



Name : Dr.K.R.THANGADURAI  
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### Qualification

Qualification	Year of Passing	University	Institute	% Marks	Regular/ Distance	Area of Specialization
B.E	2000	Bharathidasan University tiruchirappalli	Regional Engineering College Tiruchirappalli	56.37	Part time	Mechanical Engineering
M.Tech.	2004	SASTRA UNIVERSITY THANJAVUR	SASTRA UNIVERSITY THANJAVUR	7.85 CGPA	Full time	Manufacturing Engineering
Ph.D	2015	ANNA UNIVERSITY CHENNAI	ANNA UNIVERSITY CHENNAI	-	Part time	Composite machining and optimization

### Experience

Sl.no.	Name of the Institution	Designation	From	To	Experience in years		
1.	Jayaram College of Engg and Technology, Trichy-621 014.	Associate Professor	1/12/2015	Till date	3	1	22
2.	Jayaram College of Engg and Technology, Trichy-621 014.	Asst. Professor	13/8/2008	30/11/2015	7	3	19
3.	Jayaram College of Engg and Technology, Trichy-621 014.	Senior Lecturer	8/8/2007	12/8/2008	1	0	5
4.	Jayaram College of Engg and Technology, Trichy-621 014.	Lecturer	1/6/2004	7/8/2007	3	2	7
5	Jayaram College of Engg and Technology, Trichy-621 014.	Technical Assistant	24/7/2001	23/7/2002	1	0	0
<b>Total Experience in years</b>					<b>14</b>	<b>7</b>	<b>22</b>

## INDUSTRIAL EXPERIENCE:

Organization	Designation	Period	Experience in years
M/s.Simco Engineering Limited., Trichy-21.	Asst. Engineer	17/05/1993 to 02/08/1995	2.3
M/s. M/s.P.R Acoustical and Engineering works (P) Ltd., Trichy – 15.	Purchase Engineer	04/10/1995 to 31/10/2000	5.1
<b>Total Experience</b>			<b>7.4</b>

## **Publications**

### **Papers published –National Journal**

1. **Thangadurai, KR** & Asha, A 2014, 'Synthesis and cold upsetting behavior of stir casted AA6061-B<sub>4</sub>C<sub>p</sub> composites, Journal of Scientific & Industrial Research vol.73, pp.394-399. (Annexure-I) (Impact factor – 0.5).
2. **Thangadurai, KR** & Asha, A 2013, 'Mathematical modeling and analysis of surface roughness in EDM of AA6061wt.15% B<sub>4</sub>C<sub>p</sub> MMC through RSM ,Manufacturing Technology Today, vol.12, no.9, pp.5-13.
3. **K.R. Thangadurai** and A Asha, 'Mathematical modeling and analysis of surface roughness in EDM of AA6061wt. 15% B<sub>4</sub>CP MMC through RSM in Manufacturing Technology Today,Bangalore September 2013 issue.
4. Dr.V.Senthilkumar ,**K.Thangadurai** ,Dr.A.Asha,Effect of severe plastic deformation on mechanical characteristic of al-6061:SiC p Composite in Manufacturing Technology Today , Bangalore. February 2010 issue.
5. **K.Thangadurai** ,J.Jerald,P.Satheesh and Dr.R.Saravanan ,"Optimization of operating parameters in Wire Electric Discharge Machining using Particle Swarm Optimization and Memetic Algorithm" in Manufacturing Technology Today , Bangalore.July 2004 issue.

