

Dr. G.PURUSHOTHAM



Designation Professor

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Joining Date 10-08-2022

Educational Qualifications

- B. E., Bangalore University - 1990
- M. E., UVCE, Bangalore -2007
- PhD , Visvesvaraya Technological University, Belgaum -2016

Past Experience

| Field | Positions held | Name of the institution | From | To |
|-----------------------|--------------------------------------|---|------------|------------|
| Industrial Experience | Production Engineer | Inlac Granstone Ltd. Hosur | 10.04.1991 | 01.05.1993 |
| | Production Planning Control Engineer | Aldea Electronics Pvt. Ltd, Tumkur | 10.05.1993 | 15.04.2000 |
| Academic Experience | Lecturer | ABPT, Tumkur | 20.04.2000 | 01.06.2006 |
| | Sr. Lecturer | CIT, Gubbi, Tumkur | 03.06.2006 | 01.06.2010 |
| | Assistant Professor | SSIT, Tumkur | 05.06.2010 | 30.05.2011 |
| | Assistant Professor | CIT, Gubbi, Tumkur | 01.06.2011 | 10.01.2013 |
| | Professor & HOD | Mangalore Institute of Technology & Engineering | 17.01.2013 | 26-7-2022 |
| | Professor | Gopalan College of Engineering & Management | 10-08-2022 | Till date |

Areas of Interest

- Advanced Composite Materials
- Advanced Manufacturing Process
- Metrology & Measurement

Responsibilities Held

Head of the Department

Head-MITE SIEMENS CoE

Tutor for BOSCH REXROTH CoC

NAAC Coordinator

NIRF & ARIIA college coordinator

ISO-MR, SPMC Coordinator

Professional Memberships

- Life Member in The Indian Society for Technical Education (ISTE-New Delhi) Membership ID: LM117778
- Life membership in International Society for Research and Development (ISRD) Membership ID: F3140900717
- Member HKSME (Hong Kong Society Of Mechanical Engineers) Membership ID: M20170914001
- Associate Member In International Association of Engineers (IAEng) Membership No: 196432

Subjects Handled

UG Programme:

- Metrology & Measurements
- Kinematics of Machines
- Management & Entrepreneurship
- Elements of Mechanical Engineering
- Engineering Drawing
- Manufacturing Process

PG Programme:

- Product Life cycle Management
- Product Data management

B.E., M. Tech, PhD Projects guided

- **B. E:** More than 25 projects (KSCST Funded Projects-03, VGST-01)
- **M.Tech:** 5
- **PhD:** 2 (Guiding), **Guided:** 01

Conference/Journal publications

1. Kumaraswamy, Vijay Kumar & **Dr. G.Purushotham**, "Evaluation of the microstructure and thermal properties of (ASTM A 494 M grade) nickel alloy hybrid metal matrix composites processed by sand mold casting", International Journal of Ambient Energy: **Taylor & Francis**, <https://doi.org/10.1080/01430750.2021.1927836>, 2021
2. Kumaraswamy, Vijay Kumar & **Dr. G.Purushotham**, "A review on mechanical and wear properties of ASTM A 494 M grade nickel-based alloy metal matrix composites", in **ELSEVIER Materials Today: Proceedings**, <https://doi.org/10.1016/j.matpr.2020.07.499>, Pg. 2027-2032, **2021**.
3. Kumaraswamy, Dr. Vijay Kumar & **Dr. G. Purushotham**, "Thermal analysis of Nickel alloy/Al₂O₃/TiO₂ hybrid metal matrix composite in Automotive engine exhaust valve using FEA method", in Journal of Thermal Engineering: Vol. 7, No. 3, pp. 415- 428, Feb. **2021**
4. Kumaraswamy, Vijay Kumar & **Dr. G.Purushotham**, "Effect of reinforcement on mechanical properties of Nickel alloy hybrid metal matrix composites processed by sand mould technique", in **Applied Science & Engineering Progress** DOI: 10.14416/j.asep.2020.11.001. **2020**.
5. Kumaraswamy, Vijay Kumar & **Dr. G.Purushotham**, "A review on mechanical and wear properties of ASTM A 494 M grade nickel-based alloy metal matrix composites", in **ELSEVIER Materials Today: Proceedings**, <https://doi.org/10.1016/j.matpr.2020.07.499> **2020**.
6. Sujesh Kumar, Dr. Lokesh M & **Dr. G.Purushotham**, "Comparative study of signal processing techniques for the diagnosis of fault in belt drives", in **International Journal of Mechanical and Production Engineering Research & Developments (IJMPERD)**, Vol. 10, Special Issue, Pg 424-433, **2020**.
7. Vidyasagar Shetty, Vijay Kumar & **Dr. G.Purushotham**, "Micro-Structural evolution analysis and assessment of Tribological behavior of Nickel alloy reinforced with SiO₂ and Al₂O₃ hybrid metal matrix composites", **International Journal of Mechanical and Production Engineering Research & Developments (IJMPERD)**, Vol. 10, Issue 2, Pg 421-430, **2020**.
8. Vidyasagar Shetty, Vijay Kumar & **Dr. G.Purushotham**, "Effect of SiO₂ and Al₂O₃ on mechanical properties of ASTM A 494 M Grade Nickel alloy hybrid metal matrix composites", **Journal of Mechanical Engineering Research & Developments (JMERD)**, Pg 231-233, **2019**

