


FACULTY PROFILE

Name of the Faculty:		P.Umamaheswarrao				
Designation:		Assistant Professor				
Department:		Mechanical Engineering				
Date of Birth:		01-03-1979				
AICTE – ID:	1-425991266					
Education	<ul style="list-style-type: none"> B.Tech in Mechanical Engineering from Madras University in 2000 M.Tech in Energy Systems Engineering from VIT University in 2005 PhD (Pursuing) in Mechanical Engineering from Andhra University 					
Experience	Teaching: 17 Years	Industry: 2.5 Years		Total: 19.5 Years		
	Research: Nil	Others: Nil				
Research Specialization		Manufacturing Engineering				
Courses taught	<ol style="list-style-type: none"> 1. Power Plant Engineering 2. Non Conventional Energy Sources 3. Industrial Management & Entrepreneurship Development 4. IC Engines & Gas Turbines 5. Mechanical Measurements 					
Research contributions						
International/national peer reviewed journals						
S. No.	Title of paper	Journal	Year	Volume	pages	Indexing SCI/WoS/ SCOPUS, Google scholar)
1	Multi-objective optimization of process parameters during friction stir welding of similar AA6061 using MOORA	Incas Bulletin	2023	15, Issue 3.	127- 137.	Google scholar
2	Optimization of Laser Beam Machining Process Parameters of HSLA Steel Using MOORA	Advanced Materials Research	2023	1178	23-31.	Google scholar

3	Desirability function analysis based multi response optimization of process parameters during friction stir welding of AA6061-AA7075", 2023.	Incas Bulletin	2023	15, Issue 2.	121-131.	Google scholar
4	Combined Effect of Hydrogen and with Julifora biodiesel blend (JFB20) on the combustion, performance and emission characteristics of a direct-injection diesel engine https://doi.org/10.1016/j.matpr.2023.05.089	Materials Today: Proceedings	2023			Scopus Indexed
5	Microstructural, Mechanical and Wear characterization of AA-219/Si ₃ N ₄ /ZrO ₂ /Graphite Hybrid Composites for Automotive Applications	Silicon	2023	15	5283–5295.	SCIE (IF=2.844)
6	Multi-response optimization of process parameters during friction stir welding of AA2014-AA7075 using TOPSIS Approach	Incas Bulletin	2023	15, Issue 1.	107-117.	Google scholar
7	Grey Relational Analysis and Principal Component Analysis based optimization of process parameters in turning of EN-8 Steel	Incas Bulletin	2022.	14, Issue 2.	43-51	Scopus Indexed
8	Machining force comparison for surface defect hard turning and conventional hard turning of AISI 52100 steel	Incas Bulletin	2021	13, Issue 3.	204-214.	Scopus Indexed
9	Application of TOPSIS for multi response optimization of Process Parameters in dry hard turning of AISI 52100 steel	Incas Bulletin	2021	13, Issue1.	211-224.	Scopus Indexed
10	Experimental investigations on the effect of tool rotational speed on Mechanical properties of friction stir welded AZ31 Mg Alloy	Materials Today Proceedings	2021	46, Part 9.	3455-3459	Scopus Indexed
11	Experimental study on drilling force during drilling of AZ91D Magnesium alloy	Materials Today Proceedings	2021	44, Part 1.	305-308.	Scopus Indexed
12	Experimental investigations on machining force in turning of AZ91D Magnesium alloy using PCBN	Materials Today Proceedings	2021	39	1206-1209.	Scopus Indexed

13	A Review on Submerged Friction Stir Welding of Light Weight Alloys	IOP Conf. Series: Materials Science and Engineering,	2020	954	1-8.	Scopus Indexed
14	Experimental Investigations on Material Removal Rate and Surface Roughness in Turning of EN 8 Steel	International Journal of Mechanical and Production Engineering Research and Development	2020	10, Issue 3.	1769-1776	Google scholar
15	Experimental Investigations on the Influence of Cutting and Tool Geometry Parameters over the Machinability of AISI 52100 Steel in Hard Turning	International Journal of Modern Manufacturing Technologies,	2020	XII, No. 1	144-156.	Scopus Indexed
16	multi objective optimization of process parameters of Al 6061-Sicp metal matrix composite in end milling-hybrid GRA-PCA approach	Materials Today Proceedings	2020	26, Part 2	696-700.	Scopus Indexed
17	Multi objective optimal scheme for machinability aspects of Al6061-SiC _p metal matrix composite during end milling-a hybrid approach	Materials Today Proceedings	2020	21, Part 2	1260-1264	Scopus Indexed
18	Multi objective optimization of joining dissimilar AA5083&AA6061 alloys using Friction Stir welding-integrated Taguchi and grey systems approach	Material Science Forum	2020	978	pp.13 3-139	Scopus Indexed
19	Optimizing Cutting Parameters in Hard Turning of AISI 52100 Steel Using TOPSIS Approach	Journal of Mechanical and Energy Engineering	2019	3(43), No. 3.	227-232.	Google scholar
20	TOPSIS based Optimization of Process Parameters while Hard Turning of AISI 52100 Steel	Acta Mechanica Malaysia	2019	2, Issue.2	28-31.	Google scholar
21	Achieving Optimal Parametric Combination for AISI 52100 Steel Hard Turning With Multiple Performance Characteristics Using Integrated RSM and GRA-PCA	International Journal of Modern Manufacturing Technologies	2019	XI, No. 2	86-95	Scopus Indexed

