## Dr. CHALLA KISHORE REDDY, Ph.D.

Mobile No. +91 7382219990

Vijayawada, Andhra Pradesh

Email Id: kishorereddymtech@gmail.com

#### **Educational Qualifications:**

- Doctor of Philosophy (Ph.D.) in Mechanical Engineering, from Acharya Nagarjuna University, Andhra Pradesh. (Awarded: March 2021).
- Masters of Technology (M.Tech.) in CAD/CAM, Godavari Institute of Engineering and Technology, Rajahmundry, JNTUK, Kakinada, 2012, with 69.07%.
- Bachelor of Technology (B.Tech.) in Mechanical Engineering, Nagarjuna Institute of Technology and Sciences, Miryalaguda, JNTU, Hyderabad 2004, with 70.26%.
- 12<sup>th</sup>/ Intermediate in MPC (Mathematics, Physics, Chemistry), Board of Intermediate, April 1999, with 84.1%.
- > SSC/10<sup>th</sup> from Board of Secondary Education, March 1997, with 86.33%

#### **Additional Qualifications:**

Master of Arts (MA) in Psychology from Indira Gandhi National Open University (IGNOU), December 2021, with 65.38%.

#### Ph.D. thesis title:

'Characterization and development of high strength metal-metal composites: Al-Mg System'

#### **Experience:**

- Worked as assistant professor from 23.01.2009 to 29.07.2013 in Vikas College of Engineering and Technology, Nunna, Vijayawada, AP.
- ➤ Worked as assistant professor from 29.07.2013 to 24.10.2024 in Prasad V Potluri Siddhartha Institute of Technology, Vijayawada, AP.
- Working as Professor from 25.10.2024 to till date in Viaks Group of Institutions, Nunna, Vijayawada, AP.

## **Subjects Taught:**

## For UG (B.Tech):

- > Engineering Graphics I B.Tech (CSE-ME-EEE-ECE-IT)
- ➤ Mechanics of Solids- II B.Tech(ME)
- ➤ Engineering Mechanics-I B.Tech (ME)
- ➤ Kinematics of Machinery II B.Tech(ME)
- > Dynamics of Machinery II B.Tech(ME)
- Metallurgy & Material science- II B.Tech(ME)

- ≻ Fluid Mechanics- II B.Tech(ME)
- Engineering Economics II B.Tech(ME)
- Production planning and control- III B.Tech(ME-EEE)
- Industrial Engineering- IV B.Tech(ME)
- > Fluid Mechanics & Hydraulic Machines Lab- II B.Tech(ME)
- Metallurgy & Material testing Lab- II B.Tech(ME)
- > Measurements & Instrumentation Lab- III B.Tech(ME)
- ➤ Machine Dynamics Lab- IV B.Tech(ME)

#### For PG (MTech):

Mechanical Behaviour of Materials- I M.Tech(MD)

#### **Curriculum Development:**

- ➤ Material Science and Engineering
- Materials Characterization
- Logistics & supply chain management

#### **Design of Laboratory Courses and Initiation of Laboratory Facilities:**

- Materials Characterization Lab
- Production Technology Lab

**Facilities Developed / Recommended:** As in charge of metallurgy lab, several facilities were developed for research purposes. Some of them have also become part of the laboratory facilities for materials processing, testing.

- > VB Ceramics Planetary Ball Mill for Powder Preparation
- ➢ V-cone Blender
- > Aluminium Melting Furnace for stir Casting
- Sparkonix Electric Discharge Machine-25A
- > DMI Classic Inverted Metallurgical Microscope with Image Analyzer
- Contech Density/weighing Balance

#### **Skills & Proficiencies:**

- Experience with MS OFFICE tools (Word, Ppt, Excel)
- > Programming languages: C and Python.
- Software packages AUTO CAD, CATIAV5R17, ORIGIN PRO, Image J Analyzer, Web Plot Digitizer.

### Hands-on experience on:

- > Synthesis of Nanomaterials by # Electrodeposition # High energy Ball mill # Stir casting
- > Thin Film Fabrication by Electrodeposition
- Characterization: FESEM-EDS, XRD, Optical microscope, DUCOM Scratch tester, Vickers hardness tester.

