

Name of Faculty Dr. RAHUL
 Designation Assistant Professor
 Nature of Job/Appointment Regular
 Date of Joining 28 – 06 - 2019
 E-mail rahul_mech@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy	Awarded
PG	M. Tech. (Materials Engineering) / MBA (HR)	First with Distinction / Second
UG	B. E. (Mechanical Engineering)	First with Distinction

Work Experience

Teaching	05 Years
Research	06 years
Industry	--
Others	--

Area of Specialization

Welding, Material Testing, Advanced Material Processing

Professional Memberships

1. The Institution of Engineers (India) (IEI) – Associate Member (AMIE)
2. Indian Institute of Welding (IIW) – Life Associate Member
3. Indian Institute of Metals (IIM) – Life Member (58107)
4. Materials Research Society of India (MRSI) – Life Member (LMB3174)
5. Powder Metallurgy Association Of India (PMAI) – Life Memembr (L00978)
6. Society for Failure Analysis(SFA) – Life Member (LM-SFA-0925)

Responsibilities held at Institution Level R&D coordinator from Mechanical Engineering department

Responsibilities held at Department Level Assistant Timetable Incharge from March 2020 to till date

Research Guidance --

Awards Received

1. Received Best Innovative Student Project Award 2013 at Master's Level by Indian National Academy of Engineering (INAE), for my M.Tech Research Work on "Development of Novel Nano Composites Using Unique Approaches and Their Mechanical and Tribological Characteristics".
2. Best Paper Award in National Conference on Innovations in Chemical Engineering 2013, Hyderabad, November 15-16, 2013.
3. Second Best Paper Award in IVBS 2013 (Welding Management for Sustainable Development), Visakhapatnam, November 22-23, 2013.
4. Presented a paper (invited talk) at International Institute of Welding, 5th IIW Welding Research & Collaboration Colloquium, Limburg, Germany, October 28-30, 2015.
5. Awarded Best Research Scholar 2018 by The Institution of Engineers (India), Telangana State Centre for my PhD on "Influence of Parent Metal Microstructure and Post Weld Heat Treatments on the Microstructure and Mechanical Properties of Ti-6Al-4V Friction Welds".

- Awarded a Best Paper Award under Material Science and Engineering category, for the paper entitled "Effect of Grade 5 Titanium Interlayer on Microstructure and pitting Corrosion Behaviour of AA110/A36 Explosion Welds", in Material TECH 2022 (Second International Conference on Materials and Technologies), National Institute of Technology Raipur, 28th – 29th January, 2022.

Courses Handled at Under Graduate / Post Graduate Level.	Materials Science and Metallurgy, Automobile Engineering, Principles of Management, Entrepreneurship, Basic Mechanical Engineering, Organizational Behaviour, Engineering Exploration, Product Design and Process Planning, Foundry Technology and Non-Destructive testing, Fuels, Furnaces and Refractories	
No. of Papers Published	National Journals – 02	International Journals – 08
	National Conference – 03	International Conference – 16
Projects Carried out	--	
Patents	02	
Technology Transfer	--	
Invited Speaker	Presented a paper, Invited Talk at International Institute of Welding, 5th IIW Welding Research & Collaboration Colloquium, Limburg, Germany, October 28-30, 2015.	
No. of Books/Chapter Published with details	--	
	<ol style="list-style-type: none"> A one-week online faculty development program on "Recent Advances in Mechanical Engineering: A Research Perspective", during 6-10 July 2020, organized by Mahatma Gandhi Institute of Technology. A one-week online faculty development program on "Industry 4.0 – A Vision of Design and Manufacturing" during 16 – 20 June 2020, organized by Chaitanya Bharathi Institute of Technology. A one-week faculty development program on "Outcome Based Education and NBA Accreditation Process (UG)", during 28 May 2020 to 01 June 2020, organized by Chaitanya Bharathi Institute of Technology. A one-week National level online faculty development program on "Innovation to Academicians" during 11 – 16 May 2020, organized by NewGen IEDC – RCE Eluru and NSTEDB. One-week Online Faculty Development Program on "Recent Advances in Renewable Energy & Energy Efficiency Technologies", during 21-25 July, 2020, organized by Department of Mechanical Engineering (Mechatronics), MGIT, Hyderabad. One Week online Refresher course on "BHARATEEYA CHAITANYAM", during 29-06-2020 to 05-07-2020, organized by GEERVANA BHARATHI of CHAITANYA SAMSKRUTHI, CBIT, Hyderabad. One-week Online Faculty Development Programme on "Recent Developments in Mechanical Engineering", during 10th -14th of August 2020, organized by Department of Mechanical Engineering, Prasad V.Potluri Siddhartha Institute of Technology. One Week Faculty Development Program on Advances in Mechanical Engineering with an Emphasis on AI (AMEAI - 2021), during 15 – 20 Mar, 2021, organized by Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous), Hyderabad, Telangana, India. (AICTE - Sponsored Faculty Development Programme). Online training on BASICS OF WELDING METALLURGY, on 08.08.2020, one day MSME- TECHNOLOGY DEVELOPMENT CENTRE (PPDC). AICTE sponsored One Week Online Short-Term Training Program on "Recent Advances in Materials and Manufacturing: Part II", during 07th to 12th September, 2020, 	
Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops/Other Trainings (Attended and/or Organized).		

organized by Department of Mechanical Engineering, Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam. AICTE - Sponsored Faculty Development Programme.

