

## Resume

Name of Applicant **Dr. G. K. Awari**

Designation Principal, Tulsiramji Gaikwad-Patil college of Engg and Technology, Wardha Road, Nagpur-441 108

Date of Birth 23<sup>rd</sup> June 1970

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### Education Qualification

S N	Name of Degree	Name of University	Year Passing	% of Marks
1	<b>B.E.</b> (Mech. Engg.)	RTM, Nagpur University, Nagpur	1991	<b>69.00</b>
2	<b>M.E.</b> (Mech. Engg.)	Thapar University, Patiala, Punjab	1995	<b>9.09 CGPA</b> Distinction with honors
3	<b>Ph.D.</b> (Mech. Engg.)	Sant Gadgebaba Amravati University, Amravati	S.G. Amravati University Notification of <b>26<sup>th</sup> July 2007</b>	

### Experience Details

SN	Name of Employer	Designation	Duration
1	Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur	<b>Prof &amp; Principal</b>	Since <b>16<sup>th</sup> July 2009</b>
2	Priyadarshini College of Engineering, Nagpur	<b>Professor and Head</b> Mech. Engg. Dept.	5 <sup>th</sup> Oct' <b>2006</b> to 15 <sup>th</sup> July <b>2009</b>
3	Shri Sant Gajanan Maharaj College of Engineering, Shegaon	<b>Assistant Professor</b> <b>and Lecturer</b>	1 <sup>st</sup> Jan' <b>1996</b> to 4 <sup>th</sup> Oct' <b>2006</b>

### Experience Summary

Teaching [Years]	Industrial [Years]	Administrative (Teaching) [Years]	Total Experience [Years]
15.5	0.5	6	<b>22</b>

## RESEARCH AND PUBLICATIONS

### i) International Journals: 51 Nos

Sr. No.	Title of Paper	Name of the Journal (Scopus & Citation Index Journal)	Vol & Year of Publication
01	<a href="#">Performance analysis of air lift pump design</a>	IJ on Mechanical engg science (Part C), Institution of mechanical engineers, Professional Engineering publication, London (UK). (SC)	ISSN NO. 09544062 Vol. 218, no.10, pp. 1155-1161., 2004
02	A Generalized Gas-Liquid Two-Phase Flow Analysis for Efficient Operation of Airlift Pump	IJ on Brazilian Society of Mechanical Sciences and Engineering, Brazil. (SC)	ISSN NO. 16785878 JBSME, vol.2, No:1146/06, 2007
03	Experimental Analysis of Distinct design of a Batch Solar Water Heater with Integrated Collector Storage System	I Scientific J of Thermal Science, Belgrade, Serbia. (SC)	ISSN NO. 03549836 BIBLID:0354-9836,/(2007),vol. 11, No.4, pp. 135-142, 2007
04	Analysis of Internal Combustion Engine with a new concept of porous medium combustion for the future clean engine	I Scientific J of Thermal Science, Belgrade, Serbia. (SC)	ISSN NO. 03549836 DOI:10.2298/TSCI1004943D Vol.14, No. 4, pp. 943-956 (ThSci2009037), 2010
05	Experimental Analysis of new design of Scheffler Reflector	I Scientific J of Thermal Science, Belgrade, Serbia (SC)	ISSN NO. 03549836 DIO:10.2298/TCSI100225058P Vol.15, 2011 pp.599-604 (ThSci2010.026), 2011
06	Alternative Refrigerants in vapour compression refrigeration cycle for sustainable Environment: a Review of Recent Research	International Journal of Environmental Science and Technology, USA (SC)	ISSN No. 17351472 March 2013
07	An experimental study on the effect of Foot-piece design on the performance of an Airlift Pump	IJ on Fluid Dynamics & Materials processing, Duluth, GA, USA. (S)	ISSN NO. 1555256X FDMP, Vol.056,no.1,pp. 1-10,2008
08	Thermal Analysis of Energy storage system for federal facilities using phase change material: a Review	IJ of Engineering Science and Technology, Malaysia. (S)	ISSN NO. 18234690 ESTIJ Vol. 2, No.5 2012
09	Numerical Simulation of a Aluminium Micro channel Condenser for household Air Conditioner	IJ of International Review of Mechanical Engineering, Italy. (S)	ISSN No. 19708734 Val 7 N 1 January 2013
10	A New Envelope Detection Algorithm for Incipient Bearing Fault Detection	International Journal of Tribology in Industry. Serbia. (S)	ISSN No. 03548996 Tribology in industry Vol. 37,No.1 (2015)1-17
11	Algorithm for Selecting Signal Processing Technique in Vibration Based Bearing Fault Detection	Japanese Society of Tribologists Tribology online, Tokyo, Japan. (S)	ISSN 1881-2198, 8, 3, 200-202, 2014.

