

# P.E.S. College of Engineering, Mandya - 571401

(An Autonomous Institution, affiliated to VTU, Belagavi)

# **Faculty Profile**

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Name	Dr. GURUPAVAN H R
Designation,	Assistant Professor
Department & Affiliated Institution	Department of Mechanical Engineering, P.E.S College of Engineering, Mandya – 571 401
Research Area	Condition Monitoring, Vision System, Composite Material
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#### **Academic Profile**

#### **Educational Qualifications**

Degree	College	University	Year of Passing	% ge	Class
Ph. D	P.E.S. College of Engineering, Mandya.	VTU, Belagavi	2020	-	-
M.Tech	P.E.S. College of Engineering, Mandya	VTU, Belagavi	2013	9.26	FCD (2 <sup>nd</sup> Rank)
B.E.	Ghousia College of Engineering, Ramanagara.	VTU, Belagavi	2011	66.17	First Class

## **Professional Experience**

Organization and Department	Designation	Period	Total Experience
P.E.S. College of Engineering, Mandya, Dept. of Mechanical Engg.	Assistant Professor	06-08-2013 to Till date	07 years

#### **Reports on Academic and Research Activities**

#### **Academic Activities**

Teaching Records
(Details of courses
taught)

<u>Undergraduate:</u> Mechanical Measurements and Metrology, Material Science and Metallurgy, Fluid Mechanics, Industrial Robotics, Elements of Mechanical Engineering, Computer Aided Engineering Drawing, CAD/CAM.

<u>Post Graduate (M. Tech):</u> Newer Machining Technique, Industrial Sensors and Analysis Technique, Computer Control of Manufacturing System, Condition Based Maintenance, Advanced Industrial Robotics, Metrology & Computer Aided Inspection.

#### Research Guidance (Candidates Awarded / Pursuing Ph.D / M.Sc., Engg./ M.Phil)

Degree	Ph. D.	M.Sc., Engg.
Awarded	Nil	Nil
Pursuing	Nil	Nil

## Sponsored Research Projects (List of Projects taken up /completed and funds receiver & funding sources)

Project Title	Project Funded by	Grants Sanctioned	Grants Received
Nil	Nil	Nil	Nil

#### Research Publications in Refereed Journals and Conferences/Symposia

Number of Publications in	National	International
Journals	Nil	10
Conferences/Symposia	Nil	12

#### Other Important Responsibilities Held in the College

# **LIST OF PUBLICATIONS**

# **International Journals**

- **1. Gurupavan H R**, T.M. Devegowda, H.V. Ravindra, "Monitoring the Performance of Electrode Status and Surface Roughness in WEDM of Al-8% Si<sub>3</sub>N<sub>4</sub> using Vision System" Journal of Critical Reviews, Vol. 7, PP. 2590-2599, ISSN: 2394-5125, 2020.
- 2. Gurupavan H R, Anil Kumar M N, "Effect of Various Wire Electrode Materials on the Performance of Wire Electrical Discharge Machining of Al/SiC Composite Material" International Research Journal of Engineering and Technology, Vol. 7, PP. 1484-1488, ISSN: 2395-0056, 2020.
- 3. Gurupavan H R, Amruth Babu D S "Experimental Investigation of Machining Performances of Al6061-SiC Metal Matrix Composite through Wire EDM" International Research Journal of Engineering and Technology, Vol. 7, PP. 1335-1340, ISSN: 2395-0072, 2020.
- 4. Gurupavan H R, H.V. Ravindra, Devegowda T. M, "Prediction and Comparison of Vision Parameter of Surface Roughness in WEDM of Al-6%Si<sub>3</sub>N<sub>4</sub> and Al-10%Si<sub>3</sub>N<sub>4</sub> Using ANN" Lecture Notes on Multidisciplinary Industrial Engineering, PP. 361-371, ISSN 2522-5022, 2019.
- 5. Gurupavan H R, H.V. Ravindra, Devegowda T. M, "Surface Roughness Measurement of WEDM Components Using Machine Vision System" Lecture Notes in Electrical Engineering, Vol.545, PP. 539-547, ISSN 1876-1100, 2019.
- 6. Gurupavan H R, H.V. Ravindra, Devegowda T. M, Rudreshi Addamani, "Machine Vision System for Correlating Wire Electrode Status and Machined Surface in WEDM of AlSi<sub>3</sub>N<sub>4</sub> MMC'S" IOP Publishing: Materials Science and Engineering Vol. 376, PP. 012120, 2018.
- 7. Rudreshi Addamani, Gurupavan H R, H V Ravindra, Ugrasen G, "Estimation and Comparison of Welding Performances in P- GMAW using MRA and ANN for SS 304L Material" IOP Publishing: Materials Science and Engineering Vol. 376, PP. 012119, 2018.
- 8. Gurupavan H R, T.M. Devegowda, H.V. Ravindra, G. Ugrasen, "Estimation of Machining Performances in WEDM of Aluminium based Metal Matrix Composite Material Using ANN" Materials Today: Proceedings, Vol. 4, PP. 10035–10038, 2017.
- 9. Gurupavan H R, T.M. Devegowda, H.V. Ravindra, "Optimization of WEDM Parameters using Taguchi Technique in Machining of Metal Matrix Composite Material", International Journal of Engineering Research in Mechanical and Civil Engineering (IJERMCE), Vol 2, PP. 714-719, 2017.
- 10. B.M. Umeshgowda, H.V. Ravindra, H.R. Gurupavan, G. Ugrasen, G.V. Naveen Prakash, "Optimization of process parameters in drilling Al-Si<sub>3</sub>N<sub>4</sub> metal matrix composites material using Taguchi technique" Procedia Materials Science, Vol. 5, PP. 2207-2214, 2014.

