

## Resume

**Name** : Dr. K. Kalaichelvan  
**Designation** : Professor  
**Date of Birth** : 30/03/1967  
**Permanent Contact Address** : 5, B.K. Maistry Street,  
West saidapet,  
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### Academic Qualification:

Course	Educational Institution	Class	Year of Passing
Ph. D	Anna University	-	2006
M. E (Production Engg)	Annamalai University	First Class	1992
B.E (Mechanical Engg)	Government college of Engineering , Salem, University of Madras.	First Class	1988

**Title of PhD Thesis:** Experimental and Theoretical Modelling Studies on Superplastic Forming of Eutectic Pb-Sn Alloy sheets

### Areas of Interest/Research:

- Ceramic - Metal Joining
- Composites
- Superplastic Forming

### Academic Experience:

S.No.	Designation	Institution / University	Duration
1.	Professor	Department of Ceramic Technology, A.C.College of Technology, Anna University, Chennai – 600 025	26.11.2014 to Till Date
2.	Professor	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	20.04.2013 to 25.11.2014

3.	Associate Professor	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	08.10.2009 to 19.04.2013
4	Assistant Professor	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	20-04-2007 to 7-10-2009
5	Lecturer (SR Scale)	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	1-01-2006 to 19-04-2007
6	Lecturer (Senior Scale)	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	20-04-2003 to 31-12-2005
7	lecturer	Department of Production Technology, Madras Institute of Technology, Anna University, Chennai – 600 044	20-04-1998 to 19-04-2003
8	lecturer	Department of Mechanical Engg., PSNA college of Engineering and Technology, Dindigul - 624622	01-09-1992 to 17-04-1998

**Sponsored Research Projects:**

<b>Funding Agency</b>	<b>Title of the Project</b>	<b>Amount</b>	<b>Ongoing/ Completed</b>
AICTE-TAPTEC	Development of Super plastic forming Facilities	5 Lakhs	Completed 2001-04
AR & DB (SP/01/06 dt 1.03.2006)	Design and Development of Loom for 3D Spacer Fabric	1.6 lakhs	Completed 2006-2008
AICTE (F No.8-23/BOR/RID/RPS-92/2009-10 dt March 31,2010)	Development of Ultrasonic cavitations method and computer controlled stir casting arrangement in Production of Metal Matrix Composites	5 Lakhs	Completed 2009-11
ARDB project (ARDB/01/203183 0/M dt 12.01.2017)	Development and formability studies on Hybrid metallic sandwich composites for thermal protection in Hypersonic Aircraft skin	23.1 lakhs	completed 2017- 2020

TamilNadu Innovation Initiatives (GO(2D) No.33 dt 23.12.2020)	Development of Semi and Fully Automated Intelligent Exo-Skeletal and Prosthetics for Disabled Communities (joint Project)	1782.42 Lakhs	ongoing
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### Sponsored Funded Projects

Funding Agency	Thrust Area	Sanctioned Amount	Ongoing/Completed
DST-FIST (SR/FST/ETI- 287/2011(c) dt 02.03.2012)	Advanced Manufacturing Process	Rs.108 Lakhs	Completed (2011-2016)
UGC - Special Assistance Programme -II (F.3-26/2012 dt 2.10.2012)	Modern Manufacturing Process,Nano Composites, Robotics and Auotmation	Rs. 60 Lakhs	COMPLETED (2012-2017)
DST-FIST (SR/FST/ETI- 393/2015(c) dt. 13.06.2016)	Nano Indentation and Surface Analysis	Rs.84 Lakhs	Completed (2016-2021)