12	Prediction of dynamic characteristics of vibrating structure with uncertain parameters	International Journal of Automotive and Mechanical Engg, Malaysia (S)	ISSN 2229-8649 Volume 10 PP 1977-1890 July-Dec 2014
13	Experimental analysis of Micro-channel condenser using R134a and Drop in substitute hydrocarbon mixture of R290 and R600a	International Journal of Automotive and Mechanical Engg, Malaysia. (S)	ISSN 2229-8649 Volume 10 PP 1993-2002 July-Dec 2014
14	Application of Venturi Feeder System, for Automatic Conveying of Powdered and Granular Material	IJ of Applied Engineering Research, India. (S)	ISSN No.0973-4562 Volume 6, Number 18 pp. 2123-2131, 2011.
15	Experimentation on Various Designs of Drive Mechanisms of Cycle Rickshaw	International Journal of Applied Engineering Research, India. (S)	ISSN: 0973-4562 Vol-6, Number 18 (2011) pp.2191-2195

Sr. No.	Title of Paper	Name of the Journal	Vol & Year of Publication
16	Design considerations for Pneumatic Conveying System - A Review	VSRD Technical and Non Technical J	ISSN No.0976-7967 VSRD-TNTJ, Vol.2 (8), pp 382-389, 2011.
17	Identification of the Possibility of Automatic Suction of Powdered and Granular Material, Using Dilute Pull Push Type Pneumatic Conveying System	IJ on Advanced Engineering Technology	E-ISSN NO.0976-3945 IJAET/Vol. II Issue 3 July-Sept. pp 351-355, 2011.
18	Experimental Analysis of Dilute Phase Pull Push Type Pneumatic Conveying System to convey Powdered and Granular Material	VSRD IJ of Mechanical, Automobile and Production Engineering	ISSN NO.2249-8303 VSRD-MAP, Vol. 1(1), pp19-26, 2011.
19	Performance Enhancement of Vapour Compression Refrigeration Cycle using Aluminium Micro Channel Condenser	IJ of Engineering Research and Industrial Applications	ISSN No.0974-1518 Volume 4, Number II pp. 157-168, 2011.
21	Fault Detection and Condition Monitoring of Machine-Structure: Review	IJ of Mechanical Engineering and Technology	ISSN No.0976-6359 Vol. I No.1 Issue July-August pp 166-18, 2010.
22	Fault Diagnosis and Condition Monitoring of Machine-Structure by Signature Analysis	IJ of Scientific and Engineering Research	ISSN No.2229-5518 Vol. 2, Issue 7, July, pp 1-4, 2011.
23	Analysis of Operating Internal Clearance of Mounted Bearing	IJ of Emerging Technologies and Applications in Engineering, Technology and Sciences	ISSN: 0974-3588, IJ-ETA-ETS, volume 4: Issue 2, July'11-Dec'11, 50-56, 2011.
24	Assessment of Bearing Fault Detection using Vibration Signal Analysis	VSRD Technical and Non Technical IJ	ISSN NO.0976-7967 VSRD-TNTJ, Vol.2 (5), pp 249-261, 2011.
25	Experimental Investigation of Parameters by Burnishing Process on H2O Aluminium Alloy	IJ of Applied Engineering	ISSN No.2010-4391 vol. 1, pp 55-58, 2011.
26	Improved combustion technique with	IJ of Engg Research &	IJERA, ISSN: 2248-

	porous structure in Internal Combustion engines	Applications	9622, 2012
27	Analysis of Nonlinear Dynamic Model of Ball Bearing with Effect of Internal Radial Clearance	STM J Trends in Mechanical Engineering & Technology	ISSN: 2231-1793, Volume 3, Issue 1 TMET, 1-10, 2013.
28	Formulation of Experimental Data Based Model for Aluminum Alloy HE 15 Operation with Burnishing Tool on Lathe Machine Using Dimensional Analysis	International Journal of Research in Mechanical Engg.	ISSN No.(O) 2347-5188 print ISSN 2347-8772 IASTER 2013
29	Parametric Analysis of Super finishing process: An Experimental Investigation (Micro-finishing)	IJ on Engineering Research and Industrial Applications	ISSN No. 0974-1518 Vol. 3, No. II, pp 165-178.(IJERIA/Engg/V10 10138), 2010
30	Critical Analysis of Operating Internal Clearance of Mounted Bearing	IJ of Multidisciplinary Research and Advances in Engineering	IJMRAE ISSN 0975-7074)
31	Analysis of Super finishing Process Using Different Stones for Optimal Performance	VSRD International Journal	ISSN NO.-0076-7967, Vol. 2 (2), 52-57, 2011.
32	Thermal Analysis of Energy storage system for federal facilities using phase change material in charging and Discharging mode	IJ of Advance Research In Science And Engineering	ISSN: 2348-7550 ISSN-2319-8354 Vol. No.3, Issue No.1, Jan (E), 2014.
33	Determination and analysis of spindle load in boring machining operation on cast iron using Mathematical Models	IJ of Engineering Development and research	ISSN 2321-9939 (Online), Vol. 2 Issue 1, March 2014
34	Formulation of Various Mathematical Models for the Investigation of tool life in Boring Process using Carbide and CBN Tools	IJ of Application or Innovation in Engineering and Management	ISSN2319-4847 (online) Volume 3, Issue 3, March 2014
35	Selection of Road Track To Determine Optimized Value of Wheel Dimension and Speed Ratio Between Crank and Wheel for Cycle Rickshaw	International Journal of Mechanical Engineering & Robotics Research	ISSN No.2278-0149 Vol.3, No.4, October 2014
36	Analytical Procedure of optimization of Variables affecting the performance of cycle rickshaw puller	Archive applied Science Research,	ISSN: 0975-508X Coden (USA) ASRC9 2014,6 (4): 96-102
37	Study of Performance of Cycle Rickshaw Puller : Literature Review	International Journal of Sustainable Architecture	ISSN: 2229-712X Elixir. Sustain. Arc. 73 (2014) 26372-26379
38	Performance Analysis of Scheffler Reflector and Formulation of Mathematical Model for two dependent variables	International Journal of Applied Engineering	ISSN No. 2010-4391 IJAE, Vol. 1, pp 59-6, 2011.
39	An experimental investigation of parameters influencing Burnishing process on aluminium alloy	IJ of Materials Engineering and Technology	Vol. 6(1), pp. 75-82, 2011.
40	New Strategy For Intelligent Engine	IJ of Advancements in	Volume 1, Number 4,