### **Papers published in International Journal**

1. R.Sivabalan . **Thangadurai K.R.**, “ Rheocasting of Aluminium alloy A336 based on various parameters :A review International Journal of Engineering Research and Technology. Vol.7 Issue 05,May -2018.
2. Gunasekar .D, **Thangadurai K.R** Experimental Investigation and Surface roughness Analysis on Cnc Turning of Hard materials using Coated Carbide Insert in the journal of SSRG International Journal of Mechanical Engineering – (ICET’17) - Special Issue - March 2017 ISSN: 2348 – 8360
3. Gunasekar.D, **Thangadurai K.R** , ‘Effect of process parameters on surface roughness during CNC turning’ in the journal of World Wide Journal of Multidisciplinary Research and Development WWJMRD 2017; 3(5): 7-9 e-ISSN: 2454-6615
4. Gunasekar.D.**Thangadurai.K.R**,Manorajan.S,Pillay,Revanth,Ramraj,NatarajaN.S ‘Effects of Machining Parameters on Surface Roughness and MRR when the Machining of Hard Materials, ‘International Journal for Modern Trends in Science and Technology Volume: 03, Issue No: 04, April 2017 ISSN: 2455-3778
5. **Thangadurai, KR** & Asha, A 2014, ‘Densification behavior in forming of stir casted aluminium Boron Carbide composite perform during cold upsetting’ Applied Mechanics and Materials vols. 592-594, pp.117-121(Annexure-II) (Impact Factor-0.13).
6. **Thangadurai, KR** and Asha, A 2014,‘Parametric optimization of EDM process of aluminium Boron Carbide composite using desirability function approach and genetic algorithm’ Applied Mechanics and Materials vols.592-594 pp.684-688.(Annexure-II)Impact Factor-0.13
7. **Thangadurai, KR** & Asha, A 2012, ‘Mathematical modeling of EDM process of AA6061-10% B<sub>4</sub>C<sub>p</sub> MMC through response surface methodology, European Journal of Scientific Research, vol.81, no.4, pp.476-492.
8. **Thangadurai, KR** & Asha, A 2012, ‘Mathematical modeling of surface roughness on machining of AA6061-Boron Carbide composite in EDM through RSM’, International Journal of Mechanical and Materials Engineering, vol.7, no.3, pp.197-202. (Annexure-II) (Impact Factor-0.44).

## Conferences

### **Papers published in National Conference**

1. **K.R.Thangadurai** , 'Analysing wear properties of aluminium composites in the national conference AMESHE -2014 held on 3 May 2014 conducted in Knowledge Institute of Technology ,Salem.
2. **K.Thangadurai**, 'Characterization of mechanical properties of aluminium hybrid composite' National Conference on Advances in Design & Manufacturing Science 2011 ADAMS held on 7 and 8 April,2011 conducted in Jayaram College of Engg and Tech Trichy.
3. **K.Thanagdurai** and A.Asha, 'Experimental study & analysis of operating paramters in WEDM machining processof 6061 aluminium silicon carbide composite. Two days conference in Recent Trends in Civil & mechanical Engineering on 8 and 9 April 2011 organized by the Anna University of Technology Tiruchirapalli,Tiruchirapalli
4. **K.Thangadurai** , 'Characterization and synthesis of aluminium hybrid composite' National Conference on Advances in Design & Manufacturing Science 2011 ADAMS held on 7 and 8 April ,2011 conducted in Jayaram College of Engg and Tech Trichy
5. **K.Thangadurai** and A.Asha, 'Experimental study & analysis of operating parameters in WEDM machining process of 6061 Aluminium Silioecn carbide composite in two days National conference on 'Recent Trends in Civil & Mechanical Engineering organized in Anna University of Technology Tiruchirapalli,Tiruchirapalli-620 024 on 8<sup>th</sup> and 9<sup>th</sup> April,2011.
6. **K.Thangadurai**, 'Application of new tool material (Ti-Cu) for electrical Discharge Machining a national level conference on Global Technologies in Manufacturing and thermal Science GTMTS held on 22<sup>ND</sup> AND 23 April 2010 in Sethu Institute of Technology Pulloor
7. **K.Thanagdurai**, ' Development of 6061 aluminium silicon carbide composite at National conference on mechanical Engineers challenges to pose new technologies on 18<sup>th</sup> march 2010 organized in Dhanalakshmi Srinivasan Engineering Colledge Perambalur.
8. K.Senthamarai and **K.Thangadurai** , ' Multiple regression model for cutting force in face milling' 2<sup>nd</sup> National Conference on Recent Trends in Mechanical Science conducted in Jayaram College of Engineering & Technology, Trichy -621 014. during 28, April 2008.
9. C.Manohar and **K.Thangadurai** , 'Wall thickness optimization in a gate valve body' 2<sup>nd</sup> National Conference on Recent Trends in Mechanical Science conducted in Jayaram College of Engineering & Technology, Trichy -621 014. during 28, April 2008.
10. V.Jeyaraman and **K.Thangadurai** , 'Stress analysis of process piping routing using CAESAR-II at 2<sup>nd</sup> National Conference on Recent Trends in Mechanical Science conducted in Jayaram College of Engineering & Technology,trichy -621 014 during 28, April 2008.

