
	<p>Prof. Dr. Sonage B. K.</p> <p>Designation: Professor & Principal</p> <p>Qualification: BE, ME, Ph.D (NITK)</p> <p>BEE Certified Energy Manager & Energy Auditor</p> <p>Email-id: basgondasonage@orchidengg.ac.in sbasvaraj@rediffmail.com</p> <p>Mobile No: 9552529320, 9860511099.</p> <p>Age: 50 years</p> <p>Total Experience: 28 years</p> <p>Teaching experience: 26.5 Years</p> <p>Date of Joining this Institution (NKOCET):10/06/2008</p> <p>Area of Interests: Heat transfer, Nano fluids, renewable energy systems,</p>
<p>Education</p>	<ol style="list-style-type: none"> 1) PhD from National Institute of Technology Karnataka, Mangalore in March,2015. 2) Masters: M.E(HPE) from Walchand College of Engineering, Sangli in 2006. 3) Bachelors: B.E.Mechanical from Govt. College of Engg., Karad in 1995.
<p>Subject Taught</p>	<ol style="list-style-type: none"> 1. Applied Thermodynamics 2. Refrigeration and air conditioning 3. Fluid mechanics 4. Heat and mass transfer 5. Machine tools and processes 6. Applied thermodynamics 7. Workshop practice 8. Engineering Graphics 9. Fluid and Turbo machines 10. Automatic control and fluid systems 11. Numerical methods 12. Automatic control systems 13. Computational fluid dynamics 14. Internal combustion engines

	15. Advanced Thermodynamics 16. Measurements in Thermal systems 17. Design of thermal Systems 18. Modelling and analysis in Thermal Engineering. 19. Energy Management & Audit
Project Guided	PhD- 01 (In progress) Masters: 10 (List attached at the end) Bachelors: 10 (list Attached at the end)
Conferences / STTP /FDP/ Workshops	Many Conferences / STTP /FDP/ Workshops are attended and conducted.
Major Portfolios handled at College/ Department / University level	Principal Head of Mechanical Engineering NBA, NAAC, IQAC co-ordinator Member, College development committee Member, Standing Committee Member, Grievance committee Member, Local selection committee Member, University selection committee Member, Local enquiry committee, Solapur University. University representative, DBATU, LIC committee Chairman, DBATU, LIC committee Sr. Superwiser, Solapur University Exams Sr. Superwiser, DBATU, Lonere. External examiner, Ph.D Thesis, Solapur University External Examiner, Ph.D Thesis, VTU, Belgaon Paper setter for Ph.D, M.Tech and UG exams FE Admission officer. Laboratory In charge for Heat transfer Lab

Association with Professional bodies	Life Member of Institution Of Engineers India Life Member of Indian Society for Technical Education												
Research and Publications (if any)	No. Of publications: 39 (List Of publications is attached at the end)												
Awards and Recognitions (if any)	Awards 1) Best teacher of the college, Shri Tuljabhavani College of Engineering, Tuljapur. 2) Best Faculty member of Mechanical Engg. Deptt, for the Year 2010-11 Nagesh Karajagi Orchid College of Engineeing and Technology, Solapur. 3) JMST best paper award 2015 for the paper “Miniaturization of automobile radiator by using zinc-water and zinc oxide-water nanofluid” by Korean society of Mechanical Engineers. 4) Best Faculty member of Mechanical Engg. Deptt, for the year 2018-19 Nagesh Karajagi Orchid College of Engineeing and Technology, Solapur. 5) A Distinguished Member of IEI Solapur Center for Innovation in Engineering for the year 2023 – 2025. Recognition 1) PG teacher for Solapur University, Solapur 2) Ph.D Guide For DBATU, Lonere												
Achievements (if any)	Google scholar citations <table><tr><td></td><td>All</td><td>Since 2015</td></tr><tr><td><u>Citations</u></td><td>70</td><td>54</td></tr><tr><td><u>h-index</u></td><td>4</td><td>4</td></tr><tr><td><u>i10-index</u></td><td>2</td><td>2</td></tr></table>		All	Since 2015	<u>Citations</u>	70	54	<u>h-index</u>	4	4	<u>i10-index</u>	2	2
	All	Since 2015											
<u>Citations</u>	70	54											
<u>h-index</u>	4	4											
<u>i10-index</u>	2	2											

