Dr. M. Vijayalakshmi

Assistant Professor

Education Qualifications: Doctor of Philosophy (Materials Engineering)
Specialization: Metal Joining

ADDRESS:
- A – Block -Room No 201

JNTUH ID:

98150405-185754

EMAIL:

mvijayalakshmi_mme@mgit.ac.in

DATE OF JOINING:

09-06-2005

EXPERIENCE - 17 Years
- Teaching - 17

SUMMARY:
- Publications - 6
- Conferences - 14
- Book Chapter – 1
- Honors/Awards - 6

EVENTS:
- Organized - 1
- Attended - 11

LET'S MEET ON SOCIAL:
- https://www.linkedin.com/company/mgithyderabad

Membership of Professional Bodies:

1. Life member in Indian Institute of Welding LM-11353
2. Life member in Electron Microscopy Society of India LM-1062
3. Life member in Powder Metallurgy Society of India LM-83113
4. Life member in Indian institute of Metals LM 01-54973

Responsibilities Held at Department Level:

1. In-charge Time Table.
2. In-charge Dept.Library

Honors/Awards Received:

1. Nominated as Associate Fellow of Telangana Academy of Sciences in the year 2021
2. Conference Chair in First International Conference on Environment, Economy, Management Science and Technology (ICEEMST-2021) 24th & 25th August 2021, Organised by SIES NERUL Navi Mumbai, Maharashtra &RSP HUB Coimbatore, Tamilnadu.
3. Received Best presenter for the paper entitled “Some studies on effect of prior deformation in post weld heat treatment of AA2219 GTA welds” in Second International Conference on Advances in Science Hub (ICASH - Online) organized by the RSP Conference Hub, Coimbatore, India 26th and 27th June 2021.
4. Topper in NPTEL ONLINE certification course on Welding of Advanced High Strength Steel for automotive applications” 4 WEEKS, July-Aug,2019.
5. Received INAE Innovative student Projects Award at Doctoral Level-2018.
6. Received Weld Well Speciality Award-2, 018 for best PhD thesis submitted for the award of degree from IIW-India.
7. Received Best paper Award for the paper presented at International Institute of welding, 6 the Welding Research and Collaboration Colloquium, MAK club Banyan Tree Retreat, Hyd,7 th -9 th April,2016.

Courses Handled at Under Graduate /Post Graduate Level:

1. **UG:** Mechanical Metallurgy, Mechanical working of metals, Welding Metallurgy, Materials Science &Metallurgy Non-Destructive Testing, Super Alloys.

Publications:

1. Vijayalakshmi Manugula, “Effect of Prior Deformation In Post Weld Heat Treatment of Aluminium Alloy 2219 Gas Tungsten Arc Welds” International Research Journal on Advanced Science Hub, July 2021, Volume 3, Issue Special Issue 7S, Pages 25-29
2. Vijayalakshmi Manugula, “A Study on Effect of Section Thickness in Friction Stir Welding of Ferritic-Martensitic Steel” International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol. 10 Issue 06, June-2021

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3. VijayaL.Manugula, Koteswararao V.Rajulapati, G.Madhusudhan Reddy, E Rajendra Kumar &K.Bhanu Sankara Rao, Friction stir welding of thick section reduced activation ferritic–martensitic steel", Science and Technology of Welding and Joining, 2018, VOL. 23, NO. 8, 666–676.
4. VijayaL.Manugula, Koteswararao V.Rajulapati, G.Madhusudhan Reddy, R. Mythili and K. Bhanu Sankara Rao, "Influence of Tool Rotational Speed and Post-weld Heat Treatments on Friction Stir Welded Reduced Activation Ferritic Martensitic Steel", Metallurgical and Materials Transactions A,(2017) 48(8),3702-3720.
5. VijayaL.Manugula, Koteswararao V.Rajulapati, G.Madhusudhan Reddy, and K. Bhanu Sankara Rao, Role of Evolving Microstructure on the Mechanical Properties of Electron Beam Welded Ferritic-Martensitic Steel in the As-Welded and Post weld Heat-Treated States", Material Science and Engineering ,698A(2017)36-45.
6. VijayaL.Manugula, Koteswararao V.Rajulapati, G.Madhusudhan Reddy, R Mythili and K.Bhanu Sankara Rao, A Critical Assessment of the Microstructure and Mechanical Properties of Friction Stir Welded Reduced Activation FerriticMartensitic Steel", Materials and Design, 92(2016)200-212.

