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GM UNIVERSITY

P. B. Road, Davanagere – 577 006 KARNATAKA | INDIA

## GMU - Faculty Profile



### Contact

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### Websites

#### LinkedIn:

<https://www.linkedin.com/in/mallikarjuna-bidari-788b02298/>

#### Google Scholar:

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

#### Research gate:

[https://www.researchgate.net/profile/Mallikarjuna-Bidari?ev=hdr\\_xprf](https://www.researchgate.net/profile/Mallikarjuna-Bidari?ev=hdr_xprf)

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## Mr. Mallikarjuna V Bidari

Assistant Professor in Engineering Design Department

### Faculty

Faculty of Engineering and Technology

### School / Program

Faculty of Engineering and Technology/

B.Tech. in Engineering Design

B.Tech in Mechanical Engineering

### Faculty Introduction (Five to Six Lines)

Mr. Mallikarjuna V. Bidari is currently serving as an Assistant Professor at GM University. He holds a Master's degree in Thermal Power Engineering. His key areas of research include heat exchangers, Nano fluids, and Computational Fluid Dynamics (CFD) analysis. He has a keen interest in thermal system optimization and energy-efficient design. He actively involved in both teaching and applied research. Currently, he is pursuing a Ph.D. on heat exchangers

### Qualifications

#### Ph.D. (Heat exchangers)

Pursuing Ph.D. in MSRIT, Bengaluru under VTU, Belagavi, Karnataka

#### M. Tech. (Thermal Power Engineering)

M.Tech from UBDTCE, Davanagere, Karnataka, 2013

#### BE (ME)

Bachelor of Engineering from B.I.E.T, Davanagere, Karnataka, 2005

### Experience

#### Teaching

- 11 Years at GMIT, Davanagere, Karnataka
- 8 months at STJIT, Ranebennur, Karnataka

#### Industry

- 3 Years at Powerica Ltd., Bengaluru, Karnataka
- 2 Years at Aircon Handling Systems Pvt. Ltd., Bengaluru, Karnataka

#### Research

Heat exchangers, Nanofluids and CFD Analysis



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### Training Program Attended

- AICTE VAANI FDP Attended on “Uniting for the Planet: Strategies for Sustainable Energy and Climate Resilience” at MSRUIAS from 21/07/25 to 23/07/25
- Participated in SAMAVESHA episode- 7 organised by Indian Science Technology and Engineering Facilities Map in collaboration with GM University, Davanagere on 26/11/2024
- Training Program on “AUTOCAD 3D” at GM University, Davanagere from 3rd October to 5th October 2024
- Two-Days Workshop on “Digital Technologies: Additive Manufacturing (AM) & Internet of Things (IOT) by Wipro 3D on 28th and 29th May 2021
- Completed 12 weeks NPTEL online certification Program on “Heat Exchangers: Fundamentals and Design analysis” by IIT Kharagpur from July to November 2019
- 12 weeks NPTEL online certification Program on “Introduction to Fluid Mechanics” conducted by IIT Kharagpur from January to April 2019
- One week AICTE-ISTE approved Induction/Refresher Programme on “Recent Advances in IC Engines-Research & Issues” from 23rd July to 28th July 2018
- Two weeks FDP Program on “Pedagogy for Online and Blended Teaching-Learning Process” (FDP201x) conducted by IIT Bombay from 2nd May 2018 to 17th May 2018
- Two weeks FDP Program on “Foundation Program in ICT for Education” (FDP101x) conducted by IIT Bombay from 8th March to 12th April 2018
- Participated 41st Series State level seminar and exhibition of student project programme was sponsored by KSCST, IISc, Bengaluru at BIET, Davanagere from 10th and 11th August 2018
- TEQIP-III AICTE- ISTE approved Short Term Training Programme on “Advances in Fluid Mechanics: Experimental and Computational” Organized by Don Bosco College of Engineering, Fatorda, Goa.
- ISTE approved Two Days Workshop on “Advanced Mathematical Techniques in Research and Engineering Applications” jointly organized by GMIT, Davanagere.
- AICTE sponsored two weeks national level Faculty development programme on “Cloud Based CAD/CAM Tools for Product Design” Organized by MSRIT, Bengaluru.
- Two Days Workshop on “Outcome Based Education and Outcome Based Accreditation” Organized by SIT, Tumkur.
- Three Days Faculty Development Programme on “Feel Teacher” Organized by CLHRD, Mangalore
- One Day National seminar on “Research opportunities in Biofuels” Organized by VTU, Belagavi.

