

## CURRICULUM VITAE- RAWAL DIGANJIT.

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And

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Government Polytechnic Nashik,  
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Date of Birth- 07/08/1989



### Details of Educational Qualifications: -

Sr. No.	Exam	Institute	Board/ University	Subject /Specialization	Year of passing	% of Marks / CGPA	Class Award
01	Ph.D.	National Institute of Technology, Karnataka, Surathkal, Mangalore, Karnataka, 575025, India	Government, Autonomous	Mechanical (Solar air heater)	<b>Pursuing</b>	8.25	First class with Distinction
02	ME	JSPM, Jaywantrao Sawant College of Engineering Hadapsar, Pune Maharashtra 411028, India.	Pune	Design Engineering	2013-2016	8.03	First class with Distinction
03	BE	JSPM, Jaywantrao Sawant College of Engineering, Hadapsar, Pune Maharashtra 411028, India.	Pune	Mechanical Engineering	2007-2011	67.63	First class with Distinction
04	HSC	Fergusson college Pune Maharashtra 411004, India.	Pune	Science	2005-2007	60.00	First class
05	SSC	Lakshmi Narayan Malu High School Jaysingpur Kolhapur Maharashtra 416101, India.	Pune	Maharashtra State Board	2005	76.40	First class with Distinction

### Details of Employment: -

Sr. No.	Organization	Designation	Duration	Period	Work Done in Brief
01	Government Polytechnic Nashik, Maharashtra, 422101, India.	Lecturer in Automobile Engineering	24/01/2012 to Till date	11 yrs.	Teaching
02	Jaywantrao Sawant Polytechnic, Hadapsar, Pune, Maharashtra, 411028, India.	Lecturer in Mechanical Engineering	16-09-2011 To 23-01-2012	4 Months	Teaching

### Papers Published: - 02

1 Rawal Diganjit, N. Gnanasekaran, and Moghtada Mobedi, “Numerical Study for Enhancement of Heat Transfer Using Discrete Metal Foam with Varying Thickness and Porosity in Solar Air Heater by LTNE Method”, Energies, 2022, 15, 8952.  
<https://doi.org/10.3390/en15238952> (Impact factor- 3.333, Q2)

2 Theoretical Assessment of Traveling Wave Thermoacoustic Engine, paper publication at “IJAR-April 2015 Volume 5 Issue 4 ISSN-2249-555X

### Conferences Attended: - 02

1 Rawal Diganjit Shashikant, N Gnanasekaran, “Performance evaluation of single pass solar air heater with stepped type arrangement of metal foam by a numerical study”, Proceedings of the 9<sup>th</sup> International and 49<sup>th</sup> National Conference on Fluid Mechanics and Fluid Power (FMFP) December 14-16, 2022, IIT Roorkee, Roorkee-247667, Uttarakhand, India, FMFP2022–752 (1-6).

2 Theoretical Assessment of Traveling Wave Thermoacoustic Engine presented paper at “MECHPGCON- 2015, 1<sup>st</sup> Post Graduate Conference of Mechanical Engineering, at Flora Institute of Technology, Pune- 19<sup>th</sup> -20<sup>th</sup> July 2015

### Project: -

“Design and development of the single pass solar air heater to enhance the heat transfer rate by porous media”. (Ph.D.- Project) Pursuing

“Design and Analysis of a Thermoacoustic Engine using Air or Helium” as Working Fluid in Master of Engineering 2015-2016. (ME -Project)

“Design of Inhibition Platform” Sponsored by High Energy Material Research Laboratory (HEMRL) Defense Research and Development Organization, Ministry of Defense, in Bachelor of Engineering 2011. (BE - Project)

### Students Projects Guided: -

Working as a guide for Diploma students –  
Number of Students (Completed): - 23

**Prize: -**

Guide for Om Shirsath and Pavan Jadhav from First Year Automobile Engineering grab the first prize in Project Competition event organized by Shatabdi Institute of Engineering and Research Nashik in Ignition 2019 at 21 February 2019 for Clean India Project.

