

Dr Saranarayanan Ramachandran  
Postdoctoral research associate  
Materials Engineering  
Email: s.ramachandran@manchester.ac.uk



## Qualifications

Doctor of Philosophy, Development of high fidelity imaging procedures to identify the relationship between the material microstructure and mechanical behaviour of friction stir welds, University of Southampton

1 May 2016 → 28 Feb 2020

Award Date: 25 Jun 2020

Master of Engineering, Effect of welding processes on mechanical and metallurgical properties of copper-304 austenitic stainless steel, Anna University

10 Sep 2012 → 6 Jun 2014

Award Date: 10 Jul 2014

Bachelor of Engineering, Anna University

21 Aug 2008 → 21 Apr 2012

Award Date: 30 Jul 2012

## Employment

### Visiting Academic

University of Southampton

Southampton, United Kingdom

10 Jun 2020 → 31 Dec 2021

## Research outputs

### **Solidification microstructure variations in additively manufactured Ti-6Al-4V using laser powder bed fusion**

Yang, L., Ramachandran, S., Bagasol, A., Guan, Q., Wang, W., Browne, D. J., Dowling, D. & Mirihanage, W., 14 Mar 2023, (Accepted/In press) In: Scripta Materialia.

### **X ray imaging of complex flow patterns during tungsten inert gas welding**

Wu, F., Falch, K. V., Ramachandran, S., Drakopoulos, M. & Mirihanage, W., 1 May 2022, (Accepted/In press) In: Journal of Materials Engineering and Performance.

### **Decisive influence of critical process parameters on the microstructure and tensile properties of friction stir back extruded magnesium alloy tubes**

A K, L., Ramachandran, S., B, R. & Mirihanage, W., 1 Jan 2022, In: Journal of Manufacturing Processes. 73, p. 207-219 13 p.

### **Application of Imaging Techniques to Determine the Post-Yield Behaviour of the Heterogeneous Microstructure of Friction Stir Welds**

Ramachandran, S., A K, L., Reed, P. & Dulieu-Barton, J., 21 Apr 2021, In: Experimental Mechanics.

### **An insight into microstructural heterogeneities formation between weld subregions of laser welded copper to stainless steel joints**

Ramachandran, S. & A K, L., Mar 2020, In: Transactions of Nonferrous Metals Society of China (English Edition). 30, 3

### **Development of High-Fidelity Imaging Procedures to Establish the Local Material Behavior in Friction Stir Welded Stainless Steel Joints**

Ramachandran, S., A K, L., Reed, P. A. S. & Dulieu-Barton, J. M., 23 May 2019, In: Metals. 9, 5

**A combined full-field imaging and metallography approach to assess the local properties of gas tungsten arc welded copper–stainless steel joints**

Ramachandran, S., A K, L. & B, V., 27 Nov 2018, In: Archives of Civil and Mechanical Engineering. 19, 1

**Characteristics of friction welded AZ31B magnesium–commercial pure titanium dissimilar joint**

A K, L., Ramachandran, S., V, K. S. & B, V., 7 Dec 2015, In: Journal of Magnesium and Alloys. 3, 4