### LIST OF PUBLICATIONS

#### International / National Journals

1. **Kalaichelvan K.**, Sivaramakrishnan R and Murugaraj K and Joseph Stanley A., ‘Effect of Heat Treatment on Forming Limit Strains in Aluminum alloy sheets’, Manufacturing Technology Today, Vol.3 No.8, pp.3-5. (2002)
2. Vivekdev M, Sivaramakrishnan R, **Kalaichelvan K** and Dhanraj R, “Modelling, Simulation and Analysis of Angular Drilling Machine Using Parallel Manipulator Mechanism”, Journal of Manufacturing Technology Today, Oct, pp. 3 – 9. (2004)
3. **Kalaichelvan K.**, Sivaramakrishnan R., Ramasamy P., Joseph Stanley A. and Venkatasamy S., ‘Experimental Analysis if Macro-Micro Superplastic Forming on Pb-Sn Eutectic Alloy sheets’, Journal of The Institution of Engineers (India), Vol.85, pp. 13-16. (2004)
4. **Kalaichelvan K.**, Sivaramakrishnan R., Saravanakumar V.P., Joseph Stanley A. and Venkataswamy S., ‘Effect of Rheocast and Thixocast characteristics of Eutectic Lead-Tin alloy sheet on deep drawing’, Journal of Material Processing Technology, Vol.153-154, pp.637-642.(**Impact Factor 2.176**) (2004)
5. **Kalaichelvan K.**, Sivaramakrishnan R., Dinakaran D. and Joseph Stanley A., ‘Cavity minimization and Uniformity studies on Superplastic forming of thin eutectic Pb-Sn sheet by

- optimum loading and preforming', Journal of Material Processing Technology, Vol. 162-163, pp. 519-523.(**impact factor 2.176**) (2005)
6. Dhandapani C., Sivaramakrishnan R., and **Kalaichelvan K.**, 'Modelling, Simulation and Analysis of Three Degrees of Freedom triglide Parallel Manipulator', National Journal of Manufacturing Technology Today, Vol 3, pp 3-8(2008)
  7. Senthil Kumar K.L., Sivasubramanian R. and **Kalaiselvan K.**, "Selection of Optimum Parameters in Non Conventional Machining of Metal Matrix Composite", Internation Journal of Portugaliae Electrochimica Acta, vol. 27, issue 4, pp. 477- 486. (2009)
  8. Jayaseelan V.,**Kalaichelvan K.**, Sivaramakrishnan R. and Arun Kumar T., "Effect of Heat Treatment on Friction Factor in Micro Extrusion Process", An International Journal of Material Sciences, Vol. 6, No.2 , pp 321-326. (2009)
  9. Jayaseelan V.,**Kalaichelvan K.**, Kannan M., and Vijay Ananth S., "Extrusion Characteristics of Al/SiC by different Manufacturing Process", International Journal of Applied Engineering Research, Vol.1, pp. 194-199. (2010)
  10. Selvakumar A.S.,**Kalaichelvan K.**, Venkataswamy S. and Natarajan S., 'Evaluation of Formability of Tubular material by hydroforming technique', National Journal of Manufacturing Technology Today, Vol. 9, No. 5, pp. 3-6. (2010)
  11. Arockia Selvakumar A., Sivaramakrishnan R. and **Kalaichelvan K.**, 'Modelling And Simulation of 3-DOF UPS Tripod Parallel Manipulator using ADAMS', Journal on Future Engineering and Technology, Vol. 5, No. 4, pp. 41-46. (2010)
  12. Arockia Selvakumar A., Sivaramakrishnan R. and **Kalaichelvan K.**, 'Forward Kinematics and Dimensional Synthesis of Tripod and Triglide Parallel Manipulator', Technical Journals online.com(2010)
  13. Mohamed Bak K and **Kalaichelvan K.**, 'Finite element analysis of Hybrid Composite Joints', i-Managers Journal on Future Engineering and Technology, Vol. 6, No.2 , pp 50-54 (2011)
  14. Kumaresan G., **Kalaichelvan K.** and Kathiresan G., 'Enhancement of the Uniformity in the thickness Distribution of Superplastic Forming Process', International journal of Applied Engineering Research, ISSN 0973-4562, Vol. 6, No.5, pp. 899 - 906. (2011)
  15. Jayaseelan V., **Kalaichelvan K.**, Anandan R., Rajadurai A., 'Size Effects in Forward Extrusion Process', International journal of Applied Engineering Research, ISSN 0973-4562, Vol. 6, No.5, pp.907 – 912. (2011)
  16. S.Gopalakannan, T. Senthilvelan and **K.Kalaichelvan**, , ' Modeling and optimization of EDM of Al 7075/10 wt % Al<sub>2</sub>O<sub>3</sub> Metal matrix Composities by Response Surface Method' Advanced Materials Research, Vols. 488 – 489.pp. 856 – 860(2012)