Conferences:

1. "Some studies on effect of prior deformation in post weld heat treatment of AA2219 GTA welds" SECOND INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE HUB (ICASH 2021), 26th and 27th June 2021.
2. "Variability analysis of metallurgical and acoustic emission data of an aeroengine alloy" authored by Rakesh Kodela, Jalaj Kumar, P.K. Manda, S. Banumathy, C.M. Omprakash, Deepak Kumar, A. Kumar, U.S. Gupta, S. Ahmad, I. Balasundar, M. Vijaya Lakshmi in the CF - 8 Web-Conference held during August 24-27, 2021 at Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu, INDI
3. "Effect of Welding Process on Mechanical Properties of RAFM Steel Weldments", International Congress 2020 (IC2020) organized by International Institute of Welding at Mumbai, 6-8 th February 2020
4. "Effect of iron powder on air activated heating: A comparison between electrolytic and atomized iron powders" International Conference on Powder Metallurgy PM-20 organised by powder metallurgy association of India,PMAI,Lalith Mumbai Sahar Airport Road ,Andheri East,Mumbai,19-21st February 2020.
5. New Joining Technologies for creep-resistant ferritic-martensitic steels for conventional and nuclear energy systems" 3rd INAE-NAEK workshopon High Temperature Materials and System Engineeringfor Aerospace power generation and defence industry. Indian National Academy of Engineering &The National Academy of Engineering of Korea,organised by INAE &MIDHANI, Hyderabad Novotel Hyderabad Airport Shamshabad, 15-17 th July 2019
6. Poster presentation, "Strain rate sensitivity and RT creep behavior of friction stir welded and electron beam welded IN-RAFM steels J. Varghese, V. L. Manugula, K. V. Rajulapati, G. M.Reddy and K. Bhanu Sankara Rao University of Hyderabad, Hyderabad " Second International conference on structural Integrity conference and exhibition SICE-2018", Hyderabad 25th -27thJuly 2018.
7. Paper presentation, "Comparision of microstructure and hardness of friction stir and electron beam weldments of reduced activation ferritic martensitic steel", Second International conference on structural Integrity conference and exhibition SICE-2018", Hyderabad 25th -27thJuly 2018.
8. "Influence of post-weld heat treatments on microstructure and mechanical properties of reduced activation ferritic martensitic steel electron beam welds", International Institute of Welding 6 th Welding

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Research and Collaboration Colloquium", MAK Club Banyan Tree Retreat, Hyderabad,7 th -9 th April, 2016

9. Paper presentation on "Influence of Welding Process on Microstructure and Mechanical Properties of Reduced Activation Ferritic Martensitic Steel" National Seminar on Welding Science & Technology (NSWEST 2021) organised by The Indian Institute of Welding,Chennai branch 23rd and 24th July 2021.
10. Paper presentation, "Developments in friction stir welding of Indian reduced activation ferritic martensitic steel", All India seminar on "Advances in metallurgy and manufacturing process",The Institute of Engineers (India), Telangana State Centre, Hyderabad 13th -14th , July2018.
11. Integrated approach in metallurgical understanding of friction stir welded reduced Activation ferritic/martensitic steel", one day workshop, Challenges in Joining of Advanced Materials", Gurukul, NFC, Hyderabad, 26 th , May 2017
12. "Role of section thickness in friction stir welding of reduced activation ferritic/martensitic steel", National Welding Seminar, Science city, Kolkata, Dec 9 th -11 th, 2016.
13. "Insights into friction stir welding of reduced activation ferritic-martensitic steel", NMD-ATM 2015, Coimbatore, 13 th Nov-16 th Nov, 2015
14. "Friction stir welding of Indian reduced activation ferritic-martensitic steel" National Welding Seminar 2015, CIDCO Convention Centre Vashi, Mumbai, 9 th Dec-11 th Dec,2015

