

Govt. College of Engineering, Nagpur (MS)
Department of Mechanical Engineering

BIO DATA



1	Name	Dr. Sanjay Bhanudasrao Ingole
2	Designation	Associate Professor & HOD , Mechanical Engineering, GCOE Nagpur.
3	Qualification	<p>B.E.(Mech.Engg.); 1989; VRCE Nagpur; First Division</p> <p>M.Tech.(Design of Machines & Mechanisms); 1998; VRCE Nagpur ; First Division.</p> <p>D.B.M. , 1992, RTM Nagpur University: First Division</p> <p>Ph. D. (Mech.Engg.) ; 2012 ; VNIT Nagpur Topic:- Linear & Non-linear Joint Parameter Estimation Supervisor: Dr. Animesh Chatterjee, Professor in Mech. Engg., VNIT Nagpur</p>
4	Experience:	<p>Academic / Research:33 Yrs.</p> <p>Professional /Industrial: Nil</p>
5	Courses taught	<p>Undergraduate : Engineering Graphics ;; Design of Machines& mechanical drives; Stress Analysis; Dynamics of Machines, Theory of Machines, Kinematic of Machines</p> <p>Post Graduate :Mechanical Vibrations</p>
6	PhD Supervisor	Recognized as Supervisor for Ph.D. program in Mechanical Engineering of Gondwana University Gadchiroli & RTM Nagpur University.
7	Topics of Research/ Interest	Dynamics of Machines – Vibration analysis, Parameter estimation, Modal testing and experimental modal analysis. Condition monitoring, Design of Machines & Mechanisms.
8	Co-ordinator of STTP/FDP/ Workshops/NAAC	<ol style="list-style-type: none"> 1. Coordinator, ATAL FDP on “Emerging technologies in Product Design & Development” 14-18 June 2021, organised by Mech. Engg. Deptt. GCOE Chandrapur& CIIT-GCOEC. 2. Coordinator of DTE Sponsored 01 Week FDP on “ Industrial Automation with IIoT and Robotics” at GCOE Nagpur , 05-09 Feb. 2024 3. NAAC Coordinator , Aug. 2023 to March 2024, Institute is NAAC Accredited with B++ grade (CGPA 2.93) 4. CO-PI of Centre of Excellence in “Energy Conservation & Renewable Energy Utilization” at GCOE Nagpur. (2023-24 onwards) 5. Coordinator, ATAL FDP on “Industrial Robotics and CNC with Programming” 10-15 Feb. 2025, organised by Mech. Engg. Deptt. GCOE Nagpur in collaboration with Siemens COE VNIT Nagpur.(Application No-1716114733)