22	A Brief Note on the Application of Surface Defect Machining for Hard Turning	Materials Today: Proceedings	2019	18, Part 7	3087-3090	Scopus Indexed
23	Achieving optimal process parameters during Hard Turning of AISI 52100 Bearing Steel using Hybrid GRA-PCA	Key Engineering Materials	2019	818	87-91	Scopus Indexed
24	Hybrid optimal scheme for minimizing Machining force and surface roughness in hard turning of AISI 52100 steel	International Journal of Engineering, Science and Technology,	2019	11, No. 3	19-29	Google scholar
25	Heat transfer augmentation of looped heat pipe using water-Al ₂ O ₃ Nanofluid	International Journal of Mechanical and Production Engineering Research and Development	2018	8, Special Issue 8	313-318	Scopus Indexed
26	Investigations on Machining force during End milling of Al6061-SiC metal matrix composite	International Journal of Mechanical and Production Engineering Research and Development	2018	8, Special Issue 8	221-225	Scopus Indexed
27	Experimental Investigations on acceleration amplitude in End milling of Al6061-SiC metal matrix composite”,	Procedia Computer Science	2018	133	740-745.	Scopus Indexed
28	Multi objective optimization of Process parameters for hard turning of AISI 52100 steel using Hybrid GRA-PCA	Procedia Computer Science	2018	133	703-710.	Scopus Indexed
29	Effect of TiO ₂ Nanoadditives on the Combustion Performance and Emission Characteristics of a DI Diesel Engine	Advanced Science Letters	2018	24, No.8	5712–5717	Google scholar
30	Multi objective optimization of CFRP Composite Drilling Using Ant Colony Algorithm	Materials Today: Proceedings	2018	5, Issue 2, Part 1	4855–4860.	Scopus Indexed
31	Modelling and optimisation of Friction Stir Welding on AA6061 Alloy	Materials Today: Proceedings	2017	4, Issue 8	7448–7456.	Scopus Indexed
32	Analysis of Forces during Hard Turning of AISI 52100	Materials Today:	2017	4, Issue 2	2114–2118.	Scopus Indexed

	Steel Using Taguchi Method	Proceedings				
33	Parametric Investigations on Surface Roughness of Hard Turned AISI 52100 Steel	Applied Mechanics and Materials	2017	867	171-176	

Books published

S. No.	Title of the book	Publisher	year
1	Nil	Nil	Nil

Book chapters Published

S.No.	Title of the Chapter	Book title	Publisher	year
1	Determination of Optimal Cutting and Tool Geometry Parameters for Better Surface Integrity of Hard Turned AISI 52100 Steel-Hybrid GRA-PCA	Advances in Computational Methods in Manufacturing.	Springer	2019
2	Multi-response Optimization of End Milling on Al6061-Sicp Metal Matrix Composite-Hybrid GRA-PCA Approach	Advances in Forming, Machining and Automation	Springer	2019
3	Investigations on the Surface Roughness of Drilled Hole on Carbon Fiber Reinforced Plastic Composite	Trends in Industrial and Mechanical Engineering	Excellent Publishing House	2016

Details of Patents (Filed & Granted)

S. No.	Applications number	Title of the patent	Date of filing/publishing	Published/granted
1	Nil	Nil	Nil	Nil

Details of Conferences/FDPs/STTPs/webinars/Workshops Organized

S.No.	Name of the event	Role	Dates
1	Advanced principles of Gas turbines and jet propulsion for the 3 rd year Mechanical Engineering students. The resource person for the webinar was Dr.D.Jagadish, Professor, Department of Mechanical Engineering, Narasaraopeta Engineering College,	Organizer	6 th Dec 2022