**List of Sponsored Projects: -**

1 Govardhan Rajput, Suryawanshi Aniket, Lahe Nikhil, Raut Akshay, Ohal Sanket for “Advanced Electric Vehicle” sponsored by Jitendra Motors (Mahindra) Pvt. Ltd. Nashik 2015-16

These students have been appointed as the **RESEARCH SCIENTISTS in R&D Department** of Jitendra Motors (Mahindra) Pvt. Ltd. Nashik for Project of “Modern Electric Vehicle” from 18/05/2016.

2 Bhalerao Pranali, Chavan Nikita, Dusane Pranita, Patole Priyanka, for “90<sup>0</sup>” Wire Bending Special Purpose Machine sponsored by Pragati Udyog Pvt. Ltd. Nashik 2015-16

3 Autade Atharva, Dandgavhal Saurabh, Sewade Gopal, Joshi Lakshman, Pingale Hemant for “Study of Production Process in Industry and Design of Jig Structure” sponsored by Supreme Auto Steel India Pvt. Ltd. Nashik 2015-16

4 Mayur Shimpi, Ritik Kumar , Pradip Dhakane, “Design and development of cropping tool” sponsored by H M Auto stamping Nashik 2019-2020.

**Responsibilities performed during Research Scholar in Mechanical Engineering Department, National Institute of Technology, Karnataka, Surathkal, Karnataka, India.**

- Guided B Tech students for CFD simulations, paper writing, project work.
- Evaluated the Quiz papers of B Tech Mechanical Engineering students.
- Invigilator for B Tech and M Tech Mid Exam and End Exam for Every semester
- Proposal submitted to MNRE India, for portable wall mounted solar air heater, July 2022
- Participated in “Swachhata Pakwada” during 1<sup>st</sup> to 15<sup>th</sup> September 2022, cleaning done during these days of Mechanical department allotted spots and our optimization lab.
- Participated in Particle Image Velocimetry (PIV) at central research facility, National Institute of technology, Karnataka, during 19-12-2022 to 23-12-2022
- Worked for purchasing the Equipment in Mechanical Engineering department (document preparation)

**Computational Skills: -**

MS-CIT, Auto CAD, ANSYS, CAE, CAM Programing, Origin Pro, Math-type, Mendeley, Endnote, Graph grabber.

**Short Term Training Programs Attended (Seminars/Workshops):-**

Sr. No .	Course Name / Training Programme	Organized by	Completion Date		Duration
			From	To	

16	Foundation of computational fluid dynamics	NPTEL online certification by IIT Madras, Tamil Nādu, India.	July 21	Sept 21	8 weeks
15	Short Term Course (Under NEP-2020) on “Applications of Vibration and Heat Transfer in Mechanical Engineering” (AVHTME-2021)	Department of Mechanical Engineering National Institute of Technology Manipur, Imphal, India	27/10/21	31/10/21	5 Days
14	SERB online International workshop on Recent Advancements in Modelling Analysis of Porous Material (RAMAPM 2022)	Department of Mechanical Engineering, National Institute of Technology, Karnataka, Surathkal, Mangalore, Karnataka, India.	28/02/21	04/03/21	5 Days
13	“Recent Trends in Renewable Energy”	AICTE Training and Learning (ATAL) Academy Online Elementary, Government Engineering College, Bhuj, Gujarat, India.	31/01/21	04/02/21	5 Days
12	“Implementation of Emerging Waste-To-Energy technologies- An Opportunity and the challenges On Energy Recovery Systems”	Center of Excellence IIoT LAB, Department of Mechanical Engineering, New Horizon College of Engineering, Bangalore, India. (AICTE- ATAL)	15/11/21	19/11/21	5 Days
11	Quality Assurance through Accreditation	Government Polytechnic Karad, Maharashtra, India.	04/02/19	08/02/19	5 Days
10	Bridging the gap between Industry Expectations and Academia through Curriculum Design, Lab Experiences and Vocational Training	Government Polytechnic Aurangabad, Maharashtra, India.	21/01/19	25/01/19	5 Days
9	Mind Spark & Overall Development & Quality Development of Institute	Mumbai Education Trusts (MET) Institute of Technology Nashik, Maharashtra, India.	05/03/18	05/03/18	1 Day
8	Mind Spark and MCSR (Maharashtra Civil Services Rules)	Technical Education Maharashtra State (MSBTE), Mumbai, Maharashtra, India.	19/01/17	21/01/17	3 Days
7	Induction Phase –II	National Institute of technical teachers training and research (NITTTR)	26/12/16	06/01/17	10 Days