<p style="text-align: center;">9</p>	<p style="text-align: center;">Courses/FDP/STTP/ NPTEL Workshops attended/completed:</p>	<ol style="list-style-type: none"> 1. Digital Skills for Professionals (AICTE approved) during 03-08 Dec.2018 at GCOE Chandrapur. 2. Outcome Based Education (DTE approved) during 10-15 Dec.2018 at GCOE Chandrapur. 3. Engineering Optimization (DTE Approved) during 6-10 Jan 2020 at GCOE Chandrapur 4. Industry 4.0 (DTE approved), during 3-7 Feb. 2020 at GCOE Chandrapur. 5. Digital Transformation in Teaching-Learning Process, (TEQIP-3-NPIU-IIT Bombay) during 14 Feb.-06 March, 2020 (Online) 6. National level workshop on “Digital Transformation & Pedagogies” (TEQIP-3-AICTE) during Aug 10-14, 2020, GCOE Karad& WCE Sangli (Online) 7. MATLAB Applications in Engineering & Science (TEQIP-3), during 27 April – 01 May 2020, GCOE Karad. 8. Outcome Based Education: A step towards excellence, (Margadarshan scheme AICTE) during 11-15 May 2020, GCOE Karad. 9. FDP on R Programming (SB Jain-IIT Bombay) during May 5-9, 2020 (Online at SB Jain Instt. Nagpur). 10. Online Teaching-Learning Processes using ICT tools for education 4.0,(SVP CET Nagpur-CSI) during June 8-13, 2020 (Online at SVP CET Nagpur). 11. Advance Microsoft Excel (Capability Development by TATA Steel) during May 16, 2020. 12. Electro-Mechanical Systems (TEQIP-3), during July 20-25, 2020 at WCE Sangli (Online) 13. FDP on IoT and Block Chain (TCS) on May 11, 2020 (Online) 14. Gear & Gear Unit Design: Theory & Practice (08 weeks – Swayam-NPTEL) during Feb-April, 2020. 15. Principles of Vibration Control (04 weeks – Swayam-NPTEL) during Sept-Oct, 2020. 16. Basics of Finite Element Analysis-I (08 weeks)-Swayam-NPTEL during Sept-Oct, 2020. 17. “Environmental Challenges: Process & Pulp Industry”, AICTE-ISTE sponsored Induction/Refresher program (Phase-II, online mode), 16-22 March 2021 at GCOE Chandrapur. 18. ATAL FDP on “Matlab: An Effective Tool for Academics & Research” during 5/7/2021 to 9/7/2021 at LIT Nagpur. 19. One week FDP on “Leadership Skills for Enhancing Personal & Organisational Outcomes” organised by G.H.Raisoni University Saikheda (MP), during 28/11/2022 to 03/12/2022. 20. Completed 04 week NPTEL course on “Patent Drafting for Beginners“ with a score of 75% in July-Aug. 2023. 21. One week DTE Approved FDP on “General Administration and Office Automation” at GCOE Nagpur, 29 Jan – 02 Feb. 2024. 22. DTE Sponsored 01 Week FDP on “Industrial Automation with IIoT and Robotics” at GCOE Nagpur , 05-09 Feb. 2024. 23. Completed 04 week NPTEL course on “Stress
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		Management” with a score of 66% in Aug.-Sept. 2024.
10	Publications:	
	International & National Journals (Total 13)	<ol style="list-style-type: none"> 1. A paper on “Vibration analysis of single lap adhesive joint: Experimental & analytical investigation” has been published in the International Journal of Vibration & Control, Vol.17(10), pp.1547-1556, September 2011. (SCI Indexed) (https://doi.org/10.1177/1077546310380429.) 2. A paper on “Joint parameter identification of a cantilever beam using sub-structure synthesis and multi-linear regression” has been published in the Structural Engineering and Mechanics: An International Journal, Vol.(45),No.4(2013),pp.419-433.(SCI Indexed) 3. A paper on “Structural joint modeling and identification: numerical and experimental investigation” has been published in the Structural Engineering and Mechanics: An International Journal, Vol.(53),No.2(2015), pp.373-392. (SCI Indexed) 4. A paper on “Joint Stiffness Identification: A 3-Parameter Joint Model of Cantilever Beam.” published in International Journal of Acoustics and Vibration, vol.22, No.1, pp 3-13, March.2017. (SCI Indexed) 5. A paper on “Vibration analysis of three parameter model of adhesively bonded joint” has been published in the International Journal of Mechanical and Production Engineering Research and Development, Vol.(5),No.1(Feb.2015), pp.61-72.(Scopus) 6. A paper on “Transducer mass loading effect on identification of joint stiffness parameter” has been published in the International Journal of modern trends in engineering and research, Vol.(2),No.2(Feb.2015), pp.191-197. 7. A paper on “Two parameter model for joint stiffness identification in a single lap jointed structural assemblies using sub-structure synthesis” has been published in Journal of Aerospace Sciences and Technologies, Vol(72), No.2, May 2020, pp.78-87.(UGC Approved) 8. Ingole S.B., Rajurkar S.W. (2022) Nonlinear Joint Stiffness Parameter Identification. In: Kumar R., Chauhan V.S., Talha M., Pathak H. (eds) Machines, Mechanism and Robotics. Lecture Notes in Mechanical Engineering. Springer, Singapore.pp 379-392.https://doi.org/10.1007/978-981-16-0550-5_37(Scopus Indexed) 9. “A Review on Frequency Domain Analysis Approach for Parametric Identification of Nonlinear Joints” –Faisal Hussain, S.B.Ingole, Recent Advances in Machines and Mechanisms, Lecture Notes in Mechanical Engineering. Springer. pp 79-96, 4 Oct. 2022. (doi.org/10.1007/978-981-19-3716-3_7) (Scopus Indexed) 10. “Non-linear modeling and parameter identification of a bolted joint using substructure synthesis theory” Faisal Hussain, S.B.Ingole, Engineering Research Express, May 2024, pp.1-16 (doi.org/10.1088/2631-8695/ad4257) (Web of Science, Scopus, ESCI) 11. “Enhancing Joint Parameter Identification with Sub Structure Synthesis Theory: A Non-linear Perspective”