11. T.Ramakrishnan and **K.Thangadurai**, 'Stress analysis of power piping routing using CAESAR-II at 2<sup>nd</sup> National Conference on Recent Trends in Mechanical Science conducted in Jayaram College of Engineering & Technology, Trichy -621 014. during 28, April 2008.
12. V.Senthilkumar ,PR.Ramanathan and **K.Thangadurai** , 'Study of influence of aspect ratio on the formability behaviour of the P/M sintered heat resistant steel performs during hot forging at 3<sup>rd</sup> National Conference on Application of Emerging Technologies conducted in Adhiyamaan College of Engineering,Hosur -635 109 during 29-30 March 2006.
13. **K.Thangadurai**, J.Jerald, R.Saravanan & A.Balaji, "Optimization of operating parameters in Wire Electric Discharge Machining using Genetic Algorithm" at National conference in Advancement in Electrical and Mechanical Engineering conducted in **Mailam Engineering College ,Mailam-604 304 during February 20-21,2004.**
14. **K.Thangadurai**, J.Jerald, P.Satheesh and Dr.R.Saravanan, ".Optimization of operating parameters in Wire Electric Discharge Machining using Simulated Annealing Algorithm through a weighted approach" at National Conference on Recent Developments in Material Processing conducted in **Bharathiyar College of Engineering & Technology,Karaikal-609 609 during 6<sup>th</sup> March 2004.**
15. **K.Thangadurai**, J.Jerald, P.Satheesh and Dr.R.Saravanan, "Optimization of operating parameters in Wire Electric Discharge Machining using Memetic Algorithm" at First National Conference on Development and Challenges in Manufacturing Engineering-2004 conducted in **Manipal Institute of Technology,Manipal-576 104,Bangalore during March 18-20,2004.**
16. **K.Thangadurai**, Mathalaisundaram, 'Development of new tool for EDM machining process Tic –Cu at National conference conducted in PSNA College of Engineering Dindigul.

#### **Paper published in International Conference**

1. **Thangadurai K.R 2018** , ' Improvement of machining characteristics of electrical discharge machining process by equal channel angular pressing the electrode in International Conference on advanced in material & manufacturing technologies ICRAMMT-2018 held on 19& 20,NOVEMBER 2017 in Marri laxman reddy institute of technology and management Hyderabad-telangana
2. **Thangadurai K.R 2017** , 'Effect of process parameter on surface roughness in turning operations of SS316 in 3<sup>rd</sup> International Conference on Advances in Biotechnology,Civil & Mechanical Science ICABCMS -17 held on 17& 18,March 2017 in Selvam College of Technology ,Namakkal.

3. Gunasekar .D, **Thangadurai K.R.**, “ Experimental Investigation and Surface roughness Analysis on CNC Turning of Hard materials using Coated Carbide Insert” International Conference on Emerging Trends in Engineering,Technology,Science and Management (ICET-2017) on 24<sup>th</sup> March 2017 conducted by Adithya Institute of Technology ,chennai.
4. Gunasekar .D, **Thangadurai K.R.**, “ Experimental Investigation of Machining parameters of CNC Turning on Surface roughness” on fourth International Conference on Engineering Technology and Science held on 30<sup>TH</sup> & 31<sup>ST</sup> March 2017. In Muthayammal Engineering Institutions, Rasipuram Namakkal Tamilnadu.
5. Gunasekar D, **Thangadurai K.R.**, “ Effects of machining parameters on surface roughness and MRR when the machining of hard materials” presented in International Conference on Engineering ,Energy & Environment (ICEEE-2017) conducted in TRP Engineering College Trichy -621 105.
6. Gunasekar .D, **Thangadurai K.R.**, “Effect of process parameters on surface roughness in turning operation of SS316 (spot 004)” on Third International Conference on Advances in Biotechnology ,Civil & Mechanical Science on 17.3.2017 & 18.3.2017 organized by Selvam College of Technology ,Namakkal.
7. **Thangadurai, KR** & Asha, A 2014, ‘Experimental study and analysis of machining parameters on MRR in EDM of AA6061-15% B<sub>4</sub>C<sub>p</sub> composite using Response Surface Methodology’, Proceedings of Second International Conference on Advances in Industrial Engineering Applications (ICAIEA 2014) Anna University, Chennai, January 6-8, pp.355-366 .
8. **Thangadurai, KR** & Asha, A 2014, ‘Densification behavior in forming of stir casted aluminium Boron Carbide composite perform during cold upsetting’ International Mechanical Engineering Congress -2014 organized by National Institute of Technology,Trichirapalli during 13-15 ,June,2014.
9. **Thangadurai, KR** and Asha, A 2014,‘Parametric optimization of EDM process of aluminium Boron Carbide composite using desirability function approach and genetic algorithm’ International Mechanical Engineering Congress -2014 organized by National Institute of Technology, Trichirapalli during 13-15 ,June,2014.