	<p>Scopus citations</p> <p>Sonage, B. K.</p> <p> http://orcid.org/0000-0002-6106-1355</p> <p>Affiliation(s): Display information about the Scopus affiliation history</p> <ul style="list-style-type: none"> N.K. Orchid College of Engineering and Technology, Solapur, India View more View potential author matches <p>Subject area: Physics and Astronomy Chemical Engineering Engineering</p> <p>Documents by author 6 Total citations 19 by 19 documents <i>h</i>-index: Help Page 2</p>
Link to personal website/Blog	<p>https://scholar.google.com/citations?user=bVCFHsgAAAAJ&hl=en&oi=ao</p> <p>https://www.scopus.com/authid/detail.uri?authorId=56550062900</p>
Research Project Grants	<ol style="list-style-type: none"> Received grant of Rs. 5 lakh for the development of “Solar water Purifier” from Dassaults Systeme, Pune. Received grant of Rs. 4.3 lakh for the project “Biogas generation from agro waste” from MPCB, Mumbai. Received grant of Rs. 3 lakh for the project “Smart building technologies for decarbonisation and to enhance energy efficiency in building” from DBATU-VC-RPG-2023. <p>Patents:</p> <p>Published: 1) Apparatus For Synthesis Of Zinc, Zinc-Oxide Nanoparticles And Zinc-Water Nanofluid. . patent no 201621014089</p> <p>2)Design and Development of Cloth Duster for Cloth Industries. patent no. 202021032724 A</p> <p>Granted: Purification of Impotable and Waste Water. Patent no. 432765</p>

Any Other Information	Worked as “ Founder Head of Mechanical Engineering Department ” of Nagesh Karajagi Orchid College of Engg. And Tech., Solapur till December, 2015
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ANNEXURE

List of Publications, UG projects, PG projects

This list is available at

<https://scholar.google.com/citations?user=bVCFHsgAAAAJ&hl=en&oi=ao>

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
A review of design and analysis of Lancashire boiler RV Sanga, CV Papade, BK Sonage IJLTET 7 (2), 111-115	<u>1</u>	2016
A Review on Design &Analysis of Lancashire Boiler BKS R.V.Sanga, C.V.Papade International Journal of Latest Trends in Engineering and Technology (IJLTET ...		2016
A Review on Revampment of Phase Change Material BKS R. R. Shinde, C.V.Papade International Journal of Engineering Trends and Technology (IJETT) 38 (1), 1-4		2016
A study on synthesis of zinc oxide-water nanofluid and its thermo physical properties. BKSP Mohanan. Int.J. of Mechanical Engg. and Material Sciences 6 (2), 187-191	<u>2</u>	2013
Adaptation and implementation of solar distillation plants for pure water: a review SV Kumbhar, BK Sonage	<u>3</u>	2017

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
Journal of Water Pollution & Purification Research 4 (1), 1-3		
APPARATUS FOR SYNTHESIS OF ZINC, ZINC-OXIDE NANOPARTICLES AND ZINC-WATER NANOFLUID. PM Sonage Basgonda Kallappa The Official Journal Of the Patent Office of India. 20 (20/2016), 18719		2016
Assessment of Thermal Conductivity of Liquids by Modified Parallel Plate Method BKS Ajaykumar B. Bhosale Journal of Emerging Technologies and Innovative Research 6 (6), 574-579		2019
Augmentation of heat transfer through pipe-A review SBKN N.G A national conference on Recent developments in Mechanical Engineering ...		2007
Augmentation of heat transfer through tube using internal threaded fins SBKNNGS N.K An International Technical Symposium, TECHNOMILLENNIUM-2006, 277-283.		2006
Characterization of zinc Oxide nanoparticles used for preparation of nanofluids MP Sonage B.K. International Conference on Advances in Manufacturing and Materials ...	15	2014
Comparison of Heat Transfer Performance of Plain Tube and Rifled Tube by Experimentation and CFD Analysis SBK Kute S. B. International Conference on Advancement in Engineering, Applied Science and ...		2018
Comparison of Heat Transfer Performance of Plain Tube and Rifled Tube by Experimentation and CFD Analysis SB Kute, BK Sonage International Journal of Engineering Technology Science and Research 5 (1 ...	2	2018