		<p>Faisal Hussain, S.B.Ingole, Romanian Journal of Acoustics and Vibration, Vol.20, No.01, Jun.2024, pp-3-11, (Web of Science, Scopus, ESCI)</p> <p>12. “Parametric Identification of non-linear joint through sub structure synthesis concept.” Faisal Hussain, S.B.Ingole, International Journal of Research and Analytical Review, Dec.2023, v.10(4), pp.524-527, E-ISSN 2348-1269, P- ISSN 2349-5138, (UGC Approved)</p> <p>13. “Investigation of Cubic Stiffness Non-Linearity for a bolted joint” Faisal Hussain, S.B.Ingole, Advanced Engineering Forum (Submitted) (UGC Approved)</p> <p>14. “Development of a cleaning system for the Broaching Machine” International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; Volume 13 Issue III Mar 2025 (SJ Impact Factor: 7.538)</p>
	<p>International/ National Conferences</p>	<p>1. A paper on “Formulation Of Generalized Experimental Data Based Model For Predicting Generated Noise In Power Transformer” has been accepted for presentation in Tenth World Congress on Theory of Machines & Mechanisms (IFTToMM); University of Oulu, Finland. June 20-24, 1999.</p>
		<p>2. A paper on “Approximate Experimental Data Based Model For Analyzing The Effect Of Leg Deflection, Magnetic Induction And Pressure In Lamination Assembly With Respect To Noise Generation In Power Transformer” has been accepted for presentation and publication in proceedings of CK – 2005, International Workshop on Computational Kinematics at University of Cassino, Italy, May 4-6, 2005</p> <p>3. A paper on “Elimination Of Transducer Mass Loading Effect And Identification Of Joint Stiffness Parameter From Eigenvalues” has been accepted for presentation & Published in the proceedings of X-International Conference on the Theory of Machines & Mechanisms; Technical University of Liberec, Czech Republic, Sept. 2-4, 2008.</p> <p>4. A paper on “Analysis of Balanced Single Lap Adhesive Joint: A Comparative Study” is accepted for oral presentation & Published at the ICAMME 2009: International Conference on Applied Mechanics & Mechanical Engineering; held in Bangkok, Thailand during December 25-27, 2009.</p> <p>5. A paper on “A method for Joint Stiffness Identification” has been presented in ICMOC-2010: International Conference on Modeling Optimization and Computing held at NIT, Durgapur during Oct.28-30,2010 and published in the proceedings of American Institute of Physics, Vol.1298, pp. 338-343. (https://doi.org/10.1063/1.3516327)</p> <p>6. A paper on “Structural joint modeling and identification using sub-structure Synthesis and multilinear regression” is accepted for publication in the proceedings of ASME 2012 – IDETC/CIE – 12, during Aug.12-15, 2012, Chicago IL, USA.</p> <p>7. A paper on “Non-Linear Joint Stiffness Parameter Identification” is presented in 4th International & 19th</p>