17. K. Mohammed Bak, K. Prasanna Venkatesan and **K Kalaichelvan** "Parametric study on Bonded,Riveted and Hybrid Composite joints using FEA", Journal of Applied Sciences ,vol 10.3923,pp 1-5 (2012)
18. Arockia Selvakumar A., Karthik K.,Nareshkumar A.L. Sivaramakrishnan R. and **Kalaichelvan K.**, ' Kinematic and Singularity analysis of 3PRR Parallel Manipulator',International journal of Advanced Materials Research, Vol. 403 – 408, pp 5015 – 5021. (2012)
19. Sai Balaji M.A. and **Kalaichelvan K.**,"Optimisation of organic Fibers%(Kevlar/Arocel/Acrylic Fibers) in NA Brake pad application and its effect on thermal stability and Friction Characteristics" Key Engineering Materials, Vol.531-532,pp8-12,2013. (2012)
20. Vijay ananth S.,Kumaresan M. and **Kalaichelvan K.**, "Effect of temperature in Superplastic forming in Al6063/SiCp composites", International journal of Advanced Materials Research, Vol. 538 – 541, pp 1111 – 1114. (2012)
21. Gopalakannan S., Senthilvelan T., **Kalaichelvan K.** , " Modeling and Optimization of EDM Process Parameters on Machining of Al 7075/SiC Metal Matrix Composite by Applying Response Surface Method", International journal of Mechanical Engineering, Vol. 63, No. 1, pp. 37-51. (2012)
22. V.Jayaseelan, **K.Kalaichelvan** and A.Rajadurai, "Theoretical model and experimental determination of friction on extrusion process" International review of mechanical engineering, Vol 6, pp 1198-1201. (2012)
23. V.Jayaseelan, **K.Kalaichelvan**," Influence of Area Reduction on Friction by Extrusion Process" International Journal of Current Research, Vol. 4, pp095-098. (2012)
24. N.Senthilkumar, **K.Kalaichelvan** and K.Elangovan, "Mechanical behavior of aluminium particulate epoxy composite- Experimental study and numerical simulation" International journal of mechanical and materials engineering, Vol 7, No.3, pp 214-221.(**impact Factor 0.269**) (2012)
25. G. Kumaresan, **K.Kalaichelvan**,"investigation of post – superplastic forming mechanical properties of Al-7075 alloy sheet" European journal of scientific research, Vol 83, No. 3 pp 364-369.( **Impact Factor 0.74**) (2012)
26. G. Kumaresan, **K.Kalaichelvan**,"finite element simulation and experimental evaluation on superplastic forming process of Aluminium alloy sheet" International review of mechanical engineering, Vol 6, No. 5 pp 1970-8734. (2012)
27. G.Kumaresan, and K.Kalaichelvan, "Experimental Investigation on the formability of 7075 al-alloy sheet in superplastic forming technique" Advanced Materials Research, Vols. 622-623, pp 442-446. (2013)
28. V.Jayaseelan and **K.Kalaichelvan**, " Influence of friction factor on extrusion process" Advanced Materials Research vols. 622-623, pp 457-460. (2013)