		Bhopal, Madhya Pradesh, India, at Pune centre, Maharashtra, India.			
6	Induction Phase –I	National Institute of technical teachers training and research (NITTTR) Bhopal, Madhya Pradesh, India at Guru Gobind Singh polytechnic, (GGSP) Nashik, Maharashtra, India.	06/06/16	17/06/16	10 Days
5	Research Opportunities and Challenges in the Field of Hydrogen Energy	Sihgad College of Engineering, Lonawala, Pune, Maharashtra, India.	18/04/16	22/04/16	5 Days
4	Advances in Manufacturing Technologies and Management (AMTM)	Department of Mechanical Engineering Government Polytechnic Nashik, Maharashtra, India.	11/01/16	15/01/16	5 Days
3	Workshop on Orientation for Revision of Curriculum	National Institute of technical teachers training and research (NITTTR) Bhopal, at Government polytechnic Nashik, Maharashtra, India.	30/09/15	01/10/15	2 Days
2	Transmission Control Systems	ARAI Academy Pune.	05/10/15	09/10/15	5 Days
1	Faculty Development Programme	Udyogwardhini Shikshan Santha Nashik	16/04/12	28/04/12	10 Days

### **In plant Training (Industrial Training):-**

Kulkarni Power Tools Ltd (KPT) Shirol, Kolhapur, Maharashtra, 416103, India during 10/06/2010 to 29/06/2010 for 20 Days

Shrenik Industries Engineering Division Majale, Kolhapur, Maharashtra, 416109, India during 29/12/2009 to 09/01/2010 for 12 Days

Maharashtra State Power Generation Company Ltd. Bhusawal Thermal Power Station Bhusawal, Jalgaon, Maharashtra 425307 India during 15/12/2009 to 25/12/2009 for 11 Days

### **Laboratory Development/In charge: -**

Working as Vehicle Maintenance and Garage Practice Lab In charge from 24-01-2012 to 26-11-2020. and also started the Two-Wheeler Minor Servicing Center in our department for our college students and Faculty.

### **Courses Taught: -**

Engineering Mechanics (2012, 2013, 2014), Strength of Material (2013, 2014), Engineering Graphics (2015), Engineering Drawing (2015), Mechanical Engineering Drawing (2016),

Supervisory Skills (2016), Two-Wheeler Maintenance (2016), Design and Drawing of Automobile Components (2017), Theory of Machine and Mechanisms (2017), Automobile Chassis (2018), Vehicle Maintenance and Garage Practice (2018, 2019, 2020), Automobile Electrical and Electronics System (2018, 2019, 2020), Vehicle Dynamics and Aerodynamics (2017, 2018, 2019),

### **Guest Lectures Delivered at Various Institutes: -**

Total numbers: - **01**

“Recent Trends in Air Conditioning System” in Mechanical Engineering Department at Government Polytechnic Nashik. (22-08-2019)