11. AICTE sponsored One Week Online Short-Term Training Program on "Recent Advances in Materials and Manufacturing: Part III", during 05th to 10th October, 2020, organized by Department of Mechanical Engineering, Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam. AICTE - Sponsored Faculty Development Programme.
12. Online training on HEAT TREATMENT OF METALS, on 29.11.2020, one day, organized MSME- TECHNOLOGY DEVELOPMENT CENTRE (PPDC).
13. One day national level webinar on "RECENT ADVANCEMENTS IN ALUMINIUM AND MAGNESIUM TECHNOLOGIES", on 4th July 2020, organized by Department of Mechanical Engineering, Bapatla Engineering College, Bapatla.
14. Five-day hands-on workshop on Patent searching, drafting and filing, 29.05.20 – 02.06.20, Panimalar institute of technology.
15. 5-day online FDP on Emerging technologies in Robotics, 26.05.20-30.05.20, Malla reddy engineering college (A).
16. FDP on 'Industry 4.0 – A vision of design and manufacturing', 16.06.2020 to 20.06.2020 (1week), Mechanical Engineering Department, Chaitanya Bharathi Institute of Technology (A).
17. One-week online FDP on Green Manufacturing: The present and the future 15.05.20-20.05.20 Santiram Engineering College.
18. One-week online FDP on Artificial Intelligence, 13.05.20-18.05.20, Santiram Engineering College.

**Details of Journal Publications/
Conferences (National and
International)
Publications:**

1. Rahul, R., Rajulapati, K. V, Reddy, G.M., Mohandas, T., Bhanu Sankara Rao, K., "Studies on Effect of Parent Metal Condition on the Room Temperature Mechanical Properties of Ti6Al4V Friction Welds", Trans. Indian Inst. Met. 2017. doi:10.1007/s12666-017-1084-z
2. Koona Bhavani, V.S.N. Venkata Ramana, Rahul, K. Sri Ram Vikas and Ch. Kishore Reddy, "Effect of Number of Passes on Surface Properties of Burnished Aluminium Alloy", IOP Conference Series: Materials Science and Engineering, 1112, 12003, 2021. Corresponding author: Dr. Rahul. doi:10.1088/1757-899X/1112/1/012011
3. Ch. Kishore Reddy, M. Gopi Krishna, Rahul, V.S.N. Venkata Ramana and K. Sri Ram Vikas, "Optimization of dry sliding wear parameters of Al4Mg system reinforced with high strength alloy particulate (HSAp)", IOP Conference Series: Materials Science and Engineering, 1112, 12011, 2021. doi:10.1088/1757-899X/1112/1/012003
4. Priyadarsini Morampudi, VSN Venkata Ramana, KSri ram Vikas, R Rahul and Chitrada Prasad, "Effect of nano ZrB₂ particles on physical, mechanical and corrosion properties of Al6061 metal-matrix nano composites through stir casting route", Eng. Res. Express 4 (2022) 025010. doi.org/10.1088/2631-8695/ac5f66
5. Sri Ram Vikas, Rahul, Ch. Kishore Reddy, V.S.N. Venkata Ramana, Priyadarsini Morampudi, Ch. Prasad, "Effect of Grade 5 titanium interlayer on microstructure and pitting corrosion behaviour of AA1100/A36 explosion welds", Materials Today: Proceedings, doi.org/10.1016/j.matpr.2022.03.330.
6. Bhavani Koona, V.S.N. Venkata Ramana, Ch. Prasad, Rahul, K. Sri Ram Vikas, "Comparison of microstructure and corrosion behaviour of AA2014 electron beam and friction stir welds", Materials Today: Proceedings, Volume 52, Part 3, 2022, Pages 1615-1621. doi.org/10.1016/j.matpr.2021.11.272.
7. K Sri Ram Vikas, K Srinivasa Rao, Rahul, G Madhusudhan Reddy and VSN Venkata Ramana, "Influence of Heat Treatments on Microstructural and Mechanical Properties of Grade 5 Titanium Friction Welds", Eng. Res. Express 4 (2022) 025053. https://doi.org/10.1088/2631-8695/ac7a0a.
8. Priyadarsini Morampudi, V.S.N. Venkata Ramana, K. Sriram Vikas, Rahul, Chitrada Prasad,

"Enhancing wear properties of Al6061 metal-matrix composites by reinforcement of ZrB₂ nano particles", Materials Today: Proceedings.