	Combustion	Technical Research and Development	Jan, pp. 29-42, 2012.
41	Critical Review of Bearing Fault Detection using Vibration Signal Analysis	IJ for Technical Research & Development	IJATRD/V2/1013002 Volume 1, Issue 1, Jan, 5-12, 2013.
42	Effect of Internal Radial Clearance on Performance of Bearing	IJAEFEA	2, Vol.1, April 2014
43	Analysis of Operating Internal Clearance of Mounted Ball Bearing	IJ of Computer Applications in Engineering, Technology and Sciences	Vol.3, Issue 2, April-Oct'11, AS-58, 2011.
44	Formulation of Mathematical Model and Neural Network Analysis of Scheffler Reflector	IJ VSRD of Mechanical, Automobile and Production Engineering	VSRD-MAP, Vol. 1, Issue 1 Oct, 2011.
45	Analysis of Superfinishing Process using different Stones for optimal Performance	IJ of VSRD I Technical and Non Technical Journal	VSRD-TNTJ, Vol. 2, Issue 2 Feb' 2011.
46	The Analysis Of Vibrational Response Of Structures With Uncertain Parameters	IJ of Engineering Sciences & Emerging Technologies	ISSN: 2231 – 6604 Volume 6, Issue 1, pp: 86-93 ©IJESSET August 2013
47	Dynamic Analysis Of Natural Frequency And Mode Shape Of Cantilever And Free-free Condition Plate By Considering Uncertain Parameters	IJ of Research In Aeronautical And Mechanical Engineering	ISSN:- 2321-3051 Vol.2 Issue.2., PP: 1-10, February 2014
48	Analysis of Natural Frequency and Mode Shape of All Edge Fixed Condition Plate with Uncertain Parameters	IJ of Innovative Research in Science, Engineering and Technology	ISSN :-2319-8753 Vol. 3, Issue 2, pp- 9277-9284, February 2014
49	Review On Dynamic Responses Of Vibrating Systems With Uncertain Parameters	IJ of Engineering Sciences & Research Technology	ISSN: 2277-9655 Vol-3, Issue-2, February 2014
50	Numerical Study of Buoyancy Induced Flow and Heat Transfer Inside an Inclined Tube	International Journal of Thermal Technologies	ISSN 2277-4114 Vol.4, No.3 Sep 2014
51	Design of Solar Water Heater Using Induced Flow and Heat Transfer Correlation	International Journal of Engineering & Technology Research	ISSN Online: 2347-4904, Print: 2347-8292, Volume 2, Issue 6, November-December, 2014, pp. 55-60
52	Experimental Study of Buoyancy Induced Flow and Heat Transfer Through Uniformly Heated Vertical Tube Air Heater	International Journal of Science and Research (IJSR)	ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14   Impact Factor (2013): 4.438 Volume 4 Issue 1, January 2015

53	An Approximate Generalized Experimental Data Based Model For Scheffler Reflector	International Journal of Emerging Trend in Engineering and Basic Sciences (IJEEBS)	ISSN (Online) XXXX-XXXX Volume 1, Issue 1 (Jan-Feb 2014) PP1-14.
54	Harmonic Analysis of Square Plate with and Without Uncertain Parameters	International Journal on Recent and Innovation Trends in Computing and Communication	ISSN: 2321-8169 Volume: 3 Issue: 2 013–016
54	Investigation of tool wear in Boring Machining Operation on cast iron using Carbide and CBN tools	IJ ELSEVIER online on Material Science,	2014
55	Laminar Air Flow Free Convective Heat Transfer Inside A Circular Pipe With Different Configuration	International Journal Of Experimental Heat Transfer	
56	Comprehensive Bearing Condition Monitoring Algorithm for Incipient Fault Detection Acoustic Emission	IJ on journal of Tribology Mytribos Malaysian Tribology Society	Journal Tribologi 2, pp.1-30. 12 Sep 2014
57	Flow Characteristic and Heat Transfer Correlation for Buoyancy Induced Flow Through Inclined Tube	Open Journal of Heat, Mass and Momentum Transfer	HMMT 2015, 3(2):29-38 DOI: 10.12966/ hmmt. 04.01.2015
58	Comparative Study Of Mathematical Modeling And Ann Simulation Of Scheffler Reflector	International Journal for Technical Research & Development	Volume 1, Issue 1, Jan 2012
59	Optimization of super finishing process is using different types of stones	AMAE Int. J. on Manufacturing and Material Science,	Vol. 01, No. 01, May 2011
60	CFD Analysis of Buoyancy Induced Flow and Heat Transfer through Inclined and Vertical Circular Tubes	Open Journal of Computational Thermal Sciences	

“ii) National Journals: 1 Nos

Sr. No.	Title of Paper	Name of Conference & Organizers	Year, Vol.pp
01	Comparison of Performance Analysis of Scheffler Reflector and Model Formulation	Indian Journal of Science and Technology	ISSN No.0974-6846 Vol. 4, No. 10, Oct, pp 1335-1339, 2011.