29. Balaji MA, **Kalaichelvan K**, "Experimental studies of various reinforcing fibres in Automotive disc brake pad on friction stability, Thermal stability and wear", International Journal of Materials and Product", Vo;45(1),132-144, ( **Impact Factor 0.32**) (2013)
30. Mohamed Bak, **Kalaichelvan.K** " Fatigue damage mechanisms in Fiber reinforced Al<sub>2</sub>O<sub>3</sub> particle hybrid composite laminate" Springer proceedings, Lecture Notes on Mechanical Engineering,INCOST, (2012).
31. Balaji MA, **Kalaichelvan K**, "Tribological Performance of a Non Asbestos Organic Brake Pad Using Various Organic and Mineral fibers", Advanced Materials Reaseach, " ,Vol 585, pp. 559-563(2013)
32. Poovazhagan L.,**Kalaichelvan K** and Rajadurai A., "Preparation of SiC nanoparticulates Reinforced Aluminum Matrix NanoComposites by high intensity Ultrasonic Cavitation process", Transaction of Indian Inst. Met (Springer).(**Impact Factor : 0.215**) (2013)
33. Balaji MA, **Kalaichelvan K** , Sreenivasan M., Thiyagarajan V., , " Alteration of Molecular Weight in the resin Matrix in relation to Fade and wear in a semi-Metallic Brake pad",Advanced Science Letters, Vol 13(1), pp. 525 – 533.(**Impact Factor 1.253**) (2013)
34. Mohamed Bak, **Kalaichelvan.K and** Arumugam V "A novel approach for classification of failure modes on single lap joints in basalt laminate" Journal of Composite Materials,(**impact Factor 1.03**) (2013)
35. K Mohamed Bak, **K.Kalaichelvan**, G K Vijayaraghavan, M Dinesh and V Arumugam "Study on the effect of adhesive thickness of single lap joints using acoustic emission and FEA" Journal of INSIGHT,The British Institute of Non- Destructive testing, Vol 55 No1., pp 1-5.(**Impact Factor 0.431**) (2013)
36. K Mohamed Bak, **K KalaiChelvan**, GK Vijayaraghavan, and BTN Sridhar "Acoustic emission wavelet transform on adhesively bonded single-lap joints of composite laminate during tensile test", Journal of Reinforced Plastics and Composites Vol 32, pp.87-95.(**Impact Factor 0.902**) (2013)
37. MAS Balaji, **K Kalaichelvan**, S Mohanamurugan "Effect of varying cashew dust and resin on friction material formulation: stability and sensitivity of  $\mu$  to pressure, speed and temperature", International Journal of Surface Science and Engineering 8 (4), 327-344 (2014)
38. TT Koilraj, **K Kalaichelvan**, "Experimental Study on Mechanical Properties of PA66 Blended with MWNTs" Applied Mechanics and Materials 766, 383-388 (2014)
39. L Poovazhagan, **K Kalaichelvan**, VR Balaji, P Ganesh, AK Avudaiappan, "Development of AA6061/SiCp Metal Matrix Composites by Conventional Stir Casting and Ultrasonic Assisted Casting Routes–A Comparative Study", Advanced Materials Research 984, 384-389 (2014)
40. G Kumaresan, **K Kalaichelvan**, "Experimental Studies of a Rectangular Cup Formation of Al 7075 Alloy in Superplastic Forming Process",Procedia Materials Science 6, 892-896 (2014)
41. V Jayaseelan, K Kalaichelvan,"Lubrication effect on friction factor of AA6063 in forward extrusion process" Procedia Engineering 97, 166-171. (2014)

