

# RESUME

## Dr. RAMESH M.R.

Professor

Department of Mechanical Engineering

National Institute of Technology Karnataka

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### ❖ CURRENT AREA OF RESEARCH :

Thermal Spray Coatings, Thin films, Laser and microwave surface modification, Biomaterials, Machining, Wear, Erosion.

### ❖ ACADEMIC RECORD

#### ➤ DEGREE

: **Ph.D**  
Institution : **Indian Institute of Technology Roorkee, Roorkee.**  
Thesis Title : Studies on the Role of HVOF Coatings in Improving Resistance to Hot Corrosion and Erosion  
Year of completion : 2008

#### ➤ POST GRADUATION

: **M.Tech ( Mechanical Engineering )**  
Specialization : **Manufacturing Science and Engineering**  
Institution : M.S. Ramaiah Institute of Technology, Bangalore.  
University : Visveswaraiah Technological University.  
Year of Passing : February 2002.  
Results : **I<sup>st</sup> class with distinction @ 75.20% aggregate (Secured university third rank)**

#### ➤ GRADUATION

: **B.E. (Mechanical Engineering)**  
Institution : Siddaganga Institute of Technology, Tumkur.  
University : Bangalore University.  
Year of Passing : Aug. 1999.  
Results : **I<sup>st</sup> class with distinction @ 67.03% aggregate**

### ❖ WORK EXPERIENCE: (present to previous)

- Institution : National Institute of Technology Karnataka, Surathkal  
Designation : Professor  
Duration : October 09, 2023 – Till date
- Institution : National Institute of Technology Karnataka, Surathkal  
Designation : Associate Professor  
Duration : May 16, 2018 – October 09, 2023
- Institution : National Institute of Technology Karnataka, Surathkal  
Designation : Assistant Professor  
Duration : December 2012 – May 16, 2018
- Institution : M.S.Ramaiah Institute of Technology, Bangalore.  
Designation : Associate Professor  
Duration : April 2011 – December 2012
- Institution : Reva Institute of Technology and Management, Bangalore.  
Designation : Assistant Professor  
Duration : July 2008 – April 2011
- Institution : Nitte Institute of Technology, Bangalore.  
Designation : Assistant Professor

Duration : September 2002 – July 2003, February 2008 – July 2008

#### ❖ RESEARCH PROJECTS:

1. Design and development of Supercritical carbon dioxide based naturally circulated solar thermal collector, Funding Agency: SERB, New Delhi, under Core Research Grant, PI: Dr. Ajay Kumar Yadav; Co-PI: Dr. M. R. Ramesh  
Funding amount: Rs 23,817,64/-  
Duration: 3 years (2021-24)
2. Performance evaluation of HVOF sprayed NiAl intermetallic based composite coatings for aerospace repair and manufacturing applications  
Funding Agency: SERB, New Delhi, under Core Research Grant, PI: Dr. M. R. Ramesh; Co-PI: Dr. Sharnappa Joladarashi  
Funding amount: Rs 30,288,17/-  
Duration: 3 years (2023-26)
3. Combined HVOF-PVD technology in coating manufacturing alternate to hard chrome  
Funding Agency: DST-International Cooperation Division  
PI: Dr. Ramesh M R; Co-PI: Dr. Ravikiran Kadoli and Dr. Sharnappa J  
Funding amount: Rs 12,51,680/-  
Duration: 2 years (2023-25)
4. Development of HVOF sprayed cermets coatings in improving resistance to hot corrosion and erosion of gas turbine alloys granted by All India Council for Technical Education during 2013 with funding of Rs 18,10,000.(Completed)  
PI: Dr. M. R. Ramesh; Co-PI: Dr. N D Prasanna

#### ❖ RESEARCH PUBLICATIONS/BOOKS:

Research Publications : 175 articles in SCI/Scopus journals, 26 articles in conference proceedings and eight book chapters.