ii) International Conferences: 32 Nos

Sr. No.	Title of Paper	Name of Conference & Organizers	Year, Vol.pp
01	An Experimental Analysis of Two Phase Flow for Air Lift Pump Design	IC on Advances in Fluid Mechanics, Wessex Institute of Technology, Lisbon, Portugal (UK)	ISBN: 1-85312-704-3 and ISSN: 1353-808X 22-24 March 2014,

02	Design and Manufacturing of Index able Insert Grinding Machine : An Experimental Evaluation	IC on Advances in Abrasive Technology, University of Sydney and Japan Society of Grinding Engineers, Australia,	ISBN: 9810231369 8-10 July'97, Sydney pp 212-216
03	Performance evaluation of vapour compression refrigeration system with hydrocarbons over the HFC 134a	International Conference on recent trends in engg & Technology ICRTE 2014	ISBN No. 978-93-5107-222-5, Date:-28-30March 2014
04	Effective Academia leadership Strategies - a global perspective	SEGI University, Kota Damansara, Malaysia	December 12 <sup>th</sup> to 14 <sup>th</sup> 2013.
05	Experimental investigation of the effect of inclination on flow characteristics of buoyancy induced flow through circular tube	IC on Recent Advances in Mechanical Engineering, (INCRAME), MGR University, Chennai	April 2012 Paper No 127
06	CFD Investigation of the Flow and Calculation for Pressure drop in a tangential inlet Cyclone	IC on Emerging Research and Advances in Mechanical Engineering, ERA 2009, Velammal Engineering college, Chennai, Tamilnadu	19-21 March 2009, pp 250-252.
07	Surface Finish Generated in Turning Of Medium Carbon Steel Parts Using Conventional and Adhesive Bonded Tools.	I Simulation C of India (ISCI) Research Park, IIT, Madras	February 21-23,2013
08	Investigation on Air Lift Pump	IC on Fluid Mechanics and Fluid Power, IIT, Delhi	15-17 Dec'98 Delhi Vol. 2 pp 869-875.
09	A Generalized Formulation and coding of linear programming problem	IC on CAD, CAM, Robotics and Autonomous Factories, Organized by IIT, Delhi	11-13 Aug'2003
10	Effect of Injecting Device on the Performance of Airlift Pump	Indian Chemical Engineering Congress, Indian Institute of chemical engineers, IIT Delhi,	14-17 Dec 2005.
11	Design of Two Axis Tracking Mechanism for Parabolic Dish	WORLD CONGRESS on Frontiers of Mechanical, Aeronautical and automobile Engineering (WCFMAAE-2013) at Indian Institute of Technology, IIT, Delhi,	2 <sup>nd</sup> -3 <sup>rd</sup> February 2013
12	Distinct Design of a Batch Type Solar Water Heater: A Detailed Analysis	IC on Recent Advances in Solar Energy Conversion Systems, M.A. National Institute of Technology, (MANIT) Bhopal	28-29 Sep'2002 pp 209-214.
13	Reduction in Energy Consumed through an Energy Audit of a Biscuit Manufacturing Plant : A Case Study	IC on Energy and Environmental Technologies for Sustainable Development, Organized by MNIT, Jaipur	8-10 Oct'2003 pp 9-13
14	An Experimental Study for selection of	IC on Advances in	15-17 Dec 2008, pp

	optimal parameters influencing Super finishing process	Mechanical Engineering, SVNIT, Surat,	678-684.
15	Experimental Analysis of Venturi Feeder System for Pull Push Type Pneumatic Conveying System	IC on Advances in Mechanical Engineering (ICAME) SVNIT, Surat	23-25, September 2010, pp 70-75.
16	Economic Digital Radiographic Inspection of Valve Casting using 3 Axis Turn Table: Design and Development	IC on Sustainable Manufacturing: Issues, Trends and Practices, BITS, Pilani	10-12 November, 2011.
17	Experimental investigation on surface finish produced by super finishing process	IC on sustainable manufacturing - Birla institute of technology & Science, Pilani, Rajasthan	2011
18	Parametric Study on Burnishing Process with Aluminium Alloy	IC on Sustainable Manufacturing, Issues Trends & Practices, BITS Pilani, Rajasthan	10-12 Nov, 2011,
19	Performance analysis of Scheffler Reflector – An Experimental Study	IC on Applications of Renewable and Sustainable Energy for Industry and Society, Osmania University, Hyderabad	16-18 Dec'2010
20	Review of working of Scheffler Reflectors and future prospective	IS on Renewable Energy, Osmania University, Hyderabad, Hyderabad	16-18 Oct'2009,
21	Formulation of Mathematical Model for the Investigation of tool wear in Boring Machining Operation on cast iron using Carbide and CBN tools	IC on Material Processing and Characterization, organised by Gokkuraju College of Engineering, Hyderabad	March 8-9, 2014
22	Parametric Study on Burnishing Process with Aluminium Alloy	IEEE IC, Panipat, Haryana (Honored with “Best paper Award”)	
23	Formulation of an approximate generalized Experimental Data based Model for Scheffler Reflector	IC on Clean Energy Technologies and Energy Efficiency for Sustainable Development, Dehradun, India	27-29 Dec'2010
24	Optimization of super finishing process is using different types of stones	IC on Advances in Engg. and Technology- AET, Trivandrum, Kerala.	2010
25	Performance Evaluation Of Adhesive Bonded Tools Using Factorial Experimentation	IC on Agile Manufacturing (ICAM), IIT (Banaras Hindu University), Varanasi	December 16-19, 2012, 220-225
26	Solar Tracking Of Parabolic Dish Collector	IC on Recent Advances and Challenges in Energy, MIT, Manipal, Karnataka	4 <sup>th</sup> -6 <sup>th</sup> Jan 2012