42. Kumaresan G. , **Kalaichelvan K.**, “Multidome forming test for determining the strain rate sensitivity index of a superplastic 7075 Al alloy ”, International Journal of Alloys and Compounds, Vol. 583, pp.226-230.( **Impact factor 2.39**) (2014)
43. Kumaresan G. , **Kalaichelvan K.**, “Experimental investigation on the rectangular cup formability of Al-alloy sheet superplastic forming technique”, Journal of scientific & industrial Research, Vol. 73, pp.46-50. ( **Impact factor 0.505**) .(2014)
44. L Poovazhagan, **K Kalaichelvan**, VR Balaji, P Haripriya, SC Amith, " Upshot of Ultrasonic Amplitude on Developing the AA6061/SiC Metal Matrix Nanocomposites", Applied Mechanics and Materials 787, 558-562. (2015)
45. Mohammed Bak K., **Kalaichelvan K.**, Jothilingam A. and RajendraBoopathy S., “Acoustic emission Characterisation of failure modes of single-lap joints in Glass/Epoxy specimens”, Journal of Composite materials, DOI: 10.1177/0021998315569749, Vol.O(0), pp.1-21.(**Impact factor 1.03**) (2015)
46. Thomas Koilraj T. and **Kalaichelvan K.**,”Hybrid Nanocomposites – A review”, Journal of applied mechanics and Materials, Vol.766-767, pp. 50-56. (2015)
47. Thomas Koilraj T. and **Kalaichelvan K.**,”Experimental study on Mechanical Properties of PA66 blended with MWNTs”, Journal of applied mechanics and Materials, Vol.766-767, pp. 383-388. (2015)
48. Geethapriyan T , **Kalaichelvan K.**, Rajadurai A. and Muthurmalingam T.,”A review on Investigating the effects of Process Parameters in Electrochemical Machining”, International Journal of Applied Engineering Research”ISSN 0973- 4562, Vol. 10 ,pp. 1743 – 1748 (2015)
49. **K Kalaichelvan**,HYBRID NANOCOMPOSITES- A REVIEW, Applied Mechanics & Materials (2015)
50. KM Bak, **K Kalaichelvan**, "Evaluation of Failure Modes of Pure Resin and Single Layer of Adhesively Bonded Lap Joints Using Acoustic Emission Data" Transactions of the Indian Institute of Metals 68 (1), 73-82 (2015)
51. M Kannan, **K Kalaichelvan**, T Sornakumar, "Development and mechanical testing of filament wound FRP composite components", Applied Mechanics and Materials 787, 578-582( 2015)
52. G Kumaresan, **K Kalaichelvan**, "An Analysis of Superplastic Forming in a Re-Entrant Shape" Materials Science Forum 838, 540(2016)
53. KM Bak, **K Kalaichelvan**, "Fabrication and Testing of Hybrid Composite plates for Stealth Aircraft using Microwave Oscillator", Invertis Journal of Science & Technology 9 (2), 112-117. (2016)

54. T Geethapriyan, **K Kalaichelvan**, "Experimental Investigation of Electrochemical Micromachining Process Parameters on Pure-Titanium Using Taguchi-Grey Relational Analysis", *Applied Mechanics and Materials* 852, 198-204 (2016)
55. V Thiyagarajan, **K Kalaichelvan**, R Vijay, DL Singaravelu, "Influence of thermal conductivity and thermal stability on the fade and recovery characteristics of non-asbestos semi-metallic disc brake pad", *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 38. (2016)
56. T Geethapriyan, **K Kalaichelvan**, T Muthuramalingam, "Multi performance optimization of electrochemical micro-machining process surface related parameters on machining Inconel 718 using Taguchi-grey relational analysis", *METALLURGIA ITALIANA*, 13-19 (2016)
57. MRP Kumar, K Prakasan, **K Kalaichelvan**, "Experimental investigation and multiphysics simulation on the influence of micro tools with various end profiles on diametrical overcut of holes machined using electrochemical micromachining for a predetermined optimum combination of process parameters", *Russian Journal of Electrochemistry* 52 (10), 943-954 (2016)
58. T Geethapriyan, **K Kalaichelvan**, T Muthuramalingam, A Rajadurai, "Performance analysis of process parameters on machining  $\alpha$ - $\beta$  titanium alloy in electrochemical micromachining process", *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 0954405416673103. (2016)
59. T Geethapriyan, **K Kalaichelvan**, T Muthuramalingam, "Influence of Coated Tool Electrode on Drilling Inconel Alloy 718 in Electrochemical Micro Machining", *Procedia CIRP* 46, 127-130 (2016)
60. JS Kumar, **K Kalaichelvan**, "Taguchi-Grey Multi-Response Optimization on Structural Parameters of Honeycomb Core Sandwich Structure for Low Velocity Impact Test", *Silicon*, 1-11 (2017)
61. G Kumaresan, **K Kalaichelvan** "Formability Analysis on Superplastic Forming of AZ91 Magnesium Alloy Sheet" *Defect and Diffusion Forum* 385, 437- 442 (2018)
62. **K Kalaichelvan** "Analysis of 3-Point Bending Characteristics of AA6061 Miniature Specimens" (2018)
63. S Jesudass Thomas, **K Kalaichelvan** "Comparative study of the effect of surface texturing on cutting tool in dry cutting" *Materials and Manufacturing Processes* 33 (6), 683-694 (2018)
64. JS Kumar, **K Kalaichelvan** "Taguchi-grey multi-response optimization on structural parameters of honeycomb core sandwich structure for low velocity impact test" *Silicon* 10 (3), 879-889 (2018)