Details of Conferences/FDPs/STTPs/webinars/Workshops Participated

S.No.	Name of the event	Organized by	Dates
1	Laser Based Manufacturing for Future Industrial Development	conducted by Department of Mechanical Engineering, National Institute of Technology Rourkela	21 st -25 th July, 2023.
2	Future scopes for additive manufacturing in industrial and biomedical applications	organised by Department of Mechanical Engineering, Aditya Engineering College (Autonomous), Surampalem	17 th -21 st July, 2023.
3	Structural Equation Modeling: Advances in Research Methodology and Research Publications	organized by Department of Humanities and Management, Dr B R Ambedkar National Institute of Technology, Jalandhar	3-7 July 2023.
4	Automobile Transmission Systems & Electric - Hybrid Vehicles	organized by Kongunaducollege of Engineering and Technology, Thottiam, Trichy-Tamil Nadu.	03-04 May 2023
5	Innovations in Mechanical Engineering	organized by the Department of Mechanical Engineering, Vasireddy Venkatadri Institute of Technology, Nambur	26-30 Dec 2022
6	Communication Skills for Research Paper Writing and Professional Practices	organized by the Department of Basic Sciences and Humanities, GMR Institute of Technology, Rajam, Andhra Pradesh, India	4 th -8 th December 2022.
7	Hybrid Electric Vehicles	Jointly organized by the Departments of Mechanical Engineering of GMR Institute of Technology, Rajam and Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada	21 st -25 th Nov 2022.
8	Design of Experiments (DOE) Taguchi Method	jointly organized by School of Civil Engineering (SCE), VIT, Vellore, and Indian Concrete Institute (ICI) -VIT Student Chapter	03 rd -04 th November 2022
9	Water - Energy – Nexus	jointly organized by Vellore Institute of Technology, India and University of Birmingham, UK	07 Nov 2022
10	Research Methodologies and Scientific Publishing	organized by Bapatla Engineering College, Bapatla,	28 th -29 th October 2022
		organized by Department of	

11	Smart Manufacturing & Industry 4.0	Mechanical Engineering, IIT (BHU) , Varanasi	11 th -15 th October 2022.
12	3D Printing Technologies	organized by the Department of Mechanical Engineering, Vemu Institute of Technology, P.Kothakota	6 th -10 th September 2022.
13	Futuristic Research in Mechanical Engineering	organized by Department of Mechanical Engineering, SRM Institute of Science and Technology, Ramapuram Campus, Chennai.	08 th -13 th August 2022.
14	A New Era of Manufacturing: Challenges & Opportunities	organized by Department of Mechanical Engineering, D. Y. Patil College of Engineering & Technology, Kolhapur	25-30 July 2022
15	Advancements in Thermal and Renewable Energy Technologies (ATRET-2022)	organized by the Department of Mechanical Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna (Dt.), A.P., India	04-09 July 2022
16	Mechanically Assisted Surface Treatment	organized by Department of Metallurgical and Materials Engineering, National Institute of Technology Rourkela	28-29 June 2022.
17	Laser welding of high strength alloys	organized by Department of Industrial Engineering, Institute of Mechanical Engineering, Saveetha School of Engineering, SIMATS, Thandalam, Chennai.	15 th Apr 2022.
18	Design, Optimization and Manufacture of Materials	organized by the Department of Mechanical Engineering, SSN College of Engineering , Chennai	07-12 March 2022.
19	Development of Ti alloy-based composites by mechanical alloying and stir casting route for dental applications	organized by Department of Mechanical Engineering, IIT (BHU) , Varanasi	23 February 2022.
20	Additive Manufacturing in medical and emerging applications held during	organized by Vasavi College of Engineering, Hyderabad	27 Jan-2 Feb, 2022
21	Advancements in Materials & Manufacturing Technologies	organized by Malout Institute of Management & Information Tech. (MIMIT), Malout, Punjab	11 th -17 th Jan 2022
22	Metal Additive Manufacturing	organized by ATAL at Visvesvaraya National Institute of Technology Nagpur	13-17 Dec 2021
23	Statistical Techniques for Data Analysis	organized by the Department of Physics, Dr. B. R.	22-26 Nov 2021.

