

Bio-sketch of Dr. L. Rama Krishna, Scientist 'G', ARCI

Dr. L. Rama Krishna, Scientist 'G' & Head - Centre for Engineered Coatings (CEC), Chairman-Aerospace Working Group at International Advanced Research Centre (ARCI), Hyderabad, Dept. of Science & Technology, Govt. of India. Obtained B.Tech, from NIT-Warangal (formerly known as REC-Warangal), M.Tech from IIT-Kanpur and Ph.D. from JNTU, Hyderabad. All the above academic degrees are in the Materials & Metallurgical Engineering discipline.



His professional expertise includes Conceptualization of novel and industrially relevant technologies, Design and development lab scale and industry scale technological systems, Application development & Technology transfer. In addition, evaluation of Mechanical, Tribological, Corrosion and Fatigue behavior of diverse materials, engineered coatings and thin films have been the fields of his expertise, demonstrated the last 23+ years of professional experience and at various positions (resulting in 7 technology transfers and completion of 11 high impact sponsored projects) as follows:

Sl. No.	Institution / Organization	Designation	Year		Major responsibilities
			From	To	
1	ARCI	Scientist - B	1999	2002	R&D, conceptualization of novel processes, up-scaling, design and development of lab, bench, industry scale systems, application / product development, demonstration, technology transfer and implementation of various surface engineering technologies to cater a large variety of industrial applications including Aerospace, Automotive, Textile, Petrochemical, Naval and Pharmaceutical sectors demanding protection against wear, thermal, corrosion and fatigue degradations.
2	ARCI	Scientist - C	2002	2006	
3	ARCI	Scientist - D	2006	2010	
4	ARCI	Scientist - E	2010	2015	
5	ARCI	Scientist - F	2015	2021	
6	ARCI	Scientist - G	2021	Present	

Dr. L. Rama Krishna's outstanding Scientific, Engineering and Technological contributions bestowed him the following National and International Awards and Recognitions:

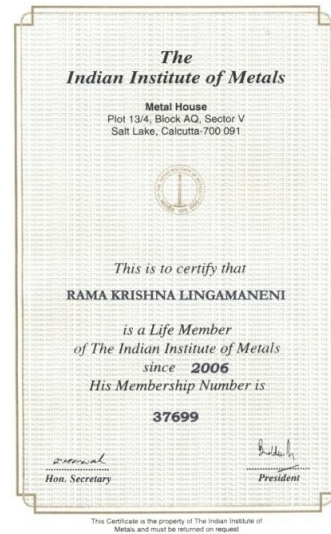
- ✓ **Secretary**, Indian Institute of Metals (IIM) – Hyderabad Chapter, Sept. 2020 – March 2023.
- ✓ **Executive Council Member**, Defense & Aerospace Panel of Confederation of Indian Industry (CII), Hyderabad Chapter, August 2019 onwards.
- ✓ **Invited theme speaker**, National Frontiers of Engineering, Indian National Academy of Engineering, IIT Bhubaneswar, May-June 2019.
- ✓ **Fellow of Institution of Engineers (India)**, July 2018.
- ✓ **EDITOR**, Transactions of Indian Institute of Metals, (TIIM), Springer, 2017 onwards.
- ✓ **SECTION EDITOR**, Ceramic Coatings and their Properties for Critical Applications in "*Handbook of Advanced Ceramics and Composites Applications*", Springer Nature, 2018-19.
- ✓ **EDITORIAL BOARD MEMBER**, Journal of Materials Science and Surface Engineering (JMSSE) - 2015 onwards, Journal of Thermal Spray and Engineering (JTSE) – 2017 onwards.
- ✓ **DISTINGUISHED ALUMNI PROFESSIONAL ACHIEVEMENT AWARD**, National Institute of Technology, Warangal, 2016.
- ✓ **OUTSTANDING CONTRIBUTION IN REVIEWING**, Received from prestigious journals namely (a) Materials and Design, (b) Journal of Alloys and Compounds, (c) Surface and Coatings Technology, (d) Advanced Powder Technology, Elsevier, Amsterdam, The Netherlands, 2015.



