# **Curriculum Vitae**



Name: DR. KECHE ASHOK JAYWANTRAO

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**Date of Birth**: 01.06.1968

## **Academic Credentials**

Class/ Degree	Specialization	Institution	University	Year	%/CGPA	Class
Ph.D.	Mechanical	NIT, Warangal (T.S.)		2015	Successfully completed in may 2015	
M.E.	Mechanical Design	Govt.  College of Engineering Aurangabad	Dr. B.A.M.U. Aurangabad	1999	61.31	First Division
B.E.	Production	J.N.E.C, Aurangabad	Marathwada University, Aurangabad.	1991	66.67	Distinction

## M. Tech. Project:

Title of Dissertation/ Thesis	Guide	University
Optimization of Machine Tool		
Speed Box using Computer Aided	Prof. K .B. Bokankar	Dr.B.A.M.U,Aurangabad
Design.		

# Ph. D. Research:

Title of Thesis	Guide	University
Modeling and Experimental Studies	Prof. G. Amba Prasad Rao	NIT, Warangal (T.S.)
on an Improvised Downdraft Biomass		
Gasifier with Different Biomass Fuels		

# **Key Research Areas:**

Biomass Gasification Process, Machine Design and Non Conventional Machining Processes

# Experience

Industrial: 12 years Teaching: 17.10Years

Sr. No.	Organization	Post	From	То	No. of Years
		Trainee Engineer	23 Aug. 1991	23 Aug. 1992	1 year
		Assistant Engineer	24 Aug.	25 June	1 year &
		(Grade S4)	1992	1994	10 months
		Section Manager (Grade –	26 June	25 June	2 11201
1	Bajaj Auto Ltd,	O1)	1994.	1997	3 year
-	charge (M.T.D. M/c Shop)  Assistant Manager in charge (M.T.D. I		26 June, 1997	25 June 2000	3 year
		Assistant Manager & shift in charge (M.T.D. M/c Shop) (Grade – M1)	26 <sup>th</sup> June 2000	13 <sup>th</sup> Sep.2003	3 year & 3 months
		Lecturer	22/09/2003	14/12/200 3	3 months
2		Lect. &W/s.	15/12/2003	31/12/200 7	4 year
		Sr. Lecturer & W/s.	01/01/2008	30/06/200	6 months
3	Maharashtra	Asst. Prof.& W/s.	1/07/2008	31/8/2011	3 year & 1

I	nstitute of				months
Te	echnology,	Asso. Professor & W/s.	1/9/2011	6/9/2015	5 year
A	urangabad	Asso. Professor, M. Tech.  Dept. and Central  Coordinator	7/9/2015	7/07/2016	10 months
		Asso. Professor & HMED	8/07/2016	Till date	5 years

#### List of Courses Taught/Teaching at UG level

- 1. Design of machine element I & II.
- 2. Mechanical Estimating & costing.
- 3. Metrology and Quality control.
- 4. Total Quality management
- 5. Industrial management.
- 6. Costing & Financial management
- 7. Industrial Management
- 8. Elements of Mechanical Engineering

#### List of Courses Taught/Teaching at PG level

- 1) Advanced Machine Design
- 2) Maintenance & Reliability Engineering
- 3) Non Conventional Machining Processes

## Additional Assignments/Duties

- ➤ Presently holding the responsibility of Head of Mechanical Engineering Department at Maharashtra Institute of Technology, Aurangabad and during my tenure Institute has been accredited with A grade by NAAC and Department has successfully defended for the Autonomy committee visit and prepared and submitted SAR to the NBA Authorities.
- ➤ Worked as M. Tech. Central Coordinator and M. Tech (Mech.) Departmental Coordinator
- ➤ Worked as Paper setter / Co- examiner for Dr. B.A.M. University Examinations.
- Member of Syllabus setting committee, Appointed by Dr. B.A.M. University,

Aurangabad.

- ➤ University Examination, Administrative Work, Appointed by Dr. B.A.M. University, Aurangabad.
- ➤ Worked as chairman for institute level project competition TechnoMind 2K18 on 25<sup>th</sup> October 2018.

#### **Board of Studies/Editorial member**

Member of Board of Studies of Mechanical Engineering at Rajarambapu Institute of Technology, Rajaramnagar, Islampur, Sangli, Maharashtra , India

Editorial member of International Journal of Trends in Machine Design (STM –Journals)

Research Project Reviewed: 01

## Membership of Professional Bodies

Life member of Indian society for Technical Education (LM41086)

Senior Member of Indian Institution of Industrial Engineering (SMIIE 10524 (23))

Fellow membership of the Indian Institute of Engineers (IES) F-123245-9.