		Ambedkar National Institute of Technology, Jalandhar, Punjab	
24	Additive Manufacturing: Present & Future Trends	Organized by the Department of Automobile Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad.	01 st November 2021.
25	Recent Advances in Mechanical Engineering (RAME-2021)	organised by the Department of Mechanical Engineering, BIT Sindri, Dhanbad in collaboration with TEQIP III	25 th -29 th Oct 2021.
26	New Age Materials & Technologies	organized by the Department of Mechanical Engineering, Sree Vidyanikethan Engineering College (Autonomous), Tirupati, AP, India.	04-08 Oct 2021
27	Advances in Mechanical Engineering for Research	organized by the Department of Mechanical Engineering, Pravara Rural Engineering College, Loni	27 th Sep-1 st Oct 2021
28	Additive Manufacturing of Multi-functional Nanocomposites	organized by the Department of Mechanical Engineering, Institute of Road and Transport Technology, Erode	23 rd -27 th August 2021
29	New Age materials and its advanced applications	organized by the Department of Mechanical Engineering, Karunya Institute of Technology, Coimbatore	12 th -17 th August 2021.
30	Emerging Trends in Advanced Production and Industrial Engineering	organized by the Department of Mechanical Engineering, Federal Institute of Science and Technology, Angamaly, Kerala	21 st July 2021
31	Classical Optimization Techniques in Manufacturing systems	AICTE Training And Learning (ATAL) Academy Online and Guru Nanak Institutions Technical Campus, Hyderabad	5 th -9 th July 2021
32	Advances in Manufacturing (AIM-2021)	organised by the Department of Mechanical Engineering, BIT Sindri, Dhanbad.	15 th -19 th June 2021.
33	Advances in Composite Materials, Manufacturing Processes and optimization Techniques	organized by Department of Mechanical Engineering, Academy of Maritime Education and Training, Chennai	1 st -14 th June 2021.
34	Advances in Mechanical Engineering for Sustainability	Organized by Department of Mechanical Engineering, Engineering College Bikaner	27-31 May 2021

35	Engineering Applications of Optimization	organized by Rajiv Gandhi Government Polytechnic College, Itanagar, Arunachal Pradesh	3 rd -8 th May 2021.
36	High Performance Metallic Materials for Energy Storage and Power Generation Sector (MATAPP 2021)	organized by School of Mechanical Engineering (SMEC) of Vellore Institute of Technology, Vellore in association with Forschungszentrum Julich, Germany	22-23 April 2021
37	Bioenergy: A Hope for future for Global Energy Security	organized by Department of Chemistry and Department of Mechanical Engineering IIT (BHU) Varanasi	01 st -6 th March 2021.
38	Concepts and Applications of Composite Materials (CACM-2021)	organized by the Department of Mechanical Engineering, IGIT, Sarang.	23 rd -27 th February 2021.
39	Design of Experiments in Engineering	organized by Department of Mechanical Engineering, B. V. Raju Institute of Technology, Narsapur	8 th February 2021
40	Design of Experiments in Engineering	organized by Department of Mechanical Engineering, B. V. Raju Institute of Technology, Narsapur	4 th -9 th January 2021
41	Contemporary Research in Manufacturing Processes	Organized by Department of Mechanical Engineering, Karpaga Vinayaga college of Engineering and Technology, Chengalpet.	22-26 December 2020.
42	Advances in Tribology (In Association with TSI)	Organizing by Department of Mechanical Engineering , Sreenidhi Institute of Science and Technology, Hyderabad.	14 th -19 th Dec 2020
43	Innovation Through Lean Thinking	organized by the Department of Industrial and Production Engineering, The National Institute of Engineering, Mysuru	11 th -12 th Dec 2020
44	MADM Methods for Mechanical Engineering Research	Organised by Mechanical Engineering Department of Sreenidhi Institute of Science & Technology, Hyderabad	23-28 November 2020.
45	Design of Experiments	organized by Department of Mechanical Engineering, B. V. Raju Institute of Technology, Narsapur	16 th -21 st November 2020.
46	Research Aspects of Powder Metallurgy Based Direct Digital Manufacturing	Organised by Department of Mechanical Engineering, Mepco Schlenk Engineering College (A), Sivakasi	2 nd -7 th November 2020

47	Emerging Trends in Thermal, Design & Manufacturing	organized by Mechanical Engineering Department, Madan Mohan Malaviya University of Technology , Gorakhpur	26 th -30 th October, 2020.
48	Nano Tribology, Bio Tribology, Space Tribology, Biomimetics and Tribology in industry	organized by the Department of Mechanical Engineering, Saintgits College of Engineering, Kottayam	12 th -17 th Oct 2020.
49	Optimization Techniques: Recent Trends & Applications in Engineering	organized by Mechanical Engineering Department of MCKV Institute of Engineering, Howrah	5-10 October 2020.
50	Recent Trends in Renewable Energy Systems and Their Control	jointly organized by Department of Electrical Engineering and Department of Instrumentation and Control Engineering, Dr. B. R. Ambedkar National Institute of Technology , Jalandhar, Punjab.	14-18 Sep 2020
51	Contemporary Material Technologies	organized by Department of Industrial & Production Engineering, Funded by TEQIP-III, Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab	8-12 September 2020.
52	Inculcation of Research Culture in Academic Institutions (IRCAI)	jointly organized by Department of Metallurgical & Materials Engineering and Office of Dean (R&C), National Institute of Technology , Jamshedpur	5 th -6 th September, 2020.
53	Fuel Cell Technologies for Hybrid and Electric Vehicles (FCTHEV)	organized by the Department of Mechanical Engineering, Maharaj Vijayaram Gajapathi Raj College of Engineering (A) Vizianagaram, Andhra Pradesh	17-22 August 2020.
54	Green Energy Technologies: Need of Future	jointly organized by Vaagdevi college of Engineering, Warangal & National Institute of Technology Srinagar	10 th -14 th August 2020.
55	Cryogenics and Composites: Theory and Applications (CCTA 2020)	Organized by Department of Instrumentation & Control Engineering, Funded by TEQIP-III, Dr. B R Ambedkar National Institute of Technology , Jalandhar	03 rd -7 th August 2020.
56	Optimization techniques for	organized by Department of	27 th July -01