- ✓ **EXECUTIVE COUNCIL MEMBER**, Materials Research Society of India, Hyderabad Chapter, 2014 onwards.
- ✓ **CONVENOR**, Thermal Spray Coating Technologies (TSCOAT-2015), organized in association with Materials Research Society of India, 23 Sept. 2015.
- ✓ **EXECUTIVE ORGANIZING COMMITTEE MEMBER**: Asian Thermal Spray Conference (ATSC) – 5-day international conference organized at Hotel Novotel, Hyderabad, Nov. 2014.
- ✓ Invited participant in Indo-US flagship **“FRONTIERS OF ENGINEERS SYMPOSIUM”**, Washington DC, U.S.A., 2012.
- ✓ **CONVENOR** - INAE Annual Convention: Coordinated with DMRL, RCI, DRDO and CSIR, INAE-New Delhi, December 2011.
- ✓ **ORGANIZING COMMITTEE MEMBER**: 2-day workshop conducted in association with McGill University, Canada and Boeing, USA to utilize ARCI technologies to space applications, 2011.
- ✓ **CONVENOR**: Surface Engineering: Technologies, Research and Applications (SETRA) – a 5-day course (27-31 August 2012), organized at ARCI. Transferred Rs. 7.0 lakhs surplus funds to Prof. T.R. Ananthraman Education & Research Foundation for supporting the meritorious students pursuing materials science & metallurgical engineering career.
- ✓ **SILVER MEDAL**, International Conference on Metallurgical Coatings and Thin Films (ICMCTF), San Diego, USA, 2009.



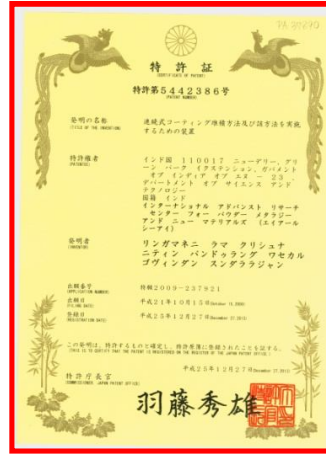
- ✓ **RESEARCH FACULTY** – Materials Science & Engineering, Northwestern University, Illinois (Chicago), USA, 2008 - 2009.
- ✓ **BOYSCAST FELLOW** – Department of Science & Technology, Government of India, 2007, Award carries US\$ 30,000 fellowship grant.
- ✓ **LIFE MEMBER**, Indian Institute of Metals, Calcutta, 2005.
- ✓ **EXECUTIVE COUNCIL MEMBER**, Hyderabad Chapter of Indian Institute of Metals, Calcutta, 2005-2007.
- ✓ **YOUNG ENGINEER AWARD**, Indian National Academy of Engineering (INAE) 2005, received Rs. 20,000 cash prize, Rs. 1,00,000 lakh research grant, citation and a gold medal.
- ✓ **THOMSON'S HIGHLY CITED AWARD**, Thomson's Web of Science, Singapore, 2005.
- ✓ **ORGANIZING COUNCIL MEMBER**, International Conference on Advanced Surface Treatments: Research and Applications (ASTRA), Hyd, 3-6 Nov. 2003.
- ✓ **BEST PAPER PRESENTATION AWARD**, 1st Prize, NMD-ATM, Indian Institute of Metals, Bhilai, 2000.
- ✓ **"PRESIDENT GOLD MEDAL"** – M.Tech thesis was nominated at IIT-Kanpur, 1999.
- ✓ **BEST ACADEMIC PERFORMANCE AWARD**, NIT-Warangal (formerly known as REC-Warangal), 1997.