## Research Projects/Projects Guided

Sr. No.	Name of the Student	Dissertation Title	Year
1.	Mr. Abhijeet N. Borade	Linear heat transfer and fatigue analysis of a railway wheel	2020-2021
2.	Ms. Manjiri S. Gajhas	Experimental Investigation and Design Analysis of Conventional and Composite Spur Gear using Finite Element Method	2018-2019
3.	Ms. Vrushali M. Shete	Process Parameters Optimization of Drip Pipe Extrusion Process using Taguchi Approach	2018-2019
4.	Anuradha J. Thakare	Durability Analysis of Engine Value –  Train Components by using Finite Element  Method	2018-2019

5.	Mr. Chetan S Kahate	Failure analysis of crank shaft using FEA approach	2017-2018
6.	Mr.Amol M.Shinde	Optimization of wind mill shaft of composite material	2017-2018
7.	Mr.Alankar B.Patni	Experimental investigation of tool shaped and size factor in EDM on AiSi 316 Stainless steel.	2017-2018
8.	Mr. Sohel A. Shaikh	Study of cyclic oxidation and hot corrosion of 310 SS under the environmental impurities of Na2SO4+ V2O5 at different temperature	2017-2018
9.	Ms.Vishaka S. Jawale	Experimental performance study of R290 as an alternative to R22 refrigerant in a window air conditioner	2017-2018
10.	Mr. Sachin N. Avghad	Experimental Investigation to improve the start –up time of IC Engine by using Phase Change Material	2017-2018
11.	Mr. Sanket Borkar	Performance Assessment of R600a as an alternative to	2016-2017
12.	Mr. Pranav Sanap	Optimization of plastic molding by reducing warpage.	2016-2017
13.	Mr. Sudhir G. Auti	Experimental study and simulation of split injection in compression ignition engine for reducing emission at different Injection pressure.	2016-2017
14.	Mr. Anand D. Dantale	Failure analysis and test validation of connecting rod	2015-2016
15.	Mr. Manoj p. Talele	Experimental study simulation and modeling of transportation metal rack for engine assembly.	2015-2016
16.	Miss. Yogoni V. Somvanshi	Experimental study, design and failure analysis of companion flange.	2015-2016

17.	Mr. Chetan V. Bhusare	Emission optimization of single cylinder	2015-2016
		diesel engine for 910 kg inertia class	
18.	Mr. Ketan S. Patil	Analysis and modeling study of composite	2015-2016
		material drive shaft for an automobile.	
19.	Mr. Roshan V. Marode	Design and thermal analysis of single tube	2015-2016
	1,11,11,11,11,11,11,11,11,11,11,11,11,1	in a het	
20	Mr. Rahul H. Katariya	Optimization of single cylinder air cool	2014-2015
20		diesel engine for BS IV emission norms	201. 2013

## Ph. D. Students Co-Guided

1.	Mohd. Tareq Siddiqui	Cycle Time Reduction in Vapour Phase Drying of Transformer Coil	2019-20
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#### **Patents**

1.	Title of The Invention : A Personal Protective	Application No.202121012836 A	ì
	Equipment Disinfector Machine	Publication Date: 28/05/2021	ì

## **Grants / Funds Received**

## A. Grants

## **B.** Funds Received

Received Financial Assistance: INR 50000/- under my Mentorship to Team Sentinels from MASSIA IFC and TATA TECHNOLOGIES for Product Development, Production and Marketing.

## Computer/Software Proficiency

- 1) IT exposure-In-depth knowledge of MS-Office (MS Word, Microsoft-excel and Microsoft Power Point) for management and communication.
- 2) MATLAB

# Seminar/Workshop/Industrial Training/STTP//FDP/CEP/Conference Attended

Sr. No.	Title of the Programme	Duration	Year	Institute/ Faculty
01	SERC School on Combustion in Energy Sector	7 <sup>th</sup> -11 <sup>th</sup> June 2011	2011	IIT, Bombay Sponsored by DST. Govt. of India
02	Advanced Computational Applications using Ansys Fluent	7 <sup>th</sup> January 2011	2011	NIT, Warangal (AP)
03	Two week short term training Programme on Failure Diagnosis and Prevention.	30 <sup>th</sup> Nov. 2009 to 11 <sup>th</sup> Dec.2009	2008	Visvesvaraya National Institute of Technology ,Nagpur Sponsored by MHRD/AICTE
04	One week short term training Programme on Advanced Engineering Optimization through Intelligent Techniques	16 <sup>th</sup> June 2008 to 20 <sup>th</sup> June 2008	2008	Sardar Vallabhai  National Institute of  Technology Surat  Sponsored by AICTE
05	Faculty development Programme in Entrepreneurship at Nashik	25/12/2004 to 05/01/2005.	2004- 05	Mitcon consultancy services ltd, Pune Sponsored by DST. Govt. of India
06	CNC part programming	22/9/1997 to 25/9/1997.	1997	Fanuc India ltd, Bangalore
07	An Interdisciplinary Training Program on Applications of MATLAB & Simulink for Engineers and Researchers	19 <sup>th</sup> -23 <sup>th</sup> Nov.2012	2012	College of Engineering, Pune, Maharashtra

