Dr. S. Vigneshwaran

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Overview:-

Dr. S. Vigneshwaran is working as an Assistant Professor in the Department of Mechanical Engineering at SRM IST, Ramapuram. He graduated Mechanical Engineering from Anna University, Chennai, Tamil Nadu in 2010. He completed Master of Engineering with a specialization in Manufacturing Engineering from Anna University, Chennai, Tamil Nadu in 2013. He completed Ph.D. degree (full-time) from National Institute of Technology Tiruchirappalli, Tamil Nadu in 2019. He has worked in Industry, Engineering College (Affiliated to Anna University), CFTI (as temporary faculty) and Deemed to be University.

Areas of Research:

Cryorolling, Metal Forming, Incremental Sheet Metal Forming, Friction Stir Processing.

Selected Publications:

SCI

1. **S. Vigneshwaran**, K.S.V.B.R. Krishna, K. Chandra Sekhar, K. Sivaprasad, K. Venkateswarlu, R. Narayanasamy, A study on the work hardening and the effect of triaxiality on the fracture behaviour of some cryorolled aluminium alloys, Materials Science and Engineering A 678 (2016) 165-177. http://dx.doi.org/10.1016/j.msea.2016.09.104, ISSN: 0921-5093, (Elsevier – SCIE, IF2021-5.234).
2. **S. Vigneshwaran**, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu Formability and fracture behaviour of cryorolled Al-3Mg-0.25Sc alloy Materials Science and Engineering A 721 (2018) 14– 21. https://doi.org/10.1016/j.msea.2018.02.072, ISSN: 0921-5093, (Elsevier – SCIE, IF2021-5.234).
3. **S. Vigneshwaran**, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu, Superior strength with enhanced fracture resistance of Al-Mg-Sc alloy through two-step cryo cross rolling, Metallurgical and Materials Transactions A, 50A (2019) 3265 – 3281. https://doi.org/10.1007/s11661-019-05253-6 , ISSN: 1073-5623, (Springer, SCIE, IF2021 -2.556).
4. **S. Vigneshwaran**, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu, Microstructure and mechanical properties of Al–3Mg–0.25Sc alloy sheets produced by cryorolling, Materials Science and Engineering A 740-741 (2019) 49-62. https://doi.org/10.1016/j.msea.2018.10.044, ISSN: 0921- 5093, (Elsevier – SCIE, IF2021-5.234).
5. K. S. V. B. R. Krishna, **S. Vigneshwaran**, K. Chandra Sekhar, Sarma S. R. Akella, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu, Mechanical behavior and void

coalescence analysis of cryorolled AA8090 alloy, International Journal of Advanced Manufacturing Technology, 93 (2017) 253-259. https://doi.org/10.1007/s00170-016-8863-2, ISSN: 2456-4346, (Springer – SCIE, IF2021-3.226).

6. G. Yoganjaneyulu, **S. Vigneshwaran**, R. Palanivel, Adel Alblawi, Mohammed Abdur Rasheed, R. F. Laubscher, Effect of tool rotational speed on the microstructure and associated mechanical properties of incrementally formed commercially pure titanium, Journal of Materials Engineering and Performance, 30 (2021) 7636 - 7644, https://doi.org/10.1007/s11665-021-05900-3 ISSN: 1059- 9495, (Springer, SCIE, IF2021 – 1.819).
7. R. Palanivel, R.F. Laubscher, **S. Vigneshwaran**, I. Dinaharan, Prediction and optimization of the mechanical properties of dissimilar friction stir welding of aluminum alloys using design of experiments, Journal of Engineering Manufacture, 232(8) (2018) 1384-1394. https://doi.org/10.1177/0954405416667404, ISSN: 1059-9495, (Sage – SCIE, IF2021 -2.610).

Patents:

1. R.Palanivel, **S. Vigneshwaran**, Indian patent (design) on "Hand Air Pump". Design No: 373062- 001 dated 26/10/2022. (Co-inventor).
2. **S. Vigneshwaran**, G. Prabhakaran, S. Karpagarajan, Indian patent (design) on "Combined Equal Channel Angular Extrusion Die" Design No: 389677-001 dated 06/07/2023. (Inventor).

Books/Book Chapters Published:

1. **S. Vigneshwaran**, P. Seenuvasaperumal, C. Chinthanai Selvan, R. Palanivel, " Achieving Exceptional Mechanical and Tribological Properties of Metal Matrix Composites through Stir Casting Followed by Cryorolling", in: Mohamed Thariq Bin Haji Hameed Sultan, S. Arulvel, K. Jayakrishna (Eds.), Composites and Composite Coatings: Mechanical and Tribological Aspects, CRC Press, Taylor and Francis, 2022 (Scopus indexed). ISBN 9780367625672.
2. **S. Vigneshwaran**, R. Palanivel, Adel Alblawi, R. F. Laubscher, "Tensile and wear behaviour of MMCs reinforced with metallic particles using solid-state technique" in: Mohamed Thariq Bin Haji Hameed Sultan, S. Arulvel, K. Jayakrishna (Eds.), Composites and Composite Coatings: Mechanical and Tribological Aspects, CRC Press, Taylor and Francis, 2022 (Scopus indexed). ISBN 9780367625672.

Professional Bodies: The Institution of Engineers (India) - (ID: AM162054-4)

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