LIST OF PATENT APPLICATIONS FILED AND GRANTED:

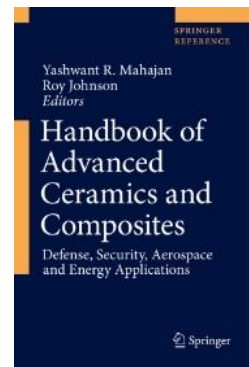
Principal inventor / Major contributor to the following patents filed / granted in India and abroad:

S. No.	DETAILS OF PATENT GRANTED
1.	Indian Patent Application # 202241037966 <i>An Automated Spray Coating Deposition System, Patent application filed on 1st July 2022</i>
2.	Indian Patent Application # 1839/DEL/2015 <i>Process and apparatus for protection of structural members from wear, corrosion and fatigue damage, Patent application filed during June 2015, Response to First Examination Report filed during 2022</i>
3.	US Patent # US 9,365,945 <i>Process for continuous coating deposition and an apparatus for carrying out the process, Date of grant: 14 June 2016</i>
4.	French Patent # FR 2937342 <i>Method for Continuous Deposition of Coatings and Apparatus for Carrying out the Method, Date of grant: 18 December 2015</i>
5.	US Patent # US 8,486,237 <i>A Process for Continuous Coating Deposition and an Apparatus for Carrying out the Process, Date of grant: 16 July 2013</i>
6.	JAPAN Patent # JP 5442386 <i>A Process for Continuous Coating Deposition and an Apparatus for Carrying out the Process, Date of grant: 27 December 2013</i>
7.	UK Patent # GB 2464378 <i>A Process for Continuous Coating Deposition and an Apparatus for Carrying out the Process, Date of grant: 15 May 2013</i>
8.	GERMAN Patent # DE 102009044256 <i>A Process for Continuous Coating Deposition and an Apparatus for Carrying out the Process, Date of grant: 12 May 2010</i>
9.	SOUTHAFRICA Patent # ZA200906786 <i>A Process for continuous coating deposition and an apparatus for carrying out the process, Date of grant 26 May 2010.</i>
10.	BRAZIL Patent # PI0904232-6 <i>A Process for continuous coating deposition and an apparatus for carrying out the process, Date of grant 14 September 2010.</i>
11.	INDIAN Patent # 209817 <i>Process for forming ceramic coatings on metallic bodies and an apparatus for carrying out the process, Date of grant: 06 Sept. 2007</i>
12.	US Patent # US 6,893,551 <i>Process for forming ceramic coatings on metallic bodies and an apparatus for carrying out the process, Date of grant: 17 May 2005</i>

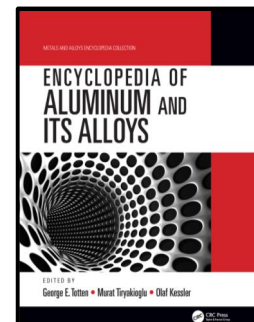


BOOK CHAPTERS INVITED & PUBLISHED:

✓ **L. Rama Krishna**, P. Suresh Babu, Manish Tak, D. Srinivasa Rao, G. Padmanabham and G. Sundararajan, *Processing of Ceramic and Cermet Coatings for Aerospace and Strategic Applications*, in Handbook of Advanced Ceramics and Composites Applications, Ed: Yashwant R Mahajan and Roy Johnson, Springer Nature, 2020, pp: 1465-1526.

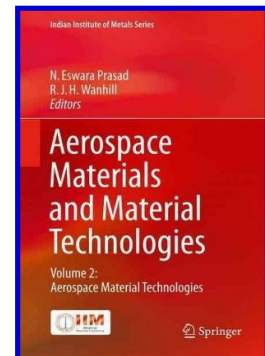


✓ **L. Rama Krishna** and G. Sundararajan, Corrosion and Wear Protection through Micro Arc Oxidation Coatings in Aluminum and Its Alloys, in "*Encyclopedia of Aluminum and Its Alloys*", Ed: George E. Totten, Olaf Kessler, Murat Tiryakioglu, Pubs: Taylor & Francis, 2018, pp: 386-399, ISBN-13:978-1466510807, ISBN-10: 1466510803.