65. T Geethapriyan, **K Kalaichelvan**, T Muthuramalingam, A Rajadurai “Performance analysis of process parameters on machining  $\alpha$ - $\beta$  titanium alloy in electrochemical micromachining process” Proceedings of the Institution of Mechanical Engineers, Part B: Journal of ... (2018)
66. K Murugesan, **K Kalaichelvan**, MP Jenarathanan, T Sornakumar “Enhancement of vibration characteristics in filament wound FRP composite shafts using nitinol wires” Pigment & Resin Technology (2018)
67. S Soundararaj, T Christopher, **K Kalaichelvan** “Process Parameter Correlation in Low Pressure Hydro Forming of 6063-O Aluminium Tubes” Mechanics 25 (1), 64-72 (2019)
68. T Geethapriyan, T Muthuramalingam, **K Kalaichelvan** “Influence of Process Parameters on Machinability of Inconel 718 by Electrochemical Micromachining Process using TOPSIS Technique” Arabian Journal for Science and Engineering 44 (9), 7945-7955 (2019)
69. K. G. Ashok, **K. Kalaichelvan** & Ajith Damodaran “Effect of Nano Fillers on Mechanical Properties of Luffa Fiber Epoxy Composites” Journal of Natural Fibers, 1-18 (2020)
70. K.G.Ahok and **Kalaichelvan K.**, “Mechanical, ballistic impact, and water absorption behavior of luffa/graphene reinforced epoxy composites”, Journal Polymer Composites, Vol.41(21), 4716-4726 (2020)
71. K.G.Ashok, **K.Kalaichelvan**, V.Elango, AjithDamodaran, B.Gopinath, M.Raju “Mechanical and morphological properties of luffa/carbon fiber reinforced hybrid composites” Materials today: Proceedings Volume 33, Part 1, pp 637-641 (2020)

**Publication Details: (Provide only the count)**

Category	Conferences	Journals
National	55	07
International	20	64

**Ph D / MS / M Tech / B. Tech Guidance**

Ph. D Supervisor Registration Number: 8620151

Category	Completed	Ongoing
<b>Ph. D</b>	10	06
<b>M. S (By Research)</b>	nil	

S.No	Title	Scholar Name	Completed Year / Ongoing
1	Experimental and Theoretical Studies on Tube Formability Characteristics Using Hydroforming Process	Selvakumar A.S.	2012

2	Experimental and FE Simulation Studies of Superplastic Forming of Al 7075 Alloy	Kumaresan G	2013
3	Theoretical and Experimental Studies on Evaluation of Friction Factor in Extrusion Process of AA6063 and AA6063/SiCp Composites	Jayaseelan V	2013
4	Experimental and Simulation Analysis of Superplastic Forming of Al6063/SiCp Composites	Vijay Ananth S.	2013
5	Development and Characterisation of Aluminum Alloy 6061 Based Metal Matrix Nano Composites	Poovazhagan L.	2014
6	Acoustic Emission Characterisation of Failure Modes on Single and Double Lap Joints of FRP under Tensile Loading	Mohamed Bak K	2014
7	Effect of Organic Ingredients in a Non Asbestos Disc Brake Pad in relation to Fade and Wear	Sai Balaji M.A.	2014
8	Experimental Parametric Analysis on Al-6061 Honeycomb Core Sandwich Structure under Flexural and Low Velocity Impact Test	Suresh Kumar J	2018
9	Influence of Coated Tool Electrode in Electrochemical Micromachining on Inconel 718 alloy	Geethapriyan T.	2019
10	Experimental Investigation on Polymer Matrix Composite shaft Embedded with shape Memory Alloy	Kannan M.	2019