9. **Dr. G.Purushotham**, Yathin K.L "Study of Mechanical Behavior for Tamarind Shell Powder and Coconut Coir Fiber Epoxy Composite for Aerospace Application", **International Journal of Trend in Scientific Research and Development (IJTSRD)**, International Open Access Journal, Volume 3, Pg 941-949, Nov-Dec **2018**
10. **Manas Jain, Dr. G.Purushotham**, "Effect of Almandine on Microstructure and Corrosion properties of Nickel super alloy (K500) composite for Aerospace Gas Turbine Application", **IOP Conference series: Material Science and Engineering 376 (2018)**.
11. **Dr. Joel Hemanth, Dr. G.Purushotham**, "Corrosion behavior of Nickel alloy (ASTM A 494 M) reinforced with Fused SiO₂ Chilled Metal Matrix Composites (MMCs) for Marine Applications", **IOP Conference series: Material Science and Engineering 225 (2017)**.
12. **Dr. G.Purushotham**, "Experimental investigation of thermal and mechanical properties on thermal barrier coatings for efficient gas turbine for automotive applications", **Indian Journal of Advances in chemical science (IJACS) 5(4)**, pp 216-219 **(2017)**
13. **Dr. Joel Hemanth, G.Purushotham**, "Development of Nickel alloy reinforced with fused SiO₂ chilled composites and evaluation of thermal properties (Thermal conductivity & Coefficient of thermal expansion) and temperature distribution by finite element analysis (FEA)", **Open journal of composite materials, (Scientific Research Publishing) 7**, pp 251-264 **(2017)**.
14. **Dr. G.Purushotham**, "Performance study of Yattria Stabilized Zirconia and Gadolinium Zirconate coating for Nickel base alloy for turbine application", **International Journal for Science and Advance Research in Technology (IJSART) Volume 3, Issue 9-Sept. (2017)**.
15. **G.Purushotham, Dr. Joel Hemanth** "Influence of fused silica and chills incorporation on corrosion, thermal and chemical composition of ASTM A 494 M grade nickel alloy", **IOP Publishing, Material Science and Engineering 149 (2016) 012042 doi:10.1088/1757**.
16. **G.Purushotham, Dr. Joel Hemanth** "Study of physico-chemical properties of Monel M-35-1 Nickel Alloy-Fused Silica MMC for Marine application", **Indian Journal of Advances in Chemical Science (IJACS) Vol 4, Issue III, pp 235-240 (2016)**.
17. **G.Purushotham**, "Experimental investigation of Buckling strength comparison between metallic and CFRP sandwiched composite panel", **International Journal of Civil, Mechanical and Energy Science (IJCMES) Infogain Publication, Vol. 2, Issue-2, pp 21-26, Mar-Apr, (2016)**.
18. **G.Purushotham, Dr. Joel Hemanth** "Effect of chilling on soundness, micro hardness and ultimate tensile strength of Nickel Alloy-Fused silica metal matrix composite", **International Journal of Civil, Mechanical and Energy Science (IJCMES), Vol. 2, pp 29-35, (2016)**.
19. **G.Purushotham, Dr. Joel Hemanth** "Fabrication and Evaluation of Corrosion Behavior of Nickel Alloy Metal Matrix Composite with influence of chills", **TRANS TECH Publication Switzerland, Advanced Materials Research, Vol. 1119, pp 365-369 (2015)**.
20. **Amaresh S.K, G.Purushotham** "Direct and indirect vector control of induction motors using hybrid PID plus Fuzzy controller", **International Journal of Advances in Electronics and Computer Science, ISSN: 2393-2835, Volume-2, Issue-4, pp 78-82, April-2015**.
21. **G.Purushotham, Dr. Joel Hemanth** "Action of chills on microstructure, mechanical properties of chilled ASTM A 494 M grade Nickel alloy reinforced with fused SiO₂ metal matrix composite", **ELSEVIER, Procedia Materials Science, Vol. 5C, pp 426-433 (2014)**.
22. **G.Purushotham, Dr. Joel Hemanth** "Effect of weight percentage on Mechanical properties of fused Silica particulate reinforced Nickel alloy (M 35-1) composite, with influence of chills", **TRANS TECH Publication Switzerland, Applied Mechanics & Materials, Vol. 592-594, pp 245-249 (2014)**.

