-88 (2014).
5. C. Nandakumar K. Katheresan, " Fabrication and Testing of Hybrid /SiC/Flyash Using Powder Metallurgy Technique through Microwave Sintering ", IOSR Journal of Mechanical and Civil Engineering, pp. 54-65 (2014).
6. C. NANDAKUMAR, B. MOHAN, " Multi-Response Optimization of CNC WEDM Process Parameters for Machining Titanium alloy Ti 6Al-4V using Response Surface Methodology (RSM)", Applied Mechanics and Materials, published by Trans Tech Publications, Switzerland. Vol. 541, pp. 354-358 (2014).
7. C.Nandakumar B. Mohan S. Srisathirapathy, " Optimization of Process Parameters of Titanium alloy Grade 5 using CNC Wire-cut EDM", Advanced Materials Research, Vol. 984, pp. PP 56-61 (2014).
8. C. Nandakumar G. Muralidaran N.Tharani, " Real Time Vehicle Security System through Face Recognition", International Review of Applied Engineering Research, Vol. 4, pp. 371-378 (2014).
9. C. NANDAKUMAR, S. KARIKALAN AND B.MOHAN, " Effect of Material Removal Rate on Titanium in CNC WEDM using RSM", International Journal of Chemical and Pharmaceutical Sciences, published by JCHPS. Vol. 7, Issue 5, pp. 96-100 (2015).
10. C. NANDAKUMAR K. VICKRAM AND B.MOHAN, "Effect of Surface Roughness on Titanium in CNC WEDM using RSM", International Journal of Chemical and Pharmaceutical Sciences, published by JCHPS. Vol. 7, Issue 5, pp. 101 - 105 (2015).
11. C.Nandakumar B. Mohan, C. Senthilkumar and K. Vickram, "Modeling and Optimization of WEDM of Titanium", International Journal of Applied Mechanics and Materials, published by Trans Tech Publications Ltd. Vol. 766, pp. 873 - 877 (2015).
12. C Nandakumar, B Mohan, Midthur A Salman Khan, "Experimental investigation on machinability of Inconel 800 using CNC WEDM and modeling of process parameters", Journal of Advanced Microscopy Research, published by American Scientific Publishers. Vol. 13, Issue 2, pp. 160-165 (2018).
13. C Nandakumar, M Mohamed Sameer Midthur A Salman Khan, M Abdullah, " Optimization of CNC Wire-Cut EDM Parameters on Inconel 825 using Taguchi Method", International Innovative Research Journal of Engineering and Technology, published by Melange publications. Vol. 4, pp. 71-81 (2018).
14. C NANDAKUMAR, B MOHAN, "TITANIUM GRADE 2 MACHINING IN CNC WEDM USING BRASS AND ONLINE CRYOGENIC COOLED BRASS WIRE", Caribbean Journal of Science, Vol. 53, Issue 2, pp. 808-822 (2019).
15. C.Nandakumar C. Senthilkumar, V.Satheeshkumar, M.Seeman, "A Study on Electro chemical Drilling of EN38 steel using NaNO<sub>3</sub> electrolyte", published by Anuragam. Vol. 8, Issue 1, pp. 58-66 (2019).

16. C Nandakumar, S.Venkatsharma and, M.Velraj, " A STUDY ON EFFECT OF COMPACTION PRESSURE ON ALUMINIUM SILICON CARBIDE COMPOSITE THROUGH POWDER METALLURGY", published by Anuragam. Vol. 8, Issue 1, pp. 138-150 (2019).
17. C. NANDAKUMAR AND B.MOHAN, "INVESTIGATION OF SURFACE INTEGRITY ON TAPER CUTTING OPERATION USING WIRE ELECTRICAL DISCHARGE MACHINING", Caribbean Journal of Science, published by CJS. Vol. 53, Issue 2, pp. 791 - 807 (2019).
18. Nandakumar Chinnamuthu, Poonguzhali Boologarajan & Ashok Kannan, Saravanan Chidambaram Ganapathy, Vikneswaran Malaiperumal, Edwin Geo Varuvel, Vallinayagam Raman, " Computational analysis of turbulence enhancement in a compression ignition engine with modified inlet design", Environmental Science and Pollution Research, published by Springer. pp. 1-14 (2020).
19. C. Nandakumar, M. Thirunavukkarasu, Vallinayagam Raman, C.G. Saravanan, M. Vikneswaran, S. Prasanna Raj Yadav, " Effect of nozzle hole geometry on the operation of kapok biodiesel in a diesel engine", FUEL, published by Elsevier. Vol. 276, pp. 1-8 (2020).