	Mechanical Engineers	Mechanical Engineering, Vignan Institute of Technology and Science, Deshmukhi, near RFC, Hyderabad,	Aug 2020
57	Industry 4.0 and Smart Manufacturing: Opportunities and Challenges	Organized at Dr. B. R. Ambedkar National Institute of Technology , Jalandhar, India	20-24 July 2020
58	Advanced Materials, Machining and Characterization	organized by the Department of Mechanical Engineering, Sir M Visvesvaraya Institute of Technology, Bengaluru-57.	06 th -10 th July 2020
59	Scientific Communication Research Paper and Proposal Writing	organized by Department of Information Technology, PSG College of Technology , Coimbatore	01 st -03 rd July 2020.
60	Pedagogy of Scientific Writing, Reporting and Scholarly Networks	Organised by Feroze Gandhi Institute of Engineering and Technology, Raebareli	19-23 June, 2020
61	FDP on Materials: Recent Trends & Engineering Applications	organised by Gokaraju Rangaraju Institute of Engineering & Technology, Hyderabad	02-07 June 2020
62	Emerging Areas in Manufacturing	Organized by the Department of Mechanical Engineering, Vimal Jyothi Engineering College, Jyothi Nagar, Chemperi, Kannur, Kerala.	25 th -30 th May 2020
63	Modelling and Optimization Techniques for Materials and Manufacturing Processes	Organized by Department of Mechanical Engineering, Lakireddy BaliReddy College of Engineering, Mylavaram	18 th -22 th May 2020
64	Patent Drafting and Processing with Importance of Trademark and Copyright	Journal of Advanced Engineering Research & powered by Hexacube India	6-7 May 2020.
65	Multi Criteria Decision Making	organized by REST Society for Research International, Krishnagiri	23-25 April 2020.
66	Design of Experiments: An Engineering Perspective	Journal of Advanced Engineering Research & powered by Hexacube India	22-24 April 2020.
67	Linear regression analysis	Department of Maths, Bapatla Engineering College, Bapatla	21 st October 2019
68	Emerging Technologies and Challenges in Mechanical Engineering (ETCME)	Department of Mechanical Engineering, RVR&JC College of Engineering, Guntur	21 st Oct-2 nd Nov, 2019
69	Statistics and Data Analysis for Engineers and Researchers	E&ICT Academy, NIT Warangal	27 May-1 Jun, 2019
70	Carbon based nano materials and their revolutionized applications	Department of Mechanical Engineering, Bapatla Engineering college, Bapatla	15 March 2019

71	A Two day workshop on computational tools for Research in Engineering and Sciences	Department of Mechanical Engineering, Bapatla Engineering college, Bapatla	30 Nov-1 Dec, 2018.
72	Research methodology, Design and Analysis of Experiments	Mechanical Engineering department, RVR&JC College of Engineering, Guntur	12-17 Nov 2018.
73	Intellectual property rights and innovation management	Department of Mechanical Engineering, Bapatla Engineering college, Bapatla	31 Aug-1 Sep, 2018
74	Recent advancements in clean energy Technologies for future energy needs	Department of Electrical and Electronics Engineering Kongu Engineering college, Perundurai, Erode	15 th -16 th Dec 2017
75	challenges and recent developments in welding of Non-Ferrous Alloys	Department of Mechanical Engineering, Sri Venkateswara College of Engineering, Pennalur, Chennai	24 th -25 th Nov 2017.
76	Improvement in Scientific and Technical Writing Skills (ISTWS-2017)	Department of Material Science and Metallurgical Engg and Department of Mechanical Engg, MANIT, Bhopal	04-06 Sep 2017
77	Research Methodology	Department of Electrical and Electronics Engg, Sri Venkateswara College of Engineering, Sriperumbudur, Chennai	19 Aug 2017.
78	Writing Scientific Research Paper-Phase IV	Department of chemical Engineering, SSN College of Engineering, Chennai	21 July 2017
79	Insights into Research	Department of Mechanical Engineering, SRM University, Chennai	June 29, 2017.
80	Innovation and Incubation in Engineering colleges	SRKR Engineering College in Association with Atal Innovation Mission, NITI Aayog, Govt of India	9 th March 2017
81	Advances in Design of Experiments	VIT University, Vellore.	21 Oct 2016
82	Machinability behavior of Aluminum matrix Composites	Sri Venkateswara College of Engineering and Technology, Chittoor,	15 Oct 2016
83	Emerging Trends and Advances in Renewable Energy Sources	VIT University, Vellore.	20 Sep 2016
84	Modern Teaching Tools	ICFAI Business School, Bangalore	24 July 2015.
85	Go Green Generation Fuels at during	NIT Warangal	12-14 Dec 2013