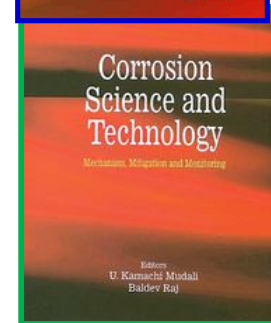


✓ P. Suresh Babu, D. Srinivasa Rao, **L. Rama Krishna**, G. Sundararajan and Arvind Agarwal, Thermal Spray Coatings: Aluminum Alloy Protection, in "*Encyclopedia of Aluminum and Its Alloys*", Ed: George E. Totten, Olaf Kessler, Murat Tiryakioglu, Pubs: Taylor & Francis, 2018, pp: 2680-2695, ISBN-13:978-1466510807, ISBN-10: 1466510803.

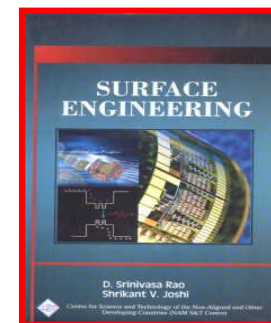
- ✓ D. Srinivasa Rao, **L. Rama Krishna** and G. Sundararajan, Detonation Sprayed Coatings for Aerospace Applications, in "*Aerospace Materials and Material Technologies*", Ed: N.E. Prasad, R.J.H. Wanhill, Pubs: Indian Institute of Metals Series, Springer Science + Business Media, Singapore, 2017, pp: 483-500, ISBN: 978-981-10-2143-5, DOI: 10.1007/978-981-10-2134-3_22.



- ✓ G. Sundararajan, **L. Rama Krishna**, N.P. Wasekar, G. Sivakumar and A. Jyothirmayi, *Coatings for Corrosion Resistance* in "*Corrosion Science and Technology: Mechanisms, Mitigation and Monitoring*", Pubs: Taylor & Francis, UK, Nov/Dec 2008 pp: 243-283, ISBN-13:978-0849333743, ISBN-10:0849333741.



- ✓ **L. Rama Krishna**, *Micro Arc Oxidation Vs Hard Anodizing: Process Features and Coating Properties* in "*Surface Engineering*", Ed: D. Srinivasa Rao and Srikant V. Joshi, Pubs: NAM S&T Centre, Daya Publishing House, 2010 pp: 231-265, ISBN: 9788170356288.



BOARD / EXPERT COMMITTEE MEMBER / TECHNO-ADMIN RESPONSIBILITIES SHOULDERED:

- ✓ Member, Project Assessment Council, Technology Development Program of Department of Science & Technology, Government of India 2023
- ✓ Vigilance Officer of ARCI during Oct. 2019 - Oct. 2022.
- ✓ Chairman: *Aerospace Working Group* at ARCI, 2017 onwards.
- ✓ Chairman: Screening and Recruitment committees for various levels starting from JRF/SRF's, Research Associates, Post-doctoral Fellows, Project Staff, Technicians, Technical Assistants and Scientists of ARCI

- ✓ Member – Board of Studies: (i) *Department of Materials & Metallurgical Engineering, NIT Warangal*, (ii) *Hyderabad Central University*, (iii) *Department of Mechanical Engineering, Amrita Viswa Vidya Peetham, Coimbatore*, (iv) *Department of Metallurgical and Materials Engineering, RGUKT, Nuzvid*, (v) *Department of Mechanical Engineering, PVP Siddhartha Institute of Technology, Vijayawada*.
- ✓ Editorial board Member: *Journal of Materials Science and Surface Engineering* - 2014 onwards
- ✓ Member, Various Screening & Recruitment Boards, Policy Making and Implementation committees, Procurement Committees, ARCI – 2015 onwards
- ✓ Departmental Peer Review Committee Member, *Department of Metallurgical and Materials Engineering, NIT-Warangal* - 2015
- ✓ Industry–Institute Interaction Committee Member, *Department of Metallurgical Engineering, JNTU-Hyderabad* - 2014 onwards
- ✓ DRDO Assessment Council (DAC) External Technical Expert, *Research Centre Imarat, Hyderabad*, 2015 onwards
- ✓ Recruitment Interview Board Member, *International Advanced Research Centre, Hyderabad* – 2014, 2016, 2017, 2019, 2021
- ✓ Thesis Examiner, *Department of Mechanical Engineering & Department of Metallurgical and Materials Engineering, NIT-Warangal* – 2013 onwards
- ✓ Chairman, ARCI Wet Canteen, 2009-2012
- ✓ Chairman, Decennial Annual Day Celebration Committee ARCI, 2006