Total Citations : 3470

'h' index : 34

##### Journal Publication

- 1) Sahoo S.K.; Ramesh M.R.; Panigrahi S.K., Establishing high temperature tribological performance and wear mechanism map of engineered in-situ TiB<sub>2</sub> reinforced Mg-RE metal matrix composites, 2025, Tribology International, 201, [10.1016/j.triboint.2024.110189](#)
- 2) Aprameya C.R.; Joladarashi S.; Ramesh M.R., Dry linear reciprocating wear behavior of molybdenum-reinforced SS316 laser claddings deposited by laser directed energy deposition, 2025, Results in Surfaces and Interfaces, 18, [10.1016/j.rsufi.2024.100407](#)
- 3) Medabalimi S.; Hebbale A.M.; Gudala S.; Rokkala U.; Ramesh M.R., Studies on high temperature erosion behavior of HVOF-sprayed (Cr<sub>3</sub>C<sub>2</sub>-NiCr)Si and WC-Co/NiCrAlY composite coatings, 2025, International Journal of Refractory Metals and Hard Materials, 127, [10.1016/j.ijrmhm.2024.106970](#)
- 4) Hebbale A.M.; Ramesh M.R.; Petru J.; Chandramouli T.V.; Srinath M.S.; Shetty R.K., A microstructural study and high-temperature oxidation behaviour of plasma sprayed NiCrAlY based composite coatings, 2025, Results in Engineering, 25, [10.1016/j.rineng.2025.103926](#)
- 5) Ojha N.; Kumar S.; Ramesh M.R.; Balan A.S.S.; Doddamani M., A comprehensive characterization of 3D printable poly ether ketone ketone, 2024, Journal of the Mechanical Behavior of Biomedical Materials, 150, [10.1016/j.jmbbm.2023.106243](#)
- 6) Kumar S.; Ojha N.; Ramesh M.R.; Doddamani M., 4D printing of heat-stimulated shape memory polymer composite for high-temperature smart structures/actuators applications, 2024, Polymer Composites, 45, 17, 15460-15490, [10.1002/pc.28844](#)
- 7) Kumar P.; Ramesh M.R.; Doddamani M.; Narendranath S., Enhanced Anti-corrosion and Anti-fouling Properties of Galvanized Iron Using Nanocomposite Hydrophobic Coatings, 2024, Journal of Materials Engineering and Performance, [10.1007/s11665-024-10035-2](#)
- 8) kumar P.; Ramesh M.R.; Doddamani M.; Suresh J., Plant (Costus Pictus D. Don) Assisted Green Synthesis of Double Oxide Nanoparticles for Antibacterial Applications, 2024, Chemistry Africa 7, 7, 3749-3762, [10.1007/s42250-024-00954-x](#)
- 9) Kumar S.; Ojha N.; Ramesh M.R.; Balan A.S.S.; Doddamani M., Shape memory behavior of 4D printed CF/PEKK high temperature composite under subsequent thermomechanical cycles, 2024, Materials Letters, 366, [10.1016/j.matlet.2024.136567](#)
- 10) kumar P.; Ramesh M.R.; Doddamani M.; Suresh J.; Lingaraj R. Green synthesis of CuO/MgO/ZnO nanoparticles using Costus pictus leaf extract for effective antibacterial applications, 2024, Materials Letters, 359, [10.1016/j.matlet.2024.135918](#)