International Conferences:

1. **Manoj Kumar, Dr. G.Purushotham**, "Environmental Pollution Control using Artificial Intelligent Drone", in **Frontiers in Automobile & Mechanical Engineering (FAME 2020)**, **Sathyabama Institute of Science & Technology, Chennai**, on **7th to 9th Aug. 2020**.
2. **Dr. G.Purushotham, Ajith Kumar and Sujesh Kumar** "Experimental investigation of Mechanical Properties for Natural fiber hybrid Composites for Automotive/Aerospace applications", in **Global Conference on Advanced Smart and Sustainable Technologies in Engineering (GCASSTE-2020)**, **Mangalore Institute of Technology & Engineering Moodbidri**, on **30th & 31st Jan. 2020**.
3. **Sujesh Kumar, Dr. G.Purushotham** "Comparative Study of Signal Processing Techniques for the Diagnosis of Fault in Belt Drives", in **Global Conference on Advanced Smart and Sustainable Technologies in Engineering (GCASSTE-2020)**, **Mangalore Institute of Technology & Engineering Moodbidri**, on **30th & 31st Jan. 2020**.
4. **Ajith Kumar Kumar, Dr. G.Purushotham** "Study of Free Vibration Characteristics of Hybrid Polymer Composites", in **Global Conference on Advanced Smart and Sustainable Technologies in Engineering (GCASSTE-2020)**, **Mangalore Institute of Technology & Engineering Moodbidri**, on **30th & 31st Jan. 2020**.