RECOGNIZED REVIEWER OF INTERNATIONAL JOURNALS:

- * Materials and Design
- * Journal of American Ceramic Society

- * Surface & Coatings Technology
- * Materials Chemistry and Physics
- * Journal of Thermal Spray Technology
- * Corrosion Science
- * Metallurgical and Materials Transactions A
- * Surface Review & Letters
- * Applied Surface Science
- * Wear
- * Journal of Alloys and Compounds
- * Materials Science & Engineering A
- * Advanced Powder Technology

Ph.D. THESES GUIDED: Following are the details of 05 Ph.D. thesis works supervised/guided & awarded, 01 more in progress:

<i>Scholar name</i>	<i>Roll No</i>	<i>Institute</i>	<i>Thesis title</i>	<i>Year of award</i>
T. Arun Nellaiappan	412113008	NIT - Trichy	Development of ceramic oxide and ceramic composite coatings on AA7075 by plasma electrolytic oxidation	2017
Y. Madhavi	716154	NIT – Warangal	High cycle plain-fatigue and corrosion-fatigue behaviour of micro arc oxidation coated aluminum alloys	2021
A. Sai Kiran	412116003	NIT - Trichy	Surface modification of interstitial free steels by plasma electrolytic oxidation	2021
V. Srinivasa Rohit	701345	NIT – Warangal	Establishment of stable process parameters in machining using dynamic force signal analysis	2022
C. Premchand	412118002	NIT-Trichy	Plasma Electrolytic Oxidation of Al and Ti Alloys	2023

SCIENTIFIC ARTICLES CONTRIBUTED:

1. P. Manojkumar, S. Pranav, E. Lokeshkumar, R. Shishir, U. Nasirudeen, **L. Rama Krishna**, N. Rameshbabu, Development of Surface Modified Titanium Alloy as a Promising Photocatalyst for Textile Waste Water Treatment, *Journal of Alloys and Compounds*, 952 (2023) 169906.
2. E Lokeshkumar, C Premchand, P Manojkumar, R Shishir, **L. Rama Krishna**, KG Prashanth, N Rameshbabu, Effect of electrolyte composition on the surface characteristics of plasma electrolytic oxidation coatings over Ti-40Nb alloy, *Surface and Coatings Technology*, 465 (2023) 129591.
3. **L Rama Krishna**, DS Rao, TN Rao, International Scientific Collaborations driven by Indian Science Diplomacy: The Journey of ARCI, Key Takeaways, Challenges and Opportunities, *Science Diplomacy* 6(3) (2023) 6-10.
4. N. Tandekar, P. Miryalkar, **L. Rama Krishna**, V. Krishna, Influence of Substrate Bias on Machining Performance of TiAlN-Coated Drill Bits, *Materials and Manufacturing Processes*, (2023) DOI: 10.1080/10426914.2023.218724.
5. D.V. Lakshmi, P.S. Babu, **L. Rama Krishna**, P.V. Durga, R. Vijay, D.S. Rao, Electrochemical Corrosion and Solid Particle Erosion Response of Y₂O₃ Dispersed FeAl Coatings Deposited by Detonation Spray, *Intermetallics*, 155 (2023) 107844.
6. R. Shishir, E. Lokeshkumar, P. Manojkumar, U. Nasiruddin, C. Premchand, V. Ponnillavan, **L. Rama Krishna**, N. Rameshbabu, Development of Biocompatible and Corrosion-resistant Plasma Electrolytic Oxidation Coating Over Zinc for Orthopedic Implant Applications, *Surface and Coatings Technology*, 450 (2022) 128990.