		<p>National Conference on Machines & Mechanisms- iNaCoMM 2019 at IIT Mandi during 5-7 Dec.2019.</p> <ol style="list-style-type: none"> 8. A paper on “Product Mix Optimization – Application To Industrial Problem” has been accepted for presentation In National Workshop on Mechanical Handling Devices (IPROMM), held at V.R.C.E. Nagpur. Jan. 89. 9. A paper on “Impact Of Globalisation On Industry Institute Partnership” has been accepted for presentation in Third Annual Convention of ISTE at C.W.I.T. Pune. Oct. 31 – Nov. 01, 1998 10. A paper on “Noise Pollution Due to Transformer Audible Noise” has been accepted for presentation & published in National Seminar on Energy & Environment, at AnandEngg. College Agra, Oct.-2001 11. A paper on “Performance Analysis of an Innovated Air Lift Eductor” has been accepted for presentation & published in IE(I) Annual Function, at IE(I) Nagpur Local Center, Feb.17,2002. 12. A paper on “Implementation of Electromechanical System for Increasing Straight Pass in Transmission Assembly Line in M & M Ltd. Nagpur” has been presented and published in the proceedings of TSYGECA-06 a National Conference, at Govt. College of Engg. Aurangabad during Jan. 23-24,2006. 13. A paper on “Joint Parameter Identification of a Single Lap Jointed Beam Using Sub Structure Synthesis” has been presented and published in the proceedings of XVII NASAS: National Seminar on Aerospace Structures held at IIT, Kanpur during Sept.22-24,2011. 14. A paper on “A review on frequency domain analysis approach for parametric identification of nonlinear joints” is presented in 5th International & 20th National Conference on Machines & Mechanisms- iNaCoMM 2021 at IIIT Jabalpur during 9-11 Dec.2021. 15. A paper on “Investigation on Non-linear joint parameters for a cantilever beam bolted at its end” is presented in 8th International conference IC-DTSDG-22, at Abha Gaikwad Patil College of Engineering Nagpur during 22-23 July 2022. 16. A paper on “Non-Linear joint parameter identification using the sub-structure synthesis theory” is presented in International Conference ICIETSM-2023 at Jhulelal Institute of Technology Nagpur during 12-13 May 2023. 17. A paper on “Investigation of cubic stiffness non-linearity for a bolted joint” is presented in International conference ICFTEST-24 at Nagpur Institute of Technology Nagpur during 23-24 Feb. 2024.
11	Invited Lectures/ Resource person	<ol style="list-style-type: none"> 1. “Structural Joint Modeling” in STTP on Finite Element Modeling, Simulation and Analysis (FEMSA-15) at Shri.Ramdeobaba College of Engg. & Mangt., Nagpur on 9/4/2015. 2. Application of MATLAB in Engg. At GP Brahmपुरi 2/9/2015. 3. “Machine Tool Dynamics: A Case Study” in DTE sponsored STTP on Excellence In Manufacturing Engg. At GP Nashik on 3/1/2017.

		<ol style="list-style-type: none"> 4. “CO-PO Attainment” in FDP on “Overview of NBA Norms and Preparation for Accreditation” at GP Sakoli. On 20/05/2020 5. “CO-PO Attainment” in FDP on “NBA e-SAR Preparation for Diploma Institutes” at GP Gondia on 17/06/2020. 6. “CO-PO Attainment Methodology & Case study” in AICTE-ISTE STTP on “NBA Accreditation: Preparation and Evaluation” at GP Thane on 16/12/2020 (03 Sessions). 7. “CO-PO Attainment Methodology & Case study” in AICTE STTP on “Pedagogic Approach For Effective Teaching Learning Through Outcome Based Education” at Anjuman College of Engg. Nagpur on 05/02/2021 and 05/03/2021.(02 sessions) 8. Plenary Speaker – “Sub-Structure Synthesis – A Method for Structural Joint Parameter Identification” in International Conference on Advancement in Science, Technology and Management (ICASTM 2023)- 27/07/2023 at SBJITM Nagpur
12	Book Published	<p>“Introductory SCILAB for Engineers”, SJP Publication Nagpur, ISBN-978-81-19931-01-9, first Edition 2024</p> <hr/> <p>Book Title: Machines, Mechanism and Robotics, Springer</p> <hr/> <p>Book Subtitle: Proceedings of iNaCoMM 2019 eBook ISBN: 978-981-16-0550-5</p> <hr/> <p>DOI: 10.1007/978-981-16-0550-5 Chapter Title: Nonlinear Joint Stiffness Parameter Identification</p> <hr/> <p>Book Title: Recent Advances in Machines and Mechanism, Lecture Notes in Mechanical Engg.,Springer</p> <hr/> <p>Book Subtitle: Proceedings of iNaCoMM 2021 eBook ISBN: 978-981-19-3716-3</p> <hr/> <p>DOI: 10.1007/978-981-19-3716-3_7 Chapter Title: A Review on Frequency Domain Approach for Parametric Identification of Nonlinear Joints.</p>
	Book Chapter	
13	Patent	<ol style="list-style-type: none"> 1. Design No.: 416572-001, Date: 11/05/2024, “Multipoint Pesticide Sprayer” 2. Design No.: 416964-001, Date: 15/05/2024, “Automatic Sun Visor for Vehicles”
14	AICTE/ University/College Committee	<ol style="list-style-type: none"> 1. Member of Expert Committee of AICTE for evaluation of MODROB proposals from NER institutes for grants for Solar Power Project. 2. Evaluator for assessing proposals under AQIS schemes. 3. Invitee in “Student Learning Assessment (SLA)Project-Mechanical Engineering” of AICTE. 4. Expert for AICTE Approval Process 2020-21 to 2023-24 5. Elected Member of College Development Committee (CDC) 2023-24, GCOE Nagpur. 6. BOS Member of Mechanical Engg. at Tulsiramji Gaikwad College of Engineering, Nagpur. 7. BOS Invitee Member, Mechanical Engineering, RTM Nagpur University
15	Reviewer for International Journal & Conferences	<ol style="list-style-type: none"> 1. International Journal of Mechanical Sciences, Elsevier 2. Journal of Measurement, Elsevier 3. Mechanism & Machine Theory, Elsevier

