



## Shirish Nanaji Gandhare

### Contact Information:

**Mobile:** +91-9673992174; +91-9284367224

**Email:** [gandhare.shirish@gmail.com](mailto:gandhare.shirish@gmail.com)

**LinkedIn:** [linkedin.com/in/shirish-n-gandhare-70469980](https://www.linkedin.com/in/shirish-n-gandhare-70469980)

## Objective

Seeking a challenging role as a Team Member/ Incubation Coordinator / Research Coordinator / Assistant Professor at a prestigious organization where my 15+ years of research, academic, and industrial experience, along with a strong track record of innovation and project management, can contribute to transformative advancements.

## Career Summary

A dedicated and result-driven professional with over 15 years of combined experience in academic, research, and industrial roles. Passionate about research and innovation, I have successfully led various projects, received grants and awards, published research papers, and managed incubation and entrepreneurship initiatives.

## Education

**Ph.D. in Mechanical Engineering**, VIT- VGU, Jaipur (Rajasthan), 2020-2023

(Submission: July-August'2023)

**Master of Technology (Industrial Engineering)**, Shri Ramdeobaba College of Engineering & Management, Nagpur (M.S.), 2008-2010 (70.04%)

**Bachelor of Engineering (Production Engineering)**, Bapurao Deshmukh College of Engineering, Sevagram, Wardha (M.S.), 2003-2007 (61.75%)

## Employment Details

### **Assistant Professor (Visiting Faculty)**

Government College of Engineering, Nagpur,

January 2023 - Present

### **Freelancer (Datasheets/Dashboard) & Completing Ph.D. Thesis,**

December 2022 – June 2023

### **Assistant Professor & Incubation Coordinator,**

Datta Meghe Institute of Engineering, Technology and Research, Wardha (M.S.), June

2013 - April 2022

### **Lecturer (Mechanical Engineering),**

G. H. Rasoni Polytechnic, Nagpur, July 2008 - June 2013

### **Part-Time Design Engineer,**

Digital PLM, Nagpur, March 2008 - September 2013

## Roles and Responsibilities

- Coordinated BETIC at DMIMS and participated in R&D initiatives for agricultural development.
- Member of Institution's Innovation Council (IIC) established under MHRD's Innovation Cell.
- Managed Incubation & Innovation Cell as Incubation Manager at DMIETR.
- Coordinated MSME proposals for Entrepreneurship Development Cell.
- Actively contributed to R&D cell at the institution and national accreditation boards.
- Mentored undergraduate students, enhancing the quality of their research work.
- Conducted sessions to inspire research, innovation, and entrepreneurship among students.
- Organized institute-level competitions, guest lectures, workshops, and industrial tours.

## Research Accomplishments

### R&D Proposal awarded

Received Rs. 2.5 Lakh grant for Entrepreneurship Development under startup "Cattle food Generating Machine."

Recognized DMIETR as Host Institute for Incubation & Innovation Cell (BI).

### PhD Project

**Title:** Development of maintenance task framework for medical equipment using FMEA.

**Description:** Aims to optimize maintenance costs while ensuring timely availability and precision of medical equipment.

### M. Tech Project

**Title:** Deferment of Diesel Locomotive Maintenance Schedule Work for ZDM Locomotive.

**Description:** Applied Industrial Engineering concepts to minimize time & cost for maintenance.

### B.E. Project

**Title:** Implementation of SIX SIGMA Tools on Small Scale Industries.

**Description:** Demonstrated how quality tools can significantly improve production and customer satisfaction.

### Project Handled/ Guided

I have been involved in a total of 10 diverse projects spanning various domains. In the realm of postgraduate and Undergraduate projects included the creation of innovative solutions such as a multipurpose crop cutting machine, a low-cost multipurpose dough making machine, a paper bag folding machine, a patented corn deseeding mechanism, a 2-R trimming mechanism for wooden frames, and a multipoint pesticide sprayer. Moreover, I spearheaded impactful MSME incubation projects, contributing to the development of a corn deseeding mechanism, a pesticide spraying drone, a baby cradle for working mothers, and a sanitary pad decomposing machine.

## Patent

Granted Patent (Application No: 201921007690) for "A Shelling Apparatus" in Mechanical Engineering.

## Copyrights

Awarded Four copyrights for Laboratory Manuals and Projects related to Manufacturing Process and Mechanical Engineering along with Computer Applications based Subject.

## Consultancy

Provided consultancy services for Machine Design and Engineering initiatives.