### **M Tech / B. Tech Guidance**

Category	Completed	Ongoing
<b>M. Tech</b>	65	-
<b>B. Tech</b>	85	-

### **Guest lecturers delivered:**

S.No	Title	Year	College
1.	TEQIP program on special machines, Welding, Plumbing and Carpentry.	June 2007	MIT
2.	Induction program for HAL and CARBORUNDUM graduate Engineering Trainees on “Sensors”	June 2008	MIT

3.	Delivered a technical presentation at Research Forum in MIT on “ Dynamic control of Super plastic forming	Aug 2005	MIT
4.	Delivered lectures in Faculty Development training Programme on “Engineering Mechanics’	Dec 2008	MIT
5.	Introduction of MEMS	Jan 2010	HITS(Hindustan institute of tech and science)
6.	Sheet metal forming – die design in deep drawing process’	May 2010	college of Engineering , Guindy Anna University
7.	Pollution free manufacturing of Composite Material and Their Weldability’	Dec 2010	Annamalai university, Chidambaram
8.	Sandwich Structures – an Overview	Dec 2010	MIT,Anna university
9.	Composites materials and technology	Dec 2010	MIT, Anna university

10.	“ Sandwich composites- an overview	Aug 2011	Velammal engineering college, chennai
11.	Sandwich composites – an overview	Oct 2011	Rajalakshmi engineering college,chennai
12.	Finite Element Analysis	Dec 2011	MIT, Anna university
13.	Sensors and robotics	Dec 2011	MIT, Anna university
14.	Sandwich composites – an overview	April 2012	Bharath university, chennai
15.	Carbon – Carbon composites and sandwich composites	April 2012	CVRDE, Avadi.
16.	Sandwich Structures – an Overview	May 2012	MIT, Anna university
17.	Applied Hydraulics and Pneumatics	June 2012	MIT Anna University
18.	Equilibrium diagrams	Dec 2012	MIT Anna University

19.	Low velocity impact tests	March 2013	MIT, Anna University
20.	Equilibrium of rigid bodies in two and three dimensions	12 <sup>th</sup> Dec 2013	St.joseph4 engineering college
21.	Design and fabrication of sandwich panels	7 <sup>th</sup> Nov 2013	Sai ram engineering college, chennai
22.	Micro Machining	10 <sup>th</sup> Dec 2013	MIT, Anna university
23.	Nano composites	22 <sup>nd</sup> Feb 2014	MIT, Anna university
24.	MEMS introduction, X-ray lithography, Top down approach	June 2014	MIT, Anna university
25.	Composites – Overview and applications	Nov 2014	MIT, Anna University
26.	1 D heat transfer in Finite element Analysis and applications	Dec 2014	MIT, Anna University

27.	Design and development of Sandwich structures (AICTE sponsored FDP on Processing and Characterisation of Composite materials including Natural Fiber reinforced Components)	25 Mar 2015	SriRam Institute of Technology, Chennai - 44
28.	One Day Faculty Development Program on “Micro and Nano Manufacturing”	19 May 2017	SRM University, Kancheepuram District - 603203
29.	AICTE Faculty Development Programme on “Bio degradable, Green and Nano Composites for Industrial Applications, Manufacturing Methodologies	1 November 2017	Sri Sai Ram Institute of Technology, Chennai.
30.	Faculty Development Programme on “Unconventional Machining Process”	7- 8 December 2017	Department of Production Technology, MIT campus, Anna University
31.	National Conference on Trends and Innovation in Mechanical Engineering	5 April 2018	Dr.M.G.R Educational and Research Institute, Chennai- 95