08	Faculty Development Program on Indian Patent Drafting and Filing Procedure	8 <sup>th</sup> and 9 <sup>th</sup> November ,2017	2017	Dr. D.Y. Patil School of  Engineering and  Technology, Pune,  Maharashtra.
09	2 days Refresher Course on "Theories of Beams & Plates"	2 <sup>nd</sup> and 3 <sup>rd</sup> May 2020	2020	G H Raisoni College of Engineering and Management, Pune
10	Covid -19 Awareness Program	29 <sup>th</sup> April 2020	2020	Shivaji University , Kolhapur
11	Faculty Program on NBA	5 <sup>th</sup> May 2020	2020	Bharati Vidyapeeth College of Engineering, Navi Mumbai.
11	"Outcome Based Education: A Step Towards Excellence"	11-15 May 2020	2020	Government College of Engineering, Karad.
12	Two Weeks International Faculty Development Program On "Emerging Trends in Industry 4.0"	18 <sup>th</sup> May 2020 to 29 <sup>th</sup> May 2020	2020	JSPM's Rajarshi Shahu College of Engineering, Pune
13	International Technical Symposium on "Opportunities & Challenges in Industry 4.0"	15 <sup>th</sup> - 17 <sup>th</sup> June, 2020	2020	G.S. Mandal's  Maharashtra Institute of Technology, Aurangabad
14	NBA Awareness	11th to 14th May 2021	2021	Association of the Managements of Un-aided Engineering Colleges (Maharashtra)
15	OBE Concepts & Implementation and Digital Preparedness for NBA	29th May 2021	2021	G. S. Mandal's  Maharashtra Institute of Technology, Aurangabad

# Seminar/Workshop/Industrial Training/STTP//FDP/CEP/Conference organized

Sr. No.	Title	Role	Date
01	National Conference on Emerging Trends in Mechanical Engineering for engineering research scholars Faculty members & Industry persons held at Maharashtra Institute of Technology, Aurangabad.	Organizing Secretary	5 <sup>th</sup> and 6 <sup>th</sup> March 2009
02	Two days workshop on Component Failures: Causes & Remedies.	Member of Organizing Committee	23 <sup>rd</sup> and 24 <sup>th</sup> April 2010.
03	Three days state level workshop on Entrepreneurship Development for undergraduate Engineering students at MIT, Aurangabad.	Co- convener	5 <sup>th</sup> , 6 <sup>th</sup> and 7 <sup>th</sup> April 2007
04	Two days workshop Entrepreneurship for undergraduate Engineering students.	Member of Organizing Committee	24 <sup>th</sup> & 25 <sup>th</sup> Feb.2005.
05	Technomillenium - National level paper presentation for engineering students.	Member of Organizing Committee	15 <sup>Th</sup> ,16 <sup>th</sup> & 17 <sup>th</sup> Sep. 2004 & 2005
06	Technomillenium – International level paper presentation for Engineering students Faculty members &Industry persons.	Member of Organizing Committee	15 <sup>Th</sup> ,16 <sup>th</sup> & 17 <sup>th</sup> Sep .2006
07	One day workshop on Energy Farming	Speaker for one session	2 <sup>nd</sup> December 2012
08	Six days ANSYS workshop for the mechanical engineering students in association with Element Simulation Academy, Pune.	Convener	13 <sup>th</sup> to 18 <sup>th</sup> October 2016.

09	One Week Faculty Development Programme on Outcome Based Education and NBA Process, Aurangabad	Co-Convener	9 <sup>th</sup> July to 14 <sup>th</sup> July 2018
10	Two days workshop on Intellectual Property Rights & Opportunities for Funded Research, MIT, Aurangabad.	Co-Convener	5 <sup>th</sup> and 6 <sup>th</sup> January 2018
11	Institute level project competition TechnoMind 2K18, MIT, Aurangabad	Coordinator	25 <sup>th</sup> Oct.2018
12	One week refresher Course on Use of ICT for Effective Teaching Learning, MIT, Aurangabad.	Organizing Secretary	8 <sup>th</sup> to 12 <sup>th</sup> January 2019.
12	Two day's workshop on Industry 4.0,  Mechanical Engineering Department,  MIT, Aurangabad.	Convener	2nd and 3 <sup>rd</sup> March 2019.
13	Organised Webinar on Following Topics  1. Gate Preparation and Opportunities  2. Opportunities for Mechanical Engineering in AI word.  3. Journey of Excellence Through TPM  4. Virtual Reality and Augmented Pacifity and Introduction and	Convener	4 <sup>th</sup> June 2020 6 <sup>th</sup> June 2020
14	Reality and Introduction and Application 5. Additive Manufacturing Five Days Technical Symposium on Advances in Materials and Manufacturing Engineering (AMME-2020)	Co- convener	30 <sup>Th</sup> June to 4 <sup>th</sup> July 2020
15	One day workshop on Opportunities for Higher Education and Research in Engineering	Convener	22 <sup>nd</sup> July2020
16	International Conference on "Recent Trends in Mechanical Engineering" (ICRTME -2021)	Convener	22 <sup>nd</sup> 23 <sup>rd</sup> January 2021