#### **Workshop / FDP Attended**

#### **Program Attended-FDP/SDP/WORKSHOP/SEMINA**

1. Two days Faculty Development Program attended on Introduction to Autodesk Autocad conducted by ICT Academy of Tamilnadu on 28<sup>th</sup> and 29<sup>th</sup> July, 2016 held at Jayaram College of Engineering and Technology, Trichy.

2. Two day workshop attended on Scanning Electron Microscopy & X-ray Diffraction on 28<sup>th</sup> February & 1<sup>st</sup> March, 2013 in CARE School of Engineering, Trichy.
3. Two weeks SDP attended on recent research and development in manufacturing process from 29<sup>th</sup> April to 11<sup>th</sup> May 2013 in M.A.M College of Engineering Trichy.
4. Two week staff development program on Recent Research and Development in Manufacturing Process from 29<sup>th</sup> April to 11<sup>st</sup> May 2013 conducted in M.A.M College of Engineering ,Tiruchirappalli.
5. National Level Workshop on Advanced Materials and Manufacturing Techniques organized in M.Kumarasamy College of Engineering, Karur on 28<sup>th</sup> & 29<sup>th</sup> June 2013.
6. Two days workshop on advanced Materials Engineering & Technology held during 27-28 ,July,2012 organized in Anna University Chennai.
7. FDP program attended on ME236 Dynamics of machinery in Kongu Engineering College from 17<sup>th</sup> to 23<sup>rd</sup> December, 2012.
8. One day workshop on advanced Materials and Its applications held on 8<sup>th</sup> November ,2011 at Jayaram College of Engineering and Technology ,Tiruchirappalli-621 014.
9. Two day workshop attended on modeling and simulation of manufacturing systems in K.L.N College of Engg on 4<sup>th</sup> & 5<sup>th</sup> February 2010.
10. Short term training program on Robotics and Robot Applications from 21<sup>st</sup> to 26<sup>th</sup> 2010 in Indian Institute of Technology, Madras.
11. Two weeks faculty Development Programme attended on Research methods and tools for Mechanical Engineering from 31<sup>st</sup> May -11<sup>th</sup> June 2010 in Bannari Amman Institute of Technology, Sathiyamangalam.
12. One day FDP on recent advances in welding technology held on 16<sup>th</sup> December, 2010 Organized in Oxford Engineering College ,Tiruchirappalli-620 009.
13. Staff Development Programme attended on Quantitative Research Techniques for Researchers from 21<sup>st</sup> December 2009 to January 2010 organized in National institute of Technology Tiruchirappalli.