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
Development and calibration of modified Parallel plate method for measurement of thermal conductivity of liquids: A review BKS Ajaykumar B. Bhosale International Research Journal of Engineering, Management & Technology ...		2019
Development of Empirical Correlation for Heat Transfer to Nanofluids BK Sonage, P Mohanan Heat Transfer—Asian Research 46 (4), 305-315		2017
Enhancement of thermal efficiency and cost effectiveness by development of melting furnace by revamping and troubleshooting fuel-fired furnace SVKKBK Sonage Heat transfer-Asian research, 1-18	4*	2018
Experimental Investigation of Forced Convective Heat Transfer Through Tube to Zinc Oxide–Water Nanofluid BK Sonage, P Mohanan Journal of Nanofluids 3 (4), 318-327		2014
Experimental Investigations of Developed Solar Still for Increment in Efficiency and Rate of Distillate Experimental Investigations of Developed Solar Still for Increment in ... SV Kumbhar, BK Sonage International Journal of Heat and Technology 3 (2), 471-480	3*	2019
Experimental Study on Collection efficiency of Solar Cooking System BKS P.D.Karande, S.V.Kumbhar International Research Journal of Engineering and Technology(IRJET) 4 (02 ...	5*	2017
Failure analysis of sheet metal utensils during deep drawing process SBK Kumbhar Siddharaj V Journal of Mechatronics and Automation 3 (3), 1-7		2016

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
Failure Analysis of Sheet Metal Utensils During Deep Drawing Process KSVS B K 1 st International Conference on Materials, Manufacturing and Design ...		2016
Funded Project		
Funded project- Biogas Generation From Agrowaste S B K Funded by, Maharashtra Pollution Control Board, Mumbai		2021
Funded project- Solar Water Purifier for Rural masses with zero water reject S B K MOU between Dassault systeme, Pune and NKOCET dated 09/12/2020, Rs 500000=00		2020
Heat transfer and pressure drop characteristic of zinc–water nanofluid BK Sonage, P Mohanan Heat and Mass Transfer 51, 521-527	9	2015
Heat transfer and pressure drop study in transition regime for ZnO-H2O nanofluid synthesized by green route DB Basgonda Sonage Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir ...		2022
Internship Report-Selection of pump for Network of pipes MNN Sonage B K Xentricx Technology Pvt Ltd Solapur		2022
Internship Report-Waste Abrasive film seperating and Tightening Mechanism PSK Sonage B K, Kalyanshetti R S Precision Camshafts Lts, Solapur		2022
Lumped Heat Capacity System Design for Revampment in Tube Furnace for		2017

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
Continuous-Inline Wire Annealing BKS Siddharaj V. Kumbhar* , Mahesh M. Salotagi International Journal of Scientific Research in Knowledge 5 (2), 050-056, 2017		
MECHANIZED CLOTH DUSTER SBK Kashid A.S Official journal of the patent office of India 2020 (45/2020), 56296		2020
Miniaturization of automobile radiator by using zinc-water and zinc oxide-water nanofluids BK Sonage, P Mohanan Journal of Mechanical Science and Technology 29, 2177-2185	<u>21</u>	2015
Nanofluid: Future working fluid for heat exchanging devices BKSP Mohanan International J. of Engg. Research &Indu. Appls., 6 (No. II), pp 203-220		2013
Patent filed: MECHANIZED CLOTH DUSTER KAS Sonage B K IN Patent --		2020
Patent filed: APPARATUS FOR SYNTHESIS OF ZINC, ZINC-OXIDE NANOPARTICLES AND ZINC-WATER NANOFLUID. MP Sonage B K IN Patent --		2016
Patent granted: Purification Of Impotable And Waste Water S B K IN Patent 432,765		2021
Performance Enhancement of Air Conditioner Using Earth Air Tunnel Heat Exchanger SB Nadaf, DD Bhoge, BK Sonage	<u>1</u>	2018

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
IRJET 5 (07), 1435-1440		
Performance Evaluation of Air Conditioner Using Earth Air Tunnel Heat Exchanger SSK Sameer B. Nadaf, B. K. Sonage, D. D. Bhoge International Journal of Innovative Science and Research Technology 3 (Issue ...		2018
Performance Evaluation of Internal Combustion Engine With Hydrogen addition in Fuel APB S. S. Kale, B. K. Sonage International Journal of Innovative and Emerging Research in Engineering 4 ...		2017
Performance Evaluation of Thermoelectric Water Cooler and Heater SSM Rakesh Macharla, Dipak Bhoge, B. K. Sonage International Journal of Latest Technology in Engineering, Management ...		2018
PG Thesis-Analysis of parabolic concentrator type solar cooker by using heat storing material GSR Sonage B.K Nagesh Karajagi Orchid College of Engg. and Tech., Solapur		2015
PG Thesis-Design development and testing of melting furnace KSRV Sonage B.K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2016
PG Thesis-Development of horizontal wire annealing furnace for continuous operation SMM Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2016
PG Thesis-Development of test set up for determination of thermal conductivity of liquids BAB Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2019

