

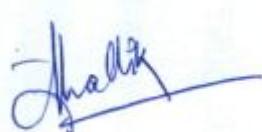
## Preface

The current proceedings is the amalgamation of papers presented in 1<sup>st</sup> International conference on Processing and Characterization of Materials (ICPCM) 2018 which was held in National Institute of Technology Rourkela, Odisha, India during 6<sup>th</sup> – 8<sup>th</sup> December 2018. The proposed conference is the first instalment of the international version of the national conferences on processing and characterization of materials (NCPCM) which was being organized by the Department of Metallurgical and Materials Engineering, National Institute of Technology (NIT), Rourkela for the first time during 2<sup>nd</sup> – 3<sup>rd</sup> December 2011.

National Institute of Technology Rourkela (NITR), formerly Regional Engineering College Rourkela (REC Rourkela), established in 1961, is one of the premier national level institutions for technical education in the country and is funded by the Government of India. The conference was an attempt to provide a platform for the accomplished scientists, renowned scientists, young researchers, industrialists to interact and disseminate the knowledge in the ever expanding research avenues on processing and characterization of conventional as well as advanced materials. The three days long conference witnessed many eminent researchers who gave the plenary, keynote and contributory talks. The conference had also two poster sessions where the young researchers were given the platform to showcase their works. The conference was indeed a success one, as we could continue the legacy by celebrating it annually.

Around 300 research investigations were presented in the conference pertaining to conference themes based on the themes including materials processing, advanced materials processing, metal extraction, microstructural characterization, materials for energy applications, materials for nuclear, aviation and defense applications, composites, surface engineering, thin films and coatings, corrosion etc. The proceedings present a selection of high quality work from the submitted works after a thorough peer review process. The review was done by the technical committee of the conference as well as other reviewers of international repute.

Finally I would like to thank every individual who have contributed whole heartedly to make the three days long conference ICPCM 2018 a successful one.



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