## Publications

**Total Publications: 23**

**SCOPUS-Indexed: 3**

Title: "Maintenance of Medical Equipment Using Failure Modes and Effect Analysis: A Review."  
<http://wthtjsjs.cn/gallery/37-whjj-january-5939.pdf>

Title: "A Case Study on comparison of health care development before and after implementation of mission 'Swachh Bharat Abhiyan' by Municipal Corporation intended for Wardha city."  
<https://scholar.google.com/scholar?oi=bibs&hl=en&cites=9513436095964387468>

Title: "Failure analysis of helical coil spring in automobile system using finite element method"  
<https://scholar.google.com/scholar?oi=bibs&hl=en&cites=16941764980320959799>

**Web of Science: 2**

Title: "Scope for design & development of 2r edge trimming mechanism & tool adjustment."  
<https://scholar.google.com/scholar?oi=bibs&hl=en&cites=1001672164343797511>

Title: "Re-Scheduling Of Maintenance Task For Diesel Locomotive (Zdm) Maintenance Work Using FMEA Technique -An Industrial Engineering Approach For Saving The Resources."  
<https://scholar.google.com/scholar?oi=bibs&hl=en&cites=3940794834187285486>

**UGC care: 2**

Title: "Analytical Calculations for Design Optimization of Stirrer Shaft of Butter Extraction Machine"  
[https://scholar.google.com/citations?view\\_op=view\\_citation&hl=en&user=axjomCcAAAAJ&citation\\_for\\_view=axjomCcAAAAJ:4TOpqqG69KYC](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=axjomCcAAAAJ&citation_for_view=axjomCcAAAAJ:4TOpqqG69KYC)

Title: "Study of Failure Maintenance Task for Diesel Locomotive (ZDM) Maintenance Work."  
[Offline Journal](#)

Title: "Finding Scope for Implementing Correct Strategy for Maintenance of Medical Equipment Using Failure Database."  
<https://www.ijsr.net/getabstract.php?paperid=SR23624095142>

**International/National Conference: 16**

Title: "Finding Scope for Implementing Correct Strategy for Maintenance of Medical Equipment Using Failure Database." For IEEE conference CONIT'2022 on 22 June, 2022at Hubali.

Title: *“Study of Maintenance Practices intended for Essential Medical Equipment at hospitals during Pandemic.” International Conference on Industrial Engineering and Management (ICIEM-2021) MNIT, Jaipur, 17th -19th Dec 2021.*

Title: *“Study of Maintenance Practices intended for Essential Medical Equipment at Rural hospitals.” At VIT, Jaipur on 29th -30th November, 2021.*

Title: *“Maintenance of Medical Equipment using Failure mode and Effect Analysis.” For Conference CESDO-2021 (Conference on Engineering Systems Design and Optimization) on 26th and 27th March 2021 at G H Rasoni College of Engineering, Ahamadnagar.*

Title: *“Comparison sanitation & health care after implementation Swatch Bharat Abhiyan.” on 18<sup>th</sup> – 19<sup>th</sup> January 2019, at VNIT, Nagpur.*

Title: *“Performance analysis of parallel uniform rectangular fin and cylindrical pin fin with Al alloy and Cu alloy for heat sink application.” IEEE sponsored 3rd International Conference for Convergence in Technology (I2CT) held at JW Marriot, Pune on 6<sup>th</sup>-8<sup>th</sup> April 2018.*

Title: *“Rescheduling of Maintenance task of medical equipment using FMEA.” IEEE National Conference on advances in Engineering, Technology and applied Science, at YCCE, Nagpur on 16<sup>th</sup> -17<sup>th</sup> March 2018.*

Title: *“Maintenance scheduling of medical equipment using DBMS and FMEA.” For International Conference Transforming Lives & Healthcare through Technology (TLHTicon-2017) at DMIHER (formerly DMIMS) (DU), Sawangi (M), Wardha on 9<sup>th</sup> -10<sup>th</sup> January 2017.*

Title: *“Finding scope for Deferment of Maintenance Task for Indian railway.” International conference ICTIME-2016 held at Maulana Azad National Institute of Technology, Bhopal on 4<sup>th</sup> – 6<sup>th</sup> Feb 2016.*

Title: *“Comparison and Determination of Safety Environment for small Scale Industries using Various Parameters -An Industrial Engineering Approach.” in 2nd International Conference on Advances in Engineering & Technology, ICAET’2015 at Anjuman College of Engineering, Nagpur on 25th & 26th February’2015.*