- 11) Behera N.; Ramesh M.R.; Rahman M.R., Elevated temperature wear and friction performance of WC-CoCr/Mo and WC-Co/NiCr/Mo coated Ti-6Al-4V alloy, 2024, Materials Characterization, 215, [10.1016/j.matchar.2024.114207](#)
- 12) Medabalimi S.; Hebbale A.M.; Singh R.; Desai V.; Ramesh M.R., Microstructural evolution and cyclic oxidation behavior of HVOF-sprayed NiCrSi and NiCrC coatings on T11 steel, 2024, Materials Characterization, 218, [10.1016/j.matchar.2024.114495](#)
- 13) Chandramouli T.V.; Joladarashi S.; Ramesh M.R.; Rahman M.R., Microstructure, Mechanical Properties, and Tribological Properties of Fe-Based Composite Coatings Reinforced with WC-Co and Cr<sub>3</sub>C<sub>2</sub>, 2024, Journal of Materials Engineering and Performance, [10.1007/s11665-024-09762-3](#)
- 14) Poornima H.G.; Bindushree S.N.; Raksha A.; Lateshkumar S.N.; Rajanna S.; Ramesh M., Simulation Based Hybrid Solar and Wind Energy System for Standalone Application, 2024 IEEE Students Conference on Engineering and Systems: Interdisciplinary Technologies for Sustainable Future, SCES 2024, [10.1109/SCES61914.2024.10652580](#)
- 15) Ramesh M.R.; Medabalimi S.; Kumar R.S.; Prasad C.D.; Sollapur S.B., Cyclic Oxidation and Hot-Corrosion Behavior of HVOF-Sprayed NiCrAl Coating on Industrial Boiler Tube Steels, 2024, JOM, 76, 6, 3172- 3184, [10.1007/s11837-024-06526-1](#)
- 16) Kumar S.; Rajath S.; Shivakumar N.D.; Ramesh M.R.; Doddamani M., 3D printing of functionally graded nanocomposites: An investigation of microstructural, rheological, and mechanical behavior, 2024, Polymer Engineering and Science, 64, 10, 4677-4694 , [10.1002/pen.26873](#)
- 17) H S.; M R.; Prasad C.D.; Ramesh M.R.; M P.; Vasudev H.; Kumar S., Microstructure, mechanical and wear properties of SiC and Mo reinforced NiCr microwave cladding, 2024, Advances in Materials and Processing Technologies, 10, 4, 3620-3633, [10.1080/2374068X.2023.2257937](#)
- 18) Behera N.; Srihari M.; Sharma Y.K.; Ramesh M.R., An investigation on tribological performance in HVOF sprayed of Amdry1371 and Amdry 1371/WC-Co coatings on Ti6Al4V, 2024, Surface and Coatings Technology, 494, [10.1016/j.surfcoat.2024.131334](#)
- 19) Kumar P.; Ramesh M.R.; Doddamani M., Fabrication and Characterization of Silicon Dioxide-Reinforced Polydimethylsiloxane Composite Coating for Corrosion Protection of Galvanized Iron, 2024, SAE International Journal of Materials and Manufacturing, 17, 4, [10.4271/05-17-04-0022](#)
- 20) Rokkalala U.; Suresh G.; Ramesh M.R., Comparative Study of Plasma Spray and Friction Stir Processing on Wear Properties of Mg-Zn-Dy Alloy, 2024, Journal of Materials Engineering and Performance, 33, 4, 1578-1587, [10.1007/s11665-023-08087-x](#)
- 21) Chandramouli T.V.; Joladarashi S.; Ramesh M.R.; Rahman M.R., Effect of temperature on wear and friction performance of WC-Co and Cr<sub>3</sub>C<sub>2</sub> reinforced with 17-4PH Fe-based composite coatings, 2024, Welding in the World, 68, 1, 91-105, [10.1007/s40194-023-01628-x](#)