7. C. Premchand, P. Manojkumar, E. Lokeshkumar, **L. Rama Krishna**, B. Ravisankar, N. Rameshbabu, Surface Characteristics of AC PEO Coatings Fabricated on Commercial Al Alloys, *Surface and Coatings Technology*, 449 (2022) 128975.
8. P. Manojkumar, C. Premchand, E. Lokeshkumar, C. Subramanyam, A. Viswanathan, **L. Rama Krishna**, N. Ramesh Babu, Development of Immobilised Sunlight Active W-Mo/Mo-V/V-W co-doped TiO₂ Photocatalyst by Plasma Electrolytic Oxidation, *Journal of Alloys and Compounds*, 919 (2022) 165781.
9. KRC Somaraju, A. Jyothirmayi, **L. Rama Krishna**, R. Subasri, Corrosion Behavior of Anodized and Sol-Gel Duplex Coatings on AA3004, *Transactions of Indian Institute of Metals*, (2022) DOI:10.1007/s12666-022-02595-5.
10. C. Premchand, E. Lokeshkumar, P. Manojkumar, B. Ravisankar, **L. Rama Krishna**, B. Venkataraman and N. Rameshbabu, Laser Sintered Ti-6Al-4V Alloy Coated with Plasma Electrolytic Oxidation: Influence of Duty Cycle and Frequency on Morphological, Structural and Corrosion Properties, *Journal of Materials Engineering and Performance* (2022), DOI:10.1007/s11665-022-06810-8.
11. E. Lokeshkumar, A. Saikiran, B. Ravisankar, **L. Rama Krishna** et al., Superior Properties and Behavior of Coatings Produced on Nanostructured Titanium by PEO Coupled with EPD Process, *Surface Topography: Metrology and Properties*, 10 (2022) 015020.
12. P. Manojkumar, E. Lokeshkumar, C. Premchand, A. Saikiran, **L. Rama Krishna**, N. Rameshbabu, Facile Preparation of Immobilised Visible Light Active W-TiO₂/rGO composite Photocatalyst by Plasma Electrolytic Oxidation Process, *Physica B: Physics of Condensed Matter*, 631 (2022) 413680.

13. A. Saikiran, C. Premchand, P. Manojkumar, E. Lokeshkumar, **L. Rama Krishna** and N. Rameshbabu, *Transactions of Indian Institute of Metals*, 75 (2022) 813-825.
14. P.S. Babu, L. Venkatesh, A. Jyothirmayi, K. Suresh, **L. Rama Krishna**, A. Agarwal, D.S. Rao, Salt Spray (Fog) Corrosion Behavior of Cold-Sprayed ALuminium Amorphous/Nanocrystalline Alloy Coating, *Journal of Thermal Spray Technology*, 31 (2022) 1173-1183
15. D.V. Lakshmi, P.S. Babu, **L. Rama Krishna**, R. Vijay, D.S. Rao, G. Padmanabham, Corrosion and Erosion behavior of Iron Aluminide (FeAl(Cr)) coating deposited by Detonation Spray Technique, *Advanced Powder Technology*, 32 (2021) 2192-2201.
16. Y. Madhavi, **L. Rama Krishna**, N. Narasaiah, Corrosion-fatigue performance of hard anodized, MAO coated 2024-T3 and 7075-T6 aerospace Al alloys, *Transactions of Indian Institute of Metals* 32 (2021) 2192-2201.
17. E. Lokeshkumar, P. Manojkumar, A. Saikiran, C. Premchand, S. Hariprasad, **L. Rama Krishna**, N. Rameshbabu, Fabrication of Ca and P containing niobium oxide ceramic coatings on niobium by PEO coupled EPD process, *Surface and Coatings Technology*, 416 (2021) 127161.
18. Y. Madhavi, **L. Rama Krishna** and N. Narasaiah, Corrosion-Fatigue Behavior of Micro Arc Oxidation Coated 6061-T6 Al alloy, *International Journal of Fatigue*, 142 (2021) 105965.
19. Y. Madhavi, **L. Rama Krishna**, N. Narasaiah, Influence of Surface Roughness on the Corrosion-Fatigue Behavior of MAO Coated 6061-T6 Al alloy Assessed in NaCl medium, *Surface and Coatings Technology*, 414 (2021) 127102.