14. Two day Workshop on 4<sup>th</sup> & 5<sup>th</sup> February 2010 'Modeling and Simulation of Manufacturing Systems using witness' organized in K.L.N College of Engineering, Sivagangai.
15. One day National Seminar on Role of composites Materials in Mechanical Engineering on 22<sup>nd</sup> October 2010 organized in Ultra College of Engineering & Technology for Women, Madurai-625 104.
16. Two day workshop attended on Research Methods and Tools for Engineering Faculty on 18.12.2009 & 19.12.2009 organized in Bannari Amman Institute of Technology Sathiyamangalam.
17. One day workshop attended on R& D Initiative and Patent Rights (IPR) organized in Jayaram College of Engineering and Technology, Trichy on 30<sup>th</sup> September 2009.
18. A Faculty Development Program on Composite Materials: Processing Challenges and Opportunities organized by the department of production engineering NIT, Trichy from 13<sup>th</sup>-24<sup>th</sup> July 2009
19. One day International seminar attended on Automation and Control in Construction and Mining Industry held on 6<sup>th</sup> September 2008 organized in Jayaram College of Engineering and Technology Thuraiyur.
20. One day workshop on Introduction to NBA-New Norms and Forms held on 1<sup>st</sup> ,October ,2009 organized by Association of self Financing Professional Engineering Colleges at Hotel Sangam ,Tiruchirapalli.
21. One day seminar attended on Automation and Control in Construction and Mining Industry held on 6<sup>th</sup> September 2008 organized in Jayaram College of Engineering and Technology Thuraiyur.
22. A training program attended in Micro Machining and Micro Fabrication On 24<sup>th</sup> to 28<sup>th</sup> 2008 held at Central Manufacturing Technology Institute Bangalore.
23. Two day workshop attended on Laser Materials Processing on 9 & 10 January 2007 organized in National Institute of Technology ,Tiruchirapalli -620 015.



24. Two day workshop attended on Finite Element Method and Applications in Engineering using ANSYS on 26 & 27 November 2007 organized in National Institute of Technology , Tiruchirapalli – 620 015.
25. A certificate course attended on 'Piping Technology' from 7-9-2007 to 24-10-2007 conducted at The Seshasayee Institute of Technology, Tiruchirapalli-620 010.
26. One day workshop attended on Piping Technology organized in Oxford Engineering College,Trichy on 7<sup>th</sup> February 2007.
27. Two day workshop attended on Mechatronics & Automation on from 25 .10.2006 to 27.12.2006 organized in Shanmugha Arts, Science, Technology & Research Academy, Tanjore.
28. A certificate course on Tig welding for ferrous & non ferrous metals conducted from 21-06-2006 to 23-06-2006 organized in Jayaram College of Engineering and Technology,Tiruchirapalli-621 014.
29. Two day workshop attended on Quality Engineering in Manufacturing on 21-22 July 2006 organized in NIT ,Trichy -620 015.
30. A certificate course on welding technology from 1-4-2006 to 30-4-2006 organized in Jayaram College of Engineering and Technology,Tiruchirapalli-621 014.
31. Short term training program attended on Manufacturing Excellence from 11<sup>th</sup> December to 15 December 2006 organized in Adhiparasakthi Engineering College Melmaruvathur.- 603 319.
32. Two day workshop attended on Non Destructive Testing organized in Jayaram College of Engineering & Technology Thuraiyur from 16<sup>th</sup> & 17<sup>th</sup> October 2006
33. SDP program attended on Advances in Welding Engineering organized in R.V.S College of Engineering & Technology Dindigul. From 1.6.2005 to 11.6.2005.
34. A certificate course on 'Welding Technology in Pressure Parts conducted from 5-12-2005 to 10-12-2005 conducted in Jayaram College of Engineering and Technology, Tiruchirapalli-621 014.
35. A FDP program attended on Computer Aided Design at Mailam Engineering College Mailam from 2<sup>nd</sup> to 7<sup>th</sup> May 2005

36. A certificate course on welding technology in pressure vessels 5.12.2005 to 10.12.2005 conducted in Jayaram College of Engineering and Technology, Tiruchirapalli-621 014.

37. Certificate course on Piping Technology in JCET June 2004 November 2004 in Jayaram College of Engineering and Technology, Tiruchirapalli-621 014.

38. Certificate course on Welding Technology in JCET June 2004 November 2004 in Jayaram College of Engineering and Technology, Tiruchirapalli-621 014.

### **Workshop / FDP/ Conference Organized**

Two days work Shop on Non Destructive Testing 2004

One day work shop in Piping Technology 2004

One day work shop on Advance in welding Technology 2004

One Week Program in CNC Programming 2004

One month Program Piping Technology 2005

One week training program to rural students 2009

One week training program to rural students 2009

Mechanical Engineering Association 2010

Training and placement 2005-2010

### **Research:**

Ph.D Guidance in Progress : 6

### **AREA OF INTEREST :**

1. DEVELOPMENT OF COMPOSITE MATERIAL
2. COMPOSITE MACHINING
3. WELDING AREA