### **Industrial Visits arranged for Academic Students: -**

- 01/03/2019 at Traffic Education Park Nashik, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 26/02/2019 at Central Workshop of Maharashtra State Road Transport Pune, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 25/02/2019 at Central Institute of Road Transport Pune, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 25/02/2019 at Vaishnavi Auto Traders Pvt. Ltd. Bhosari Pune, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 20/02/2019 at J.K. Wiring Pvt. Ltd. Nashik, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 12/09/2018 at Jitendra Hero Pvt. Ltd. 2-Wheeler Service Station Nashik, Maharashtra, India for 19 Beneficiaries of Third Year Students
- 11/09/2018 at Jitendra Hero Pvt. Ltd. 2-Wheeler Service Station Nashik, Maharashtra, India for 20 Beneficiaries of Third Year Students
- 10/09/2018 at Jitendra Hero Pvt. Ltd. 2-Wheeler Service Station Nashik, Maharashtra, India for 05 Beneficiaries of Third Year Students
- 07/09/2018 at Seva Automotive Pvt. Ltd. (Maruti Suzuki) Nashik, Maharashtra, India for 43 Beneficiaries of Third Year Students
- 06/09/2018 at Jitendra Motors Pvt. Ltd. (Mahindra) Nashik, Maharashtra, India for 55 Beneficiaries of Third Year Students
- 26/07/2018 at Nashik Engineering Cluster Nashik, Maharashtra, India for 46 Beneficiaries of Third Year Students
- 18/01/2018 at Shareen Auto Pvt. Ltd. Nashik, Maharashtra, India for 58 Beneficiaries of Third Year students.
- 16/01/2018 at State Transport Workshop Nashik, Maharashtra, India for 58 Beneficiaries of Third Year students
- 29/08/2017 at Jitendra Motors Pvt. Ltd. (Mahindra) Nashik, Maharashtra, India for 60 Beneficiaries of Third Year students
- 28/08/2017 at Jitendra Hero Pvt. Ltd. 2-Wheeler Service Station Nashik, Maharashtra, India for 60 Beneficiaries of Third Year students
- 22/08/2017 at State Transport Workshop Nashik, Maharashtra, India for 60 Beneficiaries of Third Year students
- 25/07/2017 at Science Train Express Nashik, Maharashtra, India for 43 Beneficiaries of Third Year students
- 14/02/2017 at Ashoka Tyre, Nashik, Maharashtra, India for 38 Beneficiaries of Third Year students
- 11/02/2017 at Volkswagen Service Station, Nashik, Maharashtra, India for 38 Beneficiaries of Third Year students

- 28/09/2015 at Jitendra Motors Pvt. Ltd. (Mahindra) Nashik, Maharashtra, India for 51 Beneficiaries of Third Year students
- 05/03/2014 at “Beher India” Pvt. Ltd. Pune, Maharashtra, India for 48 Beneficiaries of Third Year students
- 07/01/2014 at “Ashok Leyland” Service Station Nashik, Maharashtra, India for 50 Beneficiaries of Third Year students
- 06/01/2014 at Jitendra Hero Pvt. Ltd. 2-Wheeler Service Station Nashik, Maharashtra, India for 46 Beneficiaries of Third Year students
- 24/06/2013 at “Saachi Honda” 2-Wheeler Service Station Nashik, Maharashtra, India for 18 Beneficiaries of Second Year Students
- 26/6/2013 at “Saachi Honda” 2-Wheeler Service Station Nashik, Maharashtra, India for 20 Beneficiaries of Second Year Students
- 29/6/2013 at “Saachi Honda” 2-Wheeler Service Station Nashik, Maharashtra, India for 16 Beneficiaries of Second Year Students
- 28/03/2013 at “Beher India” Pvt. Ltd Pune, Maharashtra, India for 46 Beneficiaries of Third Year students
- 18/03/2013 at “Wasson Bajaj” 2-Wheeler Service Station Nashik, Maharashtra, India for 64 Beneficiaries of Second Year Students