## Papers Presented in Programmes

Research Papers Presented in International Programmes : 19  
Research Papers Presented in National Programmes : 9

1. C.Nandakumar and Ramanathan S , "Hot Deformation study on 2124 Al/SiC Composites" presented in a International level conference on All India Manufacturing Technology, Design and Research Conference, INDIA .
2. C. Nandakumar, M.D Antony Arul Prakash, B. Mohan, and A.V. Kotti Reddy, "Modeling and Development of Glass Fabric / Epoxy Honeycomb Sandwich Constructions" presented in a International level conference on Digital Factory, INDIA .
3. C. Nandakumar, S.Prakash, B.Mohan, "Analysis and Optimization of Process Parameters for Titanium (Ti6Al4V) using CNC WEDM" presented in a International level conference on Energy Efficient Technologies for Sustainability, INDIA .
4. C. Nandakumar, B.Mohan, "Optimization of Machining Parameters in Wire Cut Electrical Discharge Machining for Ti Alloys" presented in a International level conference on Engineering Materials and Processes, INDIA .
5. C. Nandakumar, B.Mohan, "Statistical Analysis of Wire Electric Discharge Machining of Titanium Alloy" presented in a International level conference on Engineering Materials and Processes, INDIA .
6. C.Nandakumar B. Mohan S. Srisathirapathy, "Optimization of Process Parameters of Titanium alloy Grade 5 using CNC Wire-cut EDM" presented in a International level conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments, INDIA .
7. C. Nandakumar, B.Mohan C.Senthilkumar R. Ranjith kumar, "Modeling and Optimization of WEDM of Titanium" presented in a International level conference on Modeling Optimization and Computing, INDIA .

8. C.Nandakumar S. Sridevi G. Muralidaran, "Online Inspection of Printed Circuit Board Using Machine Vision" presented in a International level conference on Innovations in Engineering and Technology, INDIA .
9. C. Nandakumar, B. Mohan, R. Sriguhan, "Analysis of Material removal rate on Titanium alloy in CNC-WEDM using RSM " presented in a International level conference on Advances in Mechanical Engineering, INDIA .
10. C. Nandakumar, B. Mohan, T. Aravind Muthu Suthan , "Effects of cryogenically treated brass wire on material removal rate of titanium alloy (ti-6al-4v) using cnc wedm" presented in a International level conference on Advances in Mechanical Engineering, INDIA .
11. C. Nandakumar, Midthur A Salman khan, B. Mohan, "Experimental investigation on machinability of inconel 800 using cnc wedm and modeling of process parameters" presented in a International level conference on Modern Innovations in Nano Technology - Science and Engineering of Materials, INDIA .
12. C. Nandakumar, Midthur A Salman khan, B. Mohan, "Comparison of Machinability of Titanium Grade5(Ti-6Al-4V) in CNC WEDM using Zinc Coated Brass and Online Cryogenic Cooled Zinc Coated Brass" presented in a International level conference on Nanoscience and Nanotechnology, INDIA .
13. C Nandakumar, B Mohan, R Senthil Kumar . Midthur A Salman Khan , "Multi-response optimization of inconel 825 process parameters using In2 cooled zinc coated brass wire in cnc wire-cut edm" presented in a International level conference on Mechanical Engineering Design, INDIA .
14. C. Nandakumar and Selvaraj, "Design and development mobile vehicle for in-service inspection " presented in a National level conference on Mechanical Engineering Research & Development, organised by NS College of Technology, Coimbatore, INDIA from 12-Mar-2009.
15. C. Nandakumar,, "Implementation of year round window Air conditioning system with filter blockage alarm system " presented in a National level conference on Recent Innovations in Production Engineering, organised by MIT, Anna University, INDIA from 16-Apr-2010 to 17-Apr-2010.
16. C. Nandakumar, R. Dhileepan Kumarasamy, "Determination of optimum process parameters in Wire Cut Electrical Discharge Machining for EN-24 Steel" presented in a National level conference on Recent Trends in Engineering Sciences, INDIA from 19-Mar-2011.
17. C. Nandakumar, E.Chola, P.Deepika, Mohit singh and Aravind Karthik, "Optimization of Machining Parameters in CNC Wire Cut EDM in EN-8 Steel to obtain fine surface finish" presented in a National level conference on Recent Trends in Engineering Sciences, INDIA from 19-Mar-2011.
18. C. Nandakumar, "Fine Surface Finish by Optimization of Process Parameters in CNC Wire Cut EDM " presented in a National level conference on Recent Trends in Mechanical Engineering , INDIA from 23-Mar-2011.
19. C. Nandakumar,, "Optimization of Machining Parameters in Wire Cut EDM for EN24 Steel" presented in a National level conference on Recent Trends in Mechanical Engineering , INDIA from 23-Mar-2011.

