Contribution ID: **175** Type: **Poster**

Tri-Phase Multi Component Functionally Graded Materials

Functionally Graded Material is a newly emerging branch of study. Due to their distinct mechanical, thermal, and electrical characteristics, functionally graded materials (F GMs) have attracted a lot of interest lately. Tri-Phase Multi Component FGMs, a subclass of FGMs, have shown promise in tackling challenging engineering issues in a variety of sectors. This research provides a thorough analysis of current findings in the field of tri-phase multi component FGMs. It also explains the fundamental principle of FGMs and the composition, fabrication and manufacturing process of Tri-Phase Multi Component FGMs. The precursors used to make Tri-Phase Multi Component FGMs are Aluminum Nitrate Nonahydrate (ANN) Al(NO3)3.9H2O, Nickel Nitrate Hexahydrate (NNH) Ni(NO3)2 and Sodium Silicate Pentahydrate (SSP) Na2SiO3.5H2O. Moreover, this research expose the challenges and limitations of the manufacturing process of the FGMs and characterization of Tri-Phase Multi Component FGMs. It highlights the ongoing research efforts and provide insights into future direction and potential advancements in this field. Tri-phase multi-component FGMs offer unique opportunities for tailoring material properties across a wide range of applications. By harnessing the capabilities of these advanced materials, significant advancements can be made in various industries, paving the way for innovative and high-performance engineering solutions.

Primary author: Mr SAJITH, AHAMED (Jain University)

Co-author: Ms KUMARI, HONEY (Jain University)

Presenter: Mr SAJITH, AHAMED (Jain University)

Track Classification: Innovation and Technology for Sustainability