5. **Manas Jain, Dr. G.Purushotham**, "Effect of Almandine on Microstructure and Corrosion properties of Nickel super alloy (K500) composite for Aerospace Gas Turbine Application", in International conference on advances in Manufacturing, Materials and Energy Engineering - (ICon MMEE 2018), **Mangalore Institute of Technology & Engineering Moodbidri**, on **2nd & 3rd March 2018** .
6. **G.Purushotham**, "Influence of fused silica and chills incorporation on corrosion, thermal and chemical composition of ASTM A 494 M Grade Nickel alloy", in International conference on Advances in Materials & Manufacturing Applications (IconAMMA-2016), Amrita Vishwa Vidyapeetham, Bangalore, on July 14-16, 2016.
7. **G.Purushotham**, "Comparison of buckling strength between metallic and composite panels", in International conference on Advanced Materials & Applications (ICAMA-2016), BMS College of Engineering, Bangalore, on June 15-17, 2016.
8. **G.Purushotham**, Dr. Joel Hemanth "Fabrication and Evaluation of Corrosion behavior of Nickel alloy Metal Matrix Composite with influence of Chills", in International conference on Mechanical, Industrial and Manufacturing Technologies, MIMT-2015, MELAKA MALAYSIA, on March 6-7, 2015.
9. Amaresh S.K, **G.Purushotham** "Direct and indirect vector control of induction motors using hybrid PID plus Fuzzy controller", in International Conference on Electrical, Electronics and Computer Engineering (ICEECE-2015), Institute of Research & Journals at Pune on 22nd Feb. 2015.
10. **G.Purushotham**, Dr. Joel Hemanth "Effect of weight percentage on Mechanical properties of fused Silica particulate reinforced Nickel alloy (M 35-1) composite, with influence of chills", in International Mechanical Engineering Congress, 2014 (IMEC 2014), National Institute of Technology, Tiruchirappalli, on 13th to 15th June 2014.
11. **G.Purushotham**, Dr. Joel Hemanth "Action of chills on microstructure, mechanical properties of chilled ASTM A 494 M grade Nickel alloy reinforced with fused SiO₂ metal matrix composite", in International Conference on Advances in Manufacturing and Materials Engineering, AMME 2014, NITK Surathkal on 27th to 29th March 2014.
12. **G.Purushotham**, "Effect of lead on mechanical properties and tribological characteristics of Al-Si alloy", in International Conference on Emerging trends in Engineering ICETE 2013, NMAM Institute of Technology, Nitte on 15th and 16th May 2013.
13. **G.Purushotham**, "Effect of reinforcing lead on mechanical properties and tribological characteristics of heat treated Aluminium Silicon alloy for Automotive application." in International Conference on Advanced materials, manufacturing, Management and Thermal Sciences AMMMT 2013 at Siddaganga Institute of Technology, Tumkur on 03rd and 04th May 2013.
14. **G.Purushotham**, "Experimental investigation of mechanical properties and tribological characteristics of Aluminium Silicon Lead alloys before and after heat treatment" in International Conference on Advanced materials and Manufacturing ICAMM 2013 at Cape Institute of Technology, Kanyakumari, on 11th and 12th April 2013.

National Conferences:

1. Deepika.V, **G.Purushotham**, "Design, Implementation & Comparative study of midnight sun concept using automatically tracking solar reflectors interfaced through PLC" in National conference on Advances in Mechanical Engineering (AME), at AMC Engineering college, Bangalore on 16th May 2014.
2. **G.Purushotham**, "Experimental Characterization of Mechanical and Tribological properties of Al-Si-Pb metal matrix composites for Automotive applications." in National Conference on Challenges in Research and Technology in coming Decades (CRT-2013), at SDMIT, Ujire on 27th and 28th Sep, 2013.
3. **G.Purushotham**, "Effect of Lead on Microstructure and Wear characteristics (Abrasive wear and Adhesive wear) of Aluminium Silicon Lead Metal Matrix Composites." in National Conference on Smart Materials and Technologies for Emerging Electronics, NC-SMTEE-2013 at Mangalore Institute of Technology and Engineering, Moodbidre, on 8th and 9th March 2013.
4. **G.Purushotham**, Dr.T.B.Prasad, Dr.N.Lakshna Swamy, "Experimental investigation of Mechanical properties of Al-Si-Pb alloys" in National Conference on Recent Trends in Mechanical Engineering Sciences (R-TIMES-2008) at SSIT Tumkur on 21st and 22nd Feb 2008.

Sponsored / Research Project

- Got sanctioned **Rs. 42 Lakhs** from **Karnataka Council for Technological Up-gradation** for the project titled "Quality Improvement & Up-Gradation of the Existing Fish Meal and Fish Oil Industries and Extraction of Bio-Diesel & Fish-nure in Eco-friendly environment from their products" on 15th September 2018.
- Got sanctioned **Rs. 14.97 Lakhs** from AICTE under **Modernization and Removal of Obsolescence** (MODROB), New Delhi for the academic years 2019-20 & 2020-21.
- Got sanctioned **Rs. 1 Lakh** from AICTE **Scheme for Promoting Interests, Creativity, and Ethics among Students** (SPICES), New Delhi for the academic year 2020-21.

- Got sanctioned **Rs. 24.96 Lakhs** from AICTE under **Research Promotion Scheme** (RPS), New Delhi for the academic years 2021-22 & 2022-23.

Achievements/Awards

1. Member of **Board of Studies** for VTU for the period 2019-2022.
2. **BoE-Member** of VTU 2017-18 for AE Board
3. **BoE-Member** of VTU 2018-19 for AE Board
4. **BoE-Chairman** of VTU 2019-20 for AE Board