### **Memberships of Professional Bodies:**

- Life Member, PMAI (Powder Metallurgy Association of India) (L00851)
- ► Life Member, ISTE (Indian Society for Technical Education) ((LM 97046))
- ➤ Life Member, VIBHA India (#8640)

## **Contribution in the Institution:**

- > Coordinator for Criteria 3 for NAAC from 2016 to 2022.
- > Placements coordinator for Dept. of Mechanical Engineering from 2014 to 2023.
- > Exam cell coordinator for Dept. of Mechanical Engineering from 2014 to 2016.
- College cultural committee member from 2013 to 2022
- S.P.O.C. for AP State Skill Development Corporation (APSSDC) (2021 to till date)

Google Scholar Link: <u>https://scholar.google.com/citations?user=Y3ppWIsAAAAJ&hl=en</u>

ORCID Link: https://orcid.org/0000-0002-4584-7913

# Scopus ID: 57212199184

## **Peer Reviewed International Publications:**

- Ch. Kishore Reddy, Chitrada Prasad, K. Sri Ram Vikas, M. Srinivasa Reddy & Rahul, "Microstructural and Mechanical Properties of Friction Stir Welded (FSW) AA7075 with B4C Reinforcement", Lecture Notes in Mechanical Engineering book series (SPRINGER), Vol.2, p. 309-316. (2024). <u>https://doi.org/10.1007/978-981-97-2249-5\_28</u>
- Ch. Kishore Reddy, VSN Venkata Ramana, K Sri Ram Vikas, D Madhusudhan, "Influence of Dry Sliding Wear Parameters on the Rate of Wear Al–Mg Matrix Composites Reinforced with Ternary Alloy Particulate", Lecture Notes in Mechanical Engineering book series; (Springer) p.345–355. (2022). https://doi.org/10.1007/978-981-19-1929-9\_30
- Koona Bhavani, V. S. N. Venkata Ramana, R. Rahul, Ch. Lakshmi Kanth, K. Sri Ram Vikas, Ch. Kishore Reddy, "Modification of Surface Properties of AA7075 by Friction Stir Processing", Lecture Notes in Mechanical Engineering book series; (Springer) (SCOPUS) p.309–320. (2022). https://doi.org/10.1007/978-981-19-1929-9\_27
- KSR Vikas, VSNV Ramana, K Bhavani, Ch Kishore Reddy, V Srinivas, "Pitting Corrosion in AA7075 Friction Stir Welds on Minor Additions of Silver", Journal of Engineering and Technological Sciences, (SCOPUS). Vol. 53(6)p.1136-1153. (2021). DOI: 10.5614/j.eng.technol.sci.2021.53.6.7
- KK Mohan Reddy, Ch Kishore Reddy, P Karthik, MG Krishna, "Novelty and Applications of MMCs with Aluminium Metal Base Using Stir Casting Technique-A Review", Materials Science Forum, (SCOPUS) p.246-251. Vol.998(1). (2020). https://doi.org/10.4028/www.scientific.net/MSF.998.246

Challa.Kishore Reddy, PGK, M. Gopi Krishna, K. Sriram Vikas "A Comprehensive Evaluation of Wear Behaviour of Aluminium Matrix Composites with Various Metallic and Non-Metallic Particulates as Reinforcement", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), 10(2), p.505-514.vol.20;(2020).