## **International Conferences**

- Gurupavan H R, H.V. Ravindra, T.M. Devegowda, "Monitoring the Performance of Electrode Status and Surface Roughness in WEDM of Al-8% Si<sub>3</sub>N<sub>4</sub> using Vision System" International Conference on Advances in Mechanical Engineering Sciences (ICAMES-2K20), PESCE, Mandya, Feb. 28<sup>th</sup>-29<sup>th</sup>, 2020.
- Gurupavan H R, H.V. Ravindra, T.M. Devegowda, "Prediction of Vision Parameters of Surface roughness and Wire Wear in Wire-EDM of Al-10 wt.% Si3N4 MMC Material using ANN" International Conference on Ultrasonics and Materials Science for Advanced Technology (ICUMSAT-2019), VBS Purvanchal University, Jaunpur, Uttar Pradesh, Nov. 16<sup>th</sup>-18<sup>th</sup>, 2019.
- 3. Gurupavan H R and H.V. Ravindra, "Performance Monitoring of Electrode Wear and Surface Roughness in WEDM of Al-10%Si<sub>3</sub>N<sub>4</sub> using Machine Vision System" ASME International Mechanical Engineering Congress and exposition (IMECE-2019), Calvin L. Rampton Salt Palace Convention Center, Salt Lake City, Utah, USA, Nov. 11<sup>th</sup>-14<sup>th</sup>, 2019.
- 4. Gurupavan H R, H.V. Ravindra, T.M. Devegowda, "Prediction and Comparison of Vision Parameter of Surface Roughness in WEDM of Al-6%Si3N4 and Al-10%Si3N4 using ANN", All India Manufacturing Technology, Design and Research (AIMTDR-2018), College of Engineering Guindy, Anna University, Chennai, Dec. 13<sup>th</sup>-15<sup>th</sup>, 2018.
- 5. Gurupavan H R, H.V. Ravindra, T.M. Devegowda, "Estimation of Machine Vision parameters of Surface roughness and Wire wear in Wire EDM of Al-Si<sub>3</sub>N<sub>4</sub> Metal Matrix Composite Material using Artificial Neural Network" ASME International Mechanical Engineering Congress and exposition (IMECE-2018), David L. Lawrence Convention Center, Pittsburgh, PA, USA, Nov.09-15, 2018.
- 6. Gurupavan H R, T.M. Devegowda, H.V. Ravindra, "Surface Roughness Measurement of WEDM Components using Machine Vision System" International Conference on emerging research in electronics, computer science and technology (ICERECT-18), PESCE, Mandya, Aug. 23<sup>rd</sup>-24<sup>th</sup>, 2018.
- Gurupavan H R, H.V. Ravindra, T.M. Devegowda, Rudreshi Addamani, "Machine Vision System for Correlating Wire Electrode Status and Machined Surface in WEDM of AlSi<sub>3</sub>N<sub>4</sub> MMC'S" International Conference on Advances in Manufacturing, Materials & Energy Engineering, MITE, Mangalore, Mar. 02<sup>nd</sup>-03<sup>rd</sup>, 2018.
- Rudreshi Addamani, Gurupavan H R, H V Ravindra, Ugrasen G, "Estimation and Comparison of Welding Performances in P- GMAW using MRA and ANN for SS 304L Material" International Conference on Advances in Manufacturing, Materials & Energy Engineering, MITE, Mangalore, Mar. 02<sup>nd</sup>-03<sup>rd</sup>, 2018.

- Gurupavan H R, T.M. Devegowda, H.V. Ravindra, "Optimization of WEDM Parameters using Taguchi Technique in Machining of Metal Matrix Composite Material" International Conference on advances in mechanical engineering sciences (ICAMES-17), PESCE, Mandya, Apr. 21<sup>st</sup>-22<sup>nd</sup>, 2017.
- 10. Gurupavan H R, T.M. Devegowda, H.V. Ravindra, G. Ugrasen, "Estimation of Machining Performances in WEDM of Aluminium based Metal Matrix Composite Material Using ANN" International Conference on Recent Trends in Engineering and Materials Science (ICEMS-2016), Jaipur National University, Jaipur, Mar. 17<sup>th</sup>-19<sup>th</sup>, 2016.
- 11. Gurupavan H R, T.M. Devegowda, Monisha P, H.V. Ravindra, "Optimization of machining parameters in WEDM of Al-Si<sub>3</sub>N<sub>4</sub> metal matrix composite material using Taguchi Technique", International Conference on Precision, Meso, Micro and Nano Engineering, COPEN-9, IIT-Bombay, Dec. 10<sup>th</sup>-12<sup>th</sup>, 2015.
- 12. **Gurupavan H R**, H.V. Ravindra, B.M. Umeshgowda, G.V. Naveen Prakash, G. Ugrasen, "**Optimization of process parameters in drilling Al-Si<sub>3</sub>N<sub>4</sub> metal matrix composites material using Taguchi technique**". International conference on Advances in Manufacturing and Materials Engineering (ICAMME-2014), NITK, Surathkal, Mar. 27<sup>th</sup>-29<sup>th</sup>, 2014.