#### Papers in National/International Journal

#### A) Papers in International Journal

- Kunal Bhansali, A.J. Keche, C.L. Gogte, Vivek Bagul, Characteristics and Comparison of Continuous Casting Machine (CCM) and Reheat Furnace (RHF) Rolled Reinforcement Bar, Trends in Mechanical Engineering & Technology (TMET), 2021.
- 2. Kunal Bhansali, A.J.keche, C.L.Gogte, Samini Chopra, Effect of Grain Size on Hall-Petch Relationship During Rolling Process, Material Proceedings (Elsevier), 2020
- 3. Mohd. Tareq Siddiqui, Jayant T. Pattiwar, Avinash P. Paranjape, Ashok J Keche, Influence of Various Temperatures on the Drying Time of 132 KV Transformer Insulations in Vapour Phase Drying Process, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 8958, Volume-9 Issue-3, February 2020
- 4. Mohd. Tareq Siddiqui, Jayant T. Pattiwar, Avinash P. Paranjape, Ashok J Keche, Influence of Various Temperatures on the Drying Time of 220/66 KV Transformer Insulations in Vapour Phase Drying Process, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-5, March 2020.
- 5. Debabrata Samantaraya, Sanjay Lakade, Ashok Keche, An Alternate Machining Method for Hardened Automotive Gears, Procedia Manufacturing (2018) 517–522
- 6. Anuradha J Thakare, Ashok J Keche, Automotive Valve-Train Components Durability Analysis Using Finite Element Method Approach: A Review, Trends in Machine Design, Volume 5, Issue 1, 2018
- 7. Vrushali M. Shete, Ashok J. Keche, Drip Irrigation Pipe Manufacturing Process and Defects in It: A Review, Journal of Mechatronics and Automation, Volume 5, Issue 1, 2018
- 8. Abhijeet. N. Borade, A. J. Keche, Dynamic Analysis and Optimization Locomotive Railway Wagon Wheel: A Review, Trends in Mechanical Engineering & Technology, Volume 7, Issue 3, pp. 1-17, 2017.
- Alankar Patni, Ashok Keche, Hanumant Dharmadhikari, Experimental Investigation and Modelling of EWR, Ra and MRR in Electric Discharge Machining of AISI 316 Steel, American Journal of Mechanical and Industrial Engineering, Vol. 1, No. 3, pp. 115-122, 2016
- 10. Pranav P. Bagdiya, Ashok J. Keche, Failure Analysis of Bearing: A Review, Trends in Machine Design, Volume 3, Issue 3, pp.1-17, 2016
- 11. Ketan S. Patil , V. M. Chidri ,A. J. Keche, Analytical and Modeling Study of

- Composite Material Drive Shaft for an Automobile, International Organization of Scientific Research (IOSR), pp. 34-48, 2016.
- 12. Sachin N. Avghad, Ashok J. Keche, Abhijit Kousal, Thermal Energy Storage: A Review, IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 13, Issue 3 Ver. II., PP 72-77, 2016.
- 13. Chetan Kahate, Ashok Keche, Failure Analysis of Crankshaft using Finite Element Approach, International Journal of Engineering and Applied Sciences, ISSN: 2394-3661, Volume-3, Issue-4, April 2016.
- 14. Yogini V Somvanshi, Ashok J Keche, Design and Analysis of Companion Flange, International Journal of Engineering Development and Research, Volume 3, Issue 2, ISSN: 2321-9939.pp.689-693, 2015
- 15. Roshan. V. Marode & Ashok. J. Keche, Thermal Analysis Validation for Different Design Tubes in a Heat Exchanger, International Journal of Engineering Research and General Science, Volume 3, Issue 1, January-February, 2015 ISSN 2091-2730
- 16. Ashok J. Keche, Amba Prasad Rao Gaddale, Rajendrakumar G. Tated, Simulation of biomass gasification in downdraft gasifier for different biomass fuels using ASPEN PLUS, Clean Technologies and Environmental Policy 17 (2), 465-473, 2015
- 17. Ashok J Keche, G Amba Prasad Rao, Rajendrakumar G Tated, Effective Utilization of Low Density Biomass in a Downdraft Gasifier, International Journal of Ambient Energy, 10.1080/01430750.2013.820148, 2015
- 18. Roshan. V. Marode, Ashok. J. Keche, Experimental Investigation & Modeling Studies for Different Tubes of Heat Exchanger using CFD, Global Journal of Researches in Engineering, Volume 15 Issue 4 Version 1.0, ISSN:2249-4596Print ISSN:0975-5861, 2015
- 19. Manoj P Talele, Ashok J Keche, Computer Aided Design & Experimental Validation of Engine Metal pallet, International Journal of Research in Engineering and Applied Sciences, ISSN 2249-3905, Volume 5, Issue 5, pp.76-92, 2015
- 20. Manoj P Talele, Ashok J Keche, Design Optimization and Simulation Study of the Engine Transportation Metal Pallet for Stationary and Movable Condition, International Journal of u- and e- Service, Science and Technology, Vol.8, No.5 (2015), pp.219-230
- 21. Anand D Dantale, Ashok J Keche, Fatigue Life Validation and Analysis of Connecting Rod, International Journal of Hybrid Information Technology, Vol. 7, No. 6 (2014), pp. 423-432 http://dx.doi.org/10.14257/ijhit.2014.7.6.36.
- 22. Rahul Katariya, Ashok J Keche, Research on steps taken to meet BSIV emission norms