Articles:

1. Rahul, R., Rajulapati, K. V, Reddy, G.M., Mohandas, T., Bhanu Sankara Rao, K., "Effect of Post Weld Heat Treatments on the Elevated Temperature Mechanical Properties of Ti6Al4V Friction Welds", Cornell University e-print Archive. arXiv:1802.03363
2. Rahul, R., Rajulapati, K. V, Reddy, G.M., Bhanu Sankara Rao, K., "Development of Aluminium Based Surface Nano Composites Using Friction Stir Processing", Cornell University e-print Archive.
a. arXiv:1802.07913
3. B. Veerajyothi, Rahul, V.Jaipal reddy, "Smart E-commerce application with secure block chain", IJMPERD, Vol10, no.3, pp 7209-7220, June 2020.
4. B. Veera Jyothi, P. Surender Reddy and Rahul, "Analysis and Prediction of The Stock Market Closing Prices", Sambodhi: Indological Research Journal of L. D. I. I. (print only), Lalbhai Dalpatbhai Institute of Indology, Vol-44 No.-01(XI), 107-110, 2021.

Conference Proceedings:

1. Rahul, K. Bhanu Sankara Rao, Koteswararao. V. Rajulapati, G. Madhusudhan Reddy, "Development of Al-W and Al-Al₂O₃ Surface Nano Composites Using Sequential Combination of Ball Milling and Friction Stir Processing", oral presentation at National Conference on Innovations in Chemical Engineering 2013, Hyderabad, November 15-16, 2013. ISBN: 978-81-7800-329-0.

Conference Presentations:

1. Rahul, K. V. Rajulapati, G. M. Reddy, T. Mohandas, K. Bhanu Sankara Rao, "Effect of Post Weld Heat Treatments on the Elevated Temperature Mechanical Properties of Ti6Al4V Friction Welds", poster presentation at IIW International Congress 2017, IIW Chennai, India, December 07-09, 2017.
2. Rahul, K. V. Rajulapati, G. M. Reddy, T. Mohandas, K. Bhanu Sankara Rao, "Effect of Post Weld Heat Treatment on the Tensile Properties of Ti6Al4V Friction Welds", oral presentation at A one day workshop on Challenges in Joining of Advanced Materials (CJAM), IIW Hyderabad, India, May 26, 2017.
3. Rahul, K. V. Rajulapati, G. M. Reddy, T. Mohandas, K. Bhanu Sankara Rao, "Influence of Parent Metal Microstructure on the Creep Behaviour of Ti6Al4V Friction Welds", poster presentation at International Conference on Metals and Materials Research, IISc Bangalore, India, June 20-22, 2016.
4. Rahul, K. V. Rajulapati, G. M. Reddy, T. Mohandas, K. Bhanu Sankara Rao, "Effect of Post Weld Heat Treatment on the Creep Behaviour of Ti6Al4V Friction Welds", poster presentation at International Institute of Welding, 6th Welding Research & Collaboration Colloquium, Hyderabad, India, April 7-9, 2016.
5. Rahul, G. Madhusudhan Reddy, Koteswararao. V. Rajulapati, K. Bhanu Sankara Rao, T. Mohandas, "Influence of Parent Metal History on Tensile Properties of Ti6Al4V Friction Welds", oral presentation (invited talk) at International Institute of Welding, 5th IIW Welding Research & Collaboration Colloquium, Limburg, Germany, October 28-30, 2015.
6. B. Naga Jeevani, M. Bathrinarayanan, S. Ramesh Kumar, Rahul, K. V. Rajulapati, G. M. Reddy, K. Bhanu Sankara Rao, "Strain Hardening Characteristics in Bulk Ultra Fine Grained Al-Cu Alloy Studied by Macro and Micro Indentation", poster presentation at IUMRS – ICA 2013 (International Union of Materials Research Societies – International Conference in Asia), Bangalore, December 16-20, 2013. ABS-510a-ICA.
7. S. Ramesh Kumar, Rahul, K. V. Rajulapati, G. M. Reddy, K. Bhanu Sankara Rao, "Fabrication of Bulk Ultra Fine Grained Al-Cu Alloy Using Friction Stir Processing", poster presentation at IUMRS – ICA 2013 (International Union of Materials Research Societies – International Conference in Asia), Bangalore, December 16-20, 2013. ABS-510-ICA.
8. Pardhu Yella, Kamal Mankari, Rahul, K. V. Rajulapati, K. Bhanu Sankara Rao, "Structure – Property Correlations of a Newly Developed Alloy 740", IUMRS – ICA 2013 (International Union of Materials Research Societies – International Conference in Asia), Bangalore, December 16-20, 2013. ABS-1033a-ICA.