27	Porous Medium Technology in I.C. Engines for Reduction of Exhaust Emissions	IC on Recent Advances in Engineering, Technology and Management [SPICON - 2012], Sardar Patel College of Engg, Andheri, Mumbai	May 31 <sup>st</sup> – June 02 <sup>nd</sup> , 2012, Pp. 1
29	Parametric Analysis of The Influence of Internal Radial Clearance on Vibrations of Ball Bearing	IC on Managing Supply chain for Global Competitiveness, IIIIE, Nagpur	25-26 October'13
30	Modal Analysis of Simply Supported Plate with Uncertain Parameters	IC Manthan 2014', SSPACE, Wardha	21 <sup>st</sup> -22 <sup>nd</sup> Feb2014.
31	Experimental Analysis of Automotive Micro channel Condenser with HFC 134a and Hydrocarbon Mixture of R290 and R600a	<i>International Centre for Automotive Technology</i> 2014	International Conference 25 Dec 2013

**iii) National Conferences: 13 Nos**

Sr. No.	Title of Paper	Name of Conference & Organizers	Year, Vol.pp
01	Parametric study of buoyancy induced flow and heat transfer inside inclined tube	Proceeding of the 21st National & 10th ISHMT-ASME Heat and Mass Transfer Conference, IIT Madras	December 27-30, 2011, Paper No.. ISHMT_IND_02_032
02	Parametric Study of Super finishing Process	NC on Precision Engineering, Narosa Publishing House, IIT, Madras	12-13 Jan'2000, pp 195-203
03	Solar Water Heater in a Different Perception	NC on Solar Energy and Systems, Maulana Azad National Institute of Technology, MANIT, Bhopal	6-7 Aug'98, pp 12-15
04	Reduction of Pollutants in CI Engine by Introduction of Heat Exchanger	NC on Control of Industrial Pollution and Environmental Degradation, PSG College of Technology, Coimbatore	14-15 Sep'2001, Pp 264-269
05	A generalized computer program for the design of Airlift Pump	NC on Advances in Mechanical Engineering, Government Engineering College, Kota,	18-19 March'2006
06	Establishment of Mathematical Model for the Investigation of Tool life in Boring Machining Operation on Cast Iron	NC on Emerging Trends in Engineering & Technology (NCETET-2014), U S B College of Engg and Management, Abu, Rajasthan	March 30, 2014
07	Preheating of Intake Air : A Solution to Automobile Pollution	NC on Environmental Pollution Strategies for Control and Abatement, Institution of	16-17 July'99, pp 22-23

		Engineers, Tirupati Local Center	
08	Application of Porous medium technology to IC engines	NC on Nascent Technologies in the field of Mechanical Engineering [NCNTE-2012]., Fr. C. Rodrigues Institute of Technology, Navi-Mumbai Honored with “Best paper Award	24-25 February,2012. Pp. 63-68
09	Improved Combustion Technique with Porous Structure in Internal Combustion Engines	NC on Emerging Trends in Engineering and Technology [VNCET-2012], Vidyavardhini’s College of Engineering and Technology, Vasai Road, Mumbai (West),	30 <sup>th</sup> March 2012, Paper id Vncet-m-0149, Page no. 17
10	Analysis Of I.C. Engine with a New Concept of Porous Medium Combustion	NC on Nascent Technologies in the field of Mechanical Engineering [NCNTE-2012]., Fr. C. Rodrigues Institute of Technology, Navi-Mumbai	24-25 February,2012. Pp. 63-68
11	Performance Enhancement of Refrigeration Cycle using Aluminium Micro Channel Condenser	NC on RDME 2011, organized by M.E.S. college of Engg, Pune	2011
12	An Overview of Design Considerations for Solar Water Pumping Systems	NS on Renewable Energy Sources and Other Technologies for Rural Development, S.S.G.M. College of Engineering, Shegaon,	9-10 March’2002, pp 12-15
13	Numerical Solution of Stress Concentration Factor for a Plate Subjected to Tensile Loading	NC on Integral Transforms and Their Applications in Science and Engineering, S.S.G.M. College of Engineering, Shegaon	16-18 Feb’2002, Shegaon pp 68-74

**Papers Reviewed for International Journal  4 Nos**

1. Reviewed the paper for the journal of Hydraulic Engineering published by American Society of Civil Engineers (ASCE), University of Michigan, Ann Arbor, MI.
2. Reviewed the paper for the journal of Information Systems Education published by Appalachian State University Boone, NC 26608 U.S.A.
3. Reviewed the paper for the journal of Applied Mechanics published by American Society of Civil Engineers (ASCE), University of Michigan, Ann Arbor, MI.
4. Reviewed the paper for the International Scientific Journal of Thermal Science published by Institute of Nuclear Sciences Vinca, Belgrade, Serbia (2010).

**Research Guidance and Post Doctoral Research Work  15 Nos**

1. Seven candidates has been awarded Ph.D. degree in Mechanical Engg by RTM Nagpur University.
  - i. Mr. Rupesh Patil
  - ii. Mr. L. B. Bhuyar
  - iii. Mr. A. A. Dhale
  - iv. Mr. Dnyaneshwar Murlidhar Mate
  - v. Mr. Sandip Sudhakar Rao Khedkar
  - vi. Mr. Rajendra Shaligram Kadu
  - vii. Mr. Amit Bhende
  
2. (Not No:1) RTMNU/Ph.D.(Cell)/515 Dt.23/06/2011. 2) RTMNU/Ph.D. (Cell)/3/1129 Dt.03/12/2012. 3) RTMNU/Ph.D. (Cell)/10/1820 Dt.26/03/2013. 4) RTMNU/Ph.D. (Cell)/2/220 Dt.: 07 April, 2015.
  