20. S. Hariprasad, A. Saikiran, Ch. Premchand, **L. Rama Krishna**, N. Remshbabu, Fabrication of Ceramic Coatings on the Biodegradable ZM21 Magnesium Alloy by PEO Coupled EPD Followed by Laser Texturing Process, *Journal of Magnesium and Alloys*, 9(3) (2021) 910-926.
21. N.P. Wasekar, B. Lavakumar, **L. Rama Krishna**, D.S. Rao and G. Padmanabham, Pulsed electrodeposition, Mechanical Properties and Wear Mechanism in Ni-W/SiC Nanocomposite Coatings Used for Automotive Applications, *Applied Surface Science*, 527 (2020) 146896.
22. V. Srinivasa Rohit, A. Venu Gopal and **L. Rama Krishna**, A New Approach in Establishing Stable Machining Parameters Using Frame Statistics and Kurtosis. In: Voruganti H., Kumar K., Krishna P., Jin X. (eds) *Advances in Applied Mechanical Engineering, Lecture Notes in Mechanical Engineering, Singapore, 2020 pp: 1159-1167*.
23. A. Saikiran, S. Hariprasad, P. Manojkumar, **L. Rama Krishna**, N. Rameshbabu, Effect of laser treatment on morphology and corrosion behavior of the plasma electrolytic oxidation coatings developed on aluminized steel, *Surface and Coatings Technology*, 394 (2020) 125888.
24. N.S. Anas, R.K. Dash, R. Vijay, **L. Rama Krishna**, Tribological Performance of CNT/Ni coated CNT Dispersed Al Alloys Produced by Mechanical Milling and Hot Extrusion, *Journal of Materials Engineering & Performance*, 29 (2020) 1630-1639.
25. V.S. Rohit, A. Venu Gopal, **L. Rama Krishna**, Dynamic force signal analysis in dry finish turning of Aluminium metal matrix composites, E3S Web of Conferences ICMED 184 (2020) 01072
26. P. Suresh Babu, Y. Madhavi, **L. Rama Krishna**, G. Sivakumar, D. Srinivasa Rao and G. Padmanabham, Thermal Spray Coatings for Erosion-

- Corrosion Resistant Applications, *Transactions of Indian Institute of Metals* 73 (9) (2020) 2141-2159.
27. Nitin P. Wasekar, **L. Rama Krishna**, D. S. Rao, G. Padmanabham, Novel Nanostructured Coatings by Pulsed Electrodeposition, *Indian Engineering Exports*, 12 (7) (2019), 16-24.
 28. **L. Rama Krishna**, Y. Madhavi, P.S. Babu, D. S. Rao, G. Padmanabham, Strategies for Corrosion Protection of Non-ferrous Metals and Alloys Through Surface Engineering, *Materials Today: Proceedings* 15 (2019) 145-154.
 29. Y. Madhavi, **L. Rama Krishna**, N. Narasaiah, Influence of micro arc oxidation coating thickness and prior shot peening on the fatigue behavior of 6061-T6 Al alloy, *International Journal of Fatigue*, 126 (2019) 297-305.
 30. A. Saikiran, S. Hariprasad, S. Arun, **L. Rama Krishna**, N. Rameshbabu, Effect of electrolyte composition on morphology and corrosion resistance of plasma electrolytic oxidation coatings on aluminized steel, *Surface and Coatings Technology*, 372 (2019) 239-251.
 31. **L. Rama Krishna**, Y. Madhavi, T. Sahithi, D. Srinivasa Rao, S.V.K. Ijeri, Om Prakash, S.P. Gaydos, Enhancing the high cycle fatigue life of high strength aluminum alloys for aerospace applications, *Fatigue and Fracture of Engineering Materials and Structures*, 42 (2019) 698-709.
 32. R. Ghosh, A. Venugopal, P.I. Pradeep, **L. Rama Krishna**, P.R. Narayanan, B. Pant, R.M. Cherian, Effect of Microstructure on the Environmentally Induced Cracking Behavior of Al-Zn-Mg-Cu-Zr Aluminum Alloy, *Corrosion Science and Technology*, 17 (3) (2018) 101-108.
 33. **L. Rama Krishna**, Y. Madhavi, T. Sahithi, N.P. Wasekar, N.M. Chavan, D.S. Rao, Influence of prior shot peening variables on the fatigue life of

