

PREFACE

We are pleased to present a special issue of the Indian Journal of Engineering and Materials Sciences on *New generation of carbon materials for industrial and energy efficient devices*. This special issue is a part of the papers selected from Conference on Carbon Materials (CCM 2019) held during November 20-22, 2019 at India Habitat Centre, New Delhi which was organised by the Indian Carbon Society in collaboration with CSIR-National Physical Laboratory, New Delhi.

The Carbon, as an element as well as in the materials form, has contributed to all scientific and technological revolutions, ranging from metallurgy, polymers to electronic, infrastructure, medical, environment, health care, energy to name a few. Right from solid carbons such as electrodes and porous carbon to discovery of various new forms of carbons like fullerenes, carbon nanotubes, graphene, in the recent past, has dramatically changed the scenario of R&D in the field of carbon both in India and abroad. Going with the recent global shift to use environment friendly alternative source of energy conversion and storage, especially in the aerospace, Defence, Nuclear, Industrial and automobile sectors etc., Carbon is being considered as potential material of interest in coming decades.

The Conference on Carbon Materials (CCM 2019) provided an excellent opportunity for students/researchers/academicians/industrialists from India and abroad to present their research work and interaction with leaders in the subject. This was also aimed at discussion on commercial exploitation of applied research, the current scenario and problems faced by the industries.

This special issue of Indian Journal of Engineering and Materials Sciences (IJEMS) contains 15 selected and peerreviewed papers, both from academia and user industries. The special issue covers papers on upcoming topics like synthesis of carbon nanotubes, graphene, nano diamonds , applications of graphene and carbon nanotubes based composites for EMI shielding, Lithium ion battery, Supercapacitors, etc. Some of the papers related to topics like Insight in to understanding of Carbonisation and Graphitisation mechanism and characterization on Industrially/Commercially important carbon materials have also been included. Despite being just a small part of the program, the papers in the special issue undoubtedly enhance our understanding on the basic science and development of process technologies of carbon based materials.

We would like to thank all the authors who have contributed their papers for this special issue. We are also thankful to the Director, CSIR- NISCAIR for giving us an opportunity to bring out this special issue containing selected papers presented during CCM-2019. Finally, we would like to express our special gratitude to Ms Meetali Bharti, Editor, Indian Journal of Engineering and Materials Sciences, CSIR-NISCAIR whose active interest and constant efforts have culminated in bringing out this special issue of IJEMS on “*New generation of carbon materials for industrial and energy efficient devices*”

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