http://www.tjprc.org/publishpapers/2-67-1583927291-45IJMPERDAPR202045.pdf

- Ch. Kishore Reddy, VSNVR, M. Gopi Krishna, "Corrosion Characterization of Al-4mg Based Metal-Metal Composite with High Strength Alloy Particulate As Reinforcement", International Journal of Recent Technology and Engineering, p.1638-1641.vol.8(5). (2020). DOI:10.35940/ijrte.E6152.018520
- Sri Ram Vikas K, N. Raghu Ram, Ch. Kishore Reddy, V.V. Sridhara Raju. "Process Parameters and Foaming Agents Used in Manufacturing of Aluminium metallic foams: A Review". International Journal of Scientific Engineering and Technology, 4(11), 505-510. Vol.4. (1<sup>st</sup> Nov 2015). DOI:10.17950/ijset/v4s11/1101
- P Vinod, UK Rao, Ch. Kishore Reddy "Analysis of railway wheel to study the stress variations", International Journal of Engineering Research & Technology, vol.3(2) p.1286-1291. (Feb 2014). ISSN:2278-0181. (SCOPUS) <u>https://www.ijert.org/research/analysis-ofrailway-wheel-to-study-the-stress-variations-IJERTV3IS20894.pdf</u>
- Guduru Mahendr, K.Srividya, Ch.Kishore Reddy, E.Kavitha, "Hygrothermal degradation Studies on E-Glass Woven Rovings-Epoxy Composite", International Journal of Engineering Sciences & Research Technology, p. 608—613. Vol. 3(8) (Aug 2014) ISSN: 2277-9655.

<u>http://www.ijesrt.com/issues%20pdf%20file/Archives-2014/August-2014/90.pdf</u> **Peer Reviewed International Conferences publications:** 

- KSR Vikas, Ch Kishore Reddy, VSNV Ramana, P Morampudi, C Prasad, "Effect of Grade 5 titanium interlayer on microstructure and pitting corrosion behaviour of AA1100/A36 explosion welds" Materials Today: Proceedings, p.1659-1665 (2022). https://doi.org/10.1016/j.matpr.2022.03.330
- P Morampudi, VSNV Ramana, K Bhavani, Ch Kishore Reddy, KSR Vikas, "Wear and corrosion behavior of AA6061 metal matrix composites with ilmenite as reinforcement", Materials Today: Proceedings. p.1515-1520. (2022). https://doi.org/10.1016/j.matpr.2021.11.228
- K Bhavani, VSN VenkataRamana, KSR Vikas, Ch Kishore Reddy "Effect of Number of Passes on Surface Properties of Burnished Aluminium Alloy" IOP Conference Series: Materials Science and Engineering/012011. (2021).
  DOI 10.1088/1757-899X/1112/1/012011 doi:10.1088/1757-899X/1112/1/012011.0147777[ https://iopscience.iop.org/article/10.1088/1757-899X/1112/1/012011
- Ch. Kishore Reddy, KSRV, M. Gopi Krishna, Rahul, V.S.N. Venkata Ramana, "Optimization of dry sliding wear parameters of Al4Mg system reinforced with high strength alloy particulate (HSAp)", IOP Conf. Series: Materials Science and Engineering/012003. (2021). DOI 10.1088/1757-899X/1112/1/012003. https://iopscience.iop.org/article/10.1088/1757-899X/1112/1/012003/meta
- Venkata Ramana VSN, Sri ram Vikas K, Vidya Ch, Ch. Kishore Reddy, Peteti Gopalakrishnaiah, "Sintering and property evaluation of tungsten and graphene added copper based composites", Transactions of Powder Metallurgy Association of India. P.14-22. (2020). <u>https://www.pmai.in/asset/PMAI\_pdf/transactions/Transaction\_Vol%2044\_No2\_Dec201</u> <u>8.pdf</u>

- Ch. Kishore Reddy, MG Krishna, P Srikant, "Brief evolution story and some basic limitations of high entropy alloys (HEAs)–A review", Materials Today: Proceedings; p.436–439. (2019). <u>https://doi.org/10.1016/j.matpr.2019.07.256</u>
- P Srikant, Ch. Kishore Reddy, NR Ram, "Metallic particulates for preparation of anti-

bacterial preservation vassals and their applications-A Review", Materials Today:

Proceedings. p.440-444. (2019). <u>https://doi.org/10.1016/j.matpr.2019.07.262</u>