9. Rahul, K. Bhanu Sankara Rao, Koteswararao. V. Rajulapati, G. Madhusudhan Reddy, "Development of Al-W and Al-Al₂O₃ Surface Nano Composites Using Sequential Combination of Ball Milling and Friction Stir Processing", oral presentation at IVBS 2013 (Welding Management for Sustainable Development), Visakhapatnam, November 22-23, 2013.
10. Rahul, K. Bhanu Sankara Rao, Koteswararao. V. Rajulapati, G. Madhusudhan Reddy, "Development of Novel Nano Composites Using Unique Approaches and Their Mechanical and Tribological Characteristics", poster presentation at International Conference on Heat Treatment and Surface Engineering 2013, Chennai, May 16-18, 2013.
11. Koteswararao. V. Rajulapati, Rahul, P.V.S.L. Narayana, V. Sreedevi, G.M. Reddy, K. Bhanu Sankara Rao, "Processing and Mechanical Behaviour of Nanostructured Bulk Aluminium Based Alloys", NMD – ATM 2012 (66th Annual Technical Meeting), Jamshedpur, November 16-19, 2012.
12. Rahul, "Effect of Number of Passes on Surface Properties of Burnished Aluminium Alloy", Two Day International E-Conference on Industry 4.0 Technologies in Civil & Mechanical Engineering (IC14TCME-2020), VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY, 2020.
13. Rahul, "Optimization of dry sliding wear parameters of Al4Mg system reinforced with high strength alloy particulate (HSAP)", Two Day International E-Conference on Industry 4.0 Technologies in Civil & Mechanical Engineering (IC14TCME-2020), VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY, 2020.
14. Koonal Bhavani, V.S.N. Venkata Ramana, Rahul, Ch. Lakshmi Kanth, K. Sri Ram Vikas, Ch. Kishore Reddy, "Modification of surface properties of AA7075 by friction stir processing", 5th International Conference on Applications of Fluid Dynamics - ICAFD 2020, VIT – AP, pp 66, 2020. ICAFD 2020-P081.
15. Ch. Kishore Reddy, V.S.N. Venkata Ramana, Rahul, K. Sri Ram Vikas, Dasari Madhusudhan, "Impact of dry sliding wear parameters on the wear rate of Al-Mg based composites reinforced with ternary alloy particulate", 5th International Conference on Applications of Fluid Dynamics - ICAFD 2020, VIT – AP, pp 67, 2020. ICAFD 2020-P083.
16. K. Sri Ram Vikas, Rahul, Ch. Kishore Reddy, VSN Venkata Ramana, Priyadarsini Morampudi, Ch. Prasad, "Effect of Grade 5 Titanium Interlayer on Microstructure and Pitting Corrosion Behaviour of AA110/A36 Explosion Welds", in Material TECH 2022 (Second International Conference on Materials and Technologies), National Institute of Technology Raipur, 28th –29th January, 2022. MT2022-M21.
17. Kishore Reddy, K. Sri Ram Vikas, VSN Venkata Ramana, Rahul, P. Naga Vishnu, "Development of B4C Particulate Reinforced AA7075 Composite by Friction Stir Welding: Evaluation of Microstructure and Mechanical Properties", in Material TECH 2022 (Second International Conference on Materials and Technologies), National Institute of Technology Raipur, 28th –29th January, 2022. MT2022-MM14.
18. Priyadarsini Morampudi, V.S.N. Venkata Ramana, K. Sriram Vikas, Rahul, Chitrada Prasad, "Physical, Mechanical and Corrosion Properties of Powder Metallurgy Processed Al6061/ZrB₂ Metal Matrix Nano Composites", in Material TECH 2022 (Second International Conference on Materials and Technologies), National Institute of Technology Raipur, 28th –29th January, 2022. MT2022-MM38.
19. Priyadarsini Morampudi, V.S.N. Venkata Ramana, K. Sriram Vikas, Rahul, Chitrada Prasad, "Enhancing Wear Properties of Al6061 Metal-Matrix Composites by Reinforcement of ZrB₂ Nano Particles", in Material TECH 2022 (Second International Conference on Materials and Technologies), National Institute of Technology Raipur, 28th –29th January, 2022. MT2022-MM39.

Patents:

1. 1.Patent Application No. 352891-001. Design accepted and published. Journal No. 02/2022 and Journal date is 14/01/2022.
2. Patent Application No. 362555-001. Application under process.
3. Patent Application No. 202241023144. Patent Published.