86	Industry institute connect	confederation of Indian industry (CII)	15 February 2013
87	Fuel cell Education & Training	VIT University, Vellore	4-5 May 2011
88	Entrepreneurship	NBKR institute of science & Technology	12-14 May 2008
89	Train the trainer	NIT, Warangal	2-4 May 2007
90	Energy Week	Vellore Institute of Technology, Vellore	11 th -13 th March 2004.
91	Failure Analysis and Integrity of Automobile structures and Components	Vellore Institute of Technology, Vellore	5 th -6 th September 2003.

Awards/recognitions/achievements

S.No.	Name of the Award	Awarding body/Society/Organization	Year
1	Letter of Appreciation for best teaching	Bapatla Engineering College, Bapatla	2011
2	Best Paper Award	Kalasalingam Academy of Research and Education, Krishnankoil.	2018
3	Best Teacher	Bapatla Engineering College, Bapatla	2019-2020
4	Session Chair	14 th International Conference on Materials Processing and Characterization during 24 th -26 th March 2023, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad	2023

Details of project proposals submitted/sanctioned/completed

S.No.	Title of the Project	Funding body	Submitted/ Sanctioned/ Completed	Amount	Year/ duration
	Nil	Nil	Nil	Nil	Nil

Consultancy contribution

S.No.	Year	Amount	Details
1	Nil	Nil	Nil

Student Project/research guidance

S.No	Level	Total number
1	UG	Completed: 17 Ongoing: 1
2	PG	Completed: Nil Ongoing: Nil

3	PhD	Completed: Nil	Ongoing: Nil
----------	------------	-----------------------	---------------------

Administrative experience

S.No.	Role	Duration (From – to)
1	Admission committee member	2020-21, 2021-22 & 2023-24
2	Department project coordinator	Jun 2018 to till date
3	Examination squad member	Oct 2014 to till date
4	Department training & placement cell coordinator	Jun 2006 to Jun 2015

Research credentials

Index/database	ID/Link
Google Scholar	https://scholar.google.co.in/citations?user=1wdEOyAAAAAJ&hl=en
SCOPUS	https://www.scopus.com/authid/detail.uri?authorId=56964998800
Web of Science	https://www.webofscience.com/wos/author/rid/AAI-4019-2020
Vidwan ID	https://vidwan.inflibnet.ac.in/profile/212517

Details of paper presentations in International Conferences

1. Presented paper on “Experimental investigations on hardness and tensile strength of friction stir welded joint on AA6061 alloy”, at **Maulana Azad National Institute of Technology, Bhopal**, during Nov 26-28, 2014.
2. Presented paper on “Optimizing Drilling Parameters to Minimize Delamination in Drilling of Carbon Fiber Reinforced Plastic Composite Using Response Surface Methodology”, at CAPE Institute of technology, Levejipuram, Tirunelveli, during March 27-28, 2015.
3. Presented paper on “Response Surface Method Based Analysis of Thrust Force during Drilling of Carbon Fiber Reinforced Plastic Composite” at **Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat**, during Nov 26-28, 2015.
4. Presented paper on “Analysis of Forces during Hard Turning of AISI 52100 Steel Using Taguchi Method” at Gokaraju RangaRaju Institute of Engineering and Technology (GRIET), Hyderabad, during Mar 12-13, 2016.
5. Presented paper on “Multi objective optimization of CFRP Composite Drilling Using Ant Colony Algorithm” at Gokaraju RangaRaju Institute of Engineering and Technology (GRIET), Hyderabad, during Mar 17-19, 2017.
6. Presented paper on “Multi-Objective Optimization of Milling Parameters for Jute Fiber Reinforced Composite Using Ant Colony Algorithm”, 3rd International conference on Innovative

Design, Analysis and Development Practices in Aeronautical and Automobile Engineering (IDAD 2018), organized by Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Avadi, 22-24 Feb 2018.