Research & Consultancy:

1. Ongoing Research project funded from AR&DB, Ministry of Defence, Govt. of India. "Process sequence and metallurgical assessment of electron beam weld joints of E16NCD13 grade steel for aeroengine gear applications"

No. of Books/Chapter Published with details:

1.VijayaL.Manugula, Koteswararao V.Rajulapati, G.Madhusudhan Reddy, R. Mythili and K. Bhanu Sankara Rao, "Adaption of a Green Technology (Friction Stir Welding) to Join Fusion Energy Materials", Energy Engineering, Proceedings of CAETS 2015 Convocation on Pathways to Sustainability, Chapter, Springer ISBN 978-981-10-3101-4,173-177.

Events Organized:

Refresher Courses/ Workshops/ Webinars/ Seminars/ Guest Lecture:

1. Online Webinar on Hardfacing-Industrial Applications, 5th Aug,2020" conducted by Dept. of Metallurgical and Materials Engineering, Mahatma Gandhi Institute of Technology, Hyderabad

Events Attended

FDPs/STTPs:

1. Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Metallurgical Testing and Failure Analysis of Metals" from 13/09/2021 to 17/09/2021 at GIDC Degree Engineering College, Abrama, Navsari.
2. ISTE Sponsored one-week Online Faculty Development Programme (FDP) on "emerging trends in advanced materials &

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manufacturing processes" (ETAMMP-2021) from 12/07/2021 to 16/07/2021 organized by Department of Mechanical Engineering, Kakatiya Institute of Technology & Science, Warangal, Telangana.

3. Faculty Development Programme on "METALLURGICAL ASPECTS IN ADDITIVE MANUFACTURING" (19th - 23rd April, 2021) organized by the Department of Metallurgical and Materials Engineering, NIT Andhra Pradesh, Tadepalligudem, Andhra Pradesh.
4. One Week FDP on "Role of Machine Learning & Data Sciences in AI" 28th June to 2nd July 2020, organized by Department of CSE and M&H, MGIT,Hyd.
5. International FDP on "Research and Development in Materials Behaviour, Processing and Characterisation techniques" 19-14 th June,2020 Dept. of Mechanical Engineering, GLA University Mathura.
6. FDP on outcome-based education and Accreditation25-29 th May,2020 IILM College of Engineering and Technology
7. FDP on Research opportunities in Advanced Manufacturing Process22-28th June,2020 Bharteeya Vidya peeth College of Engineering, Pune.

Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:

1. One Day Workshop on Advances in Welding Technologies for Strategic Applications (AWTSA) on 14th August 2021 organized by The Indian Institute of Welding, Hyderabad Branch
2. Indo - German workshop on advanced automotive steels (IGWAAS-2021) during March 4 - 5, 2021.
3. Webinar on Women Empowerment Organized by Women Empowerment Cell, RGMCET in association with Indian Servers on July 1st ,2020
4. Webinar on Laser arc hybrid welding of High-Performance materials on 27th Feb 2021 organised by the Indian Institute of Welding, Hyderabad Branch.

Online Certifications:

1. NPTEL-AICTE course on "Mechanical Behaviour of Materials" July-Nov 2021
2. NPTEL-AICTE course on "Advances in welding and joining technologies" Jan-Mar ,2020
3. NPTEL-AICTE "Welding of Advanced High Strength Steel for automotive applications" 4 WEEKS, July-Aug,2019.
4. COURSERA: Materials Science: 10 Things Every Engineer Should Know! May 2020
5. COURSERA: Material Processing, 2020
6. COURSERA: Material Behaviour, 2020