3. Four candidates have submitted Thesis for PhD degree in Mechanical Engg to RTM Nagpur University.
  - i. 'Studies on drying characteristics and evaluation of Solar Dryers for green drying of selected herbs'-by Mr. Sanjay M. Mowade.
  - ii. 'Studies on Availability and Effectiveness of Agro Waste Briquettes as Alternate Suburban Fuel Source' by Mr. Nischel P. Mungle.
  - iii. 'Optimization of Wheel Dimension and Speed Ratio between Crank and Wheel for Cycle Rickshaw' by Mr. Arvind Mahalle. '
  - iv. 'Effect of Uncertain on Vibrational Characteristics And Behaviour of Structures' by Mr. Imran Khan.
  
4. Recognized Research Supervisor for guidance of doctoral degree of
  - i) RTM, Nagpur University, Nagpur
  - ii) S. G. Amravati University, Amravati
  - iii) Gondwana University, Gadchiroli.
  
5. Eight candidates are pursuing Doctoral Research work at RTM, Nagpur University and two candidate at S. G. Amravati University.
  
6. Guided three candidates for M.Tech Dissertations.
  
7. Two candidates are pursuing M.E. by research at RTM, Nagpur University.

**Patents Applied  2 Nos**

1. Helical Nozzle (SPN) injecting device to improve the performance of an Airlift pumps.  
**CBR NO:** 22498 Patent **Application No:** 625/MUM/2006 dated 20<sup>th</sup> April 2006.
2. Hybrid Tool Concept for Boring, Reaming & Chamfering in a Single Tool.  
**Docket No.** 15944 Patent **Application No:** 2492/MUM/2013 dated 28<sup>th</sup> July 2013.

**Projects completed  16 Nos**

Total 16 projects of UG (BE) were completed.

The list industrial projects guided are as follows.

### **Sponsored Industrial Projects Guided:**

- 1) Design and Manufacturing of Index able Insert Grinding Machine, Gaurav Engineers, MIDC, Waluj Aurangabad (1995-96).
- 2) Continuous Improvement for Waste Elimination and Scrap Reduction, Purolator India Limited, Gurgaon, Haryana (1998-99).
- 3) Primary and Secondary Springs for High Adhesion Bogies on Indian Railways, Govt. of India-Ministry of Railways, RDSO, Lucknow (1999-2000).
- 4) Study of CNC Vertical Machining Center Part Programming & Improvement of Cycle Time, Kirloskar Oil Engines Limited, Pune (1999-2000).
- 5) Design and Fabrication of Dual Purpose Marking Machine, Gaurav Engineers, MIDC, Waluj Aurangabad (1998-99).
- 6) Modeling and Machining of component on CNC machine, Indo-German Tool Room, Aurangabad. (2003-2004).

### **Projects Carried out**

1. Final Year BE: Evaluation of Stress Concentration Factor by Photo Elasticity Method, Guide:Dr. D. V. Bhope (Present Designation: Dean, RGCERT, Chandrapur, BOS chairman, Mech Engg. RTMNU).
2. ME Thesis: Study and Performance Evaluation of Super finishing Process Guide: Dr. M. Adithan (Present Designation: Dean Academics, Vellore University, Vellore, Tamilnadu).
3. Ph.D. Thesis: Performance Evaluation and Analysis of Two-Phase flow Airlift pump design, Guide: Dr. L.B. Bhuyar (Present Designation: Retd. Professor and Head DME, PRM College of Engineering and Technology, Badnera).

### **ADDITIONAL INFORMATION**

(SUCH AS WORKSHOPS/STTP/CONFERENCES ORGANISED/PARTICIPATED):

- 1) Represented India in 2013 at the Indian Education fair held at Colombo, Sri Lanka.on 2<sup>nd</sup> and 3<sup>rd</sup> March 2013. (Organized by EdCIL (India) limited, India in association with high commission of India, in Sri Lanka.)

### **Coordination of AICTE Sponsored Projects 6 Nos**

Total Amount Utilized (AICTE and ISTE New Delhi, as a coordinator/Principal Investigator) = **Rs. 25.76 Lakhs.**

- 1) Up-gradation of Production Technology Laboratory (MODROB Scheme Transferred from Dr. A. K. Chincholkar, Sanctioned Amount **Rs. 5 Lakhs**, 1996-97 AICTE File No:8017/RDII/MON-W/MMEC4583/Rec. No. 486 (96-97))
- 2) Development of Advanced Center for Computational Fluid Dynamics [**CFD**] (TAPTEC Scheme, Sanctioned Amount **Rs. 8.75 Lakhs**, 2004-05, AICTE File No: 8021/RID/NPROJ/TAP-195/2002-03). Established a **CFD Centre** worth Rs. 20 Lakhs, first of its own kind in Vidarbha Region.  
Co-Investigaor: Prof. P. V. Bhale, SSGMCE, Shegaon.
- 3) Modernisation of Mechanical Measurement Laboratory (AICTE MODROB Scheme], Sanctioned Amount **Rs. 3.55 Lakhs**, 2008-09.
- 4) Establishment of Industry Institute Partnership Cell (IIPC),  
(Sanctioned Amount **Rs. 6.66 Lakhs**.  
Other Coordinator: Prof. Parag Jawarkar, TGPCET, Nagpur.