- 22) Rokkalala U.; Bontha S.; Ramesh M.R.; Balla V.K., Multi-step fabrication of bioactive Mg-Zn-Dy-Al<sub>2</sub>O<sub>3</sub>/HA composites: exploring the synergistic effects of plasma spray and friction stir processing, 2024, Journal of Materials Science, 59, 24, 10998-11014, [10.1007/s10853-024-09830-v](#)
- 23) Behera N.; Chandramouli T.V.; Aprameya C.R.; Ramesh M.R., Influence of Impact Angle and Temperature on Solid Particle Erosion Behavior of Titanium-31, 2024, Advances in Science, Technology and Innovation, 2024, 277-283, [10.1007/978-3-031-63909-8\\_38](#)
- 24) Addepalli S.N.; Joladarashi S.; Ramesh M.R., Elevated temperature tribological performance of non-equiatomic CoCrNiTiWx high entropy alloy coatings developed by mechanical alloying and high-velocity oxy-fuel spray, 2024, Surface and Coatings Technology, 476, [10.1016/j.surfcoat.2023.130267](#)
- 25) Kumar P.; Ramesh M.R.; Doddamani M.; Suresh J., Green synthesis of fe/ni/cr oxide nanoparticles using costus pictus plant extract: Microstructure and biological properties, 2024, Surface Review and Letters 31, 8, [10.1142/S0218625X24500653](#)
- 26) Sharanabasava H.; Prasad C.D.; Ramesh M.R., Characterization and Wear Behavior of NiCrMoSiC Microwave Cladding, 2024, Journal of Materials Engineering and Performance, 33, 2, 763-775, [10.1007/s11665-023-07998-z](#)
- 27) kumar P.; Ramesh M.R.; Doddamani M.; Bhosale S. Investigation of antibacterial potential of CuO nanoparticles synthesised using Costus pictus leaf extract, 2024, Inorganic Chemistry Communications, 169, [10.1016/j.inoche.2024.113074](#)
- 28) Kumar P.; Anne G.; Ramesh M.R.; Doddamani M.; Prabhu A., Enhancing the functionality of biodegradable Mg-Zn-Mn alloys using poly(lactic) acid (PLA) coating for temporary implants, 2024, Journal of Coatings Technology and Research, 21, 4 , 1525-1537, [10.1007/s11998-024-00913-8](#)
- 29) Sangeetha A.; Hariganesh S.; Abarna B.; Kumar P.; Ramesh M.R.; Doddamani M. ,Onion Peels Assisted Synthesis of Biofunctionalized CuO Nanoparticles as Nano-Photocatalyst and Nano-Antibiotic, 2024, Chemistry Africa, 7, 9, 4861- 4873, [10.1007/s42250-024-01066-2](#)
- 30) Kumar S.; Ramesh M.R.; Jeyaraj P.; Powar S.; Doddamani M., Buckling behavior of non-uniformly heated 3D printed plain and functionally graded nanocomposites, 2023, Polymer Composites, 44, 9, 5450-5463, [10.1002/pc.27500](#)
- 31) Behera N.; Medabalimi S.; Ramesh M.R., Effect of Impact Angles and Temperatures on the Solid Particle Erosion Behavior of HVOF Sprayed WC-Co/NiCr/Mo and Cr<sub>3</sub>C<sub>2</sub>-CoNiCrAlY Coatings, 2023, Journal of Thermal Spray Technology 32, 8, 2411-2425, [10.1007/s11666-023-01654-7](#)
- 32) Behera N.; Medabalimi S.R.; Ramesh M.R., Elevated temperatures erosion wear behavior of HVOF sprayed WC-Co-Cr/Mo coatings on Ti6Al4V substrate, 2023, Surface and Coatings Technology, 470, [10.1016/j.surfcoat.2023.129809](#)

