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**Dr. G Pusrushotham has obtained PhD degree from VTU Belagavi, in the specialization of Manufacturing Science & Engineering.**

### **PAPER PRESENTATIONS**

#### **International Journals:**

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/Al<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> 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. Manoj Kumar, Arpitha Holla & **Dr. G.Purushotham**, “Environmental Pollution Control Using Artificial Intelligence Drone”, in AIP Conference Proceedings 2311, 030031 (2020); <https://doi.org/10.1063/5.0034004> Published Online: 7<sup>th</sup> December 2020.
5. 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.
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  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$  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  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$  on mechanical properties of ASTM A 494 M Grade Nickel alloy hybrid metal matrix composites", **Journal of Mechanical Engineering Research & Developments (JMIRD)**, 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  $\text{SiO}_2$  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  $\text{SiO}_2$  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 (IJC MES) 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 (IJC MES)**, 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  $\text{SiO}_2$  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 **7<sup>th</sup> to 9<sup>th</sup> 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 **30<sup>th</sup> & 31<sup>st</sup> 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 **30<sup>th</sup> & 31<sup>st</sup> 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 **30<sup>th</sup> & 31<sup>st</sup> 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 MME 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 22<sup>nd</sup> 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 **13<sup>th</sup> to 15<sup>th</sup> 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  $\text{SiO}_2$  metal matrix composite”, in International Conference on Advances in Manufacturing and Materials Engineering, AMME 2014, NITK **Surathkal on 27<sup>th</sup> to 29<sup>th</sup> 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 15<sup>th</sup> and 16<sup>th</sup> 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 03<sup>rd</sup> and 04<sup>th</sup> 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 11<sup>th</sup> and 12<sup>th</sup> 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 **16<sup>th</sup> 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 **27<sup>th</sup> and 28<sup>th</sup> 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 **8<sup>th</sup> and 9<sup>th</sup> 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 **21<sup>st</sup> and 22<sup>nd</sup> Feb 2008**.

## **Workshops:**

1. Attended Three day National symposium on “**Impact of Internet of Things (IoT) on future of Aerospace and Defense sectors**”, organized by Acharya Institute of Technology, Bangalore, from **8<sup>th</sup> to 10<sup>th</sup> Jan. 2020** (DST Funded symposium).
2. Attended One day Workshop on “**Computer Aided Aircraft Drawing**”, organized by Acharya Institute of Technology, Bangalore, on **27<sup>th</sup> Feb. 2017**.
3. Attended One day Workshop on “**Engineering Education & Research Seminar**”, organized by National Instruments, on **9<sup>th</sup> Feb. 2017**.
4. Attended Two days Workshop on “**Lean six sigma yellow belt training**”, jointly organized by MITE & Binghamton University State University of New York, on **20<sup>th</sup> and 21<sup>st</sup> Sept. 2016**.
5. Attended one day workshop on **Research Prospects in Fracture Mechanics**, organized by Mangalore Institute of Technology & Engineering, Moodbidri on **21<sup>st</sup> Feb 2015**.
6. Attended Three days TEQIP Sponsored Workshop on “**Incubating Relevant Engineering R&D Programs and Establishing Centre of Excellence in Engineering Colleges**”, jointly Organized by Siddaganga Institute of Technology Tumkur & VTU Belagavi, on **11<sup>th</sup> , 12<sup>th</sup> and 13<sup>th</sup> May 2015**.
7. Attended Four days VGST Sponsored Faculty Development Programme on **Recent Developments in Alternative Fuels & IC Engines**, organized by Mangalore Institute of Technology & Engineering, Moodbidri on **15<sup>th</sup> to 18<sup>th</sup> May 2014**.
8. Attended Two days TEQIP Sponsored Symposium on **Advances in Manufacturing Technology**, Organized by PES Institute of Technology Bangalore, on **5<sup>th</sup> and 6<sup>th</sup> April 2013**.
9. Attended Five days VGST Sponsored Faculty Development Programme on **Non Linear Finite Element Analysis-LS DYNA**, organized by Channabasaveshwara Institute of Technology Gubbi on **15<sup>th</sup> to 19<sup>th</sup> March 2012**.
10. Attended One day Workshop on **Non Conventional Energy Resources**, organized by Channabasaveshwara Institute of Technology Gubbi on **29<sup>th</sup> August 2011**.