**Seminar/ Workshop organized: -**

- Expert Lecture organized on “Denting and Painting & Body Shop” delivered by Shri. Parag Borse Insurance Provider Nashik, Maharashtra, India on 30/08/17
- Expert Lecture organized on “Two-Wheeler Technology” delivered by Shri. Vinay Jain Manager Paras Automotive Service Station Nashik, Maharashtra, India 08/02/17
- Coordinator for Institute Level Workshop on “Driving Simulator and Road Safety” by Rushabh Honda Pvt. Ltd. Nashik, Maharashtra, India on 07/09/16
- Coordinator for Institute Level Workshop on “Road Safety Education” by Rushabh Honda Pvt. Ltd. Nashik, Maharashtra, India on 27/01/16 to 28/01/16
- Coordinator for One Day Seminar on “Road Safety” by Shri. Atul Chavan AIMV RTO Nashik, Shri. Santosh Mander Assistant RTO Nashik and Shri. N.S. Nyahalde Police Inspector Nashik, Maharashtra, India on 19/01/16
- Member in organizing State Level One Week Short Term Training Programme Content Updating in Finite Element Analysis on 09/12/13 to 13/12/13
- Member in organizing Poster Presentation Competition (Department Level) on 17/09/13
- Member in organizing Quiz Competition (Department Level) on 16/09/13
- Expert Lecture organized on “Two-Wheeler Maintenance” delivered by Shri. Vijay Patel Technician Right Choice Garage Nashik Maharashtra on 30/08/13
- Expert Lecture organized on “Production and Quality Control in Automobile Sector” delivered by Mrs. Yogita Magar Manager M&M Ltd Nashik Maharashtra, India on 08/07/13
- Expert Lecture organized on “Personality Development” delivered by Dr. Swati Barpande on 01/07/13
- Expert Lecture organized on “Supervisory Skills” delivered by Prof. P.P. Gade, Lecturer in Mechanical Engineering, Government polytechnic Jalgaon, Maharashtra, India on 17/09/12
- Member in organizing Poster Presentation Competition (Department Level) on 15/09/12
- Member in organizing State Level Workshop on “Advances in Automobile” on 06/09/12 to 07/09/12
- Coordinator for GISMO Contraption Event in 2 Days National Level Festival Techno Vision 2010 at Jaywantrao Sawant College of Engineering Pune, Maharashtra, India in

**Administrative Responsibilities: -**

- Member for Nashik Regional Level, Maharashtra, India in Admission Reporting Centre 2019
- Counting Supervisor in Election to the House of the People from the 21 –Nashik Parliamentary Constituency 2019, Maharashtra, India.
- Presiding officer in 21 –Nashik Parliamentary Constituency 2017 and 2019, Maharashtra, India.
- Member in External Monitoring committee 2019 for private polytechnic college, Maharashtra, India.
- Departmental Coordinator for Placement, NBA SAR preparation in Automobile Engineering Department, Government polytechnic Nashik, Maharashtra, India. from 2018-2020
- Model Answer Member for Maharashtra State Board Technical Education, (MSBTE) Mumbai, Maharashtra, India for Summer Exam 2017, Winter Exam 2017, Summer Exam 2018.
- Working as Supervisor, Paper Setter, Moderator, Gazette Verification officer in Local Assessment Center and Regional Assessment Center (RAC) from 2014- 2019 in Government polytechnic Nashik, Maharashtra, India.
- Working as Member in Various Admission Reporting center (ARC) from 2014-2019 in Government polytechnic Nashik, Maharashtra, India.
- Quality Supervisor in Examination at Local Assessment Examination center (LAC) in Government Polytechnic Nashik, Maharashtra, India from (2012 to 2018)
- Member in Curriculum Update Programme in Programme Wise Committee (PWC) Academic Year 2016-17, in Automobile Engineering, Government polytechnic Nashik, Maharashtra, India.
- Assistant Nodal officer for Nashik Region in State Level MH CET Exam 2017 and 2016 in Maharashtra, India.
- Co in charge of Computer Access Drawing and Drafting Lab and Student Chapter Activities in 2012-2013
- Working as Team Manager in Various Sport Activity of Inter Engineering Diploma Students Sports Association Maharashtra State (IEDSSA) since 2012

**Membership of Professional Bodies: -**

Sr. No.	Membership	Membership No	Type of member
1	Indian Society for Technical Education (ISTE)	LM 109465	Life Member
2	Institution of Engineers, India (IEI)	AM 163447-2	Associate Member
3	National Society of Fluid Mechanics and Fluid Power India (NSFMFP)	LM850	Life Member
4	Solar Energy Society of India (SESI)	LM/2705/2023	Life Member