		<p>4. iNaCoMM 2020 at IIT Mandi</p> <p>5. National conference NCCM-24 VNIT Nagpur</p>
16	Other Achievements /Awards	<p>1. Felicitated with certificate for “Outstanding Overall Performance (A+)” during academic year 1996-97; 2002-03 and 2010-11, 11-12, 12-13, 13-14,15-16, 18-19 to 23-24.</p> <p>2. Received certificate for excellent contribution in project model on “Manually Energized Winnowing & Sieving Machine”. Project model stood first in State level competition.</p>
17	Memberships of Professional / Non Professional Bodies	<p>1. Life Member of Indian Society for Technical Education (ISTE) – LM 29708</p> <p>2. Life Member of Association of Machines & Mechanisms (AMM) - 20170001</p>
18	Technology Transfer	<p>Proposal on “Multipoint Pesticide Sprayer for Farming” submitted to UBA 2023-24. Project sanctioned Technical Intervention Project (No. RP-03525G) under UBA 2.0, Letter dated 13/06/2024. Grant Received Rs.32000/-</p>
19	Extracurricular activities/Academic contribution/Portfolios / Achievements etc.	<ul style="list-style-type: none"> ➤ Head of Mech. Engg. Department, GCOE Yavatmal (2021-2023) ➤ Training & Placement Officer at GCOE Chandrapur (2019-2021) ➤ Chief Coordinator CIIT at GCOE Chandrapur (2020-21). ➤ Workshop Superintendent at GCOE Chandrapur (2017-18) ➤ Group Head- Design Engg. Group at GCOE Chandrapur. ➤ Successfully completed industry sponsored project for Atlas Copco Ltd. Nashik on “Design of Articulating arm for holding Torqueing Gun” during (2016-17). ➤ Chair technical session in National conference on Advances in Engg. And Technology for sustainable development held at Govt.Polytechnic, Nagpur on Feb.27, 2015. ➤ Chair technical session in International conference on Green Energy for sustainable development (ICGESD-20) held at Govt.Polytechnic, Nagpur on Feb.28-29, 2020. ➤ Participated in DTE State Level sports 2023-24 in Badminton Event. ➤ Industry based project completed (AY 2023-24) at Kinetic Gears, Hingna MIDC Nagpur – (1) Process Failure Mode Effect & Analysis (PFMEA) (2) Rejection Analysis ➤ Industry based project completed (AY 2024-25) at Kinetic Gears, Hingna MIDC Nagpur – (1) Development of Cleaning system for Broaching Maching

(Dr.Sanjay B. Ingole)