### **Events Organized/Coordinated**

- 1) **International Seminar “Confluence”** on “Innovations in Language teaching in Technical Education, (Chairman) (26 Feb 2010) (Feb 2011) (Feb 2012)
- 2) **National Level** Students’ convention **“QUARK-10”, “QUARK-11”, “QUARK-12”** (Chairman) (14-15 Jan 1010)
- 3) Coordinated the activities of Establishment of **New Engineering College** titled as Priyadarshini Indira Gandhi College of Engineering, Nagpur, at Nagpur (Session 2008-09).
- 4) **National Level** AICTE-ISTE sponsored STTP on Industry Applications of CAD/CAM. (Coordinator) .(30-8 July 2008)
- 5) **National Level** Paper presentation contest “JIGYASA 08”. (Convener) .(28 Feb – 1 March 2008)
- 6) **National Level** AICTE-ISTE sponsored STTP on Design for Manufacturability and Assembly. (Coordinator) .(25-30 Oct’2004)
- 7) **National Level** Paper presentation and Project Contest ‘PURSUIT 2002’ for students.(Faculty Advisor of ISTE local Chapter)
- 8) **National Level** Paper presentation and Project Contest “JIGYASA 08” for students.(Convener of JIGYASA 08 at PCE, Nagpur)
- 9) Seventh **State Level** Annual Convention of Maharashtra & Goa Section of ISTE, 2002. (Faculty Advisor of ISTE SSGMCE Chapter)
- 10) **Departmental coordinator** for execution TEQIP, Networking of institute under **World Bank** Assistance scheme with VNIT, Nagpur.
- 11) Coordinated several **department level** industrial tours of Undergraduate students.
- 12) Organized several **department levels** Workshop and Basic Training Course (5 Week certified) on **CFD** as a coordinator.

### **Administrative Responsibilities Handled**

- 1) **BOS Member** in Mechanical Engg (Faculty of Engg and Technology) at S.G. Amravati University, Amravati, since Dec 2012.
- 2) **BOS Member** in Mechanical Engg (Faculty of Engg and Technology) at Goa University, Goa, since August 2014.
- 3) **Principal and professor** at TGPCET, Nagpur, since 16<sup>th</sup> July 2009.
- 4) **Head of Mechanical Engineering Department** at PCE, Nagpur, from Nov' 2007 to 15<sup>th</sup> July 2009.
- 5) **Ph.D. Coordinator** of mechanical engineering at approved research centre of RTM, Nagpur University at PCE, Nagpur, since Oct' 2006.
- 6) **Officer In-charge** for conduction of Sant Gadgebaba Amravati University theory examination summer, 2005.
- 7) **Ph.D. Supervisor** of Mechanical Engineering at Approved Research centre of Gondwana University, Gadchiroli.
- 8) **Coordinator** for Practical Examination of Amravati University for two years.
- 9) **Chief Representative** of Mechanical Engineering Department for acquiring accreditation of NBA, AICTE, New Delhi (First accreditation 2001 and second April 2005)
- 10) **Represented** the Mechanical engineering department PCE, Nagpur for successful Achievement of NBA, AICTE Accreditation (March-April 2009)
- 11) **Representative** of Mechanical engineering department for Institutional Research and Development team.
- 12) **Member** of Academic Council formed at the institute for smooth conduction of Academic activities of the session 2004-05 and 2005-06.
- 13) **On deputation worked as Principal and Coordinator** for establishment of new Institute Priyadarshini Indira Gandhi College of Engineering, Nagpur for one year.

### **Resource Person at various institutes**

#### **Participation in TEQIP World Bank assistance Programmes**

1. Three-Day Training programme on Personal effectiveness for institutional development, Organised by Singhgad Institute of management, Pune. (World Bank Programmes) from 16-18 Jan' 2006.
2. Professional Training of 15 days on **ANSYS-CFX, CFD** Software at ACTIVE, Bangalore from 4 June'2006-18June'2006.

### **ISTE Activities**

#### **Promotion & Development of ISTE Activities at Institute**

1. Developed the ISTE students' chapter as **Faculty Advisor** of ISTE, New Delhi, at SSGMCE chapter for two years. During my tenure as faculty advisor achievements of students chapter are listed below
  - A. Received Best Students' chapter award of ISTE amongst ISTE Mah-Goa section.
  - B. Organised 7<sup>th</sup> State level Annual convention of ISTE successfully on 21-22<sup>nd</sup> Dec 2002. Topic: Technical Education Spirituality and Humanity
  - C. National level students convention "PURSUIT" under ISTE Students' chapter.
2. Participation & Appreciation in ISTE National Students convention "JIGYASA-7" organized at Priyadarshini College of engg, Nagpur on 8-10 March 2007. (Convener: Prof. Prashant Maheshwari).
3. Organisation of ISTE National Students convention "JIGYASA-8" Priyadarshini college of engg, Nagpur on 28-1<sup>st</sup> March 2008, as convener. (Under ISTE students chapter).
4. Established ISTE institutional chapter and Students chapter at TGPCET, Nagpur (Present Employment) as principal of college.
5. Promoted various activities at institutional level as Chairman of ISTE local chapter of TGPCET since 2011.