### Research Interest

- CFD in Thermal Analysis, Fluid flow analysis
- Micro channel Heat exchangers, Double tube heat exchangers
- Nanofluids



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### Awards & Achievements

- Best Paper presentation award titled “Experimental And Numerical Study on Heat Transfer Characteristics of  $Al_2O_3$  and Base Fluid Water in The Heat Exchanger” 2<sup>nd</sup> ICETSEM 2021

### Publication / Patents

#### International Journal Papers: 07

- Bidari, Mallikarjuna Veerabhadrappe, P. B. Nagaraj, Gururaj Lalagi, and C. K. Umesh. "Experimental and numerical investigation of influence of flat conical inserts with different geometries in tubular heat exchanger." International Journal on Interactive Design and Manufacturing (IJIDeM) (2025): 1-19.
- Mallikarjuna Veerabhadrappe Bidari, P. B. Nagaraj, Gururaj Lalagi, and K. Rajesh. "Effect of triangular perforated flat cone-shaped inserts on performance of double-tube heat exchanger." Physics of Fluids 35, no. 11 (2023). <https://doi.org/10.1063/5.0169821>
- Lalagi, Gururaj, P. B. Nagaraj, Vinayak Talugeri, and Mallikarjuna Veerabhadrappe Bidari. "Study on heat transfer and pressure drop characteristics for nanofluids in microchannel heat exchangers." Physics of Fluids 35, no. 10 (2023). <https://doi.org/10.1063/5.0169130>
- Gururaj Lalagi, P B Nagaraj, Mallikarjuna Veerabhadrappe Bidari & Ramakrishna N. Hegde (2022) Influence of Design of Microchannel Heat Exchangers and use of Nanofluids to Improve the Heat Transfer and Pressure drop Characteristics: A Review, International Journal of Ambient Energy, DOI: 10.1080/01430750.2022.2056918
- Mallikarjuna Veerabhadrappe Bidari, P. B. Nagaraj & Gururaj Lalagi (2021): Influence of different types of vortex generators (VGs) to enhance heat transfer performance in heat exchangers: a review, International Journal of Ambient Energy, DOI:10.1080/01430750.2021.1980740
- International Journal of Research in Engineering and Technology "Prediction Of Flow Characteristics Through A Circular Port of A Spool Valve Using CFD Approach" eISSN: 2319-1163 | pISSN: 2321-7308 Volume: 02 Issue: 12 | Dec-2013, Available @ <http://www.ijret.org>
- Basavarajappa S, Mallikarjuna V Bidari, Mujeebulla Khan Guttal, Modelling, Thermal Design and Thermal Analysis of an Electronic Unit, International Journal of Engineering Sciences & Research Technology (IJESRT), ISSN 2277-9655, Volume 03, Issue 01, pp 472-480, January 2014

#### National conference Paper – 01

- Sudhirkumar Singh, Mohammed Mustafa S K, Mallikarjuna V Bidari. “IoT- enabled AI Temperature control system for portable storage boxes” National Conference on Mars-AI 2025 on 26th Sept.2025

### Professional Membership

- Indian Society for Technical Education. (Membership No. LM 108224) (Life Member)
- SAE membership ID – 7250110176
- International Association of Engineers (IAENG)- IAENG membership number- 292361 (Life Time Member)



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### Awards & Recognitions

- Best Faculty
- Best Research Scholar

### Administrative Responsibilities

- Department Level – GMIT and GMU ERP coordinator,  
SAE Club coordinator
- University Level – 5S Lab equipment's coordinator

### Workshops / FDPs / Seminars Organized

- Two Days Workshop on “ Product design” at GM University from  
22/08/2025 to 23/08/2025

### Projects Guided

- Akash G, Gopalraj Shavi, Guru B C, Pruthvi G Dalbanjan (2024)  
*Effect of twisted tape geometries on heat transfer in tube exchangers*
- Sachin N, Prajwal B, Sandeep M Gadag, Tejas P R (2024) *Fabrication  
of manually operated cement packet loading and unloading unit*
- Amogh M G, Akash K B, Balaji K, Maheshraddi Hulikatti (2023)  
*Numerical Simulation on Performance Enhancement of Concentric  
Tube Heat Exchanger with Swirl Generators*
- Dhanush A S, Abhishek V, D K Kiran, Mohan D S (2023) *Fabrication  
of hand operated electric tiller for Agricultural purpose*
- Manjunatha M N, Dinesh U, Manoj H S (2021) *Numerical simulation  
on heat transfer enhancement by Double coil tube heat exchanger*
- Sharath T G, Vinay H K, Rajesh B S, Rohith D (2020) *Water  
Management System For Crop Development In Agriculture Sector  
Using Hydraulic Valves*

### Funded Projects / Grants Received

- 3 KSCST-funded projects were sanctioned for undergraduate students  
with a grant amount of Rs.15,000/- each during the period 2017-2023.
- Ramesh K A, Santhosh P, Tarun H R, Varun G V (2023) *Experimental  
Study to Enhance the Heat Transfer in a Double Pipe Heat Exchanger  
Using Flat Metallic Inserts*
- Akarsh R, Bharath M P, Kiran gowda B S (2019) *Characterization and  
performance of SI engine using kitchen waste biogas*
- Deepa S K, Pallavi M, Avinash B S, Mohammed I Khileadar (2018)  
*“Experimental Study On Fabrication Of Different Types Of Finned  
Counter Flow Heat Exchanger*



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### **Any Other Contributions**

- LEAP – Skill development course on “Data Acquisition using Lab view software”