- 33) Reddy G.M.S.; Prasad C.D.; Patil P.; Shetty G.; Kakur N.; Ramesh M.R., High temperature erosion performance of NiCrAlY/Cr2O3/YSZ plasma spray coatings, 2023, Transactions of the Institute of Metal Finishing, 101, 5, 245-251, [10.1080/00202967.2023.2208899](#)
- 34) Suresh G.; Ramesh M.R.; Srinath M.S., Surface Engineered Titanium Alloys for Biomedical, Automotive, and Aerospace Applications, 2023, Materials Horizons: From Nature to Nanomaterials, 89, 102, [10.1007/978-981-19-7146-4\\_5](#)
- 35) Kumar S.; Ramesh M.R.; Doddamani M., Investigation on hardness, impact, and compression responses of additively manufactured functionally graded nanocomposites, 2023, Composites Communications, 39, [10.1016/j.coco.2023.101545](#)
- 36) Ojha N.; Kumar S.; Ramesh M.R.; Balan A.S.S.; Doddamani M., Influence of subsequent thermomechanical cycles on shape memory behavior of 4D printed PEKK, 2023, Materials Letters, 352, [10.1016/j.matlet.2023.135213](#)
- 37) Kumar S.; Jegadeeswaran N.; Ramesh M.R.; Sangamnath K.R.; Mownesh G.K., Design and Analysis of Automotive Mufflers for Noise Attenuation in Low and Broadband Frequency Range, 2023, Journal of Mines, Metals and Fuels, 71, 12, 2585-2592, [10.18311/jmmf/2023/36539](#)
- 38) Medabalimi S.R.; Ananthu M.R.; Gudala S.; Ramesh M.R. Effect of Microwave Hybrid Heating on High-Temperature Adhesive Wear Behavior of High-Velocity Oxygen Fuel-Sprayed WC-CrC-Ni and WC-Co/NiCrFeSiB Coatings, 2023, Journal of Materials Engineering and Performance, 32, 19, 8612- 8624, [10.1007/s11665-022-07756-7](#)
- 39) Mathapati M.; Ramesh M.R.; Doddamani M., Lightweight and sustainable materials for coating applications, 2023, Lightweight and Sustainable Composite Materials: Preparation, Properties and Applications, 241-258, [10.1016/B978-0-323-95189-0.00011-1](#)
- 40) Addepalli S.N.; Joladarashi S.; Ramesh M.R., Phase evolution and high-temperature wear behavior of non-equiatom metastable CoCrNiTiMox HEA coatings fabricated by high-velocity oxy-fuel technique, 2023, Materials Today Communications, 35, [10.1016/j.mtcomm.2023.106310](#)
- 41) Sharanabasava H.; Prasad C.D.; Ramesh M.R., Effect of Mo- and SiC-Reinforced NiCr Microwave Cladding on Microstructure, Mechanical and Wear Properties, 2023, Journal of The Institution of Engineers (India): Series D, 104,2,539-551, [10.1007/s40033-022-00445-8](#)
- 42) Reddy G.M.S.; Prasad C.D.; Patil P.; Shetty G.K.; Kakur N.; Ramesh M.R., Investigation of the effect of NiCrAlY/Cr2O3/YSZ plasma coatings on erosion performance of MDN 420 steel at high temperature, 2023, International Journal of Surface Science and Engineering, 17, 3, 180-194, [10.1504/IJSURFSE.2023.134785](#)
- 43) Vijeesh V.P.; Ramesh M.R.; Anoop A.D., Inconel 625 Coatings on AISI 304 Steel using Laser Cladding: Microstructure and Hardness, 2023, Engineering, Technology and Applied Science Research, 13, 5, 11911-11916, [10.48084/etasr.6297](#)
- 44) Rokkala U.; Bontha S.; Ramesh M.R.; Balla V.K., Influence of friction stir processing on microstructure, mechanical properties and corrosion behaviour of Mg-Zn-Dy alloy, 2023, Journal of Materials Science, 58, 6, 2893-2914, [10.1007/s10853-023-08208-w](#)
- 45) Kumar S.; Ramesh M.R.; Jeyaraj P.; Doddamani M., Buckling and dynamic responses of 3D printed nanocomposites and their graded variants,2023,Composite Structures, 316, [10.1016/j.compstruct.2023.117031](#)
- 46) Shejwal S.; Ramesh M.R., Temperature and Thermal Stress Analysis of TBC Coated Diesel Engine Piston for Variable Thickness of TBC, 2023, Lecture Notes in Mechanical Engineering, 557-566, [10.1007/978-981-19-9285-8\\_53](#)
- 47) Ramesh M.; Kharbanda D.K.; Kumar S.; Kumar D.; Khanna P.K.; Suri N., Potentiometric Testing of Soil by Printed Nobel Metal Thick Film Electrode, 2023, Journal of the Electrochemical Society, 170, 1, [10.1149/1945-7111/acb5c8](#)
- 48) Kumar S.; Ramesh M.R.; Doddamani M., Recycling potential of MWCNTs/HDPE nanocomposite filament: 3D printing and mechanical characterization, 2023, Journal of Material Cycles and Waste Management, 25, 2, 1168-1178, [10.1007/s10163-023-01607-w](#)
- 49) Suresh G.; Ramesh M.R.; Srinath M.S., Development of Self-lubricating Nickel Based Composite Clad using Microwave Heating in Improving Resistance to Wear at Elevated Temperatures, 2022, Metals and Materials International, 28, 8, 2000-2011, [10.1007/s12540-021-01078-4](#)
- 50) Kumar S.; Ramesh M.R.; Doddamani M., Compressive behavior of 3D printed MWCNT/HDPE nanocomposites, 2022, Composites Communications, 35, [10.1016/j.coco.2022.101317](#)
- 51) Madhu Sudana Reddy G.; Prasad C.D.; Patil P.; Shetty G.; Ramesh M.R.; Nageswara Rao T., Investigation of thermally sprayed NiCrAlY/TiO2and NiCrAlY/Cr2O3/YSZ cermet composite coatings on titanium alloys, 2022, Engineering Research Express, 4, 2, [10.1088/2631-8695/ac7946](#)
- 52) Gudala S.; Ramesh M.R.; Shanmugam N.S., Influence of Solid Lubricants on Microstructure and Tribological Performance of Nickel-Based Composite Coatings, 2022, Metallography, Microstructure, and Analysis, 11, 2, 281-292, [10.1007/s13632-022-00837-y](#)
- 53) Gudala S.; Ramesh M.R.; Srinath M.S., Microstructure and Wear Behavior of Self-Lubricating Microwave Clads Deposited on Titanium Alloy, 2022, Journal of Materials Engineering and Performance, 31, 11, 8864-8877, [10.1007/s11665-022-06926-x](#)
- 54) Addepalli S.N.; Joladarashi S.; Ramesh M.R.; Arya S.B., Effect of Mechanical Alloying on the Microstructure of CoCrNiTiMo x High Entropy Alloy, 2022, Journal of Thermal Spray Technology, 31, 4, 1045-1055, [10.1007/s11666-021-01317-5](#)