20. C. Nandakumar, B.Mohan, "Fine Surface Finish by Optimization of Process Parameters in Wire Cut EDM (CNC)" presented in a National level conference on Emerging Trends in Mechanical Engineering, INDIA from 06-Aug-2011.
21. C. Nandakumar, Dowlath Basha, "Performance Analysis of Disc Brake System for a LCV" presented in a National level conference on Advances in Mechanical Sciences , INDIA from 02-Mar-2013.
22. C. Nandakumar, B.Mohan, "Multi-Response Optimization of CNC WEDM Process Parameters for Machining Titanium alloy Ti 6Al-4V using Response Surface Methodology (RSM)" presented in a International level conference on Materials, Mechatronics and Automation, SINGAPORE from 19-Feb-2014 to 20-Feb-2014.
23. C. NANDAKUMAR, "An Experimental investigation on Optimizing the Process Parameters of CNC Wire EDM of Titanium Alloy" presented in a National level conference on Advancement in Mechanical, Environment, Safety and Health Engineering, organised by Knowledge institute of Technology, Salem, INDIA from 03-May-2014.
24. C. NANDAKUMAR, "Remotely Operated Vehicle for Dredimentation in Water Tank" presented in a International level conference on Automation, Robotics and Mechatronics, organised by SRM University , INDIA from 05-May-2017 to 06-May-2017.
25. C Nandakumar, M.Velraj S.Venkatsharma , "A study on effect of compaction pressure on Aluminium Silicon Carbide composite through powder metallurgy" presented in a International level conference on Multidisciplinary Conference on Arts, Social Science, Management and Technology, organised by University of Malaya, MALAYSIA from 08-Sep-2019 to 11-Sep-2019.
26. C.Nandakumar C. Senthilkumar, V.Satheeshkumar, M.Seeman, "A Study on Electro chemical Drilling of EN38 steel using NaNO<sub>3</sub> electrolyte" presented in a International level conference on Multidisciplinary Conference on Arts, Social Science, Management and Technology, organised by University of Malaya, MALAYSIA from 08-Sep-2019 to 11-Sep-2019.
27. C.Nandakumar, V.Siva, K.G.Jai Prashanth, "Effect of process parameter on the performance measure of wire cut EDM on inconel 617" presented in a International level conference on Recent trends in science, Engineering and Managements, INDIA from 14-Aug-2020 to 14-Aug-2020.
28. C.Nandakumar, K.G.Jai Prashanth, V.Siva, "Optimization of the machining parameters of inconel 601 using electrochemical micro-machining" presented in a International level conference on Recent trends in science, Engineering and Managements, INDIA from 14-Aug-2020 to 14-Aug-2020.