7. Presented paper on “Optimization of cutting force and Surface Roughness during hard turning of AISI 52100 steel using Hybrid GRA-PCA” at 3rd International Conference on Advanced Manufacturing & Automation (INCAMA 2018) Apr 5-6, 2018, organized by School of Automotive and Mechanical Engineering, Kalasalingam Academy of Research and Education, Krishnankoil

8. Presented paper on “Optimization of Tensile strength and Hardness on Friction Stir Welding of AA6061-AA7075 using Hybrid GRA-PCA” at 3rd International Conference on Advanced Manufacturing & Automation (INCAMA 2018) Apr 5-6, 2018, organized by School of Automotive and Mechanical Engineering, Kalasalingam Academy of Research and Education, Krishnankoil

9. Presented paper on “Optimization of Process Parameters during Friction Stir Welding of AA6061 using Hybrid GRA-PCA” at 3rd International Conference on Advanced Manufacturing & Automation (INCAMA 2018) Apr 5-6, 2018, organized by School of Automotive and Mechanical Engineering, Kalasalingam Academy of Research and Education, Krishnankoil

10. Presented paper on “Investigations on surface roughness during End milling of AA6061-SiC metal matrix composite” at 3rd International Conference on Advanced Manufacturing & Automation (INCAMA 2018) Apr 5-6, 2018, organized by School of Automotive and Mechanical Engineering, Kalasalingam Academy of Research and Education, Krishnankoil (**Best paper award**)

11. Presented paper on “Investigations on Machining force during End milling of Al6061-SiC metal matrix composite”, International Conference on Automobile, Marine and Mechanical Engineering (ICAMME 2018), May 4-5, 2018 Sri Venkateswara College of Engineering, Chennai Tamil Nadu, India

12. Presented paper on “Heat transfer augmentation of looped heat pipe using water-Al₂O₃ Nanofluid”, International Conference on Automobile, Marine and Mechanical Engineering (ICAMME 2018) May 4-5, 2018 Sri Venkateswara College of Engineering, Chennai Tamil Nadu, India

13. Presented paper on “Multi objective optimization of Process parameters for hard turning of AISI 52100 steel using Hybrid GRA-PCA”, at **IIITDM, Kancheepuram** during 19-21 July 2018, International Conference on Robotics and Smart Manufacturing (RoSMa 2018)

14. Presented paper on “Multi response optimization of end milling on Al 6061-SiC_p metal matrix composite-Hybrid GRA PCA Approach”, **7th International and 28th All India Manufacturing Technology, Design and Research (AIMTDR 2018)** organized by college of Engineering,

Guindy Anna University, 13th-15th December 2018.

15. Presented paper on “Parametric optimization of surface roughness and workpiece surface temperature during hard turning of AISI 52100 steel using Hybrid GRA-PCA”, 2nd International Conference on Computational Methods in Manufacturing, (ICMM 2019) March 8-9, 2019,

Indian Institute of Technology Guwahati, India

16. Presented paper on “Achieving optimal process parameters during Hard Turning of AISI 52100 Bearing Steel using Hybrid GRA-PCA”, 4th International Conference on Applied Engineering, Materials and Mechanics (4th ICAEMM 2019) during April 19-21, 2019,

Jeju-Island, South Korea.

17. Presented paper on “Multi Response Optimization of Process Parameters while hard turning of AISI 52100 Steel-TOPSIS Approach” at Kalasalingam Global Conference (KGC 2019) organized by Kalasalingam academy of Research and Education, Krishnankoil during 18-20 Dec 2019.

18. Presented paper on “Experimental study on drilling force during drilling of AZ91D Magnesium alloy”, 11th International Conference on Materials Processing and Characterization, **IIT Indore, 15-17 December 2020.**

19. Presented paper on “surface roughness investigation in drilling of AZ91D Magnesium Alloy”, International conference on new scientific creations in engineering and technology, (ICNSCET–22), organized by Department of Mechanical Engineering, Nadar Saraswathi College of Engineering and Technology, Theni – 625531, Tamilnadu during 16-17 June 2022.

20. Presented paper on “Application of TOPSIS for multi response optimization of process parameters during friction stir welding of AA5083 and AA6061 Aluminium Alloys”, at Technological Advancements in Materials and Manufacturing for Industrial Environment (TAMMIE 2023) " organized by Department of Mechanical Engineering, KPR Institute of Engineering and Technology (KPRIET), Coimbatore during 5th & 6th May 2023.

21. Presented paper on “Multi Response optimization of Process Parameters during Friction Stir Welding of AA6061-AA7075 Using TOPSIS Approach” 3rd International Conference on Sustainable materials, Manufacturing and Renewable Technologies (i-SMaRT 2023) organized by the Department of Mechanical Engineering, Federal Institute of Science and Technology in association with King Mongkut's University of Technology North Bangkok (KMUTNB), Thailand and College of Engineering, Universiti Teknologi MARA (UiTM), Malaysia during 24th-26th May 2023.