### **Promotion of IEI Activities at Institute**

1. Initiated the IEI Students Chapter at Institute from 2013-14 more than 600 students have become member of IEI and 300 new students are in the process of enrollment during 2015-16. IEI Students Chapter is vibrant in the institute and many technical activities are undertaken under this Chapter. Now IEI Students Chapter is popular in the institute at degree and diploma level.
2. Initiated the drive for associating the young Engineers of the institute with IEI, Kolkata by way of associate membership and also participating in the IEI Local Centre activities. Now more than 80% of staff are associate members of IEI and conduct various activities at institute level.

### **Coordination of ISTE STTP as Chief coordinator**

1. One week STTP on Design for Manufacturability and Assembly. (25-30 Oct'2004) (Sanctioned Amount **Rs. 0.90 Lakhs**, 25-30 Oct, 2004, ISTE Ref. No: ISTE/STTP-42/2004/90) at SSGM college of Engg., Shegaon. (audited statement submitted to ISTE & Project is closed)
2. One week STTP on Industry Applications of CAD/CAM.(ISTE) (30 June -8 July 2008) (Sanctioned Amount **Rs. 0.90 Lakhs** at Priyadarshini college of Engg., Nagpur. (audited statement submitted to ISTE & Project is closed)

3. One week ISTE SRM University Sponsored STTP on Design of Mechatronics System (9<sup>th</sup> June to 14<sup>th</sup> June 2014) (Sanctioned Amount **Rs.1.00 Lakhs** at Tulsiramji Gaikwad-patil College of Engg.& Tech.Nagpur) . (audited statement submitted to ISTE & Project is closed)
4. Two Days International Conference on “TechEd-2015” Conducted During (22-23 April 2015)(Amount **Rs. 0.10 Lakhs**, DD No. 790475 Dated 29-05-2015 ISTE Ref. No. ISTE/Sem/2015-16 June 01, 2015.

### **Invited Lectures in ISTE STTPS**

Delivered Nine (9) expert lectures as a Resource Person in the **AICTE-ISTE STTP's / Conferences** at following institutes.

1. AICTE-ISTE STTP on “Applications of Optimization Techniques in Science and Engineering”, organized by AEC, Chikhali. (2004)
2. AICTE-ISTE STTP on “Design for Manufacturability and Assembly”, organized by SSGMCE, Shegaon. (2004)
3. AICTE-ISTE STTP on “Future Energy”, organized by Govt. Polytechnic, Yavatmal. (2005)
4. AICTE-ISTE STTP on “Industry Applications of CAD/CAM, organized by Priyadarshini College of Engineering, Nagpur. (2008)
5. AICTE SDP on “Training to young faculty members for building higher level scholarship, organized by Priyadarshini College of Engineering, Nagpur. (2008)
6. ISTE-SRM University’s STTP on “Data Mining and Algorithm” organized by Abha Gaikwad- Patil college of Engg, Nagpur (June 2014).
7. ISTE-SRM University’s STTP on “Design of Mechatronics System”, organized by Tulsiramji Gaikwad- Patil college of Engg and Technology, Nagpur (June 2014).
8. NITTR Bhopal- MSBTE’s Induction Training Programme Phase I organized by Tulsiramji Gaikwad- Patil college of Engg and Technology, Nagpur.
9. National Conference on “Research in Engineering”, organized by Abha Gaikwad- Patil college of Engg, Nagpur (March 2014).
10. UGC Sponsored Refresher Course in ICT (Information Communication Technology) held during 27<sup>th</sup> October 2014 to 15<sup>th</sup> November, 2014 Organized by UGC-Academic Staff College Sant Gadge Baba Amravati University, Amravati.

### **ISTE Participation in Summer/Winter School**

- 1) Two-week AICTE-ISTE Summer School on Tribology of Bearings in Industries, Organised by **NIT, Jamshedpur**, from 12-24 June’2000.
- 2) Two-week AICTE-ISTE Winter School on Total Quality Management, Organised by **Sardar Patel College of Engineering, Andheri, Mumbai**, from 16-27 March’1998.



- 3) Two-days 6<sup>th</sup> State Level Convention of ISTE on Building up Knowledge Societies–A New Learning Paradigm for Technical Teachers, Organised by **Dr. B.A. Technological University, Lonere**, from 14-15 Dec'2001.
- 4) Two-days 7<sup>th</sup> State Level Convention of ISTE on Technical Education, Spirituality and Humanity, Organised by **S.S.G.M. College of Engineering, Shegaon**, from 21-22 Dec'2002.
- 5) Two-week AICTE-ISTE Summer School on Integrated Product design, Analysis & Simulation of Mechanical Systems, Organised by **Erode Sengunthar Engg College, Erode (TN)** , from 31/3/2004-10/04/2004.

### **Participation in Summer/Winter School & STTPs**

1. One-week QIP Short Term Course on Introduction to Fluid Mechanics, Organised by **IIT, Powai, Mumbai**, from 20-24 May'2002.
2. One-week QIP Short Term Course on First Course in Computational Fluid Dynamics, Organised by **IIT, Powai, Mumbai**, from 2-7 June'2003.
3. Two-Day DST's workshop on Low Cost Automation, Organised by **VIT, Vellore (TN)** from 29-30 Nov'2005.

### **Membership of Professional Bodies**

- 1) Life Member of Indian Society for Technical Education, New Delhi.  
LM 22276 dated 15 July1996
- 2) Fellow of Institution of Engineers, Calcutta.  
F115300-1 dated 26<sup>th</sup> August 2010

Dr. G. K. Awari