- with single cylinder air cooled diesel engine & conventional injection system, International Journal of Advances in Engineering & Technology, Vol. 6, Issue 6, pp. 2556-2565, Jan. 2014.
- 23. Roshan. V. Marode, Ashok. J. Keche, A Review on optimal Design of Single Tube in a Heat Exchanger using FEA Tool, International Journal of Electronics, Communication & Soft Computing Science and Engineering, ISSN: 2277-9477, Volume 3, issue 3, 2014
- 24. Anand D Dantale, Ashok J Keche, Constant Speed Engine Con-rod Soft Validation & Optimization, International Journal of Design and Manufacturing Technology (IJDMT), ISSN 0976 6995(Print), ISSN 0976 7002(Online) Volume 5, Issue 1, January April (2014), pp. 01-11.
- 25. Ashok J Keche, G Amba Prasad Rao, Rajendrakumar G Tated, Simulation of Biomass Gasification in Downdraft Gasifier Using Aspen plus, International Journal of Alternate Energy Sources & Technologies, Volume 4, Issue 2, ISSN: 2230 -7982, 2013
- 26. Ashok Jayawantrao Keche, Gaddale Amba Prasad Rao, Experimental Evaluation of 35 kVA Downdraft Gasifier, International Journal of Frontiers in Energy, DOI10.1007/s11708-013-0247-9, 2013
- 27. Ketan Patil, Roshan Marode, V. M. Chidri, A.J. Keche, Finite Element Structural & Thermal Analysis of Lock Plate, International Journal of Scientific & Technology Research, Volume 1, Issue 4, May 2012.
- 28. Ashok J Keche, G Amba Prasad Rao, Rajendrakumar G Tated, Performance Evaluation of wood Gasifier, International Journal of Alternate Energy Sources & Technologies, Vol 3, No, 3 (2012)
- 29. Ashok J Keche, G Amba Prasad Rao, Rajendrakumar G Tated, Efficient Utilization of Biomass by Gasification A case Study, International Journal of Advances in Thermal Science and Engineering (IJATSE) Serials Publications, New Delhi (India), Serials Publications, New Delhi (India). Volume 2 (Issues 1 or 2) 2010.

#### **B)** Papers in National Journal

Ashok J Keche, Biomass Gasifier-Based Power Generation System Back To Basics, With a
Difference, Indian Journal of Engineering, Science and Technology, ISSN: 0973 –
6255, Vol.4 (No.1), 33 January – June 2010

#### C) Papers in International Conference Proceedings

1. Abhijeet. N. Borade, A. J. Keche, C. D. Kuthe, Fatigue Failure Analysis of a Railway Wheel using FEA, International conference on Recent Trends in Mechanical Engineering

- (ICRTME-2021) held at Mechanical Engineering Department, Maharashtra Institute Technology, Aurangabad(MS- India) 22<sup>nd</sup> and 23<sup>rd</sup> January2021.
- Kunal Bhansali, A.J. Keche, C.L. Gogte, Vivek Bagul, Characteristics and Comparison of CCM and Reheat Rolled Reinforcement Bar, International conference on Recent Trends in Mechanical Engineering (ICRTME-2021) held at Mechanical Engineering Department, Maharashtra Institute Technology, Aurangabad(MS-India) 22<sup>nd</sup> and 23<sup>rd</sup> January2021.
- 3. Nitin M. Sakhare, Ashok J. Keche, Review on Performance and Emission Characteristics of Biodiesels as Alternative Fuel: The Future Trend", International conference on Recent Trends in Mechanical Engineering (ICRTME-2021) held at Mechanical Engineering Department, Maharashtra Institute Technology, Aurangabad(MS- Inda) 22<sup>nd</sup> and 23<sup>rd</sup> January2021.
- 4. A.N. Borade, Ashok Keche, Linear Heat Transfer and Structural Analysis of a Railway Wheel. First international conference on emerging trends in mechanical engineering (ICETME-2018) held at Srinivasa Ramanujan Institute of Technology, Ananthapurum, AP (India) 20-22 Dec. 2018.
- 5. Anuradha J Thakare, Ashok J Keche, A Optimization Of Valve-Train Components For Durability Analysis By Using Finite Element Analysis Method. First international conference on emerging trends in mechanical engineering (ICETME-2018) held at Srinivasa Ramanujan Institute of Technology, Ananthapurum, AP (India) 20-22 Dec. 2018.
- 6. Sachin Avghad, Ashok Keche, Reduction of Warm-up time in Light Duty Petrol Engine, International Conference on Smart Technologies for Energy, Environment & Sustainable Development, G.H.Raisoni college of Engineering (Technically supported by Springer) ,Nagpur, 28<sup>th</sup> -29<sup>th</sup> July, 2018
- 7. Anuradha J. Thakare , Ashok J. Keche, Optimization of Valve-train Components For Durability Analysis by Using Finite Element Analysis Method, International Conference on Smart Technologies for Energy, Environment & Sustainable Development ,G.H.Raisoni college of Engineering (Technically supported by Springer) ,Nagpur, 28<sup>th</sup> -29<sup>th</sup> July, 2018
- 8. Manjiri S Gajhas, Ashok J Keche ,Design Analysis Of Conventional And Composite Spur Gear Using Finite Element Method, International Conference on Smart Technologies for Energy, Environment & Sustainable Development ,G.H.Raisoni college of Engineering (Technically supported by Springer) ,Nagpur, 28<sup>th</sup> -29<sup>th</sup> July, 2018.
- 9. Vrushali M Shete, Ashok J Keche, Process Parameters Optimization of Drip Pipe Extrusion Process using Taguchi Approach, , International Conference on Smart