- micro arc oxidation coated 6061-T6 Al alloy, *International Journal of Fatigue*, 106 (2018) 165-174.
34. P.S. Babu, Y. Madhavi, **L. Rama Krishna**, D. S. Rao, G. Padmanabham, Thermally Sprayed WC-based Cermet Coatings for Corrosion Resistance Applications, *JOM* 70 (11) (2018) 2636-2649.
 35. P. Suresh Babu, D. Sen, A. Jyothirmayi, **L. Rama Krishna**, D. Srinivasa Rao, Influence of microstructure on the wear and corrosion behavior of detonation sprayed $\text{Cr}_2\text{O}_3\text{-Al}_2\text{O}_3$ and plasma sprayed Cr_2O_3 coatings, *Ceramics International*, 44(2) (2018) 2351-2357.
 36. P. Suresh Babu, P. Chanikya Rao, A. Jyothirmayi, P. Sudharshan Phani, **L. Rama Krishna**, D. Srinivasa Rao, Evaluation of microstructure, property and performance of detonation sprayed WC-(W,Cr)₂C-Ni coatings, *Surface and Coatings Technology*, 335 (2018) 345-354.
 37. T. Arunnellaiappan, S. Arun, S. Hariprasad, S. Gowtham, **L. Rama Krishna**, N. Rameshbabu, Fabrication of Corrosion Resistant Hydrophobic Ceramic Nanocomposite Coatings on PEO Treated AA7075, *Ceramics International*, 44(1) (2018) 874-884.
 38. P.S. Babu, D.S. Rao, **L. Rama Krishna**, G. Sundararajan, Weibull analysis of hardness distribution in detonation sprayed nano-structured WC-12Co coatings, *Surface and Coatings Technology*, 319 (2017) 394-402.
 39. T. Arunnellaiappan, **L. Rama Krishna**, S. Anoop, R. Uma Rani, N. Rameshbabu, Fabrication of Multifunctional Black PEO Coatings on AA7075 for Spacecraft Applications, *Surface and Coatings Technology*, 307 (2016) 735-746.

40. K. Valleti, S. Puneet, **L. Rama Krishna** and S.V. Joshi, Studies on cathodic arc PVD grown TiCrN Based Erosion Resistant Thin Films, *Journal of Vacuum Science and Technology A*, 34(4) 041512-1-7, 2016.
41. T. Arunnellaiappan, M. Ashfaq, **L. Rama Krishna**, N. Rameshbabu, Fabrication of Corrosion-resistant Al₂O₃-CeO₂ Composite Coatings on AA7075 via Plasma Electrolytic Oxidation Coupled with Electrophoretic Deposition, *Ceramic International*, 42 (2016) 5897-5905.
42. G. Sundararajan, S.V. Joshi and **L. Rama Krishna**, Engineered Coatings for the Automotive Engine and Power Train Components, *Current Opinion in Chemical Engineering* 11 (2016) 1-6.
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