## Books Published

1. "Advanced Manufacturing Processes" authored by C. NANDAKUMAR and published by Vijaya Publishers, SALEM.(2008)

## Sponsored Projects Completed

1. "Thrust Assisted Electric Charge Generation", funded by CTDT (June-2009 - December-2009). Project Cost: 25000.00.
2. "Design and Fabrication of Squeeze Casting Setup", funded by CTDT (June-2011 - December-2011). Project Cost: 50000.00.
3. "GSM Operated Auto-Feed Rice Maker", funded by CTDT (June-2013 - December-2013). Project Cost: 25000.00.
4. "Design and fabrication of Piezo-Electric foot steps", funded by CTDT.. Project Cost: 25000.00.
5. "Navigation Assistance and obstacle detection for visually impaired people using image processing and android application", funded by CTDT.. Project Cost: 25000.00.
6. "Design and fabrication of 3L Configured Automated CNC Spot Welding Machine", funded by CTDT.. Project Cost: 25000.00.
7. "Automatic cancellation of direction indicators in two wheelers", funded by CTDT.. Project Cost: 25000.00.
8. "Design and fabrication of prototype spiral escalator", funded by CTDT.. Project Cost: 25000.00.
9. "Automatic turning ON and OFF of two wheeler indicator using magnetic compass", funded by CTDT.. Project Cost: 25000.00.

### Programme Chaired

1. Co Chairman, National level conference titled "National conference on Automation, Robotics and Mechatronic System" conducted by MIT Campus, Anna University - Chennai from 25-Mar-2016 to 26-Mar-2016.

### Programme Attended

1. Attended a National level Short Course on "Training Program on Recent Advances in Unmanned Air Vehicles 2008" organized by MIT Campus, Anna University - Chennai, INDIA from 22-Sep-2008 to 25-Sep-2008.
2. Participated in a National level workshop on "Recent Trends In Plastics Engineering & Technology" organized by MIT Campus, Anna University - Chennai, INDIA from 06-Jan-2011 to 07-Jan-2011.
3. Attended a National level Short Course on "Research Methodology" organized by MIT Campus, Anna University - Chennai, INDIA from 07-Mar-2013 to 07-Mar-2013.
4. Participated in a National level workshop on "Recent Advances in Characterization of Aerospace Materials Through Impact Testing" organized by Centre of Aerospace Research, MIT Campus, Anna University - Chennai, INDIA from 22-Mar-2013 to 23-Mar-2013.

5. Participated in a International level conference on "Innovation Trends in Mechanical, Material, Manufacturing, Automotive, Automobile and Aeronautical Engineering" organized by Jawaharlal Nehru University, New Delhi, INDIA from 15-Feb-2014 to 16-Feb-2014.
6. Participated in a National level workshop on "Green Manufacturing Concepts" organized by MIT CAMPUS, ANNA UNIVERSITY - CHENNAI, INDIA from 16-Feb-2015 to 17-Feb-2015.
7. Participated in a National level workshop on "Emerging Trends in Mechatronic Systems" organized by MIT Campus, Anna University - Chennai, INDIA from 06-Mar-2015 to 07-Mar-2015.
8. Participated in a National level workshop on "RECENT TRENDS IN AWJM" organized by MIT CAMPUS, ANNA UNIVERSITY - CHENNAI, INDIA from 19-Feb-2016.
9. Attended a National level Short Course on "Faculty Development Program on Student Evaluation and Question Paper Setting" organized by MIT Campus, Anna University - Chennai, INDIA from 13-Oct-2016 to 15-Oct-2016.
10. Participated in a International level conference on "Recent Innovations in Production Engineering" organized by MIT Campus, Anna University - Chennai, INDIA from 24-Mar-2017 to 25-Mar-2017.
11. Participated in a National level workshop on "MAKE IN INDIA - TRANSFORMANCE RESEARCH TO REALITY" organized by ANNA UNIVERSITY CHENNAI, INDIA from 05-Sep-2017.

## Experience Abroad

1. Singapore from 19-Feb-2014 to 20-Feb-2014. Purpose of visit :International Conference .
2. Visited University of Malaya , Malaysia from 08-Sep-2019 to 11-Sep-2019. Purpose of visit :International Conference.

## Invited Lectures

1. Delivered a Lecture on "Design of Jigs, Fixtures and Press Tools" in Faculty Development Training Programe organized by Anna University chennai, MIT Campus.
2. Delivered a Lecture on "Unconventional Machining Processes" in Faculty Development Training Programe organized by Anna University chennai, MIT Campus.