- Technologies for Energy, Environment & Sustainable Development ,G.H.Raisoni college of Engineering (Technically supported by Springer) ,Nagpur, 28<sup>th</sup> -29<sup>th</sup> July, 2018
- 10. Debabrata Samantaraya, Sanjay Lakade, Ashok Keche, An Alternate Machining Method for Hardened Automotive Gears, 2nd International Conference on Materials Manufacturing and Design Engineering, MIT, Aurangabad, 11- 12 December 2017.
- 11. S A Shaikh, A J Keche, C D Kuthe, Study of cyclic oxidation and hot corrosion of 310 SS under the environmental impurities of Na2SO4+V2O5 at different temperatures, First International Conference on Mechanical Material and Renewable Energy, Sikkim Manipal Institute of Technology, Majhitar, Sikkim, India., 8-10 December 2017.
- 12. Sanket Borkar, Ashok J Keche, Performance Assessment of R600a As An Alternative to R134a in a Multi-Evaporator Refrigerating System, Published in 1st International and 18th ISME Conference, 23rd 25th February, NIT, Warangal, 2017,
- 13. S.G. Auti, A.J. Keche, A.T. Autee, H.M. Dharmadhikari, Experimental Study and Simulation of Split Injection in Compression Ignition Engine for Reducing Emissions at Different Injection Pressures, Published in 1st International and 18th ISME Conference, 23rd 25th, NIT, Warangal 2017.
- 14. Vishakha S. Jawale, Ashok J. Keche, Experimental performance study of R290 as an alternative to R22 refrigerant in a window air conditioner" 1st International Conference On Mechanical Materials And Renewable Energy 2017, Sikkim Manipal Institute of Technology, Majitar, Sikkim, 8 -10 December, 2017.
- 15. Sachin N.Avghad, Ashok J Keche, Renewable Energy conservation by using thermal Energy Storage system, , The Institution of Engineer's (India) at local center Pune. 7-8 October 2017.
- 16. Debabrata Samantaraya, A. S. Kousal, Ashok Keche, Hard Turning of 20Mn5Cr5 Steel with PCBN tool as an Alternative to Grinding, 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), College of Engineering., Pune, Maharashtra, India, 16th to 18th December 2016.
- 17. Amol Shinde, Ashok Keche, Design and Analysis of Windmill Shaft using composite Materials, International Conference on Materials, Manufacturing and Design Engineering, (ICMMD 2016), Lonere (MS), 20th -21st December 2016.
- 18. Pranav Sanap, A.J. Keche, H.M. Dharmadhikari, Optimization of plastic Moulding by reducing Warpage with the Application of Taguchi optimization technique, International Conference on Materials, Manufacturing and Design Engineering, (ICMMD 2016), Lonere (MS), 20th -21st December 2016.

- 19. Chetan Bhusare, A. J. Keche, Emission Optimization Of Single Cylinder Diesel Engine With Effect of Inertia Class On Chassis Dynamometer Test Cycles, 5Th International Conference on Advances in Energy Research, IIT, Mumbai, 10th 12th December, 2015
- 20. Roshan V Marode, Ashok J Keche, A Review on Optimal Design of Single Tube in Heat Exchanger using FEA Tool, International conference BLAZE -2014, RSCOE, Buldana, March 13 14 March 13 14, 2014.
- 21. Ashok J Keche, Amba Prasad Rao Gaddale, Rajendrakumar G Tated, Simulation of Biomass Gasification in Downdraft Gasifier for different biomass fuels Using Aspen Plus, International Conference on Advances in Energy Research, IIT, Mumbai, 10th 12th December, 2013
- 22. Ashok J Keche, Amba Prasad Rao Gaddale, Rajendrakumar G Tated, Simulation of Biomass Gasification in Downdraft Gasifier for different biomass fuels Using Aspen Plus, International Conference on Advances in Energy Research, IIT, Mumbai, 10th 12th December, 2013
- 23. Ashok J Keche, Amba Prasad Rao Gaddale, Rajendrakumar G Tated, Efficient Utilization of Biomass by Gasification A case Study, 5th International Conference on Advances in Mechanical Engineering (ICAME-2011), SVNIT, Surat, 06-08 June, 2011.
- 24. Ashok J Keche, Amba Prasad Rao Gaddale, Rajendrakumar G Tated, Efficient Utilization of Biomass by Gasification A case Study, 5th International Conference on Advances in Mechanical Engineering (ICAME-2011), SVNIT, Surat, 06-08 June, 2011.
- 25. A.J. Keche, Maynord Operation Sequence Technique (Most) For Productivity, International Conference AMMMT, Tumkur, Karnataka India, November 18 -19, 2010.

## **D) Papers in National Conference Proceedings**

- 1. Yuvraj Narwade, Chetan Kuthe, Ashok Keche, Design, Development and Performance Analysis of Tube Parting Machine, 3<sup>rd</sup> National conference on Industrial Engineering and Technology Management, 30<sup>th</sup> November and I<sup>st</sup> December 2018 NITIE, Mumbai.
- Bhagyashri Chaudhari, Chinmai Deshmukh , Ashok Keche , Design, Development and Manufacturing of Specialized Cutting Tool, 3<sup>rd</sup> National conference on Industrial Engineering and Technology Management, 30<sup>th</sup> November and I<sup>st</sup> December 2018 NITIE, Mumbai.
- Sanket Borkar, A. J. Keche, Theoretical Investigation of 600a as an Alternative to R134a, National Symposium of Mechanical Engineering Research Scholars, NIT Warangal, October 7<sup>th</sup> October, 2016.
- 4. Vrushabh Wandhare. Nivutti Pachopor , Akshay Kulkarn, Shubham Mankar, Askok