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
PG Thesis-Enhanceing The Performance of Lancashire Boiler SRVS Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2016
PG Thesis-Evaluation of Heat Transfer and Pressure Drop Characteristics of Green Nanofluids PKP Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2019
PG Thesis-Heat Transfer Enhancement in Fire Tube Boiler Using Helically Ribbed Surface SK Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2017
PG Thesis-Heat transfer performance of green nanofluid Sonage B K, Bijja Shanti Ramchandra Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2015
PG Thesis-Performance evaluation of earth tunnel heat exchanger NSB Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2018
PG Thesis-Revampment of Phase Change Material For Solar Cooker Application SRR Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2016
Ph.D Thesis-Augmentation Of Forced Convective Heat Transfer Through Tube By Using Nanofluid MP Sonage B K National Institute of Technology Karnataka, Surathkal.		2015
Purification Of Impotable And Waste Water		2021

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
S B K Official journal of the patent office of India 19 (19/2021), 22352		
Selection of nanofluids for heat exchanging devices MP Sonage B.K. International conference on Frontiers In Mechanical Engineering, FIME 2010 ...		2010
Study of Surface Temperature Distribution of Plain tube and Rifled tube by CFD Analysis SBK Kute S. B International Research Journal of Engineering and Technology (IRJET) 5 (02 ...		2018
Synthesis and Characterization of Zinc Oxide Green Nanoparticles SBK Pawar K.P, Bijja Shanti Ramchandra Journal of Emerging Technologies and Innovative Research (JETIR), (ISSN-2349 ...		2019
Testing of experimental set up for determination of heat transfer coefficient of working fluids P Sonage, B.K. and Mohanan International Conference on Recent Trends in Engineering and science, ICRTES ...		2013
UG project- Performance evaluation of finned Tube Heat exchanger SI Sonage B K, Satyam Chandak, Riyaj Hingani, Mudassir Pagdiwale, Abdulla shaikh Nagesh Karajagi Orchid College of Engineering and Technology, Solapur		2022
UG Project-Design & development of solar collector for jaggery manufacturing K Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2016
UG Project-Design & development of vertical axis wind turbine GSS Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2015

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
UG Project-Determination of viscosity of fluid by Hagen-poiseuille's flow method SPM Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2012
UG Project-Development of experimental setup for performance evaluation different coolants ASD Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2013
UG Project-Manufacturing of nanoparticles and finding the thermophysical properties of nanofluid BSS Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2012
UG Project-Performance Evaluation of Submerged Plate Type of Evaporator BRS Dr. Sonage B.K, Kambale M T, Pawar V.R, Balwatkar B.S Nagesh Karajagi Orchid College of Engineering and Technology, Solapur		2022
UG Project-Performance Evalution and testing of commercial coolants BSR Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2014
UG Project-Production of Biofuel from Kitchen waste NB Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2019
UG Project-Spherical shaped solar collector with embedded concentrators MPS Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2017
UG Project-Tender Sorghum Seperator KHP Sonage B K		2019

<u>Title</u>	<u>Cited by</u>	<u>Year</u>
Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		
UG Project-Testing of flat and spherical solar collectors BRM Sonage B K Nagesh Karajagi Orchid College Of Engg. And Tech., Solapur		2018
UG Project: Development of demo plant for production of Bio-ethanol MM Sonage B K, Meheta AU, Gaikwad RS, Mirajgaonkar NU Nagesh Karajagi Orchid College of Engg. and Tech., Solapur		2020
UG Project: Digester for Biogas Plant SSR Sonage B K, Munagapatil VS, Mhetre VS, Doddi RP, Kurapati OS Nagesh Karajagi Orchid College of Engg. and Tech., Solapur		2020
Unsteady State Lumped Heat Capacity System Design for Tube Furnace for Continuous-Inline Wire Annealing Process S Sonage Heat Transfer—Asian Research	<u>3</u>	2019