32.	Faculty Development program on “Engineering Mechanics”	04 December 2018	Aalim Muhammed salegh college of Engineering, Avadi
33.	The Association of Mechanical Engineering	29 December 2019	Department of Production Technology, MIT, Anna University
34.	Employability Skill Development (E-SEP) program, AU-CUIC and RNTBCI	11 – 12 March 2019	KLN college of Engg, Madurai and National College of Engg, Virudhunagar

### **Awards and Recognitions**

- First Prize - PRODJGY - '14, Department of Production Engineering, March 2014

### **Academic Responsibilities**

- Faculty Advisor and Class Committee Chairman (UG & PG – FT and PT)
- Assisting ISO document Preparation Works for the department
- Anna University Representative for TNPCEE and TANCET
- Assisting document Preparation for Annual Report
- Vice President for TAPE (The Association of Production Engineers – Student Forum)
- Question paper setter in Anna University, Annamali University and Murugappa Polytechnic
- Actively Involved in Rotaract club activities
- Inspection Committee member for the Anna University Affiliation Colleges and Pondicherry University
- Member in department consultative council of Department of Production Technology and Aerospace engineering
- Involved in Purchasing equipments for laboratories under CPDE, TEQUIP, UGC and AICTE funds
- Rendered fullest Contribution to the expert team of NAAC and UGC
- Delivered a technical presentation about the department at WIPRO, Chennai Sep 2007
- Co-Chairman for a technical session of International Conference on Advances in Materials Processing and Characterization (AMPC 2006)
- Co-Chairman for a technical session of symposium on Advances on metal forming, IGCAR, Kalpakkam, Jan 2003

- Encouraged to develop technical charts in Metallurgy and Metal forming
- Additional experiments are included in Metal forming, Material Testing and Metallurgy Lab
- A new lab titled “Material Processing Lab” was created and was inaugurated by Vice Chancellor during March 2010
- Head of the Department, Ceramic Technology from 2015 to till now
- Development of new lab titled “ CAD Lab for Ceramics” 2016
- NAAC AC Tech Campus Co-ordinator
- NIRF AC Tech Campus Co-ordinator 2018-2021
- Nodal Officer Differently-abled Persons, Anna University from 2020 to till now

**Workshops / Seminar / Short term Courses / FDP Organized**

<b>Role</b>	<b>Name of the Programme</b>	<b>Duration</b>
Co-Coordinator	National Seminar on “Advances in Metal Forming”	March 2000
Coordinator	One day workshop on “Advances in Manufacturing Technology”	March 2000
Coordinator	TEQIP program on “ Welding and Workshop Practice”	June 2007
Coordinator	Faculty Development Training Programme on ‘Engineering Mechanics’	December 2008
Coordinator	National Conference on “Recent Innovations in Production Engineering	16 & 17 April, 2001
Coordinator	faculty development Training Programme on ‘ Finite Element analysis’	December 2011
Coordinator	faculty development Training Programme on ‘ Engineering Materials and metallurgy’	December 2012
Coordinator	faculty development Training Programme on ‘ Finite Element Analysis’	December 2014

Coordinator	Two day Workshop on High Temperature Ceramics [DST Purse Sponsored]	19.02.2016 to 20.02.2016
Convener	Two day National Seminar on Porous Ceramics [SERB-DST Sponsored]	27.05.2016 to 28.05.2016

Convener	One day Seminar on Refractory: Materials, Installation and Applications	5 <sup>th</sup> October 2016
Convener	One day Seminar on Ceramic Coatings	13 <sup>th</sup> March 2017
Convener	One day Seminar on Ceramic Composites	22 <sup>nd</sup> September 2017
Convener	Application of Ceramic & Polymer in 3D Printing	16 <sup>th</sup> March 2019
Coordinator	One Day Awareness Workshop on Intellectual Property Rights	27 <sup>th</sup> September 2019

**Countries visited:** Malaysia

**Life Membership:**

- Indian Ceramic Society
- Institution of Engineers (India)
- Indian Institution of production Engineers
- Indian Society for Technical Education

**Other Interest:** NA