- Keche, Design and Analysis of Steering and Transmission System for Formula 8 Car, National Workshop on Industrial Problems on Machines and Mechanisms, 22th -23th December, 2016.
- Sudhir Auti, Ashok Keche, Arun Autee, Subhash Lahane, Effect of Split Injection Method for Reducing Emissions in Compression Ignition Engine, National Symposium of Mechanical Engineering Research Scholars, NIT Warangal, 7<sup>th</sup> October, 2016.
- 6. Vishakha Jawale, Ashok Keche, Comparative Performance Study of Alternative to R22 Refrigerant: A Review, 4th National Conference on Innovations in Mechanical Engineering, NCIME'16, AP, 21th -22th October, 2016.
- 7. Debabrata Samantaraya, A. S. Kousal, Ashok Keche, Hard turning of 21 Mn5Cr4 Steel by Super Hard Cutting Tool Material PCBN, National Conference on Advances in Material Processing and Characterization, NIT, Warangal, 4th-6th January, 2016.
- 8. Ashok. J. Keche, Biomass Gasifier-Based Power Generation System Back To Basics, With a Difference, National Conference on AFTMME 2010, YCE, Punjab University Guru kashi Camps Bathinda, 19th -20th February, 2010.
- Ashok. J. Keche, Implementation of Concurrent Engineering for Product Design & Development Process, National Conference NCME-2007 Ban more (India), National Conference NCME-2007 Ban more (India), 28th -29th April, 2007.
- 10. Ashok. J. Keche, Total Productive Maintenance Philosophy of Zero, National conference Mech. fest-05, Aurangabad, 2th-3th, April, 2005.
- 11. Ashok J. Keche, Jagdeesh Godihal, Engineer as Entrepreneurs Role of Engg. Educational Institutions, National conference Bhilai, 13th -14th March, 2005.
- 12. Ashok J. Keche, Jagdeesh Godihal, Implementation of ISO 9000 Standard Series in Higher Educational Institutes, State level conference TQM & BPHE, Ahmednagar (M.S.), 16th -17th December, 2005.
- 13. Ashok J. Keche, Jagdeesh Godihal, Model ways to Enhance Quality of Higher Education, State level conference, AEQHE-2005, Aurangabad (M.S.), 29th -30th, April 2005

# **Books/Book Chapter**

Sr.	Title	Book Title		D III I	
No.		Authors		Publisher	
1.	Linear Heat Transfer and	AN Borade,	Emerging	Springer,	
	Structural Analysis of a Railway	AJ Keche	Trends	Singapore,2020	
	Wheel				
			in Mechanical		
			Engineering		
2.	Optimization of Valve-Train	Anuradha J	Emerging	Springer,	
	Components for Durability	Thakare, Ashok	Trends	Singapore,2020	
	Analysis by Using Finite	Ј			
	Element Analysis Method	Keche	in Mechanical		
			Engineering		
3.	Experimental performance study	Vishakha S.	IOP	IOP ebooks <sup>TM</sup>	
	of R290 as an alternative to R22	Jawale, Ashok	Conference		
	refrigerant in a window air	J. Keche	Series:		
	conditioner	Materials			
			Science and		
			Engineering		
4.	Study of cyclic oxidation and hot	S A Shaikh, A J	IOP	IOP ebooks <sup>TM</sup>	
	corrosion of 310 SS under the	Keche and C D	Conference		
	environmental impurities of	Kuthe	Series:		
	Na <sub>2</sub> SO <sub>4</sub> +V2O5 at different	ferent			
	temperatures.		Science and		
			Engineering		
5.	Experimental Investigation and	Sudhir Girish	Mechanical	CRC Press	
	Simulation of Split Injection at	Auti, Ashok J.	Engineering	Taylor and Francis	
	Different Injection Pressures in	Keche, Arun	for Sustainable	Group	
	Compression Ignition Engine for	T. Autee, and	Development		
	Improving Emissions	Hanumant M.	State-of-the-		
		Dharmadhikari	Art		
			Research		

6.	Reduction of Warm-Up Time in	Sachin Avghad,	Smart	Springer,
	Light Duty Petrol Engine	Ashok J	Technologies	Singapore
		Keche, Kishor	for Energy,	Pp 749-758,2019
		Kulkarni	Environment	
			and	
			Sustainable	
			Development	
7.	Design Analysis of Conventional	Manjiri S	Smart Technologies	Springer,
	and Composite Spur Gear Using	Gajhas, Ashok J	•	Singapore,
	Finite Element Method	Keche	for Energy,	Pp 715-723, 2019
			Environment	
			and	
			Sustainable	
			Development	
8.	Durability Analysis of Titanium	Anuradha	Smart	Springer,
	Engine Valves Using CAE	Jagdish	Technologies	Singapore
		Thakare, Ashok	for Energy,	Pp 651-662,2019
		J	Environment	
		Keche	and	
			Sustainable	
			Development	
9.	Process Parameters Optimization	Vrushali M	Smart	Springer,
	of Drip Pipe Extrusion Process	Shete, Ashok J	Technologies	Singapore
	Using Taguchi Approach	Keche	for Energy,	Pp 683-694,2019
			Environment	
			and	
			Sustainable	
			Development	