- Ch. Kishore Reddy, MG Krishna, T Ashok, KS Vikas, "Influence and effect on properties with particulate additions in Al-Mg-X alloys–A Review", Materials Today: Proceedings. p.357-360. (2019). <u>https://doi.org/10.1016/j.matpr.2019.06.312</u>
- K Srividya, Ch. Kishore Reddy, CM Sumanth, PG Krishnaiah, VM Kishan, " Effect of length to thickness ratio on free vibration analysis of thick fiber reinforced plastic skew

cross-ply laminate with circular cutout", AIP Conference Proceedings/1952-020063, p.1-7, (2018). <u>https://doi.org/10.1063/1.5032025</u>

KSB Sri Ram Vikas. K, N. Raghu Ram, Ch. Kishore Reddy, "Effect of MoS2 and CaF2

Solid Lubricants on Mechanical and Tribological Characteristics of Metal and Ceramic Composites: A Review", TRANSACTIONS OF PMAI, p.78-86. (2017). http://www.pmai.in/en/asset/PMAI\_pdf/transactions/Transaction%20Vol%2043\_No2\_Dec%202017.p df

## Patents:

- 1. 417230-001, 17-05-2024, SMART TOY CAR
- 2. 381063-001, 28/04/2023 (waiting for Examination), GO-KART

3. 352186-001, 28-10-2021, Flower-POT

## Workshops/Seminars/Conferences Organized:

➢ Organized two-day DST Sponsored National Seminar on "MECHATRONICS & MEMS"

on 6th & 7th November 2015, at PVP Siddhartha Institute of Technology.

≻ Conducted SAGTE sponsored short FDP on "Metallurgy & Particulate Materials Fundamentals and Industrial Applications" 10-11 November 2016 in collaboration with PMAI at PVPSIT.

Organized two-day DST Sponsored National Seminar on "Additive Manufacturing & 3D Printing" on 18th and 19th November 2016, at PVP Siddhartha Institute of Technology

> Organized one Week AICTE Sponsored FDP on "Design Thinking and product innovation" from 09/03/2019 to 13/03/2019. PVP Siddhartha Institute of Technology.

Organized two-day National level Techno-Cultural Fest "SITAR2022" (Virtual) on 25<sup>th</sup> & 26<sup>th</sup> March 2022 at PVP Siddhartha Institute of Technology.

➢ Organized a Two-week ATAL FDP on "Applications of IoT in Mechanical Engineering" from 07/11/2022 to 19/11/2022 at PVP Siddhartha Institute of Technology.

#### Interaction with the outside world:

State coordinating member of Bharatiya Vijnana Mandali (BVM), AP Chapter of Vijnana Bharathi (ViBha); www.bvmap.org

- Organized "Koushal- a science talent competition for Government high school students in Andhra Pradesh" state level competitions in 2018, 2019, 2020, 2021,2022 in association with AP Counsel of Science and Technology (APCOST) & BVM conducted at School of planning and Architecture, Vijayawada.
- Organized "Avishkar 2021, 2024– a Technical competition for college students in AP" in association with AP Counsel of Science and Technology (APCOST) & BVM conducted at Adikavi Nannaya University, Rajamahendravaram & KLU, Vja.

#### **PERSONAL DETAILS:**

Father's Name	: Sri. Ch. Satyanarayana Reddy
Date of Birth	: 15-09-1981
Sex	: Male
Marital Status	: Married
Nationality	: Indian
Permanent Address	: 6-143/C, Near Kamli rice mill, Kappalabandam Road
	Kalluru, Khammam(Dist.), Telangana. 507209.

#### **References:**

- 1. **Shri Dusi. Rama Krishna Rao**, National President, Vidya Bharati (Akhil Bhartiya Siksha Sansthan), Visakhapatnam, 9949058932 (<u>dusiramakrishna@gmail.com</u>)
- 2. **Dr T. Srinivas Reddy**, Scientist-G, ISRO, SDSC, Shriharikota, Nellore, 9440727141 (<u>t.srinu.12476@gmail.com</u>)
- 3. **Dr B.RamaKrishna**, Scientist G, Project Director, Armour Technology Center, DRDO, Hyderabad, 9848885547 (<u>panini@rediffmail.com</u>)