Details of participation in International Conferences (Online)

1. Participated in National E-Conference on **Advanced Communication and New Energy Generation Technologies 2022** organized by School of Electrical Engineering, Bharath Institute of Higher Education & Research, Chennai – 600073 on 28th May 2022.

2. Participated in the **National Virtual Conference on Advanced Functional Composite Materials And Applications** organized by the Department of Physics, AMET (Academy of Maritime Education and Training), Deemed to be University, Chennai - 603 112, India, during 28th – 29th June 2021.
3. Participated in the Virtual **International Conference on Technological Advancements in Mechanical Engineering (ICTAME 2021)** organized by Department of Mechanical Engineering, Academy of Maritime Education and Training (AMET), Deemed to be University, Chennai. held on 15th & 16th June 2021
4. Participated in the 2nd Indo-Korea Virtual Conference on **Development of Advanced Material for Future Technologies (DAMFT-2021)** jointly organised by KAIST, DaeJeon, South Korea and Vellore Institute of Technology, Chennai. During 14th&15th May 2021.
5. Participated in **World Nano Congress on Advanced Science & Technology {WNCST-2021}** Organized by Centre for Nanotechnology research, Vellore Institute of Technology, Vellore held during 8th-13th March 2021.
6. Participated in the 1st International Virtual Conference on **Advances in colloidal and polymeric systems** organized by School of Chemical Engineering, Vellore Institute of Technology, Vellore held on 22nd August 2020.
7. Participated in the International Virtual Conference on **Recent Trends in Nanomaterials Synthesis & Applications (RTNSA–2020)**, organized by the Department of Chemistry, Madanapalle Institute of Technology & Science, Madanapalle during 16-18 July 2020.
8. Participated in the Indo-Korea Virtual Conference on **Development of Advanced Material for Future Technologies (DAMFT-2020)** jointly organised by Jeonbuk National University, Jeonju, South Korea and Vellore Institute of Technology, Chennai, during 9th&10th July 2020.
9. Participated in the International Virtual conference on **CO₂ and Green Technologies** jointly organized with Florida Agricultural & Mechanical University, USA and Vellore Institute of Technology, Vellore held on 1st & 2nd July 2020.
10. Participated in the International Virtual conference on **Electric Mobility 2020** organized by TIFAC-CORE (Automotive Infotronics), Vellore Institute of Technology, Vellore on 25th June 2020.
11. Participated in International Virtual Conference on **Innovations in Advanced Materials Processing and Manufacturing (IAMPMP-2020)** organised by Centre for Innovative Manufacturing Research (CIMR), VIT Vellore on 24th June, 2020.
12. Participated in One Day International Virtual Conference on **Photovoltaics and Materials Science** Organized by Centre for Crystal Growth, Vellore Institute of Technology, Vellore held on 23rd June, 2020.
13. Participated in Three Day International Virtual Conference on **Advanced Nano Materials**

Applications Organized by Centre for Nanotechnology research, Vellore Institute of Technology, Vellore held during 17th-19th June, 2020.

Reviewer for Journals

- Journal on Emerging trends in Modelling and Manufacturing
- International Journal on Interactive Design and Manufacturing (**Springer**)
- International Journal of Engineering Science and Technology (**Multicraft**)
- World Journal of Engineering (**Emerald**)
- Materials Today: Proceedings (**Elsevier**)
- Key Engineering Materials (**Transtech Publications, Switzerland**)
- Material science Forum (**Transtech Publications, Switzerland**)
- International Journal of Mechanical Engineering and Applications, USA
- Reviewed four articles of International Conference on Recent Trends in Metallurgy, Materials Science and Manufacturing (IMME 19) organized by the Department of Metallurgical and Materials Engineering, National Institute of Technology Tiruchirappalli.
- Acted as reviewer for the 1st International Conference on Sustainable Technologies & Advances in Automation, Aerospace & Robotics Organised by School of Mechanical Engineering, VIT Bhopal University during 16-17 Dec 2022.

Editorial Board member

for Acta Mechanica Malaysia (AMM) journal, ISSN 2616-4302 (online)
<https://actamechanicamalaysia.com/editorial-board/>

for PriMera Scientific Engineering (PSEN) journal, ISSN: 2834-2550,
<https://primerascientific.com/psen/editorialboard>

Metrics overview

Source	Citations	h-Index	i-10 Index
Google Scholar	317	11	11
Scopus	147	6	
Research Gate	234	8	126.4 (RI Score)
Web of Science	101	6	

P.Umamaheswarrao
12 Sep 2023