- 55) Reddy G.M.S.; Ramesh S.; Anne G.; Ramesh M.R.; Rao T.N.; Patil P., Solid Particle Erosion Behaviour of Plasma-Sprayed (WC-Co)/(Cr3C2-NiCr) Coatings, 2022, Journal of Bio- and Tribo-Corrosion, 8, 2, [10.1007/s40735-022-00629-5](#)
- 56) Reddy G M.S.; Prasad C.D.; Patil P.; Kakur N.; Ramesh M.R., Elevated temperature erosion performance of plasma sprayed NiCrAlY/TiO2 coating on MDN 420 steel substrate, 2022, Surface Topography: Metrology and Properties, 10, 2, [10.1088/2051-672X/ac6a6e](#)
- 57) Pooja B.; Rajanna S.; Varaprasad N.L.; Ramesh M.; Sowmya G.R.; Rakshitha S.R., Design of a Battery Charge Controller Through MPPT Based Solar Photovoltaic System, 2022, 4th International Conference on Emerging Research in Electronics, Computer Science and Technology, ICERECT, 2022, [10.1109/ICERECT56837.2022.10060581](#)
- 58) Suresh G.; Ramesh M.R.; Shanmugam N.S.; Srinath M.S., MICROSTRUCTURE AND TRIBOLOGICAL PERFORMANCE OF SELF-LUBRICATE CLADDING PRODUCED BY TUNGSTEN INERT GAS AND MICROWAVE HYBRID HEATING TECHNIQUES, 2022, Surface Review and Letters, 29, 9, [10.1142/S0218625X22501256](#)
- 59) Hanumanthlal S.; Siddaraju C.; Ramesh M.R.; Thirtha Prasada H.P.; Somasundaram B., Hot corrosion behavior of plasma sprayed FeCrNiC and FeCrNiC/Cenosphere coatings on ASTM-SA213-T22 steel, 2022, Materials Today: Proceedings, 59, 58, 65, [10.1016/j.matpr.2021.10.201](#)
- 60) Ravikumar K.S.; Ghanaraja S.; Ramesh M.R., Effect of Milling on the Hardness and Wear Behaviour of Cast Al6061 Reinforced with Al2O3 Nanoparticles, 2022, Journal of Bio- and Tribo-Corrosion, 8, 1, [10.1007/s40735-021-00598-1](#)
- 61) Naik T.; Mathapati M.; Prasad C.D.; Nithin H.S.; Ramesh M.R., EFFECT of LASER POST-TREATMENT on MICROSTRUCTURAL and SLIDING WEAR BEHAVIOR of HVOF-SPRAYED NiCrC and NiCrSiCOATINGS, 2022, Surface Review and Letters, 29, 1, [10.1142/S0218625X2250007X](#)
- 62) V Badiger P.; Mahesh V.; Desai V.; Ramesh M.R.; Gourkar H., Wear behaviour of AICN/AIC and FeCrN coatings developed on alloy steel, 2022, Advances in Materials and Processing Technologies, 9, 4, 1903-1919, [10.1080/2374068X.2022.2136668](#)
- 63) Kumar S.; Ramesh M.R.; Doddamani M.; Rangappa S.M.; Siengchin S., Mechanical characterization of 3D printed MWCNTs/HDPE nanocomposites, 2022, Polymer Testing, 114, [10.1016/j.polymertesting.2022.107703](#)
- 64) Reddy G.M.S.; Prasad C.D.; Shetty G.; Ramesh M.R.; Rao T.N.; Patil P., High-temperature oxidation behavior of plasma-sprayed NiCrAlY/TiO2 and NiCrAlY/Cr2O3/YSZ coatings on titanium alloy, 2022, Welding in the World, 66, 6, 1069-1079, [10.1007/s40194-022-01268-7](#)
- 65) Patil V.G.; Somasundaram B.; Kandaiah S.; Ramesh M.R.; Kumar S., High Temperature Corrosion Behavior of High Velocity Oxy Fuel Sprayed NiCrMoFeCoAl-30%SiO2 and NiCrMoFeCoAl-30%Cr2O3 Composite Coatings on ASTM SA213-T22 Steel in a Coal-fired Boiler Environment, 2022, International Journal of Engineering, Transactions A: Basics, 35, 7, 1416-1427, [10.5829/ije.2022.35.07a.19](#)