#### **NPTEL Certification**

Start Date	End Date	Duration (in Weeks)	Course Name	Marks (Out of 100)	Performance
Feb 2019	Mar 2019	Four	Teaching and Learning in Engineering (TALE)	77	Silver and Elite
July 2019	Sep 2019	Eight	TALE-2 Course Design and instruction of Engineering Course	64	Elite

#### Awards, Achievements and Recognition

#### A) Awards received:

- 1. Awarded National Merit Scholarship, 1985
- 2. Received gold medal in SSC examination 1985.
- 3. Won first prize in National level Research paper presentation at Govt. Engineering College Aurangabad on Total Productive maintenance philosophy of zero 2<sup>nd</sup> and 3<sup>rd</sup> April 2005.
- 4. Best research paper award for paper titled on Effect of Split Injection Method for Reducing Emissions in Compression Ignition Engine in National Symposium of Mechanical Engineering Research Scholars, on 7<sup>th</sup> Oct, 2016 at NI.T Warangal.
- **5.** Under the mentorship of me team 'Sentinels' has received following awards:
  - Financial assistance 50000/- with Mentorship, Technical Support and Incubation from MASSIA IFC and TATA TECHNOLOGIES for Product Development, Production and Marketing in Covid-19 Innovation competition (2020).
  - 2. 1st Runner-Up of S.T.A.R Hackathon organized by VIIT Pune in Collaboration with IEEE Pune Section and won cash prize of 15,000/- Rupees with a trophy sponsored by Windals Precision Pvt. Ltd.
  - First prize in project competition "TECHNOMINDS 2K21" A National Level Technical Mega Event organized by Maharashtra Institute of Technology, Aurangabad in collaboration with MAGIC, Aurangabad on 17th and 18th June 2021.

## B) Achievements and Recognition

- 1. Worked as speaker in online Pre-Ph.D. Coursework coursework-2021 for the students of Mechanical Engineering, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, during 21<sup>st</sup> June 2021 to 25<sup>th</sup> July 2021.
- 2. Worked as reviewer for the International Journal of trends in machine design (STM Journal)
- 3. Reviewer for the International Journal of Ambient Energy, a Taylor &Francis publication
- 4. Worked as reviewer for the  $1^{st}$  International and  $18^{th}$  ISME Conference held at NIT, Warangal February  $23^{rd}-25^{th}$ , 2017
- Worked as reviewer for International Conference on 2<sup>nd</sup> International Conference on Materials, Manufacturing and Design (iCMMD2017) held at MIT, Aurangabad on 11 – 12<sup>th</sup> December 2017
- Worked as reviewer for International Conference on 2<sup>nd</sup> International Conference on Materials, Manufacturing and Design (iCMMD2017) held at MIT, Aurangabad on 11 – 12<sup>th</sup> December 2017
- 7. Worked as reviewer for the National Conference for Post Graduate (PGCon 2017) at Rajarambapu Institute Of Technology Rajaramnagar, Islampur, Dist. Sangli, Maharashtra, India.
- 8. Recognition as Ph.D. Research Guide in the subject of Mechanical Engineering under the Faculty of Science and Technology, Dr. Babasaheb Marathwada University, Aurangabad, (07-03-2019)
- 9. PG approved teacher in Faculty of Mechanical Engg &Technology Dr. BAMU Aurangabad.
- 10. Appointed as External Examiner at ME/M.Tech (Mech/Auto) level at Shivaji University Kolhapur, SPPU Pune.
- 11. Resource person for Energy Conference on the topic 'Biomass Gasifier Technology', in Advantage Maharashtra Expo Aurangabad 2017 organized by Marathwada Association of Small Scale Industries and Agriculture (MASSIA) on 07<sup>th</sup> January-2017.
- 12. Worked as an examiner for the evaluation of research projects in the University level 'Avishkar competition' which is being organized by Swami Ramanad Teerth Marathwada University at Latur Sub-Centre on 2<sup>nd</sup> and 3<sup>rd</sup> January 2017
- 13. Worked as session chair for poster presentation in 6<sup>th</sup> International & 27<sup>th</sup> All India

- Manufacturing Technology, Design and Research Conference (AIMTDR-2016) held at College of Engineering, Pune, Maharashtra, India
- 14. Worked as session chair for oral presentation in International Conference on Advances in Mechanical Engineering held at Amrutvahini College of Engineering Sangamner on 29<sup>th</sup> March 2016.
- 15. Worked as an examiner for the evaluation of research projects in the University level 'Avishkar competition' which is being organized by Swami Ramanad Teerth Marathwada University at Latur Sub-Centre on 2<sup>nd</sup> and 3<sup>rd</sup> January 2017
- 16. Worked as session chair for oral presentation in International Conference on  $2^{nd}$  International Conference on Materials, Manufacturing and Design (iCMMD2017) MIT, Aurangabad on  $11 12^{th}$  December 2017.
- 17. Resource person for Faculty Development Program on the topic 'Outcome Base Education', organized by M.S.S. College of Engineering & Technology, Jalna on 12<sup>th</sup> January-2017.

Date: 22/07/2021 Place: Aurangabad.