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Material and Operations Sustainability: An Approach towards Make in India

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Preface

This special issue of the *Journal of Graphic Era University* is primarily devoted to papers from the *National Conference on Material and Operations Sustainability: An Approach towards Make in India*, which was successfully held at the Graphic Era University, Dehradun, India on August 22-23, 2016.

Currently, Manufacturing and Industrial Engineering Management scholars and practitioners are facing new challenges in integrating issues of manufacturing and operations management with their conventional areas of interest. There is an increasing concern for industry in terms of material selection, material properties and its structure, operations sequence, operations optimization, process performances etc. In recent years, there has been a growing awareness and pressure on industries to inculcate ecological concerns and nature friendly means in business with a sustainability orientation. Sustainability involves fulfilling the needs of present without compromising the needs of the future. By virtue of which, academicians, researchers and practitioners all around the world are talking about sustainability of resources, material, operations and processes for sustainable development initiatives from the industrial perspective. Thus, there is an urgent need for transition from traditional manufacturing and operations management to sustainable operations management.

The motive behind this special issue is to introduce and develop expertise among the participants with the sustainability aspects in the operations and material management through various recent research tools and techniques towards Make in India initiatives.

The original research articles concerning new research on sustainability with particular prominence were received from all over the India and selected articles were drastically extended after blind peer review process.

In the first paper of this special issue, Prasad and Singh (2017), presented that epoxy alumina polymer nano-composite was synthesized by In-situ polymerization technique. In the next paper, Gori and Verma (2017) found that AA5083 aluminum alloys are widely used in

automotive structure and naval structure due to its excellent corrosion resistance and weldability. Bansal et al. (2017) found that rapid advancement in the field of Natural and biomaterial composites have led in the development of various new materials and products, which are eco-friendly as well as biodegradable. In the next paper, Bansal et al. (2017), made efforts for the laboratory preparation of useful elemental based powder from the waste/residue of Rohu fish. Tyagi et al. (2017) developed a new heuristic algorithm for n jobs two machines $(n \times 2)$ flowshop scheduling problem in which processing times is associated with their respective probabilities. Sharma et al. (2017) investigated that Ni-P-ZnO nano-composite coating has been developed on the surface of mild steel substrate by Electrolyses (EL) technique. Finally, Singh et al. (2017) explained that metal forming operations in industries are performed by the sheet metal processes.

We would like to express our thanks to the authors for submitting their work and to the reviewers for their efficient work in evaluating the submissions. We are truly gratified by their excellent timely responses. Furthermore, we would like to thank the editorial board of the Journal of Graphic Era University for accepting our special issue from the conference and serve to as the guest editors of the journal and giving their full support from the very beginning.

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