- 66) Somasundaram B.; Patil V.G.; Ramesh M.R.; Kandaiah S.; Jegadeeswaran N., Microstructure characteristics and properties of WC-CrC-Ni HVOF coating for boiler tube steel, 2022, Materials Today: Proceedings 54, 366-371, [10.1016/j.matpr.2021.09.310](#)
- 67) Medabalimi S.R.; Ramesh M.R.; Kadoli R. Developing partially oxidized NiCr coatings using the combined flame spray and plasma spray process for improved wear behaviour at high temperature, 2021, Wear, 478-479, [10.1016/j.wear.2021.203885](#)
- 68) Medabalimi S.R.; Ramesh M.R.; Kadoli R. High-Temperature Solid Particle Erosion Behavior of Partially Oxidized NiCrBSiFe/NiCr Plasma Spray Coatings 2021 Journal of Thermal Spray Technology, 30, 6, 1638-1652, [10.1007/s11666-021-01225-8](#)
- 69) Ravikumar K.S.; Ghanaraja S.; Ramesh M.R., Synthesis and characterization of nano-alumina powder by milling of Al and MnO2 powder mixture, 2021, Materials Today: Proceedings, 46, 9021-9026, [10.1016/j.matpr.2021.05.381](#)
- 70) Hanumanthlal S.; Siddaraju C.; Ramesh M.R., High-Temperature Solid-Particle Erosion Behaviour of Plasma-Sprayed Fe17Cr2Ni0.18C/Cenosphere-Based Composite Coating, 2021, Journal of Bio- and Tribo-Corrosion, 7, 2, [10.1007/s40735-021-00503-w](#)
- 71) Reddy M.; Prasad C.D.; Patil P.; Ramesh M.R.; Rao N., Hot corrosion behavior of plasma-sprayed NiCrAlY/TiO2 and NiCrAlY/Cr2O3/YSZ cermets coatings on alloy steel, 2021, Surfaces and Interfaces, 22, [10.1016/j.surfin.2020.100810](#)
- 72) Durga Prasad C.; Shashank Lingappa M.; Joladarashi S.; Ramesh M.R.; Sachin B., Characterization and sliding wear behavior of CoMoCrSi+Flyash composite cladding processed by microwave irradiation, 2021, Materials Today: Proceedings, 46, 2387-2391, [10.1016/j.matpr.2021.01.156](#)
- 73) Hanumanthlal S.; Siddaraju C.; Ramesh M.R.; Thirtha Prasada H.P.; Somasunder B.; Virupakshappa L., Microstructural Characterization and Hot Corrosion Behavior of Plasma-Sprayed Fe17Cr2Ni0.18C/Fly Ash Cenosphere-Based Composite Coating, 2021, SAE International Journal of Materials and Manufacturing, 14, 3, 259-274, [10.4271/05-14-03-0017](#)
- 74) Rokkal U.; Jana A.; Bontha S.; Ramesh M.R.; Balla V.K., Comparative investigation of coating and friction stir processing on Mg-Zn-Dy alloy for improving antibacterial, bioactive and corrosion behaviour, 2021, Surface and Coatings Technology, 425, [10.1016/j.surfcoat.2021.127708](#)
- 75) Rokkal U.; Bontha S.; Ramesh M.R.; Balla V.K.; Srinivasan A.; Kailas S.V., Tailoring surface characteristics of bioabsorbable Mg-Zn-Dy alloy using friction stir processing for improved wettability and degradation behavior, 2021, Journal of Materials Research and Technology, 12, 1530-1542, [10.1016/j.jmrt.2021.03.057](#)