**Awards / Appreciations Received: -**



- Recognition of 100% Result of Course Vehicle Dynamics and Aerodynamics (AE6446) of Third Year Even Term held in Summer 2019 Theory Examination of Automobile Engineering, Government polytechnic Nashik, Maharashtra, India.
- Participated in Final Rounds of Robo Tryst 2015-16 National Level Championship organized by Robosapiens Technologies Pvt. Ltd. in association with Tryst 2016 at IIT Delhi, India held on 26/02/2016 to 29/02/2016 during Tryst the Annual Science Technology and Management festival of IIT Delhi, India.
- Published Essay of “Bhrashtacharacha Bhasmasur kasa Gadayacha” in Class One Gazetted Officer Magazine, Maharashtra, India in 2016
- Published Poem of “Vidyarthiyani Kashasathi Jagave” in Government polytechnic Nashik, Maharashtra, India Institute Magazine in 2016
- Participated in “Man Making Education” by Ramakrishna Math Pune, on Youth Convention Silver Jubilee Celebration 2008-09 on 14/01/2009 to 15/01/2009
- Participated in the Programme of being a Writer for Blind Students 2007, in Fergusson college, Pune, Maharashtra, India.
- Placed among the Top 10% in Part A of National Standard Examination Physics examination out of 101 candidates for National Standard Examination in Physics 2005-2006 at Class XII Level by Indian Association of Physics Teachers, (IAPT) in Fergusson college Pune, Maharashtra, India.
- Certificate for passing ‘A’ Examination held in 2004 under the Authority of Ministry of Defence, Government of India by 56 Maharashtra BN NCC Kolhapur NCC Director Maharashtra Mumbai on 02/08/2006
- Placed in Second Class in English Senior Exam held by Tilak Maharashtra Vidyapeeth in February 2005
- Appreciations certificate in Maharashtra Talent Search Examination of Standard Ninth conducted at State Level on 28/04/2004
- Placed in First Class in English Junior Exam held by Tilak Maharashtra Vidyapeeth in February 2004
- Placed in Second Class in English Elementary Exam held by Tilak Maharashtra Vidyapeeth in February 2003
- Placed in First Class in English Pre-Elementary Exam held by Tilak Maharashtra Vidyapeeth in February 2001
- Intermediate Grade Drawing Examination held in the year 2003 in Grade C
- Elementary Grade Drawing Examination held in the year 2002 in Grade C
- Participated in Pre-Selection Camp (Republic Day Camp RDC) held in Kolhapur by 1 MAH Arty BTY NCC Kolhapur Annual Training Camp (JD)/ Pre-Selection Camp (RDC) from 06/09/2003 to 12/09/2003
- Participated in “Maitree Se Ujala” National Level Camp organized in Kashmir Valley by Sarhad Institute Pune from 04/06/2003 to 11/06/2003.
- Stood First Rank in Eight Standard (Technical) in Lakshmi Narayan Malu High School Jaysingpur Kolhapur Maharashtra 416101 in Academic Year 2003-2004
- Stood Sixth Rank in Seventh Standard in Lakshmi Narayan Malu High School Jaysingpur Kolhapur Maharashtra 416101 in Academic Year 2001-2002
- Passed Mathematics Pre-Provisional Exam by Kolhapur District High School Kolhapur Mathematics Subject Committee in September 2002
- Stood Tenth Rank in Sixth Standard in Lakshmi Narayan Malu High School Jaysingpur Kolhapur Maharashtra 416101 in Academic Year 2000-2001
- Appreciations for Drawing in Section Three from Maharashtra State Child Drawing Competition on 14/11/2000
- Stood Third Rank in Jaysingpur- Kurundwad Center (Group B) in Sakal State Level Drawing Competition on 1999
- Display Award in Jaysingpur- Kurundwad Center (Group B) in Sakal State Level Drawing Competition on 1998

- Stood Fifth Rank in Third Standard in Navin Marathi Prathmik School Jaysingpur Kolhapur Maharashtra 416101 in Academic Year 1997-1998

**Other Activities (Extra Curricular activities):-**

Regular Blood donor (20 times)

**Language Known: -**

Marathi, Hindi, English, German

*Date: -*

*Place: - Nashik*

*Signature*

*Shri. Diganjit Shashikant Rawal*