

## Contents

**Editorial** 7

### Articles

Feasibility and Sustainable Utilization of Cupola Slag for Eco-Friendly Industrial Waste Management  
*Rakesh Sikder, Debasis Sau, Soumyabrata Chakravarty, Partha Haldar, Saroj Mandal, Titas Nandi and Goutam Sutradhar* 9

Energy Consumption and Surface Roughness Minimization by Optimization of Cutting Parameters for Al Alloy SiC Composites  
*Rajesh Kumar Bhushan* 28

Influence of Precipitation on the Mechanical Properties and Age-hardening Response of Mg–10Sn  
*Tapabrata Maity, Sonika Chahar, Palash Poddar, Konda Gokuldoss Prashanth and Debdas Roy* 52

Chemistry-driven Predictive Modelling of Mechanical Performance in 42CrMo4 (AISI 4140) Steel with Machine Learning  
*Subhasis Das Gupta, Abhinav Anand and Ram Krishna* 64

Study of Effect of Secondary Cooling on Titanium Nitride Precipitation During Continuous Casting of High-strength Steel Slab  
*Ajay Kumar Pradhan, Pabitra Palai, Pramod Yadav and M Manjunathan* 80