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## Book Chapter

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- 9) Hargovind Soni, S. Narendranath, M. R. Ramesh, Dumitru Nedelcu, Madindwa Mashinim, Anil Kumar, Development of Ti50Ni50-XCo<sub>x</sub> (X = 1 and 5 at. %) Shape Memory Alloy and Investigation of Input Process

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- 10) Ramesh M.R., Dasarath SM, Prashatha K, edited proceedings of 5th International Conference on Advanced Research in Mechanical, Materials and Manufacturing Engineering-2021, Materials today Proceedings, Volume 54, Part 2, Pages 131-556 (2022)

### **Book:**

Co-authored book titled “**Elements of Mechanical Engineering**” – A text book for I/II semester B.E. of VTU syllabus, Suggi Publishing, Bangalore.

### ❖ **RESEARCH STUDENTS AWARDED PhD UNDER MY GUIDANCE:**

1. Mr. Jegadeeswaran N. awarded PhD at NITK, Surathkal in the year 2014.
2. Mr. Somasundar B. awarded PhD at NITK, Surathkal in the year 2015.
3. Mr. Gajanan Anne awarded PhD at NITK, Surathkal in the year 2017.
4. Mr. Hargovind Soni awarded PhD at NITK, Surathkal in the year 2018.
5. Mr. Mahantayya Mathapati awarded PhD at NITK, Surathkal in the year 2018
6. Mr. Nitin Gowda awarded PhD at NITK, Surathkal in the year 2018
7. Mr. Veeresh Nayak awarded PhD at NITK, Surathkal in the year 2018
8. Mr. Durga Prasad C awarded PhD at NITK, Surathkal in the year 2019
9. Mr. Pradeep V Badiger awarded PhD at NITK, Surathkal in the year 2019
10. Mr. Rakesh K. Rajan awarded PhD at NITK, Surathkal in the year 2019
11. Mr. Vinay Vergees awarded PhD at NITK, Surathkal in the year 2019
12. Mr. Rameshbabu N awarded PhD at NITK, Surathkal in the year 2020
13. Mr. Timothy Harold Gonsalves awarded PhD at NITK, Surathkal in the year 2020
14. Mr. Gudala Suresh awarded PhD at NITK, Surathkal in the year 2022
15. Mr. Uzwalkiran Rokkala awarded PhD at NITK, Surathkal in the year 2022
16. Mr. Subba Rao Medabalimi awarded PhD at NITK, Surathkal in the year 2022
17. Mr. Ravikumar K S awarded PhD at VTU in the year 2022
18. Mr. Girish V Kulkarni awarded PhD at VTU in the year 2019
19. Mr. Nagabhushana N awarded PhD at VTU in the year 2022
20. Mr. Pratap S Kulkarni awarded PhD at VTU in the year 2019
21. Mr. Madhu sudana Reddy G awarded PhD at NITK, Surathkal in the year 2019
22. Mr Sumodh Kumar awarded PhD at NITK, Surathkal in the year 2024
23. Mr Prakash Kumar awarded PhD at NITK, Surathkal in the year 2024
24. Mr Netrananda Behera awarded PhD at NITK, Surathkal in the year 2025
25. Mr. Chandramouli T.V. awarded PhD at NITK, Surathkal in the year 2025

### ❖ **PERSONAL DETAILS**

Father's Name	:	Rangarasaiah M.R.
Date of Birth	:	7 <sup>th</sup> October 1977
Nationality	:	Indian
Gender	:	Male
Marital Status	:	Married
Languages Known	:	Kannada, English & Hindi

### ❖ **ACHIEVEMENTS**

- Featured in world's top 2% scientists list of Stanford University
- Established Tribology lab.
- Guided 22 PhD, 19 PG students, 10 UG Project groups.
- Handled three projects funded by DST.
- I have served as Finance Warden and Quality monitoring warden at NITK hostels.