Title: *“Comparison and Determination of Safety Environment for small Scale Industries using Various Parameters -An Industrial Engineering Approach.” in 2nd International Conference on Advances in Engineering & Technology, ICAET’2015 at Anjuman College of Engineering, Nagpur on 25th & 26th February’2015.*

Title: *“Rescheduling of maintenance task for diesel locomotive maintenance work using FMEA Technique.” in International Conference on Advances in Engineering & Technology, ICAET’2014 at Anjuman College of Engineering, Nagpur on 8<sup>th</sup> & 9<sup>th</sup> January’2014.*

Title: *“Ergonomic evaluation of Body poster of worker working in SSI.” For 2nd MGI International Conference on Recent Trends & Innovation in Engineering and Technology- 2014 at DMIETR in association with Indo-US Collaboration for Engineering Education, Northern Ilion’s University USA and ISTE 19th -20th December 2014*

Title: *"Finding Scope for Rescheduling of Maintenance Task for MSRTC Bus Maintenance Work-An Industrial Engineering Approach"* in National Conference on Innovative Trends & Technology Developments, TECHNOCON'2013 at DMIETR, Sawangi (M), Wardha on 17 December'2013.

Title: *"Implementation of FMEA on Maintenance Task for Diesel Locomotive Maintenance Work."* At the Institute of Engineers (India), in National Seminar Program Quality Progress'2012 on 25<sup>th</sup>& 26<sup>th</sup> February' 2012.

Title: *51<sup>st</sup> National Convention of Industrial Engg. & National Seminar on Productivity Safety & Disaster Management in Association with IIE on 04-05 December'2009 at Shri Ramdeobaba Kamla Nehru College Of Engineering, Nagpur.*

## **Workshop/Seminars/STTP: (Attended/ Organized)**

Engaged in a spectrum of professional development initiatives, including AI Tools workshop, guest lectures on innovation and entrepreneurship, an awareness program on social entrepreneurship, post-pandemic career webinars, and a comprehensive NISP webinar series. Attended events like the Re-Engineered Conclave, hackathons such as MEDHA-2017, and up skilling courses like TRIZ Practitioner Training and Industrial Safety Engineering. Contributed to academic circles through workshops, STTPs, and guest lectures, showcasing dedication to ongoing learning and advancement. (Total 23 Programs attended)

## **Area of Interest**

Industrial Economics & Entrepreneurship Development

Production and Industrial Engineering

Manufacturing Technology

Industrial Management

Production Technology-II

Manufacturing Process-II

Computer Application-I & II

## **Professional Memberships**

Associate Member, IIE (Indian Institute of Industrial Engineering) (LAM-9265)

Member, International Association of Engineers (IAENG) (ID-143826)

## **Computer Skills**

Operating Systems: WINDOWS, Ubuntu

Software Skills: MS-Office Suite, Basic SQL, HTML, CSS, MS-Excel (Dashboard, Datasheets)

Programming Languages: C-Language

Designing Software Skills: CAD/CAM (CATIA-V5 R14, PROE-wildfire4, NX4)

## Personal Information

Date of Birth: 23 June 1982

Address (Communication): C/O, Pramod Shinde, Sudampuri, Palm Road, Near Kesarimal School, Wardha (M.S), Pin- 442001

Permanent Address: Sai Colony, Behind Gomaji Math, Hinganghat, Dist- Wardha (M.S), Pin- 442301

Linguistic Proficiency: English, Hindi, Marathi

Hobbies: Painting, Writing Marathi poems

## References

- Dr. Sachin P. Untawale,  
Director, G.H. Rasoni College of Engineering (GHRCE), Nagpur  
Email: [untawale@gmail.com](mailto:untawale@gmail.com) | Mobile: [+91-8806226666](tel:+91-8806226666)
- Dr. Puneet Fulzele,  
Associate Dean (R&D), SPD College, Sawangi (Meghe), Wardha  
Email: [punitr007@gmail.com](mailto:punitr007@gmail.com) | Mobile: [+91-8806226666](tel:+91-8806226666)
- Dr. Prasanna L. Zade,  
Head of Department, Electronics Engineering, Y.C. College of Engineering, Nagpur  
Email: [zadepl@gmail.com](mailto:zadepl@gmail.com) | Mobile: [+91-9673321177](tel:+91-9673321177)
- Dr. Vijay M. Athawale,  
Head of Department, Mechanical Engineering, Government College of Engineering, Chandrapur  
Email: [athawale\\_vijay@yahoo.co.in](mailto:athawale_vijay@yahoo.co.in) | Mobile: [+91-8237021103](tel:+91-8237021103)